



City of Whitehorse Health and Wellbeing Profile

June 2021



Data sources

Unless referenced otherwise, demographic information is sourced from the 2016 ABS Census of Population and Housing. Other information sources include the Victorian Population Health Survey, VicHealth Indicators Survey and the Australian Urban Observatory. A full reference list is provided.

Further information

Refer to Council's demographic fact sheets and interactive maps at <https://www.whitehorse.vic.gov.au/about-council/about-whitehorse>

Contact Community Development Department at CDEnquiries@whitehorse.vic.gov.au

Contents

Data sources.....	2
Further information	2
Introduction	6
Context.....	6
Requirements for Health and Wellbeing Planning	6
Community engagement	7
Partnerships and integration	7
Victorian Health Priorities.....	7
COVID-19 Pandemic.....	8
Part A. The people of Whitehorse	10
1. The population.....	10
2. Changing population profile	11
3. Diversity of people	13
a. Children and their families.....	13
b. Young people	14
c. Adults	15
d. Parents	16
e. Older adults.....	16
f. People aged 75 and over	17
g. People with a disability	17
h. Aboriginal and Torres Strait Islander people	18
i. LGBTI people	18
j. People from non-English speaking culturally diverse backgrounds	18
k. International students	19
Part B. Liveability of Whitehorse	21
1. Safety	21
2. Social connection and inclusion.....	21
3. Walkability	22
4. Open space and forest	23
5. Access to public open space	23
6. Environmental sustainability	23
7. Housing diversity & affordability	24

8. Fresh food access	24
9. Access to social infrastructure (health, education community, leisure and recreation).....	25
10. Leisure, recreation and cultural opportunities	25
11. Public transport.....	26
12. Cycling infrastructure.....	26
13. Employment/labour market participation.....	26
Part C. Health disparity in Whitehorse	28
1. People who are unemployed or underemployed	29
2. People on low income.....	30
3. People with a disability	30
a. Carers of people with disability	31
4. People from a non-English culturally diverse background	31
5. People who are LGBTI	32
6. People who are Aboriginal or Torres Strait Islander.....	32
7. People who are homeless or in insecure housing	32
8. People who are digitally excluded	33
Part D. Health and wellbeing in Whitehorse	35
1. Impacts of COVID-19 pandemic	36
a. The local experience	37
2. Chronic disease	38
a. Avoidable deaths	39
b. Chronic disease	39
c. Risk factors for chronic disease.....	39
3. Injury	40
a. Falls	40
b. Road related injury.....	40
c. Violence.....	41
4. Mental health.....	43
a. Self-harm.....	43
b. Gambling.....	44
c. Young people	44
d. Women.....	45
e. Men	46
f. LGBTI people	46

g. Older people and carers.....	46
5. Harm from alcohol and other drugs	47
a. Hospital admissions due to alcohol and pharmaceutical drugs	47
b. Alcohol use.....	47
c. Alcohol harms	48
d. Alcohol availability	48
e. Tobacco use	49
f. E-cigarettes	49
6. Communicable disease	49
7. Impacts of climate change	50
a. Climate predictions	50
b. Public health risks	51
c. Heat stress	51
d. Air pollution	51
e. Greenhouse gas emissions.....	52
f. Household solar power	52
g. Waste reduction.....	52
h. Deaths related to climate change.....	53
Appendices.....	55
Appendix 1: Health and wellbeing indicators and measures.....	55
References	65

Introduction

The City of Whitehorse Health and Wellbeing Profile January 2021 presents current and relevant information from various trustworthy sources about the people of Whitehorse and their health and wellbeing status. Throughout the profile aspects of health and wellbeing for the people of Whitehorse may be compared with Metropolitan Melbourne, Eastern Region, Victorian and Australian populations. A full [reference](#) list of data sources is provided at the end of the profile.

The People of Whitehorse First the profile describes the characteristics of the people of Whitehorse, from a whole of population perspective to a closer look at the diversity of people who live in the municipality. Characteristics of these cohorts help us understand how best to respond to the health and wellbeing challenges of individuals and groups in Whitehorse.

Liveability of Whitehorse Next the many environmental aspects of Whitehorse that influence people's health and wellbeing – its liveability – are outlined.

Health Disparity in Whitehorse In recognition that the burden of poor health is not evenly spread across our community, the profile describes particular groups within Whitehorse that experience greater health disparity.

Health and Wellbeing in Whitehorse Lastly, the profile presents *preventable* key areas of poor health and wellbeing for the people who live in Whitehorse, based on an analysis of the data and observations of local service providers. This information is themed as chronic disease, injury, mental health and wellbeing, use of alcohol and other drugs, communicable disease and the impacts of climate change.

Context

The purpose of the profile is to inform the development of the City of Whitehorse Municipal Public Health and Wellbeing Plan for 2021-2025.

The Municipal Public Health and Wellbeing Plan (MPHWP) describes the work Council will undertake in partnership with the community, with other levels of government and with key State and local organisations over the next four years to improve the health and wellbeing of people in Whitehorse.

Requirements for Health and Wellbeing Planning

The Municipal Public Health and Wellbeing Plan (MPHWP) sets the broad mission, goals and priorities to enable people living in a municipality to achieve maximum health and wellbeing.

In preparing a health and wellbeing plan, the Public Health and Wellbeing Act 2008 requires council MPHWP to:

- Be consistent with the corporate plan of the Council and the Municipal Strategic Statement (MSS).
- Specify measures to prevent family violence and respond to the needs of victims of family violence in the local community.
- Have regard to climate change.

- Consider the focus areas and priorities of the Victorian Public Health and Wellbeing Plan 2019–2023.

Community engagement

In 2021 community engagement for the MPHWP is integrated with the four-year Council Plan and the ten-year Finance Plan, and includes deliberative engagement. The MPHWP and Council Plan are aligned to achieve the Community Vision 2040.

Partnerships and integration

Other relevant strategic plans across Council and those of local community partners with an interest in public health are integrated (where appropriate) or sit alongside the MPHWP to ensure a coordinated local prevention effort. Council strategic plans that align with the MPHWP include:

- Disability Action Plan
- Early Years Plan
- Youth Plan
- Reconciliation Action Plan
- Volunteering and Community Participation Strategy
- Diversity Plan
- Health Ageing Plan
- Family Violence Prevention Action Plan 2019-2021
- Sustainability Strategy 2016-2022
- Waste Management Strategy 2018 – 2028
- Interim Climate Response Plan 2020-2022
- Urban Forest Strategy 2018-2021
- Urban Biodiversity Strategy 2014-2024
- Open Space Strategy 2007
- Play Space Strategy 2011
- Arts and Cultural Strategy 2013-2023
- Whitehorse Recreation Strategy 2015-2024
- Whitehorse Integrated Transport Strategy 2011
- Box Hill Integrated Transport Strategy 2020
- Cycling Strategy 2016
- Community Road Safety Strategy 2013
- Domestic Animal Management Plan 2017-2021
- Investment & Economic Development Extension Strategy 2020-2022
- Digital Strategy 2017-2020
- Municipal Emergency Management Plan February 2020

Prevention and health promotion funded organisations and councils work together with the Department of Families, Fairness and Housing (DFFH) and other local partners to establish a common approach to the preparation of health and wellbeing plans.

Victorian Health Priorities

The *Victorian public health and wellbeing plan 2019–2023* provides continuity for the priorities of the previous plan, while recognising two additional leading threats to health and wellbeing globally:

the health impacts of climate change and antimicrobial resistance (the ability to effectively treat infections in our community).

The State-wide plan highlights four priority focus areas to encourage coordinated action where it is anticipated to make the greatest gains. These are highlighted in bold below:

- **Tackling climate change and its impact on health**
- **Increasing healthy eating**
- **Increasing active living**
- **Reducing tobacco-related harm**
- Reducing injury
- Preventing all forms of violence
- Decreasing the risk of drug resistant infections in the community
- Improving mental wellbeing
- Improving sexual and reproductive health
- Reducing harmful alcohol and drug use

The Victorian public health and wellbeing plan 2019-2023 recognises key links between actions taken in a number of these priority areas. For example, by promoting active transport (walking, cycling or use of public transport) and reducing the number of trips by car we in turn reduce emissions. A reduction in emissions and increasing active transport produces health co-benefits through improvements to air quality and increasing opportunities for physical activity.

COVID-19 Pandemic

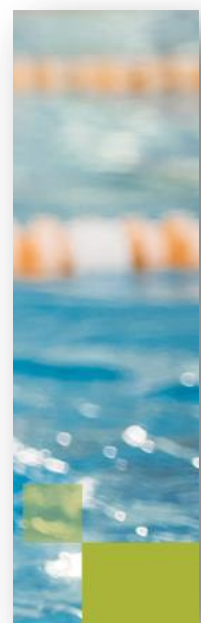
Subsequent to the release of the Victorian public health and wellbeing plan, a major worldwide public health event has had sudden and profound impacts on everyone. The COVID-19 pandemic is a unique emergency event unlike any we have experienced in the past.

Since being reported in January 2020, the Whitehorse community has experienced a low rate of infection. However, the impact of the control measures and fear of the virus itself have impacted our community.

Restrictions on human contact and movement as well as the wearing of personal protective equipment are public health controls that have not been implemented in our society before. The introduction of these restrictions is significantly impacting on the economy (constraints on people's ability to work and do business), education (students' ability to attend schools/tertiary institutes), health (constraints on access to health services, manifestations of psychological distress, mental health issues, decreased physical activity etc.) and social (impacts of people being isolated and more vulnerable). Health inequalities will increase as a result.

The MPHWP will be informed by the most up to date evidence and information about the impacts of the pandemic and will prioritise strategies for community recovery.

The profile will be updated in June/July 2021 to include additional data releases. Additional data sources are welcome.



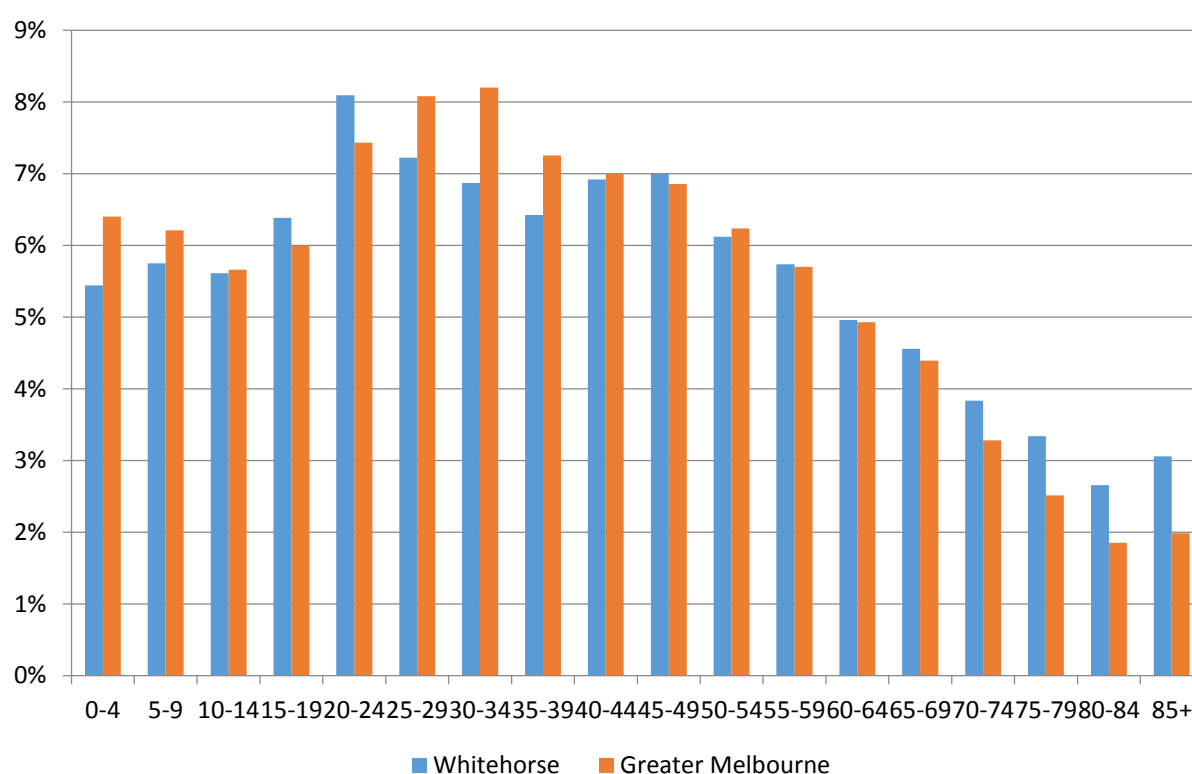
Part A. The people of Whitehorse

The City of Whitehorse hosts a diverse and growing population. This section describes the current population profile, the forecast changes due to ageing and migration and then the diverse groups of people who call Whitehorse their home.

1. The population

On 30 June 2019, it is estimated that 178,739 people lived in Whitehorse. The population age distribution (shown in Figure 1) is generally similar to the state average. Figure 1 highlights that Whitehorse has proportionally more people in the over 70 age groups and 20-24 year olds, and less proportionally less people in the 25 to 39 year old age groups than all of Melbourne. The median age in Whitehorse was 38 years. Twenty per cent of the population are aged less than 18 years.

Figure 1 – Whitehorse Age Structure compared to Greater Melbourne – 5 year groups, 2016

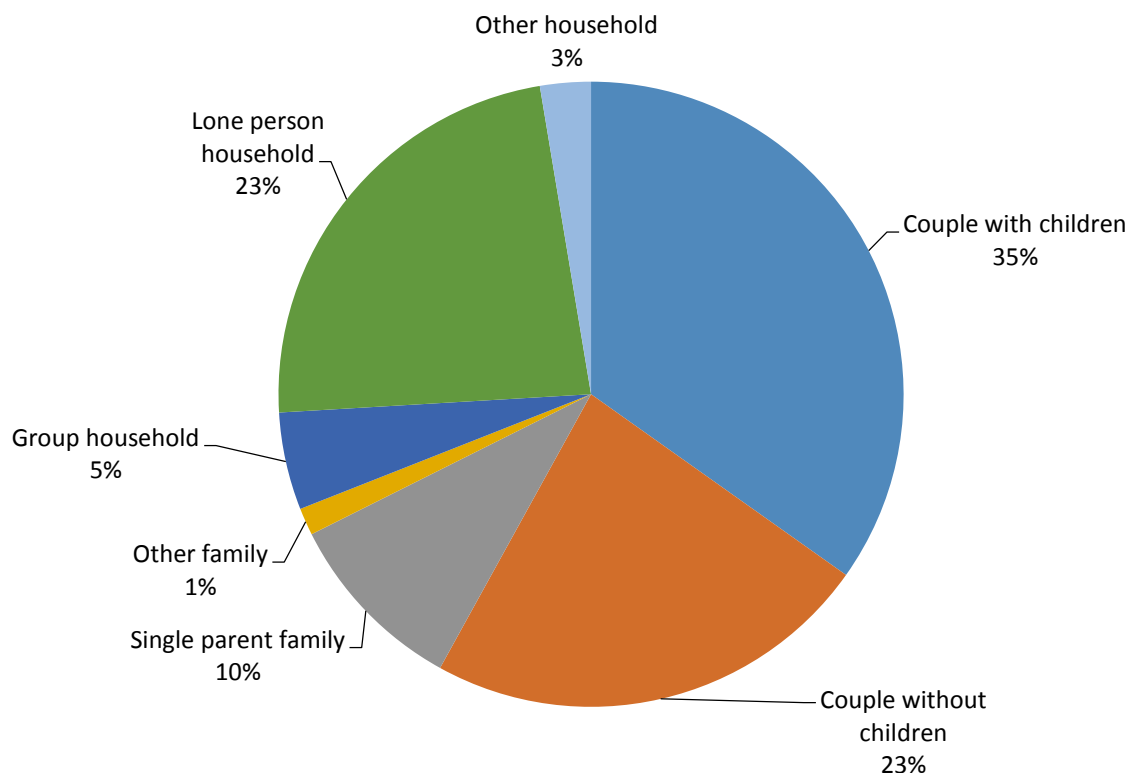


While fifty-two per cent of the population in Whitehorse are female, there are more males than females in all of the five year age increments under 40 years. For every five year age increment over 50, there are more females than males. This is particularly so for the older age groups; there are nearly twice as many women as men aged 85 plus. Box Hill has a larger concentration of residents aged 20-29 than the rest of the municipality

Whitehorse is home to many families. In 2016, there were 60,431 households in Whitehorse and, as illustrated in Figure 2, the most common household type comprised couples with dependents (34.5 per cent). Lone person households and the heads of lone-parent households are more frequently

women. In 2016, 62.3 per cent of all people living alone were female, and this ratio increases with age. 81.7 per cent of lone-parent households in Whitehorse have a female head.

Figure 2 – Whitehorse Household type, 2016



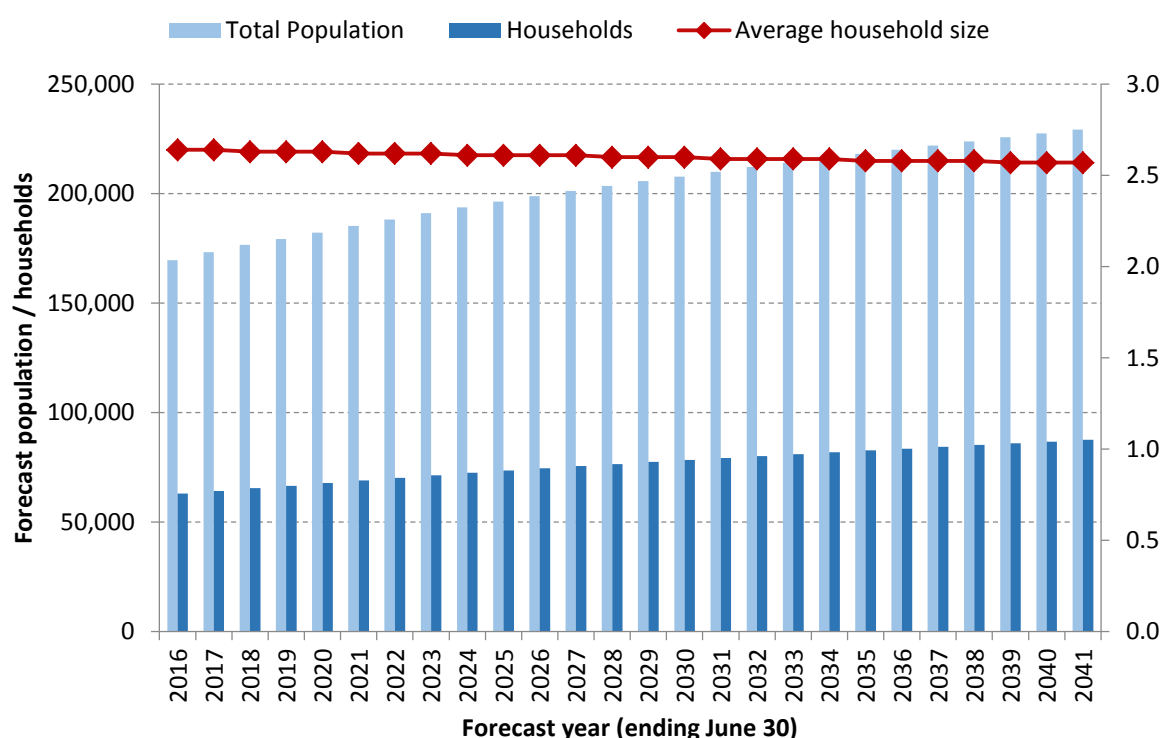
In 2016 26.7 per cent of people both live and work in Whitehorse and many more do so in the surrounding municipalities.

2. Changing population profile

Whitehorse has an increasingly ageing population. Currently more than 17.5 per cent of people are over the age of 65 and 3.1 per cent of the population is aged 85+. Between now and 2041, the number of people aged 65+ will increase by approximately 11,113 people. In Whitehorse 63.4 per cent of people with a disability are aged 65 or over. Also, many people aged over 65 years care for a person with a disability, long term illness or old age. (In 2016 there were 3,705 carers in Whitehorse aged over 65). Around 34 per cent of people aged 75+ in Whitehorse live alone, the larger proportion of these being female (77 per cent).

A growing and changing population in Whitehorse is seeing relative increases in the numbers of young people (1,851 under the age of 25 between 2011 and 2016) and people born in non-English speaking countries of origin (12,139 between 2011 and 2016). The age structure forecasts for the period 2016 and 2040, as illustrated in Figure 3, indicate a 26.9 per cent increase in population for under working age, a 36.4 per cent increase in population of working age and a 38.8 per cent increase in population of retirement age. The population is forecast to increase at an average annual rate of 1.5 per cent between 2016 and 2041 (ID Consulting, 2020).

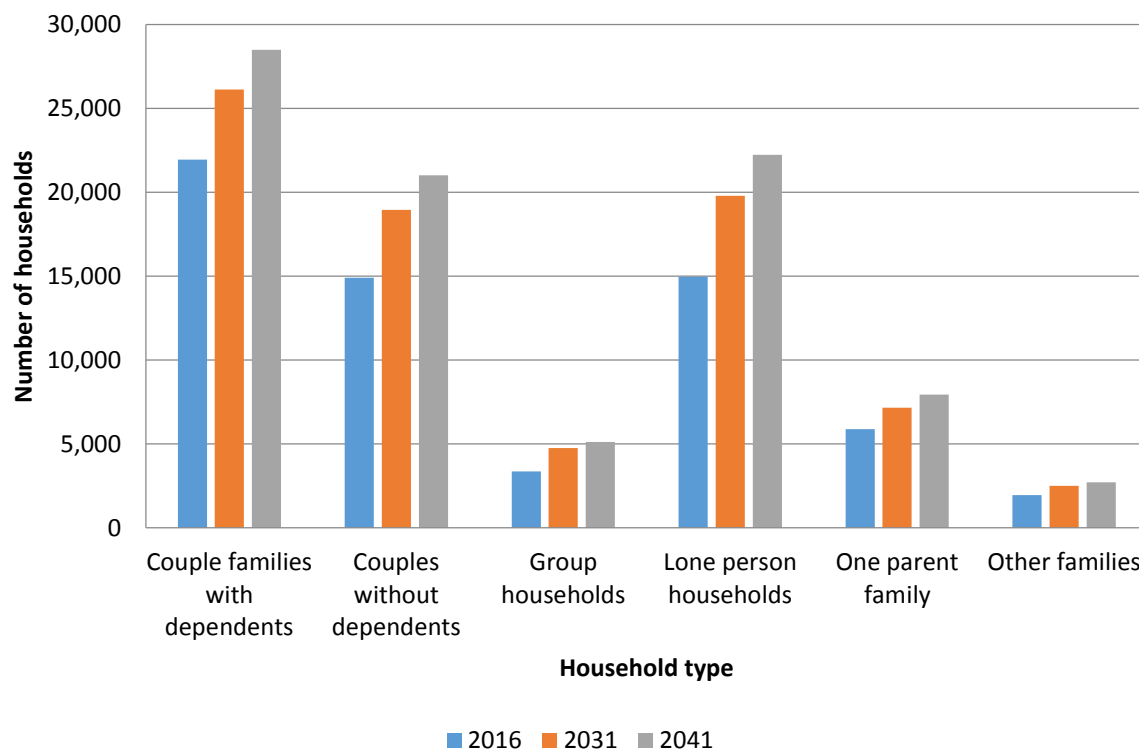
Figure 3 – Whitehorse Population and Household Forecasts, 2016 to 2041



Source: .id Consulting (2021), Census of Population and Housing

While the dominant household type in Whitehorse is 'Couple families with dependents', by 2041 the largest forecast increase is expected in 'Lone person households' as illustrated in Figure 4. It is estimated that at this time lone households will account for more than a quarter of all households in Whitehorse, predominantly with older people and younger residents. The average household size is expected to fall from 2.6 in 2016 to 2.57 by 2041, as illustrated by the red line in Figure 3.

Figure 4 – Whitehorse Household Types Forecast, 2016 to 2041



In Whitehorse, the rate of new settler arrivals per 100,000 of population is among the highest in the state at 1,105.1, in comparison to the Victorian average of 682.5.¹ Between 2012 and 2017 the highest number of new settler arrivals was from China at 6,516, followed by India at 1,657 and Malaysia at 543.

3. Diversity of people

People of diverse ages, genders, abilities and cultural and language backgrounds make up the population of Whitehorse.

a. Children and their families

Children aged 0-11 years account for 13.4 per cent of the total Whitehorse population, slightly less than Greater Melbourne at 14.9 per cent. There is a higher proportion of male children aged 0-11 years (14.1%) compared to female (12.8%). Between 2016 and 2041, the 0-11 age cohort is expected to increase by 5,946 residents. Over the same period, the percentage of households comprised of couples with dependent children is expected to decrease from 34.8 per cent to 32.6 per cent.

The early years (pregnancy to eight years) are a period of rapid cognitive, biological and social development and the most critical in influencing a person's long-term health and wellbeing. The environment in which a child spends these early years – the family, educational and care settings and the broader community – strongly shapes whether or not they have good foundations for their future health, wellbeing and development.

In 2015 Whitehorse recorded higher than average Victorian rates of 3.5 year olds attending maternal and child health checks (67.8% compared to 66.1%) and kindergarten participation rate (100.6 per cent¹ compared to 98.1 per cent).ⁱⁱ

Children fully immunised at one, two and five years across Whitehorse in 2020 was higher than Victoria as a whole. 96.8% of 5 year olds in Whitehorse are fully immunised.ⁱⁱⁱ

In 2015/2016, 47 per cent of children were fully breast feeding at 6 months in Whitehorse, compared to 49 per cent for Victoria as a whole.

The Australian Early Development Census measures how children have developed by the time they start school. It looks at five domains of early childhood development: physical health and wellbeing, social competence, emotional maturity, language and cognitive skills, and communication skills and general knowledge.

In 2018, 13.3 per cent of Whitehorse children were considered vulnerable on one or more domains, in comparison to the Victorian average of 19.9 per cent and Australian average of 21.7 per cent. A further 5.6 per cent of Whitehorse children were considered vulnerable on two or more domains, in comparison to the Victorian average of 10.1 per cent and Australian average of 11.0 per cent.^{iv}

In 2014 Whitehorse had a rate of 4.2 per 1,000 children of substantiated child abuse cases for children aged 1-17 years, compared with 9.2/1,000 for Victoria.^v Children's exposure to domestic violence has been increasingly recognised as a form of child abuse.

b. Young people

A person's experience in the formative years between 12 and 25 has a significant influence on their long term health and wellbeing and capacity to enjoy a full, active and rewarding life to their full capacity. Access to education, employment, healthy food, respectful relationships and social, sporting and creative pursuits all play a part.

- Young people aged 12 to 25 years account for 19.3 per cent of the total Whitehorse population, which is comparable to the 18.3 per cent across Metropolitan Melbourne.
- There are 16,128 male and 15,234 females aged 12 to 25 living in Whitehorse.
- A total of 31.5 per cent of young people aged 12 to 25 living in Whitehorse were born in a non-English speaking country, significantly higher than Metropolitan Melbourne (22.1%) and Victoria (18.2%). In addition, 38.4 per cent of all young people speak a language other than English at home.
- In Whitehorse Year 9 students achieving national learning benchmarks is 95.0 per cent for literacy and 97.5 per cent for numeracy compared to Victoria at 92.0 per cent and 95.5 per cent respectively.
- A total of 54.2 per cent of 18 to 24 year olds in Whitehorse are attending a university, compared to 40.3 per cent for Metropolitan Melbourne. A similar percentage of students in Whitehorse and Greater Melbourne attend TAFE (6.9% and 7.5% respectively).
- Five per cent of 15-24-year-olds in Whitehorse are not in employment or education.

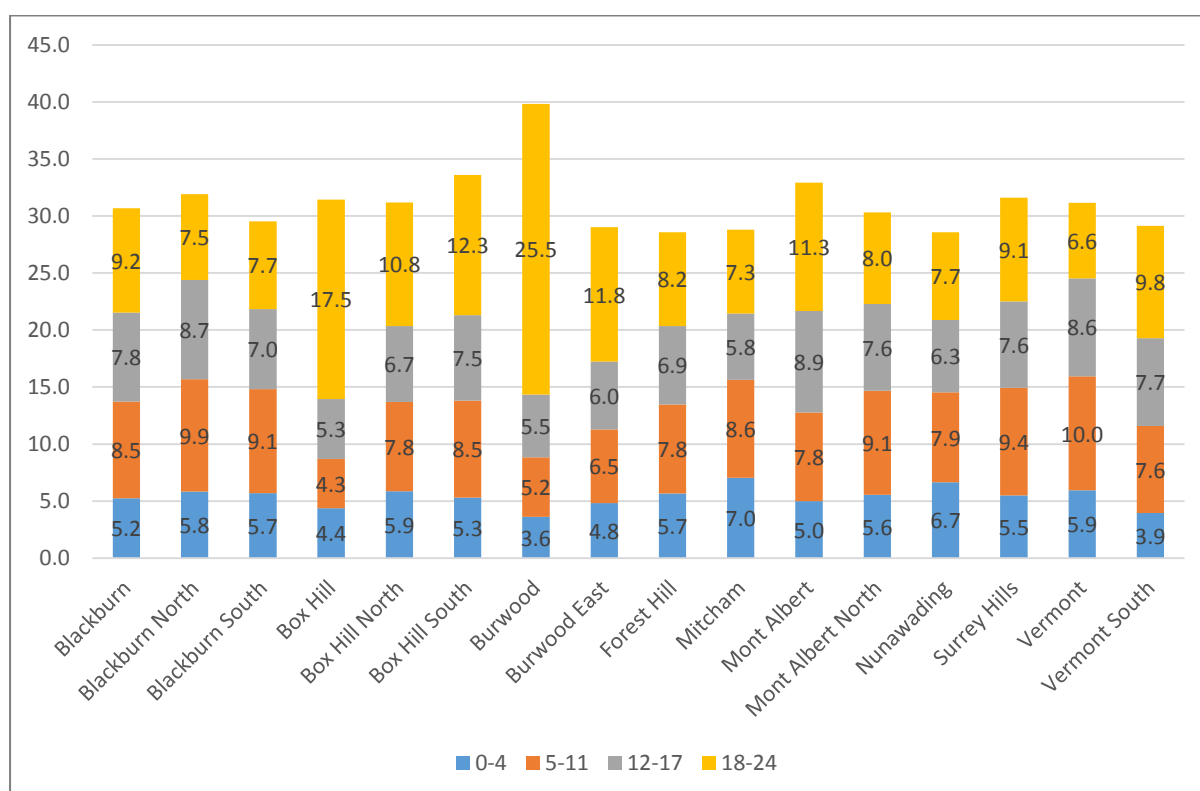
¹ This figure is higher than 100% reflecting participation in Whitehorse kindergartens by children living outside the municipality.

- Secondary school retention rates are higher in Whitehorse, with 97.4% of 19 year olds having completed Year 12, in comparison to the Victorian State average of 88.2%.^{vi}

Most people under the age of 25 live in Burwood with 4,873, closely followed by Mitcham (4,644) and Blackburn with 4,278 people aged less than 25 years. However, when we break down the ages of young people further we see that:

- The lowest number of people aged less than 25 years are found in Mont Albert (1,553), Surrey Hills (1,666) and Mont Albert North (1,712).
- Most primary schoolers are found in Mitcham and Blackburn, whilst Mont Albert, Box Hill and Surrey Hills have less primary schoolers.
- Most secondary schoolers are found in Blackburn, Mitcham and Vermont South.
- Most 18 - 24 year olds live in Burwood and Box Hill, which is reflective of the two tertiary institutions found there.

Figure 5 – Percentage of people aged less than 25 years, per suburb



c. Adults

People aged 25-65 years account for 52.2 per cent of the total Whitehorse population, 3 per cent less than Greater Melbourne at 55.2 per cent. There are 48.1 per cent male and 51.9 per cent female in this age group. Between 2016 and 2041, this age cohort is expected to increase by 30,754 residents.

Gender differences in working aged adults reveal distinct differences in employment and income:

- The female median weekly income is \$498 (persons aged 15+)
- The male median weekly income is \$798 (persons aged 15+)
- 15.2 per cent of females undertake 30+ hours of unpaid domestic work each week
- 2.6 per cent of males undertake 30+ hours of unpaid domestic work each week
- 33.7 per cent of females are employed full-time
- 62.9 per cent of males are employed full-time
- 8.1 per cent of employed females are in a managerial position
- 15.2 per cent of employed males are in a managerial position.

d. Parents

In Whitehorse 34.5 per cent of households are couples with children and 9.5 per cent are single parent families. 81.7 per cent of single parents are female and 18.4 per cent are male.

Over 85 per cent of families in Whitehorse have one or two children:

- 42.5 per cent one child
- 42.7 per cent two children
- 12.1 per cent three children
- 2.7 per cent four or more children

In Australia the proportion of same-sex couple families with children increased from 12 per cent in 2011 to 15 per cent in 2016. Female same-sex couples were more likely to have children than male same-sex couples.

In Whitehorse, females are more likely than males to provide care to dependent children over a fortnight period. 30.4 per cent of females gave care over a fortnight, compared with 25.0 per cent of males

e. Older adults

Older people have a wealth of knowledge, experience and actively contribute to the wellbeing of the community. Many older people are caring for others – partners, children and grandchildren. The interconnectedness of physical and mental health plays out strongly for older people.

Good physical health enables older people to socialise, travel and work and to participate actively in society while poor physical health increases the risk of isolation and depression.

- In 2016, 17.5 per cent of Whitehorse residents were aged 65 plus; this compares with 14 per cent for Metropolitan Melbourne.
- The municipality is 42.9 per cent male; 57.1 per cent female
- 40.7 per cent of people aged 65 plus years in the City of Whitehorse were born overseas;
- 31.8 per cent were from a non-English speaking background, compared with 46.2 per cent and 35.7 per cent respectively for Metropolitan Melbourne;
- The largest non-English speaking country of birth for people aged 65 or more in Whitehorse in 2016 was China, where 5.3 per cent or 1,493 people aged 65 years or more were born.

This is followed by Greece (4.4%) and Italy (3.9%). More than one in four persons over 65 years speaks a language other than English at home (26.6%).

- Approximately 7,628 people in the City of Whitehorse need help with daily living tasks due to disability. Of these, 63.4 per cent of people with a disability are aged 65 or over.
- In 2016 there were 3,705 carers aged 65 plus in the City of Whitehorse providing unpaid assistance to a person with a disability, long term illness, or old age.
- The rate of people using residential aged care in the Eastern Metropolitan Region of Melbourne (including City of Whitehorse) is 49.7 per 1,000 people in the aged care population.^{vii}

The population of males and females aged 65 years and over is forecast to increase by a total of 11,113 persons between 2016 and 2041, which is an increase of 5,694 females and 5,419 males (ID Consulting, 2020), resulting in a total of 39,729 or 17.3 per cent of the total population.

More than thirty per cent of people aged 65 plus in the City of Whitehorse were born overseas, with a non-English speaking background. Evidence shows that older people from CALD backgrounds can face a higher risk of social isolation and poorer health outcomes. In addition, those who migrated to Australia at an older age, or who are from refugee background, are at greater risk of encountering mental and physical health issues.

Of older people living alone in Whitehorse the majority of those with limited English fluency speak Greek, Mandarin, Italian and Cantonese.

The numbers of people with dementia in Whitehorse will rise significantly (estimated to almost double over the next 34 years) and those at risk of elder abuse will also rise. A fall for an older person may precipitate a loss of function and independence.

f. People aged 75 and over

Nine per cent of Whitehorse residents are aged 75 years and over. This compares with six per cent for Metropolitan Melbourne and seven per cent for Victoria. Of these older Whitehorse residents:

- 34.1 per cent live in lone person households.
- 59.2 per cent are female; 40.8 are male

Approximately 35 per cent of people aged 80 to 89 years live alone in Whitehorse, which is higher than the percentage for the same group in Greater Melbourne (31.9%) and Victoria (32.9%). Whitehorse has the highest percentage of people aged 90 years plus living alone at 34.2 per cent, which is considerably higher than Greater Melbourne and Victoria, with both just under 30 per cent.^{viii}

g. People with a disability

Disability can occur at any time; prior to or at birth, as the result of accident, injury, chronic illness or trauma, during childhood, adulthood or through older age. In addition, a diverse range of social, environmental, biological and psychological factors can impact on an individual's mental health and wellbeing resulting in the person experiencing mental illness or psychiatric disability. Whilst the

experience and impacts of disability and mental illness is unique to the person, disability and mental illness presents in all cultural groups, across gender, and socio economic groupings.

ABS data indicates the presence of disability increases with age. Disability may be associated with accident illness and injury across the lifespan but may also be related to health risks, lifestyle choices and the ageing process more generally. 7,628 people in Whitehorse need assistance with core activities and of these, 64.3 per cent are aged 65 or over.

4.7 per cent of people in Whitehorse need assistance with core activities of daily living, compared to 5.1 per cent of Victorians.

41.7 per cent of people who need assistance with core activities in Whitehorse are male, while 58.3 per cent are female. The rate of disability in Australia has remained relatively stable over time with approximately 17.7 per cent of people reporting a level of disability.

Almost one-quarter (23.2 per cent) of all people with disability report a mental or behavioural disorder as their main condition, up from 21.5 percent in 2015.

Disability support pension recipients in Whitehorse were more likely to identify their primary disability as psychological/psychiatric (31.2 per cent), musculoskeletal and connective tissue (26.1 per cent) and intellectual/learning (12.4 per cent) than other forms of disability. The majority (56 per cent) of disability support pension recipients in Whitehorse are aged over 50 years.

h. Aboriginal and Torres Strait Islander people

Council recognises that Aboriginal and Torres Strait Islander people and culture are an integral part of the Australian and Whitehorse community. Many local landmarks are of important historical and cultural significance. According to the 2016 Census, 358 persons or approximately 0.2 per cent of the population in Whitehorse identify as Aboriginal or Torres Strait Islander. While Whitehorse has among the lowest percentage of residents of Aboriginal and Torres Strait Islander origin in the state, this is often underreported.

i. LGBTI people

It is very difficult to obtain a reliable estimate of the number of people who identify as LGBTI within the City of Whitehorse. Gender diversity is sensitive and private, and the manner in which survey questions are phrased, the fashion in which the survey is conducted, the survey date, and the segment of the community under investigation can yield distinctly different results. The Australian Human Rights Commission (2014) estimate that 11 per cent of Australian population identify as having a diverse sexual orientation, sex or gender identity, while Hayden Brown (2021) a researcher at the City of Greater Dandenong, using Census and other data, says that 12.5 per cent is a more reliable estimate.^{ix x} Based on these two studies, the LGBTI population in Whitehorse is estimated to be somewhere between 19,661 and 22,342 residents.

j. People from non-English speaking culturally diverse backgrounds

The City of Whitehorse is a diverse community, with roughly a third of the population born in a non-English speaking country (33.1 per cent), and over 36.7 per cent of people speak a language other than English at home.

We have a higher rate of new settler arrivals (1,105.1 per 100,000 population) than the Victorian average (682.5 100,000 population). As at 30 March 2021, a total of 46 asylum seekers were living in the Whitehorse municipality and have been granted bridging visas.

The unique situations and experiences of people from a non-English speaking background vary greatly, however there are a number of challenges that consistently appear in research. These challenges include:

- socio-economic disadvantage
- social isolation, including digital isolation evident during 2020 lock down
- language barriers
- racism
- cultural translation difficulties
- underexposure to Australian services and systems
- lower rates of service access^{xi}

The COVID-19 crisis has amplified some of the existing barriers for multicultural communities due to challenges accessing in-language support, disruption in trusted community networks, and the prevailing lack of culturally responsive mental health services.^{xii}

k. International students

A significant number of international students choose to study in the City of Whitehorse. In 2019, around 26 per cent of Deakin University's course enrolments were from international students and with more than 30,000 students attending their Burwood campus, this equates to more than 7,700 international students.

It is estimated that up to 40 per cent of international students living in the inner east of Melbourne attend a smaller private RTO rather than a large university or TAFE.^{xiii}

The economic impact and benefits of international students for the municipality and surrounding areas is well documented^{xiv} however these students are particularly vulnerable to a number of health and wellbeing risk factors.

For international students the COVID-19 pandemic has intensified their challenges. Emerging and compounding risks for this vulnerable cohort include:

- Heightened risk of depression, anxiety, psychological distress and deteriorating emotional wellbeing, concern for family overseas
- Financial insecurity, loss of employment, limited support from families in home countries due to worldwide economic impacts; growing personal indebtedness and vulnerability to financial scams
- Housing insecurity, risk of homelessness, overcrowding in shared housing
- Vulnerability to housing, employment and sexual exploitation
- Visa insecurity
- Isolation and loneliness, fracturing of relationships
 - Disconnection from the wider community, peers and social support networks

- Disconnection from universities and education providers
- Disengagement from course of study
- Barriers to accessing health and wellbeing support
- Developing online gaming addictions^{xv}



Part B. Liveability of Whitehorse

Liveable, walkable neighbourhoods play an important role in public health and increase environmental, economic and social sustainability. A 'liveable' community is:

'safe, attractive, socially cohesive and inclusive, and environmentally sustainable; with affordable and diverse housing linked by convenient public transport, walking and cycling infrastructure to employment, education, public open space, local shops, health and community services, and leisure and cultural opportunities.'^{xvi}

Various aspects of Whitehorse liveability are described below.

1. Safety

Feelings or perceptions of safety affect how people move around and freely access all aspects of the municipality – transport, open spaces, activities and facilities. Whitehorse is a relatively safe community, and crime rates in Whitehorse are lower than the Eastern Metropolitan and State averages. The criminal incident rate per 100,000 of population in Whitehorse is 4015.8, compared to 6019.7 for Victoria.^{xvii}

The rate of alleged crimes against the person in Whitehorse in 2020 was 513.2 per 100,000 people, which is also lower than for Metropolitan Melbourne (571.3/100,000).^{xviii} 96.3 per cent of people feel safe on Whitehorse streets, walking alone during the day.^{xix}

However people in Whitehorse feel less safe walking alone at night, particularly women and older people, than during the day. The rate of residents who felt "safe" or "very safe" when walking alone at night in their local area decreased from 68 per cent in 2011 to 56.8 per cent in 2015.^{xx}

2. Social connection and inclusion

It is observed that people who are connected and actively engaged in their local communities are more likely to feel positive about their neighbourhood, and connecting into clubs, schools, faith and other community groups have a positive influence on wellbeing and social cohesion.^{xxi}

In 2015:

- 77.2 per cent of people surveyed in Whitehorse said that people in the neighbourhood are willing to help each other which is higher than Victorian average of 74.1 per cent^{xxii}
- 76.2 per cent of people surveyed in Whitehorse said that people in their neighbourhood can be trusted which is higher than the Victorian average of 71.9 per cent^{xxiii}
- 61.8 per cent of people surveyed in Whitehorse said this is a close-knit neighbourhood, a result similar to Victoria^{xxiv}
- 77.2 per cent of people surveyed in Whitehorse spoke with more than five people the previous day^{xxv}
- 69.7 per cent of people surveyed rated the community as "good" or "very good" for community and support groups^{xxvi}

Racial vilification weakens community cohesion and a sense that everyone is welcome in Whitehorse.

Racist incidents have risen in Australia during COVID-19. At the start of the pandemic in February 2020, the Australian Human Rights Commission recorded more complaints under the Racial Discrimination Act than at any time during the previous twelve months. Since February 2020, a third of complaints received by the Commission were related to COVID-19.^{xxvii} Experiences of racism are associated with poorer mental health.^{xxviii}

3. Walkability

Walkable communities are good for our health, traffic management and the environment. A combination of higher residential densities, well-connected street networks and mixed land uses are positively associated with people walking (for transport) to local destinations. Combined, these variables create a transport walkability index. Neighbourhoods with connected streets, higher population density and various local destinations (e.g., jobs, shops, services,) score higher on the transport walkability index than those in sprawling areas with cul-de-sacs, lower population densities and fewer local destinations.^{xxix}

The Victorian Planning Provisions and Precinct Structure Planning Guidelines have guidelines for three urban design features that affect walkability:

Access to destinations – requires 80-90 per cent of residences be within 1 km of an activity centre large enough to support a supermarket.

Street connectivity – sets a standard for the length and width of street blocks, to create walkable blocks with a maximum perimeter of 720 m.

Density – specifies an average net density of 15 dwellings per hectare. This is too low to create walkable neighbourhoods.^{xxx}

26.7 per cent of people who live in Whitehorse also work in Whitehorse and many more do so from surrounding municipalities.

In Whitehorse we have:

- An average street connectivity per square kilometre of 82 /km² (this is in the 56th percentile²; Range from 64.2 to 109.5/km²)
- An average number of daily living destinations present (0-3) within 1600m of 2.6/3 (this is in the 59th percentile; Range from 1.2 to 3.0/3)
- An average distance to closest activity centre of 1685.1m (this is in the 50th percentile; Range from 0.0 to 3652.0m)
- A Walkability for Transport Index of 0.4 (this is in the 65th percentile; Range from -2.1 to 1.7)

xxxi

² **Percentiles** indicate the percentage of scores that fall below a particular value. They tell you where a score stands relative to other scores. For example, if street connectivity average is at the 56th **percentile**, this indicates this street connectivity average is higher than 56 percent of other scores – in this case other municipalities in Metropolitan Melbourne.

4. Open space and forest

Whitehorse is approximately 64 square kilometres in area, and almost 10 percent of that area is managed by Council as community open space; including parks and gardens, streetscapes and community facilities.^{xxxii}

Existing canopy cover in Whitehorse has been estimated at between 22 and 26 per cent. It is considered that below 30 per cent there is generally not enough canopy cover to fully achieve all the benefits of the urban forest.^{xxxiii}

The health and wellbeing benefits of the urban forest and green open space include:

- Studies show that urban vegetation slows heartbeats, lowers blood pressure, and relaxes brain wave patterns.
- A stronger feeling of connection to nature is associated with mental health benefits and more sustainable behaviours.
- The colour green is calming and relieves eye strain.
- People walk and jog more on shaded streets; which encourages interaction with neighbours and improves the sense of community.
- Trees significantly cool the urban environment helping to manage heat stress.
- Trees produce oxygen, intercept airborne particulates, and reduce smog.
- Access to trees, green spaces, and parks promotes physical activity, reduces stress, and can improve the overall quality of life in our cities and towns. These factors can contribute to the prevention of a range of chronic diseases which are related to sedentary lifestyles.
- Urban landscaping, including trees, helps lower crime rates.
- Trees increase the visual amenity of streets and open spaces^{xxxiv}

In 2019/20 3,307 new trees were planted by Council in the municipal area.^{xxxv}

5. Access to public open space

Better access to public open spaces promotes physical activity and has a positive effect on mental health.

The percentage of dwellings in Whitehorse within 400m or less distance of public open space was 75.9 per cent in 2018 (56th percentile; Range from 0.0 to 100.0%).^{xxxvi}

Half of the dwellings in Whitehorse were within 400m of public space larger than 1.5 hectares in 2018 (59th percentile; Range from 0.0 to 100.0%).^{xxxvii}

6. Environmental sustainability

Reducing, re-using and recycling waste prevents pollution that can harm our health and the environment.

In Whitehorse in 2018/2019:

- Total residual waste collected was 27.3k (annual tonnes collected)
- Total commingled recyclables collected was 15.3k (annual tonnes collected)
- Total garden organics collected was 12.5k (annual tonnes collected)^{xxxviii}

A review for the development of Council's Waste Management Strategy 2018-2028 found that the community has diverting approximately 51 per cent of kerbside waste from landfill for a number of years, which is well above the state average of 45 per cent. The findings however revealed that:

- Kerbside garbage bins contain 44 percent food waste compared to the Victorian average which was around 35-38
- The total organic waste adds up to 60 per cent for Whitehorse compared to the Victorian average, which was 50 per cent for all organics.
- There is only two percent contamination in kerbside green waste bins showing that those who choose the service are using it well. Sixty per cent of households have the optional garden waste bin.
- Approximately 11 percent of waste in recycling bins in Whitehorse is contaminate, higher than the rest of Victoria (averaged 5.6 per cent, 2014-15) and significantly higher than the preferred industry level of 3-5 per cent. Generally bin contamination rates are higher in apartments at about 25 per cent, compared to separate households at 11 per cent.^{xxxix}

7. Housing diversity & affordability

The rate of social housing in Whitehorse is 8.6 per 1,000 estimated residential population. This is the second highest rate in the eastern metropolitan region (EMR), with Maroondah having the highest rate of 9.1 per 1,000 estimated residential population. However, the EMR overall has significantly less public housing than the other metropolitan regions; the north western metropolitan region has a rate of 11.2 while the EMR has a rate of 6.1 per 1,000 estimated residential population.

In Whitehorse 2.4 per cent of all households in the municipality are social housing.

11.8 per cent of households in Whitehorse are in housing stress (rental or mortgage), compared to Victoria 11.4 per cent and Metropolitan Melbourne 11.7 per cent.

Rental housing stress is highest in Box Hill, accounting for 30.5 per cent of all renters. This is followed by Burwood, with 18.6 per cent of renters. Mortgage stress is greatest in Vermont and Blackburn North, accounting for 9.5 and 8.7 of mortgagees

In December 2020, the percentage of available affordable lettings in Whitehorse is just 1.4 per cent; significantly lower than Victoria at 11.4 per cent and Metropolitan Melbourne at 7.4 per cent.^{xl} In 2019 Whitehorse only had 2.1 per cent affordable lettings.

8. Fresh food access

Access to fresh food provides residents with the opportunity to purchase nutritional foods which support healthy eating behaviours and lifestyles. Supermarkets are a common source of fresh healthy foods, but additionally, local retail outlets such as fruit and vegetable retailers (greengrocers) also provide important opportunities to purchase these types of foods.

Eating fast food on a regular basis can lead to being overweight and obesity. Being overweight or obese, increases a person's risk of developing chronic diseases such as type-2 diabetes, coronary heart disease and some cancers. Close proximity to fast food retailers may influence an individual's

diet, particularly if it is within walkable distance. Most people will not regularly walk distances greater than 800m – 1km to destinations such as shops and services.^{xli}

Similarly, living within easy walking distance of fresh food stores encourages and enables people to each well and to walk or cycle instead of driving and hence further reducing their risk of chronic disease.

In Whitehorse, in general, residents are well serviced by access to fresh food, but have less distance to travel to access fast food:

- The percentage of dwellings within 1km of a supermarket is 45.5 per cent (56th percentile; Range from 0.0 to 100.0%)^{xlii}
- There are no dwellings without any food outlet within 3.2km (100th percentile; Range from 0.0 to 100.0%)^{xliii}
- The average distance to the closest healthy food outlet (supermarket or greengrocer) is 1036.2m (59th percentile; Range from 0.0 to 2683.0m) which is further than the average distance to the closest fast food outlet; 941.6m (38th percentile; Range from 0.0 to 2489.0m)

^{xliv}

9. Access to social infrastructure (health, education community, leisure and recreation)

Well-planned social infrastructure supports the liveability of communities by promoting walking and community social interaction. It is associated with improved physical and mental health and resident's satisfaction with the area in which they live. The Social Infrastructure Index (SII) developed by the Australian Urban Observatory measures 16 individual service types including Community Centres, Culture and Leisure, Early Years, Education, Health and Social Services and Sport and Recreation which were used to calculate the presence of service mix within a threshold distance.

Whitehorse has a SII of 7.5 where a maximum score of 16 represents the highest mix of social infrastructure with all types present. (This score is in the 59th percentile; Range from 2.2 to 11.2/16)

^{xlv}

Whitehorse has 0.3 general practice clinics and 0.2 pharmacies per 1,000 population; these rates are equivalent to Victoria as a whole.^{xlvi}

85.4 per cent of the population stated they could definitely access community services and resources; this is a similar percentage to Victoria as a whole.^{xlvii}

10. Leisure, recreation and cultural opportunities

Whitehorse is home to outdoor spaces, leisure centres and sporting grounds providing access to sporting clubs, community activities and recreation. Arts, cultural and recreational activity build social cohesion and improve community health and wellbeing. Whitehorse has 26 sports fields and reserves as well as a golf course, skate parks and indoor sports centres. In 2018/2019 there were 1,633,693 visitors to aquatic facilities, an increase of more than 47,000 visits over the previous 12 months.

In 2018/2019 there were:

- 47,250 attendances at Council's festivals and events
- 683,185 visitors to libraries
- 60,911 visitors to Box Hill Community Arts Centre
- 8,215 visitors to Whitehorse Art Space^{xlviii}

11. Public transport

Transport affects population health through pollution of the environment and emissions, which are one of the major contributors to climate change. Access to public transport helps reduce reliance on motor vehicles and promotes physical activity.

People in Whitehorse have good access to transport relative to other municipalities. In Whitehorse the average distance to the closest public transport stop is 276.2m (71st percentile; Range from 0.0 to 1079.0m)^{xlix}

Seventy-seven per cent of dwellings have access to a bus stop within 400m (88th percentile; Range from 0.0 to 100.0%)ⁱ

Nearly seventy per cent of dwellings are within 400m of a public transport stop with a regular service at least every 30 minutes on weekdays between 7am and 7pm (76th percentile; Range from 0.0 to 100.0%)ⁱⁱ

12. Cycling infrastructure

Cycling is an essential mode of transport and an important recreational and sporting activity. As well as having great environmental and health benefits, cycling is also a key solution to reducing congestion. In the City of Whitehorse there are 35km of off-road shared paths, 21km of on-road bike lanes and 10km of on-road bike connections (informal bike routes with some on road line marking, not a continuous bike lane).

13. Employment/labour market participation

Whitehorse supports 72,416 jobs and has an annual economic output of \$21.127 billion.ⁱⁱⁱ 21.5 per cent of employed people in Whitehorse live and work in the local area.

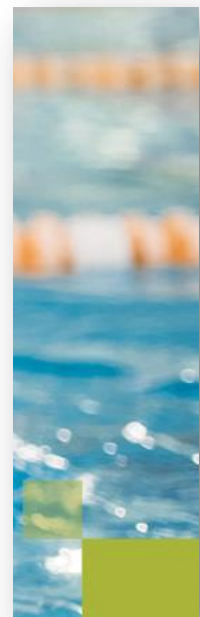
Prior to COVID-19 and the introduction of social lockdown measures to manage the pandemic, the total employment across all local industry sectors in Whitehorse was estimated at 72,416. It is estimated that in December 2020, total employment fell by 1.5 per cent (to 71,316) with the greatest decline in Retail Trade.^{liii} In Whitehorse it is estimated that in September 2020 46.3 per cent of eligible local businesses had applied for JobKeeper support.^{liv}

Owing to the scale of its organisations, health and education is the most concentrated sector for jobs in Whitehorse. While there have been some negative impacts on jobs in education, health sector employment has been positively impacted by COVID-19.^{lv}

Professional, scientific and technical services and knowledge jobs are important industries to the Whitehorse economy. These industries are prominent in the west of the Whitehorse, most notably

in Box Hill, Burwood and Blackburn South. Box Hill will be the focal area for the knowledge economy to expand strongly in Whitehorse, and more broadly in Melbourne's Eastern Region.^{lvi}

It is estimated that by 2041 Whitehorse will account for more than 40 per cent of the Eastern Melbourne region's knowledge-intensive jobs. Box Hill will account for 15 per cent on its own. The growth in knowledge-intensive industries, alongside health care and education, will create jobs, increase the scale of trade in goods and services, and attract talent and investment into the municipality – adding up to a high income, high growth economy into the future.^{lvii}



Part C. Health disparity in Whitehorse

The burden of poor health is not evenly spread across our community. Some population groups have significantly worse health outcomes than others. Socioeconomic disadvantage is considered the greatest cause of health inequality in Victoria.

Although Whitehorse is overall a relatively affluent community enjoying good health, the municipality has greater social disparity with more high income earners and more low income earners than other local government areas.

Figure 5 – Whitehorse Weekly Income Distribution compared to Victoria, 2016



Figure 5 illustrates how Whitehorse fares in regard to income distribution compared to Victoria as a whole (the blue line).³ It shows Whitehorse (blue), males (green) and females (purple) for each of the four quintiles of income (lowest to highest). Females are much more highly represented in the lowest two quintiles (incomes between \$0-644/fortnight), while males are most highly represented in the very top quintile (incomes of \$1,199 or more/fortnight).

³ Individual income quartiles look at the distribution of incomes in the area of interest (LGA) relative to Victoria. Income quartiles are created for Victoria by ranking individuals from the lowest incomes to the highest incomes and then dividing the list into four equal groups or quartiles. In Victoria, 25% of persons fall into each category.

There are systematic gender differences in material well-being regardless of an individual's socioeconomic level. Gender inequality is a characteristic of most societies, with males on average faring better in social, economic, and political hierarchies. Gender inequality is perpetuated not just through unequal access to and control over material resources but also through gender norms and stereotypes which reinforce gender roles and constrain the behaviour of both women and men in ways that lead to inequality.^{lviii}

Gender inequality intersects with and compounds the health disparity across all population groups and is a driver of gender-based violence.

1. People who are unemployed or underemployed

A thriving economy and access to education and employment are determinants of health and wellbeing. Access to employment is fundamental to people's wellbeing, promotes engagement in community life and provides opportunities for people to plan and manage their future security. Healthier people are more productive in all aspects of their lives including being part of the paid and unpaid workforce.

The unemployment rate for Whitehorse is 5.8 per cent.^{lix}

People with disability are twice as likely as those without a disability to be unemployed (10 per cent) and have lower rates of labour force participation. There is a greater reliance on government pensions or benefits as the main source of income for people with disability.^{lx}

Unemployment is highest among our young people aged 15 to 24 years. Five per cent of 15-24-year-olds in Whitehorse are not in employment or education and are at risk of long-term and profound effects on their lives as a result of this.

Relative to Greater Melbourne, Whitehorse had a greater proportion of people in part time work (36.9 per cent compared to 33.5 per cent) and a smaller proportion in full time work (54.7 per cent compared to 58.0 per cent).

The percentage of JobSeeker allowance recipients (generally aged 22+) and youth allowance recipients (excluding students, generally aged 21 and under) in Whitehorse is significantly lower overall (5.8%) compared to Greater Melbourne and Victoria (8.3% and 8.8% respectively).

However, during the height of lockdown restrictions due to the COVID-19 pandemic, between March and November 2020 the number of JobSeeker and youth allowance recipients in Whitehorse increased by 159 per cent (4,291 recipients).^{lxi}

Age discrimination can affect workers' ability to remain in the workforce. One third (33%) of people who had been discriminated against gave up looking for work as a result of experiencing age discrimination.^{lxii} People who experience involuntary or unexpected job loss in later life is linked to increased rates of depression compared to other forms of retirement from the workforce.^{lxiii}

2. People on low income

In 2016 Whitehorse had a slightly higher proportion of low income households relative to Greater Melbourne, with 23.9 per cent of households earning less than \$495 per week.⁴ Low income earners are typically students, older people and people living with a disability. Between 2011 and 2016, in Whitehorse the number of households in the low income earner category increased by 10.9% compared to 2.6% in the highest income group (1,243 households compared to 376 households).

In Whitehorse 11.8 per cent of households are in housing stress and 32.7 per cent of households in the bottom 40 per cent of incomes spend more than 30 per cent on housing costs^{lxiv}

The working lives of women are often different to the working lives of men. Females in Whitehorse earned less than their male counterparts across all age groups. In Whitehorse, females are more represented in lower weekly income brackets and males are more represented in higher weekly income brackets. The individual weekly gross income for males in Whitehorse was \$798 while for females it was \$498.

Women are more likely to take primary responsibility for unpaid care work, are more likely to work part-time and in lower paid roles leading to half the superannuation of men on average.^{lxv} This difference in individual incomes has far-reaching consequences for women over their lifetime, particularly given their longer life expectancies. Women often reach their later years in life with far less savings and superannuation than men.

3. People with a disability

Whitehorse City Council recognises that, rather than a diagnostic label defining whether a person has a disability; disability is an evolving concept resulting from the interaction between persons with impairments and the attitudinal and environmental barriers that hinders a person's full and effective participation in society on an equal basis with others. This understanding of disability, grounded in the social model of disability, recognises that the way in which a community is structured through its social, built, natural and economic environments can be further disabling. This approach is in accordance with the United Nations Convention on Rights of Persons with Disabilities.

People with disability and people who experience mental illness continue to face barriers to participating in the community. 1 in 10 people with disability aged 15 or more experienced discrimination in the past year and 1 in 3 avoided situations because of their disability.^{lxvi}

People with disability are less likely to be engaged in education, particularly higher education, than people without disability. This can be influenced by experiencing discrimination, being denied the right to attend school or not having reasonable adjustments made to the educational environment such as modifying equipment or assessment procedures to make it possible for the person with disability to participate.^{lxvii}

People with disability are less likely to be employed. Nationally, the unemployment rate for people with autism spectrum disorders is 34.1 per cent, more than three times the rate for people with a disability (10.3 per cent) and almost eight times the rate of people without disability (4.6 per cent).^{lxviii}

⁴ Based on "equivalised" household income calculations, where all households are deemed to be the same size.

The ability to form and maintain social connections is integral to people's health and wellbeing. People with disability are less likely to participate in sporting activities or physical recreation, attend cultural events or venues than people without disability. Also, people with disability were less likely to have had daily face-to-face contact with family or friends living outside the household than a person without a disability, more likely to have cared for a person with a disability, long term health condition or old age in the last four weeks, more likely to experience some form of discrimination and more likely to assess their health as poor or fair.^{lxxix}

In Australia violence against women and girls with disabilities is far more extensive than amongst women and girls in the general population. Not only do they experience significantly higher levels of all forms of violence but the violence is more intense and frequent. Women and girls with disabilities are also subjected to violence by a greater number of perpetrators throughout their life.^{lxx}

People with disability are nearly twice as likely (17.91 per cent) than people without disability (9.36 per cent) to experience violence; and violence from a previous or current partner is experienced by 16.52 per cent of people with disability contrasted to 8.74 per cent of people without disability.^{lxxi}

47 per cent of adults with disability have experienced violence after the age of 15, compared with 36 per cent of adults without disability.^{lxxii}

In spite of the increased risk of violence and crime, people with disability continue to face multifaceted barriers when it comes to reporting crime and seeking justice.^{lxxiii}

a. Carers of people with disability

In Whitehorse, females are more likely than males to provide help to a family member and/or other person with a long-term disability/illness over a fortnightly period.

According to the national ABS Survey of Disability Ageing and Carers (2018), the rate of caring generally increases with age, from 1.0 per cent of those aged less than 15 years to 19.7 per cent of those aged 55 to 64 years. Overall, women were 2.5 times more likely than men to be a primary carer (5.0% compared with 2.0%), the average age of a primary carer was 54 years (51 years for carers overall and 50 years for other carers) and over one-third (37.4%) of primary carers had disability, twice the rate of non-carers (15.3%).^{lxxiv}

4. People from a non-English culturally diverse background

Older people from non-English speaking backgrounds, especially those who migrated to Australia at an older age or as refugees, can face a higher risk of poorer health outcomes due to socio-economic disadvantage, social isolation, language barriers, cultural translation difficulties, underexposure to Australian services and systems and lower rates of service access.^{lxxv}

A significant number of international students study in the City of Whitehorse and many of them also reside in the municipality. These students are particularly vulnerable to a number of health and wellbeing risk factors, including lack of access to health care and social support services, social isolation, increased risk of assault, housing insecurity, gambling and unemployment and/or mistreatment whilst in employment. See [International Students](#)

5. People who are LGBTI

Despite increasing acceptance of LGBTI people in Australian society and more visibility in public life and the media, they are still more likely than the general population to experience discrimination, prejudice, violence and abuse in everyday life. Research has demonstrated that this discrimination leads to poorer mental health outcomes and a higher risk of suicidal behaviours for people who identify as LGBTI.^{lxxvi} Council's past engagement activities mirror these themes of poorer mental health outcomes.

6. People who are Aboriginal or Torres Strait Islander

While the numbers are comparatively small in the City of Whitehorse, there exist longstanding inequalities in health and life chances between Aboriginal and non-Aboriginal Australians due to the continuing intergenerational impacts of colonisation and dispossession.^{lxxvii}

The estimate of the life expectancy gap (2015-17) between Aboriginal and non-Aboriginal Australians is approximately 8.6 years for males and 7.8 years for females. For Aboriginal Victorians the rate for all categories of potentially preventable hospitalisations has increased over the last ten years, with the rate for chronic conditions increasing by almost 85 per cent.^{lxxviii}

While there is a declining prevalence of smoking among young people, the proportion of Aboriginal Victorians who smoke daily is still high (39.8 per cent in 2014-15).^{lxxix}

In 2017-18 the rate for Aboriginal Victorians emergency department presentation for alcohol or drug-related harm was approximately 5 times the rate of non-Aboriginal Victorians. Between 2008-09 and 2017-18, the rate of presentations increased for Aboriginal Victorians from 20.4 to 29.3 per 1,000 persons.^{lxxx}

The incidence rate of cancer in Aboriginal Victorians was 57.7 and 49.9 per 10,000 for men and women, respectively, in the 5-year period 2012-16. This is considerably higher than the rates in non-Aboriginal men and women (34.7 and 28.6 per 10,000 respectively). Under exposure to screening and delayed detection is a significant driver of the survival gap between Aboriginal and non-Aboriginal Victorians in cancer treatment.^{lxxxi}

Aboriginal and Torres Strait Islander people are nearly twice as likely to die by suicide with 24.6 suicide deaths per 100,000 people compared with 12.9 deaths per 100,000 people.^{lxxxii}

Aboriginal and Torres Strait Islander people are 2.6 times more likely to experience high to very high levels of psychological distress than non-Indigenous Australians.^{lxxxiii}

Thirty-three per cent Aboriginal and Torres Strait Islander Australians have experienced verbal racial abuse in the last six months in 2018 compared to 37 per cent in 2016 and there is a 'dose' effect; which means that the risk of high or very high levels of psychological distress increases as the volume of racism increases.^{lxxxiv}

7. People who are homeless or in insecure housing

Housing plays a critical role in ensuring individuals are able to fully engage in community life, both economically and socially, and is becoming less affordable across the whole of Melbourne. In

September 2020, only 2.6 per cent of rental housing in Whitehorse was considered affordable, in comparison to the Victorian average of 14.0 per cent.^{lxxxv}

The number of homeless people in Whitehorse is also high, relative to the rest of the Eastern Metropolitan Region, at 3.0 per cent. Homelessness refers to people living in improvised dwellings, tents or sleeping out, in supported accommodation for the homeless, staying temporarily with other households, in boarding houses, in other temporary lodgings, and living in severely crowded dwellings.

In 2019–20, 41 per cent of all adults and children accessing Specialist Housing Services (Emergency Accommodation) in Australia had experienced family and domestic violence, and females made up the majority of adults experiencing family violence (90%).^{lxxxvi}

8. People who are digitally excluded

The Australian Digital Inclusion Index (ADII) measures three key dimensions of digital inclusion: Access, Affordability, and Digital Ability. Some Australians are particularly digitally excluded.

Sociodemographic groups with ADII scores 10.0 or more points below the national average (63.0) are Australia's most digitally excluded. In 2020, these groups include:

- mobile-only users (43.7)
- people in low-income households (43.8)
- people aged 65+ (49.7)
- people who did not complete secondary school (51.0).^{lxxxvii}

Women have a lower level of digital inclusion than men across all age categories.

Twenty per cent of Australians are mobile-only users and this is linked to socio-economic factors:

- 32.8 per cent of people in low-income households
- 26.6 per cent of people with low levels of education
- 26.7 per cent of unemployed people
- 35 per cent of Aboriginal and Torres Strait Islander peoples
- 31.2 per cent of people with a disability.^{lxxxviii}

The stereotype that all older Australians are being left behind in the digital age does not reflect reality. Recent studies reveal a broad range of skills and comfort levels, as well as a willingness to engage in the use of online technology by older people.^{lxxxix}

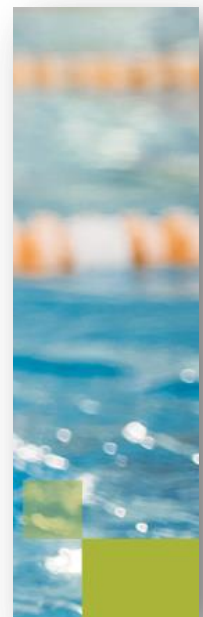
Approximately 70 per cent of Australians aged over 50 use the internet multiple times a day. Younger, 'digitally confident' people in this group are almost three times more likely to access the internet multiple times a day compared to people with low digital literacy. 11 per cent of the Australian population aged 50 years and over do not have any form of internet access. Older people who are digitally disengaged are most likely to be aged over 70, and on low incomes.^{xc}

People with lower levels of digital access risk missing out on important information and access to beneficial services and supports. Senior people report the expectation that everyone has access to information technology as a form of discrimination.^{xc}

The Commonwealth Government's My Aged Care is available only via digital connection – and this is an observed barrier for older clients of Whitehorse Home and Community Services who may have low digital skills, be of non-English speaking background or have limited financial means for internet or digital device access.

The percentage of households with no internet connection in Whitehorse is 11.1 per cent. This is similar to the Melbourne metropolitan rate of 11.3 per cent.

The overall percentage for Whitehorse hides the differences in access that exist for people living in lower socio-economic circumstances. For example, an area of social housing in Burwood known as the Wattle Park estate (bounded by Wattle Park, Elgar Road and Uganda Street) has a SEIFA score of 719 compared to 1,049 for the whole Whitehorse Local Government Area. In this area, one third of households do not have an internet connection and almost 22 per cent of households do not have a car.

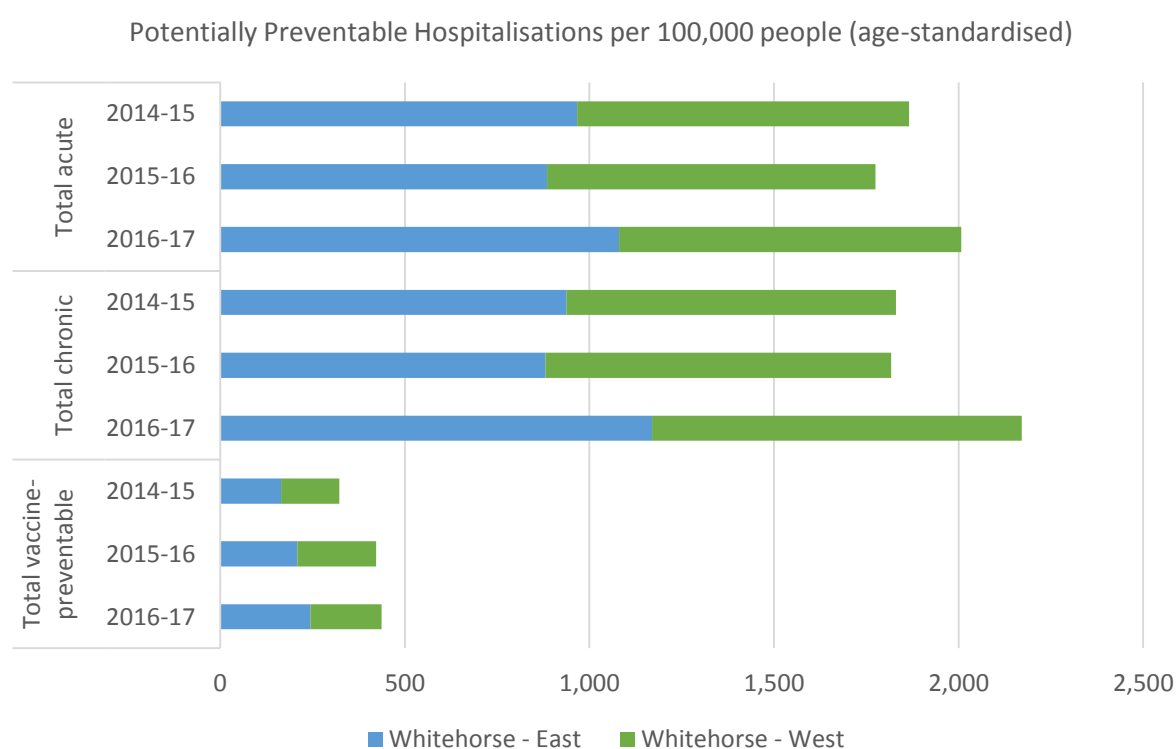


Part D. Health and wellbeing in Whitehorse

Many people in Whitehorse enjoy good health and wellbeing due to the livability of the municipality and the relative advantage of most people. Whitehorse has experienced higher life expectancy than the State average since the Department of Human Services started collecting data in 1997. Life expectancy has also increased over this time.

Around seven per cent of all hospitalisations in Australia can be classified as potentially preventable. The rate of potentially preventable hospital admissions in a local area may reflect access to primary health care as well as sociodemographic factors and health behaviours. Potentially preventable hospitalisation (PPH) rates are indicators of the effectiveness of non-hospital care, early intervention, prevention and health promotion.^{xcii} Figure 6 illustrates the relative rates of the PPH for acute, chronic and vaccine-preventable admissions in Whitehorse for the years 2014-15 through to 2016-17.

Figure 6 – Whitehorse Potentially Preventable Hospitalisations related to vaccine-preventable, chronic and acute conditions 2014 to 2017



An analysis of Whitehorse's health and wellbeing using the available evidence found the most significant **preventable contributors** to poor health and wellbeing relate to social inequity, overweight or obesity, lack of physical activity and poor eating, and poor mental health. Social isolation (related to any number of factors, such as age, disability or social exclusion) and family violence contribute significantly to poor mental health and wellbeing.

1. Impacts of COVID-19 pandemic

In March 2020 the outbreak of a novel coronavirus was declared a pandemic and formally named COVID-19. The Australian and Victorian governments responded by introducing a series of pandemic control measures aimed at containing and minimising the transmission of the virus both from outside and within communities.

The full impacts of the COVID-19 pandemic on all of the preventable contributors to poor health and wellbeing are not fully realised. However a VicHealth survey conducted in September 2020 during the second wave of the coronavirus pandemic in Victoria (the second in a series undertaken by VicHealth) found distinct differences between the experiences of communities facing hardship and the wider population.

The VicHealth survey found that people experiencing the most significant health and wellbeing impacts of the second wave of COVID-19 compared to the Victorian population overall were young people aged 18–35 years, people on low incomes, people who were unemployed and people with a self-reported disability. Other results show:^{xciii}

- High psychological distress was at 17 per cent compared to 15.4 per cent in the 2017 Victorian Population Health Survey.
- Twenty-nine per cent indicated that they did not feel connected with others.
- Involvement in community groups and clubs stopped by as much as 76 per cent during the second wave of the pandemic.
- One in three (33%) respondents was sufficiently active by participating in physical activity five or more days a week during the second pandemic wave. This is similar to the 2015 Victorian Health Indicators comparison survey (30%).
- One in four (25%) respondents reported they were inactive (0–1 day of physical activity per week) during the second wave and this is consistent with the 2015 comparison survey (27%)^{xciv}.
- Around half of parents of children aged 5 to 11 (52%) and aged 12 to 17 (47%) reported that their children did less physical activity
- 9 per cent of people were eating 5 or more serves of vegetables per during the second wave, more than the 2017 Victorian Population Health comparison survey which was 6.4 per cent
- Daily sugar sweetened beverage consumption during the second wave (29%), although less than during the first wave (32%), was significantly higher than the 2017 Victorian Population Health comparison survey (10.1%)
- The pandemic has impacted on people's food practices, including how they shop for and prepare foods; keeping more food at home (51%), planning meals for the week (49%) or shopping at local grocers, butchers and fruit and vegetable suppliers (49%)
- The proportion of those consuming more than two standard drinks of alcohol at least five days a week, which is consistent with risk of long-term harm, was six per cent. This is less than the rate in the 2017 Victorian Population Health comparison survey of 11.5 per cent
- The proportion of respondents who reported they smoked daily during the second pandemic wave (12%) was higher than the rate reported in a 2019 survey (10%).^{xcv}

- The pandemic may have been a catalyst to stop smoking for some, with 14 per cent attempting to quit and 4 per cent successful in quitting in the second pandemic wave
- During the second wave, 23 per cent of people reported a reduction in their hours worked, 8 per cent had lost their job and 21 per cent reported experiencing financial hardship

Research by Respect Victoria (2020) found there to be a high degree of resilience by older people in the face of the threat of COVID-19 and the pandemic response. However, there is an apparent increase in ageism, which is a known contributor to elder abuse. Risk factors for elder abuse that have increased during the pandemic response include: social isolation, less access to health care and exercise, more reliance on the use of technology, financial stress and carer stress.^{xvii}

The top challenges identified by older Victorians in relation of COVID-19 were, in order:

1. Not being able to go to weekly activities, such as social groups, church, sport
2. Not being with family
3. Social isolation
4. Missing important life events (e.g. funerals, weddings, birthdays)
5. Not being able to get out and be active.^{xviii}

a. The local experience

In 2020 and 2021 Council conducted a series of pandemic impact assessments involving reviews of national, state and local data together with direct personal contacts to survey government departments and a significant number of community organisations.^{xviii} The findings reveal that:

- Between late March and mid-September 2020 Whitehorse City Council received 491 Hardship Applications via the Rates Relief and Support Request Form.⁵ This is the equivalent of roughly five years' worth of applications. Whitehorse City Council also received 111 applications under its Whitehorse Recovery Grants community stream and 437 under its business stream.
- JobKeeper was instrumental in keeping charities and not-for-profits operating and reducing job losses in the sector. Women (who had already been disproportionately affected by the crisis across many dimensions, including employment) were more significantly affected given their high representation in the sector.
- Fifteen service organisations (mostly religious based) provide an important relief support role within Whitehorse and reached an estimated 500 to 1,000 people. International students featured as a growing client base for a number of these organisations.
- Hospitals and health agencies have seen a concerning decline in patients presenting to health services with time-critical cardiac and stroke conditions since the pandemic.
- Changes in the modes of service delivery (to online and teleconferencing) were observed as both an inhibitor and a facilitator for access and attendance at health and community services.

⁵ The number of hardship applications is increasing substantially; this figure will be updated.

- Family violence incidents were more complex and serious.
- Further disengagement with secondary education by young people already at risk. There is an increased demand for welfare/police checks and involvement due to issues at home.
- There was more social isolation and less access to appropriate health services in a timely manner for the elderly living at home.
- Housing services report it taking longer to allocate community housing vacancies.
- Rates and types of crimes reported to Victoria Police were significantly lower during lockdowns and travel restrictions but are anticipated to return to usual levels as restrictions ease.

As government supports for housing, rental and income are reduced it is anticipated that the economic impacts of the COVID-19 pandemic on the health and wellbeing of people in Whitehorse will be exacerbated.

Between October 2020 and January 2021 Council collected data from 84 participants in the Socialsuite Whitehorse COVID-19 Social Impact Assessment. The survey revealed:

- Almost a third of respondents were worried about being infected by COVID-19 in January 2021 (this has been steadily declining from 48% back in October 2020), with roughly 47 per cent of respondents consistently believing that both they and their family would not recover if they became infected.
- Overall only 2 per cent of respondents indicated that they did not have access to accurate facts and information about when to get tested or 5 per cent on when to self-quarantine.
- 26 per cent of respondents indicated they felt lonely (although this is also trending downwards from 40% back in October 2020).
- Respondents' concern that their job is at risk has been steadily declining (currently at 5%), while on average 47 per cent of the respondents "agreed" or "strongly agreed" that their spending habits had changed and 80 per cent "agreed" or "strongly agreed" that they were worried about the impact of COVID-19 on the economy.
- Only three per cent of respondents were worried that they would not be able to afford basic supplies and one per cent were worried that their household supplies would run out.
- 11 per cent of respondents felt that vulnerable members of their community were not well supported during this time (again trending downwards from 36% in October 2020); and
- Stress levels had fluctuated somewhat, with 42 per cent of respondents recording a stress rating of 7 or more out of 10 in October, decreasing to 28 per cent by January 2021.

2. Chronic disease

Many chronic diseases, such as cardiovascular diseases and cancers, and injuries are preventable. In Whitehorse, more than one in five residents suffered from two or more chronic diseases (22.6%).^{xcix}

Chronic disease is the most significant health challenge for the population overall, due not only to the scale of the problem and the health care costs, but also the personal, social and economic impacts. Chronic diseases are also the most costly conditions to treat.

a. Avoidable deaths

The rate of avoidable deaths among people aged less than 75 years per 100,000 in Whitehorse was 85.3, lower than the Victorian average of 109.0. Rates for avoidable deaths from cardiovascular diseases were almost half the Victorian rate (14.7 compared to 23.0), as were avoidable deaths for respiratory diseases (4.3 compared to 8.1). Alternatively, rates for avoidable deaths from cancer were slightly higher at 27.7 compared to 23.8.^c According to the Cancer Council Victoria, the leading types of cancer for deaths each year are lung cancer (2,107 per year), bowel cancer (1,263 per year), prostate cancer (832 per year), pancreas (799 per year) and breast cancer (766 per year).^{ci}

b. Chronic disease

The percentage of persons in Whitehorse with arthritis, heart disease and type 2 diabetes were less than the Victorian averages, while reports of osteoporosis were slightly higher.

Table 1 – Chronic disease measures for Whitehorse and Victoria (per cent of population)

Measure	Whitehorse	Victoria
People reporting asthma	19.9%	20.0%
People reporting arthritis	18.1%	20.5%
People reporting cancer	8.1%	8.1%
People reporting type 2 diabetes	4.1%	5.5%
People reporting heart disease	5.2%	6.7%
People reporting stroke	2.2%	2.4%
People reporting osteoporosis	6.1%	5.7%

Source: Victorian Population Health Survey, 2017

Health promotion, prevention and early intervention approaches reduce the burden of chronic disease on the individual and the population as a whole. Adequate physical activity, consumption of fresh food, particularly fruit and vegetables, and maintaining a healthy weight, avoidance of smoking and moderate or low use of alcohol all contribute to a healthy lifestyle and reduce the risk of chronic disease.

c. Risk factors for chronic disease

In Whitehorse 52.6 per cent of people do not meet either the fruit or vegetable consumption guidelines and 15.3 per cent of people consume take-away food more than once a week.^{cii} 6.1 per cent of people consume sweetened drinks daily. Men are less likely to meet the dietary guidelines for healthy eating than women.

The Whitehorse Well-being Profiler Survey (2017) of 3,000 students in Whitehorse highlighted how physical activity participation for young people declines as they progress through secondary school, particularly for girls.^{ciii} For these students levels of physical exercise, sleep quality and perception of general health are declining rapidly from Years 6 to 12. In the 2017 survey, 26 per cent of young people were not satisfied with their health, with 7 out of 10 reporting that they often feel sleepy and tired. Young people who reported having 7 hours or less of sleep also tend to report lower satisfaction with quality of sleep. Also, 58 per cent reported spending 4 hours or more each day

engaging in sedentary activities at home such as watching television, doing homework, or playing games.^{civ}

In 2017, 46.9 per cent of adults in Whitehorse were overweight or obese and, while this is lower than the Victorian average of 50.8 per cent, it is evident that a significantly large proportion of the population is faced with a higher risk for many chronic diseases such as cardiovascular disease and type 2 diabetes.

In 2017, 46.6 per cent of people in Whitehorse did not obtain sufficient exercise for good health, with 23.3 percent spending eight or more hours sitting on an average weekday.

Nearly a quarter of all children in Victoria (23 per cent) in 2017 were overweight or obese.^{cv}

Australia-wide 72 per cent of people with disability aged 2 and over are overweight or obese compared to 55 per cent of those without disability. In many instances this is directly related to their disability or medication. 47 per cent of people with disability aged two and over do not eat enough fruit and vegetables.^{cvi}

3. Injury

Injury may be intentional (e.g. caused by violence from another person) or unintentional (e.g. caused by falls, road accidents). The role of public health may cover prevention, early intervention and risk mitigation.

a. Falls

In Victoria in 2018/19 males accounted for more hospital admissions and emergency department presentations for unintentional injury than women in all age groups up to 64 years. However, in the 65 years and older group, females accounted for more hospital admissions and emergency department presentations than males. Falls were the leading cause of injury among admissions (47.3%) and emergency department presentations (37.3%).^{cvi}

Falls are the leading cause of unintentional injury in older Australians. As our population ages and the number of older people grows, the likelihood of more falls and fall-related hospitalisations increases.

Experiencing a fall can trigger a loss of confidence in an older person and lead to an ongoing fear of falling. This can lead to the person limiting their movements and reducing their activity, which further increases the risk of falling due to declining physical health. Falls can also result in a permanent loss of mobility, or higher reliance on mobility equipment such as walking frames and wheelchairs and carer assistance.

In Whitehorse the percentage of unintentional injuries caused by falls is the third highest in the state (45.9% compared to the Victorian average of 38.7%).^{cvi}

b. Road related injury

In the period 2014-2018 the total number of traffic accidents in Whitehorse was 1,299. This resulted in 15 deaths (three on local roads with the remaining on arterial roads or freeways) and 349 serious injuries (59 on local roads).^{cix}

Of these nine were pedestrian fatalities and 61 were serious injuries to pedestrians. Thirteen per cent of road accidents in Whitehorse involve pedestrians.^{cx}

The death rate due to road traffic crashes in Whitehorse for this period was 0.6 compared to 3.3 for Victoria.^{cx}

In Whitehorse pedestrian fatalities and injuries were most common in people aged 18-25 years.^{cxii}

c. Violence

The rate of *recorded* crimes against the person in Whitehorse in 2019-20 was 682.2 per 100,000 people compared to Victoria as a whole (1295.7/100,000).^{cxiii}

The rate of crimes against the person which were family *offences* in Whitehorse for 2019/2020 was 280.0 per 100,000 population which is an increase of 141 per cent since 2010/2011 (rate of 116.0).^{cxiv}

In 2019/2020 the rate of crimes against the person which were family *offences* in Whitehorse in which women were victims was 341.0 and for men it was 110.0 per 100,000 population, representing a 211 per cent higher rate for women.^{cxv}

The rate of crimes against the person which were non-family *offences* in Whitehorse for 2019/2020 was 398.0 per 100,000 population which is an increase of 19 per cent since 2010/2011 (rate of 335.0).^{cxvi} These are offences harming someone that are perpetrated by a person who isn't a family member or an intimate partner (current or previous).

Violence in the general community is mostly experienced by men perpetrated by someone not known to them while family violence and intimate partner violence (including sexual assault) victims are mostly women in a current or former relationship with the perpetrator.^{cxvii}

Community and family violence is mostly perpetrated by men.^{cxviii}

Women and children are far more likely to experience violence in the home than in the general community, and by a male known to them.

- Every week, at least one woman is murdered in Australia by a current or past partner.
- Children are present as victims or witnesses in at least a third of all incidents reported to police.
- Women with a disability experience higher risk of violence.

Australian surveys and studies estimate that children are present in between 36 – 59 per cent of family violence incidents.^{cxix}

The rate of co-occurrence of Australian children experiencing physical abuse and being exposed to domestic violence, and experiencing sexual abuse and being exposed to domestic violence have been estimated at 55 per cent and 40 per cent respectively.^{cxx}

The City of Whitehorse has almost half the rate of recorded family violence *incidents* for Victoria. However, there were still 1,302 family violence incidents reported in 2019/2020; an average of 25

incidents every week.^{cxxi} It is estimated that only 25 per cent of family violence incidents are reported to the police^{cxxii} so the true annual number of family violence incidents in Whitehorse may be closer to greater than 5,200 per year, equating to 100 incidents per week.

Family violence has detrimental and long-lasting effects on children and young people.^{cxxiii}

Forty-seven per cent of adults with disability *report* having experienced violence after the age of 15, compared with 36 per cent of adults without disability.^{cxxiv}

Women and girls with disabilities not only experience significantly higher levels of all forms of violence but the violence is more intense and frequent than amongst the general population.^{cxxv}

Women and girls with disabilities are also subjected to violence by a greater number of perpetrators throughout their life.^{cxxvi}

COVID-19 reports

In 2020 and 2021 Council conducted a series of pandemic impact assessments. Reports from the local specialist family violence service EDVOS about service use during restrictions related to the COVID-19 pandemic (in 2020) show that:

- For the period March to August 2020, while there was no significant increase overall in the total numbers of family violence referrals since March, there were clear spikes in presentations at various times
- First time engagement in victim survivors increased from an average of 30 per cent pre COVID-19 to 60 per cent
- Half of police referrals were considered high risk and the risk assessments showed increases in frequency and severity of ongoing violence, particularly physical abuse, sexual abuse and coercive control
- Between March and June 2020, referrals and consultations from universal services increased by 20 per cent. This included services such as: local councils, schools, community health services, early childhood providers, counselling & psychologist services.^{cxxvii}

In May 2021 EDVOS reported observation of increase of housing distress and homelessness with tenancy protections winding back and arrears increasing.

The Risk Assessment Multi-Agency Panel (RAMP), which includes representatives from Victoria Police, the Department of Health & Human Services, EDVOS, Corrections, Justice, Monash Health and St Vincent, suspected a level of under-reporting particularly with respect to more serious matters during restrictions as a result of the COVID-19 pandemic. The group also had particular concerns in respect to suicide rates/ideation, under-reporting in the culturally and linguistically diverse community, and financial stress.^{cxxviii}

Council's pandemic needs assessment noted that housing services report it taking longer to allocate community housing vacancies during the restrictions, with a flow on effect for women and children escaping family violence.

In May 2021, the Eastern Centre Against Sexual Assault reported a steady increase in demand.

According to the Crime Statistics Agency, between 1 April-30 June 2020, despite a decline in the number of family violence-related calls received by Seniors Rights Victoria, the number of older people victim-survivors recorded by Victoria Police increased and the number of incidents involving older people flagged as family violence-related by Ambulance Victoria doubled when compared to the same period in 2019.^{cxxix}

In addition to this, between April and the end of June 2020, the number of older people under protection/intervention orders increased by 10 per cent, compared to the same period in 2019.^{cxxx}

Council's pandemic needs assessment noted anecdotal evidence suggesting increased instances of elder abuse including financial abuse.^{cxxxi} However, in Whitehorse in 2020 there were 804 violent crime victim *reports* for persons aged 55+, which was less than the 957 reported in 2019.^{cxxxii}

Department of Health and Human Service's Intensive Infant Risk Panel reported a large increase in the number of infants at very high risk, the level of family violence being reported as very high, with children present during the violence and in some cases also being held while it was happening.

Between April and the end of June 2020 the number of young victim-survivors recorded by Victoria Police has increased by around six per cent, and the number of unique young people protected by a family violence protection order has also increased by around six per cent.^{cxxxiii}

4. Mental health

The foundations for good mental health begins before birth and progresses into early childhood, older childhood and adolescence, during family building and the working years, through to older age.^{cxxxiv}

The resilience measure [range 0–8] for Whitehorse in 2015 in terms of 'ability to adapt to change' and 'tendency to bounce back after illness or hardship' was 6.1 compared to 6.4 for Victoria.^{cxxxv}

Anxiety and depression are the most frequent forms of mental illness in Australia. The proportion of adults in Victoria who were experiencing high or very high levels of psychological distress was 18.1 per cent in 2019. This proportion was significantly lower in men (15.6%) compared with women (21.0%). There was a significant increase in the proportion of men, women and people ever diagnosed with anxiety or depression during the period 2015–2019.^{cxxxvi}

In 2017 in Whitehorse, 20.6 per cent of people experienced anxiety or depression; 23.6 per cent were female and 17.2 per cent were male.^{cxxxvii}

The majority of people with mental health-related problems do not access professional help. There is a significant gap between the prevalence of mental illness and the uptake of mental health services in every age group. In Whitehorse, the percentage of females and males who sought professional help for a mental health problem in the last 12 months was 11.2 per cent and 12.5 per cent respectively.^{cxxxviii}

a. Self-harm

The number of hospital admissions in 2018, where it was determined that the injury or poisoning was purposely self-inflicted, per 1,000 persons in Whitehorse was 1.30 female and 0.86 male, compared to the Metropolitan East rates of 1.2 female and 0.6 male.^{cxxxix}

In Australia in 2018 76% of suicides were by males. The suicide rate for males is approximately three times that of females. In all age groups the number of deaths by suicide was markedly higher for males than females in 2018.^{cxl}

b. Gambling

Whitehorse has 431 electronic gaming machines (EGMs) in six venues across the municipality. In 2019/20 the net expenditure (i.e. losses) on EGMs in the City of Whitehorse was \$37.5 million or \$261 per adult^{cxli}, despite gaming venues being closed for more than three months in the reporting period due to COVID-19 restrictions. During that period of closure Whitehorse is estimated to have saved more than \$15 million in net expenditure. Overall Whitehorse is ranked 28th out of 79 Local Government Areas for gaming machine losses in Victoria.

According to the Victorian Responsible Gambling Foundation gambling harm in Victoria comprises:

- 50.2 per cent harm from low-risk gambling;
- 34.5 per cent harm from moderate-risk gambling;
- 15.2 per cent harm from problem gambling.^{cxlii}

While harm from problem gambling is more severe at an individual level, harm from low-risk and moderate-risk gambling has a greater impact on the community because the number of people affected is much greater (low-risk gambling can affect up to 1 other). This reinforces findings that harm from gambling is not limited to people who experience problem gambling.

People experiencing problem gambling are more likely to be diagnosed with depression (41.9 per cent) compared to moderate-risk gamblers (24.1 per cent). They are also twice as likely (39.5 per cent) as moderate-risk gamblers (20 per cent) to be diagnosed with anxiety disorders. Around one in ten low-risk gamblers reports experiencing depression or anxiety disorders.

A study by the Victorian Responsible Gambling Foundation has found that:

- Men are significantly more likely than women to be problem gamblers, moderate-risk gamblers and low-risk gamblers.
- Conversely, women were significantly more likely to be classified as non-problem gamblers.
- People experiencing problem or moderate-risk gambling were most likely to be aged 18–24 or 55–65 years.
- People experiencing problem gambling are most likely to be aged between 35 and 44.
- People aged 75 or above were least likely to experience problem gambling.^{cxliii}

There is also an established link between problem gambling and family violence. International research indicates that people who have significant problems with their gambling are more likely than people without gambling problems to be the victims and perpetrators of family violence.^{cxliv}

c. Young people

Over 75 per cent of mental health problems occur before the age of 25.^{cxlv}

Suicide continues to be the leading cause of death for young Australians. In 2019, suicide accounted for two in five deaths among people aged 15-17 years (40 per cent) and more than one in three

among those aged 18-24 years (36 per cent). This represents an increase of 25 per cent for both age groups over the last decade.^{cxlvi}

In 2015 the percentage of students in the City of Whitehorse at years 5/6 and 7-9, who feel they were connected and got along with their peers was 77.2% and 55.1% (respectively), in comparison to the Victorian State averages of 69.4% and 54.6%.^{cxlvii}

For students in Whitehorse, levels of physical exercise, sleep quality and perception of general health decline rapidly from Years 6 to 12. In 2017, 26 per cent of young people were not satisfied with their health, with seven out of ten reporting that they often feel sleepy and tired. Young people who reported having seven hours or less of sleep also tend to report lower satisfaction with quality of sleep. Also, 58 per cent reported spending four hours or more each day engaging in sedentary activities at home such as watching television, doing homework, or playing games.^{cxlviii}

Typical of young people, students attending schools in Whitehorse reported that they “worry a lot and get stressed easily”. In 2017, 50 per cent of those surveyed had symptomatic reports of Anxiety and Stress, increasing from Years 6 to 12. In the same survey one in four reported that they are often unhappy, with experiences of depressive symptoms increasing from Years 7 to 12. Of the students surveyed one in four had experienced bullying and one in five reported being teased because of their culture.^{cxlix}

Eating disorders are serious mental illnesses that have the highest mortality rate of any psychiatric illness. Many people experiencing an eating disorder suffer from depression and anxiety, with rates for anorexia being 32 times higher than the general population.

d. Women

In Australia, females aged 18-24 years had the highest rate of psychological distress of any age group or sex in 2017-18.^{cli} In Whitehorse 23.6 per cent of females experience anxiety or depression.^{cli}

Intimate partner violence is the leading preventable contributor to death, disability and illness in Victorian women aged 15–44 years, with the greatest burden due to the wide-ranging and persistent effects on women’s health and increased risk of anxiety and depression.^{clii} Intimate partner violence, which may involve sexual assault, is the most common and pervasive type of family violence perpetrated by men against women.

Family violence occurs when a perpetrator exercises power and control over another person. It involves coercive and abusive behaviours resulting in fear and insecurity. It covers a wide spectrum of conduct that involves an escalating spiral of violence – physical, sexual psychological, emotional, cultural, spiritual and financial. Family violence affects people across the community regardless of social status, occupation, sexuality, age or cultural background.

Rates of family violence incidents in Whitehorse have been historically around half that of the State average, however in the second quarter of 2020 rates of family violence incidents in Whitehorse increased by 25.2 per cent compared to the same time in 2019. By contrast, the State average only increased by 12 per cent, indicating that in Whitehorse during the start of the pandemic family violence incidents were increasing at a rate of more than double that of the State. Often family

violence is not reported. In fact of women who have experienced violence by a former partner since the age of 15, 65 per cent have never contacted the police.

During the COVID-19 pandemic in 2020 family violence service providers reported that very specific methods of control were being exerted, such as a perpetrator telling their partner that they have the virus and therefore they can't leave the house, or calling police to allege the victim is breaching COVID-19 restrictions. During lockdowns in Victoria women's opportunities to call for help were much more limited, with women contacting family services whilst hiding in bathrooms, backyards, aisles of grocery stores, schools, their cars as well as other opportunities they had away from perpetrators.

In addition, service providers noted increasing reports of financial abuse, including with older people.

e. Men

One in seven Australian men experiences depression or anxiety or both in any year. 13.3 per cent of Australian men aged 16 to 85 have experienced an anxiety and/or depression in the past 12 months.^{cliii} In Whitehorse 17.2 per cent of males experience anxiety or depression.^{cliv}

Suicide rates vary significantly by age and gender. In Australia, consistently over the past 10 years, the number of suicide deaths was approximately three times higher in males than females. Suicide is the 10th leading cause of death for males and the 22nd leading cause for females. Using national data, the highest rate of suicide is among men aged 85 and over (32.3 per 100,000), followed by men aged between 45–49 and 40–44 (32.2 and 29.6 per 100,000 respectively).^{clv}

Although suicide rates are lower among young people, suicides account for a larger proportion of deaths of young men and women. The suicide rate in metropolitan Melbourne was 9.1 per 100,000 people in 2019.^{clvi}

f. LGBTI people

People who identify as LGBTI are estimated to make up 17.5 per cent of the population and in Whitehorse this equates to 31,279 residents. Despite increasing acceptance of LGBTI people in Australian society and more visibility in public life and the media, these people are still more likely than the general population to experience discrimination, prejudice, violence and abuse in everyday life. Research has demonstrated that this discrimination leads to poorer mental health outcomes and a higher risk of suicidal behaviours for people who identify as LGBTI.^{clvii}

LGBT people are between 3.5 and 14 times more likely to attempt and die by suicide compared to heterosexual people^{clviii}

g. Older people and carers

Age discrimination can have a negative impact on older peoples' mental health. Twenty-five per cent of people in Australia over the age of 50 have experienced some form of age discrimination and for 60 per cent of those it had affected their self-esteem or mental health and/or caused them stress. Women are more likely than men to report that discrimination has impacted their mental health.^{clix}

Older women retire with much lower superannuation balances than men and 89 per cent of women are worried about maintaining their standard of living in retirement. The Westpac Women and Retirement Readiness Report 2015 found a \$145,000 gap between the median super account balance for women and men (\$268,000 and \$413,000 respectively). The average 60-year-old Australian woman may need to work an extra 15 years in order to retire with the same superannuation account balance as her male counterpart.^{clx}

Psychological and financial abuse contributes to poor mental health of older people. A review of 2,385 calls relating to abuse made to the Seniors Rights Victoria state-wide helpline in the period 2012-2019 found that:^{clxi}

- most victims were aged 70-90 years
- the abuse was mostly psychological and financial
- 72 per cent of victims were women
- 54 per cent of perpetrators were men
- 91 per cent of perpetrators were family members; among them, sons (39%), daughters (28%), partners (10%), in-laws and grandchildren
- 36 per cent of victims were residing with their abuser.

Because of the ageing population profile, between 2016 and 2050 the prevalence of dementia in Whitehorse is expected to almost double from 3528 to 6905. At present, Whitehorse is ranked the 4th highest local government area in terms of Alzheimer's prevalence. However, by 2050 Whitehorse will have moved out of the top ten and ranked 21st because of changing population profiles in municipalities across Victoria.^{clxii}

Carers have the lowest wellbeing of any large group measured by the Australian Unity Wellbeing index. They are 40 per cent more likely to suffer from a chronic health condition. Back problems, anxiety and depression are directly linked to caring.^{clxiii}

5. Harm from alcohol and other drugs

Harmful use of alcohol and other drugs affects both the whole community and individuals and their families. Crime and public violence, property damage and decreased workplace productivity affect the community, while for individuals and families, the result can be major health and financial problems, social isolation and increased risk of family violence.^{clxiv}

a. Hospital admissions due to alcohol and pharmaceutical drugs

Whitehorse alcohol and pharmaceutical drug hospitalisation admission rates in 2017/2018 (62.0 and 22.8 per 100,000 people) are higher than Victoria's and are higher than those for the previous financial year. Alcohol hospital admission rate for people aged 40-60 years in Whitehorse was 130.8. Admission rates for pharmaceutical drugs for females were double that for males.^{clxv} This may be related to prescription drug misuse, polypharmacy or complications with ageing.

b. Alcohol use

In 2019 the proportion of adults who were at increased lifetime risk of alcohol-related harm, either *weekly*, *monthly* or *yearly*, was 59.6 per cent overall in Victoria. This proportion was significantly higher in men (68.9%), compared with women (51.4%). The proportion of adults who drank alcohol

weekly at a level that increased their lifetime risk of alcohol-related harm was 23.4 per cent overall. This proportion was significantly higher in men (32.6%) compared with women (14.6%).^{clxvi}

Among the adult population, more than 3 out of 5 Whitehorse residents exceed 2 standard drinks 1 to 2 days a week, while 1 in 5 residents exceed 2 standard drinks 3 to 4 days a week and less than 1 in 5 residents exceed 2 standard drinks 5 to 7 days a week.

The prevalence of binge-drinking (drinking 4+ drinks on a single occasion) in young people has been declining considerably over the years. The rate of lifetime risky drinking has also declined (2+ drinks a day). In Australia in 2019, 9 per cent of 14-17-year-olds had engaged in binge-drinking compared to 30 per cent in 2001. However, the national health guidelines recommend that children and young people under 18 avoid alcohol completely due to the risk of injury and other harms.^{clxvii}

In Australia, trends show that alcohol use is declining among 14-17-year-olds in Australia, while use of cannabis appears stable and a small proportion of these young people are now using e-cigarettes.
clxviii

Thirty-one per cent of people with disability aged 15+ exceed the recommended guidelines for single occasional alcohol risk, compared to 44 per cent of those without disability.^{clxix}

People from non-English speaking backgrounds are more likely to abstain from alcohol consumption (49 per cent) than people whose primary language spoken at home is English (19 per cent) and to abstain from illicit drug use (82 per cent compared with 54 per cent). The non-medical use of pharmaceuticals is the most commonly used drug among people from non-English speaking backgrounds (3.4 per cent).^{clxx}

c. Alcohol harms

Twenty per cent of the national self-harm burden, 14 per cent of the interpersonal violence burden and 7.5 per cent of the unintentional injury burden (other than road transport) is due to alcohol use.^{clxxi}

55.3 per cent of Whitehorse adults have an increased lifetime risk of alcohol-related harm, in comparison to Victoria at 59.5 per cent.^{clxxii}

There is growing evidence of links between harmful use of alcohol, family violence and harmful gambling.^{clxxiii clxxiv}

d. Alcohol availability

Harm from alcohol is related to a number of factors including the availability of packaged liquor outlets.^{clxxv} The per capita rate of packaged liquor outlets in the City of Whitehorse has fluctuated over the years 2001 to 2016, resulting in an overall 10.5 per cent increase. This is the third highest change in rate in the EMR, behind Knox and Manningham which experienced sharp increases in the raw number of outlets in the context of steadily increasing populations (50.3 per cent and 31.7 per cent respectively).^{clxxvi}

Research in 2020, during the COVID-19 restrictions, on the delivery practices of the most popular online alcohol retailers in Australia found 69 per cent advertised a willingness to leave alcohol

unattended at an address.^{clxxvii} With a shift to online alcohol markets, alcohol will be increasingly available to intoxicated persons and minors.^{clxxviii}

e. Tobacco use

The Victorian Population Health Survey 2017 found 6.2 per cent of people in Whitehorse identify as daily smokers. This is significantly *lower* than the Victorian average of 12.4 per cent.^{clxxix} A person who smokes throughout their life is at heightened risk of potentially fatal diseases including various cancers, lung diseases, heart disease, stroke and circulatory problems.

In 2019 the prevalence of 14-17-year-olds smoking daily is 1.9 per cent. This is a decline of almost 80 per cent over the past 20 years (in 2001 11.2% of adolescents smoked daily). Young people are initiating smoking and drinking alcohol at a later age.^{clxxx}

f. E-cigarettes

The use of e-cigarettes (vaping) is becoming increasingly popular. Across Australia, lifetime use in 2019 was highest among young adults aged between 18 and 24 years (at 26.1%), with lower use among older age groups. Lifetime use of e-cigarettes significantly increased between 2013 and 2016 both among adult smokers (from about 18% to about 31%) and non-smokers (never + ex-smokers; from about 2% to about 5%), and across all age groups except for the oldest.^{clxxxi}

The Therapeutic Goods Administration (TGA) has not approved any e-cigarette products as a medicine to help people quit smoking as their quality and safety has not yet been thoroughly tested. Liquids used in e-cigarettes may include nicotine (even when labelled as 'nicotine free'), heavy metals, volatile organic compounds and cancer-causing chemicals.^{clxxxii}

In tests of e-liquid samples collected by NSW Health in 2013 it showed that 70 per cent of samples contained high levels of nicotine, even though the label did not list nicotine as an ingredient. Testing in Tasmania found similar results.^{clxxxiii}

6. Communicable disease

There were a total of 220 cases of COVID-19 in Whitehorse since the beginning of the pandemic, with no cases reported since 5 January, 2021 (as at 31/1/2021)^{clxxxiv}.

In Whitehorse communicable diseases reported during 2019 included^{clxxxv}:

- 2004 cases of influenza
- 14 cases of tuberculosis
- 35 chickenpox cases
- 105 cases of shingles
- 47 pertussis cases (whooping cough)
- Sexually transmissible infections (STIs)
 - 444 cases of chlamydia (223 male and 221 female)
 - 12 cases of infectious syphilis
 - 115 gonococcal infection cases
 - 81 unspecified hepatitis B and 2 newly acquired cases
 - 22 unspecified hepatitis C and no new cases

- Food or water born infections
 - 233 campylobacter infection cases
 - 55 salmonella cases

The rate of chlamydia notifications in Whitehorse per 100,000 population in 2019 was 261.0 compared to Victoria with 406.0.^{clxxxvi}

In Victoria notifications of chlamydia, gonorrhoea and infectious syphilis have continued to increase. Changes in disease trends observed in 2017:

- Historically, females have comprised more than 50 per cent of the chlamydia notifications, but for the first time in 2017, there were more males cases notified than female cases. 71 per cent of the total cases of chlamydia were in the 15 to 29 year age groups, with the rate highest for the 20 to 29 year age group for both sexes.
- A 12 per cent increase in cases of gonorrhoea in females
- A 45 per cent increase in infectious syphilis cases in females
- Antimicrobial resistance for gonorrhoea is emerging, with two cases reported as having high level critical resistance to azithromycin.^{clxxxvii}

7. Impacts of climate change

Atmospheric CO₂ concentrations have risen from around 280 parts per million at the start of the industrial revolution, to current levels above 400 parts per million. Increasing concentrations of CO₂ and other greenhouse gases are trapping heat in the Earth's atmosphere and warming the planet. Victoria's climate has warmed by just over 1.0°C since official records began in 1910.^{clxxxviii}

a. Climate predictions

With continued climate change Victoria's future will include an overall decrease in total rainfall, contributing to longer and more severe droughts; however, it is expected that individual rainfall events and storms will become more intense with a greater risk of flash flooding.^{clxxxix}

Climate projections in 2019 for the Melbourne Metropolitan area were:

- Maximum and minimum daily temperatures will continue to increase over this century (very high confidence).
- By the 2030s, increases in daily maximum temperature of 0.8 to 1.6°C (since the 1990s) are expected.
- Rainfall will continue to be very variable over time, but over the long term it is expected to continue to decline in winter and spring (medium to high confidence), and autumn (low to medium confidence), but with some chance of little change.
- Extreme rainfall events are expected to become more intense on average through the century (high confidence) but remain very variable in space and time.
- By the 2050s, the climate of Melbourne could be more like the current climate of Wangaratta.^{cxc}

b. Public health risks

Climate change is likely to directly and indirectly amplify existing public health risks with potentially catastrophic harms to human health. Direct impacts include hypo- and hyperthermia, heat stress, injury, trauma and death caused by exposure to more frequent and intense extreme weather events such as bushfires, droughts, floods and heatwaves. Indirect impacts include:

- communicable diseases spread from insects and animals to humans
- water and food-borne diseases and contaminants
- reduced nutritional quality of food
- exacerbation of existing chronic diseases such as cardiovascular and respiratory diseases as a result of higher temperatures, poorer air quality and airborne pollen
- adverse effects on mental health including fear of the future

The broad social determinants of health, such as income, employment or food security, are also affected by climate change. Extreme weather events and climate change have negative impacts on the economy (for example, through reduction in primary production or tourism), in turn leading to unemployment, stress, social exclusion and increases in food insecurity.

c. Heat stress

Poor thermal capability of housing stock creates a serious health risk. State wide research by Sustainability Victoria in 2019 found that more than half of all Victorians in public housing were too hot last summer or too cold last winter and that as a result, 45 per cent had to leave their home. The thermal capability of housing will become more important as extreme temperatures increase as will the need for safe public spaces for vulnerable groups.^{cxci}

Vulnerable people, including older people and parents with young children, seek relief in air-conditioned leisure centres, libraries, shopping centres and community centres.

On average between 1981 and 2010 Melbourne has experienced 8.3 days per year when the temperature exceeds 35°C.

The projected number of extreme heat days in Melbourne in the 2050s under a high emissions scenario is between 13 and 21 days on average, or between 10 to 16 days with medium emissions.^{cxcii}

Tree cover canopy can help to reduce the urban heat island effect and the health impacts of heat waves, as well as reducing UV exposure. Existing canopy cover in Whitehorse has been estimated at between 22 and 26 per cent. (Refer to section [Open space and forests](#))

d. Air pollution

Air pollution reduces the quality of the air. Some people are more sensitive to air pollution than others. Poor air quality affects human health and the environment in adverse ways. Air pollutants such as small particles (PM2.5 and PM10) and ozone has been linked to increases in non-communicable diseases in adults, such as cardiovascular disease and respiratory problems.^{cxci}

Those most sensitive to air pollution include children younger than 14 years of age, people older than 65 years of age, pregnant women and people with heart and lung conditions, including asthma.^{cxciv}

e. Greenhouse gas emissions

The 2018/19 Climate Snapshot produced by Beyond Zero Emissions and Ironbark Sustainability estimated that the Whitehorse community is responsible for 2,263,600 tonnes of carbon emissions and reported that the municipality has seen a significant increase in emissions since 2005.^{cxcv cxcvi} (For comparison, the City of Maroondah is estimated to have produced 2,307,700 tonnes of carbon emissions in 2018/19.)^{cxcvii}

Commuting to work contributes to greenhouse gas emissions, especially if workers are not using public transport (trains, buses) or active transport (walking and cycling). Increasing the number and diversity of job opportunities within a municipality would increase workforce containment and therefore reduce commuting distances, and in turn reduce contributions to climate change.

f. Household solar power

A solar PV and battery system offers the potential of off-grid energy self-sufficiency. It's also a major step in the transition away from fossil fuels.

Australia has the highest uptake of solar globally, with more than 21 per cent of homes with rooftop solar PV. As of 31 October 2020 more than 2.59 million rooftop solar power systems have been installed across Australia. The process of converting sunlight into electricity using PV systems produces zero greenhouse gas emissions.^{cxcviii}

In Victoria there were 508,796 household solar installations between 2001 and 2020.^{cxcix}

g. Waste reduction

Reducing waste and recycling and composting materials helps to reduce the generation of greenhouse gases, such as carbon dioxide and methane. This is achieved by saving energy in the processing of materials for industrial and consumer use, and by reducing the flow of materials – especially food and other organic wastes – into landfills where anaerobic decomposition produces methane.

In Whitehorse, the community diverts approximately 51 percent of kerbside waste from landfill which is well above the state average of 45 percent. However, our kerbside garbage bins contain 44 percent food waste, while all organic waste collectively adds up to 60 percent. This is higher than the Victorian average which is around 35-38 percent for food waste and around 50 percent for all organics.^{cc}

In Whitehorse approximately 11 percent of matter in recycling bins is contaminates, compared to the rest of Victoria (2014-15 averaged 5.6 per cent) and way above the preferred industry level of 3-5 per cent. Generally bin contamination rates are higher in apartments.^{cci}

Sixty percent of the community in Whitehorse have the optional kerbside green waste bins service (most often separate households). These bins have only two percent contamination.^{ccii}

h. Deaths related to climate change

Death from asthma

Climate change is likely to be a factor in thunderstorm asthma events by increasing atmospheric carbon dioxide concentrations, temperatures affecting aeroallergen concentrations and extended pollen seasons.^{cciii cciv ccv ccvi ccvii}

An unprecedented thunderstorm event in Melbourne in November 2016 was a convergence of environmental factors - a line of thunderstorms, the resulting gust front, and extreme airborne grass pollen concentrations.^{ccviii}

Across Melbourne there were 3365 (672%) excess respiratory-related presentations to emergency departments, and 476 (992%) excess asthma-related admissions to hospital, especially individuals of Indian or Sri Lankan birth (10% vs 1%, $p < 0.0001$) and south-east Asian birth (8% vs 1%, $p < 0.0001$) compared with previous 3 years.^{ccix} Of all presentations to emergency departments:

- The mean age was 32 years
- 56 per cent were male
- Only 28 per cent had current doctor-diagnosed asthma.^{ccx}

Of the 35 individuals who were admitted to an intensive care unit, all had asthma, 12 took inhaled preventers, and five died.^{ccxi}

Ten individuals died; of these six were of Asian or Indian ethnicity.^{ccxii} Whitehorse has a significant population of people of Asian or Indian background, who may be at higher risk of future thunderstorm asthma hospital admissions.

In Whitehorse, 19.9 per cent of the adult population have been diagnosed with asthma at some time in their life.

Death from heatwave

The 2014 heatwave in Melbourne resulted in 167 excess deaths, and this corresponds to a 24 per cent increase in mortality. Elderly people, those with existing health conditions and people using medications or abusing alcohol or drugs are at heightened risk.^{ccxiii}

Psychological distress

In 2019 a survey by Sustainability Victoria found that most Victorians feel some level of frustration and other negative emotions when they think about climate change – feelings of sadness, outrage and despair. Young people may be more prone to anxiety about the future than the rest of the population. In the survey young people reported feeling these negative emotions more strongly than older people and feel they will cope 'poorly' in terms of mental health as climate change impacts increase.^{ccxiv}

Anxiety, depression, post-traumatic stress disorder (PTSD), complicated grief, survivor guilt, vicarious trauma, recovery fatigue, substance abuse and suicidal ideation can be caused or activated by extreme weather events such as bushfires, floods and heatwaves.^{ccxv}

Increased frequency and severity of events such as bushfires, floods and droughts is associated with an increase in family violence and abuse.^{CCXvi CCXvii}

The indirect consequences of climate change on the mental health of populations occur through social, economic and environmental disruptions.^{CCXviii}



Appendices

Appendix 1: Health and wellbeing indicators and measures

Theme/Outcome	Indicator	Measure/s	Reference
Mental Health and Wellbeing	Self-rated health	Fair or poor self-reported health	2017 Victorian Population Health Survey
	Self-rated health - women	Excellent, very good or good	2017 Victorian Population Health Survey
	Self-rated health - men	Excellent, very good or good	2017 Victorian Population Health Survey
	Community resilience	Resilience [range 0–8]; ‘ability to adapt to change’ and ‘tendency to bounce back after illness or hardship’.	2015 Vic Health Indicators Survey Results
	Psychological distress	High, or very high, levels of psychological distress	2017 Victorian Population Health Survey
		Anxiety or depression	2017 Victorian Population Health Survey
		Sought help for a mental health related problem	2017 Victorian Population Health Survey
Social Cohesion	Suicide	Intentional self-harm standardised death rate per 100,000 people	2019 ABS Causes of Death, Australia, Cat. No. 3303.0
	Connection to culture and communities	Perceptions of neighbourhood – this is a close-knit neighbourhood	2015 Vic Health Indicators Survey Results
		Perceptions of neighbourhood – people are willing to help each other	2015 Vic Health Indicators Survey Results
		Perceptions of neighbourhood – people can be trusted	2015 Vic Health Indicators Survey Results
	Discrimination or unfair treatment	Estimated number of people aged 18 years and over who, in the past 12 months, felt that they had experienced discrimination or have been treated unfairly by others (per 100)	2014 PHIDU Social Health Atlases of Australia

Theme/Outcome	Indicator	Measure/s	Reference
Personal Safety	Acceptance of other cultures	Estimated number of people aged 18 years and over who disagree/strongly disagree with acceptance of other cultures (per 100)	2014 PHIDU Social Health Atlases of Australia
	Volunteer participation	Did voluntary work through an organisation or group (last 12 months)	2016 ABS Census of Population and Housing
	Perceptions of safety	Perceptions of safety – walking alone during day Perceptions of safety – walking alone after dark	2015 Vic Health Indicators Survey Results 2015 Vic Health Indicators Survey Results
	Crime against the person	Rate of recorded crimes against a person per 100,000	2020 Crime Statistics Agency, Recorded Offences by LGA
	Unintentional injuries	Unintentional injuries treated in hospital per 1,000 population Unintentional injuries due to falls	2015 DHHS Whitehorse Community Profile 2015 DHHS Whitehorse Community Profile
Healthy Relationships	Family violence/intimate partner violence	Family violence incidents per 100,000 population	2019 Crime Statistics Agency, Family Violence Data Portal
	Elder abuse	Victim reports for persons aged 55+ (violence against the person)	2020 Crime Statistics Agency, Victim Reports
	Child abuse	Child Abuse reports	City of Greater Dandenong and the VLGA (2020). Statistical data for Victorian communities. https://www.greaterdandenong.vic.gov.au/about-us/statistics-and-data
Neighbourhood Liveability	Safety	Criminal incident rate per 100,000 population	2020 Crime Statistics Agency, Criminal Incidents Rate per 100,000
		Death rate due to road traffic crashes	2018 Vic Roads Road Trauma Statistics by Local Government Area
		Pedestrian fatalities 2014-2018	2018 Vic Roads Road Trauma Statistics by Local Government Area

Theme/Outcome	Indicator	Measure/s	Reference
Personal Safety	Personal Safety	Rate of recorded crimes against a person per 100,000 (ref. Personal Safety)	-
		Family violence incidents per 100,000 population (ref. Healthy Relationships)	-
		See measures for Social Cohesion	-
	Social connection and inclusion	See measures for Social Cohesion	-
	Walkability	Average street connectivity per square kilometre	2018 Australian Urban Observatory
		Average number of daily living destinations present (0-3) within 1600m	2018 Australian Urban Observatory
		Walkability for Transport Index - calculated as the sum of standardised scores of local neighbourhood attributes including street connectivity, dwelling density and the index of access to services of daily living.	2018 Australian Urban Observatory
	Green and open space	Average distance to closest activity centre	2018 Australian Urban Observatory
		Both live and work in Whitehorse	2016 ABS Census of Population and Housing
		Number of public drinking fountains (data not sourced)	-
		Number of new trees planted	2019/20 Whitehorse City Council Annual Report
		Urban tree canopy coverage	2014 Benchmarking Australia's Urban Tree Canopy: An i-Tree Assessment. Prepared for Horticulture Australia Limited by the Institute for Sustainable Futures, University of Technology Sydney
		Percentage of people who rated their community as a pleasant environment	2015 DHHS Whitehorse Community Profile
		Ratio of open space	Whitehorse City Council (2014). Urban Biodiversity Strategy 2014-2024.

Theme/Outcome	Indicator	Measure/s	Reference
	Access to public open space	Percentage of dwellings within 400m or less distance of public open space	2018 Australian Urban Observatory
		Percentage of dwellings within 400m of public space larger than 1.5 hectares	2018 Australian Urban Observatory
		Average distance to closest public open space larger than 1.5 hectares within 3200 metres	2018 Australian Urban Observatory
Environmental sustainability		Total residual waste collected (annual tonnes collected)	2018/19 Sustainability Victoria Kerbside Waste Data
		Total commingled recyclables collected (annual tonnes collected)	2018/19 Sustainability Victoria Kerbside Waste Data
		Total garden organics collected (annual tonnes collected)	2018/19 Sustainability Victoria Kerbside Waste Data
Housing diversity & affordability		Percentage of households in housing stress	2016 ABS Census of Population and Housing
		Percentage of available affordable lettings	2020 Rental Report December Quarter
		Percentage of households in the bottom 40% of incomes spending more than 30% on housing costs	2018 Australian Urban Observatory
Food security (access)		Percentage of dwellings within 1km of a supermarket	2018 Australian Urban Observatory
		Percentage of dwellings without any food outlet within 3.2km	2018 Australian Urban Observatory
		Average distance to closest healthy food outlet (supermarket or greengrocer)	2018 Australian Urban Observatory
		Average distance to closest fast food outlet	2018 Australian Urban Observatory

Theme/Outcome	Indicator	Measure/s	Reference
	Health and community services	Social Infrastructure Index (access to social infrastructure calculated based on six measures: Community Centres, Culture and Leisure, Early Years, Education, Health and Social Services and Sport and Recreation. These are measured by 16 individual service types which are used to calculate the presence of service mix within a threshold distance.	2018 Australian Urban Observatory
		People who could definitely access community services and resources	2015 DHHS Whitehorse Community Profile
		General practice clinics per 1,000 population	2015 DHHS Whitehorse Community Profile
		Pharmacies per 1,000 population	2015 DHHS Whitehorse Community Profile
	Leisure and cultural opportunities	Attendance at Council's festivals and events	2018/19 Whitehorse City Council Annual Report
		Visitors to aquatic facilities	2018/19 Whitehorse City Council Annual Report
		Visitors to libraries	2018/19 Whitehorse City Council Annual Report
		Visitors to Box Hill Community Arts Centre	2018/19 Whitehorse City Council Annual Report
		Visitors to Whitehorse ArtSpace	2018/19 Whitehorse City Council Annual Report
	Public transport	Average distance to closest public transport stop	2018 Australian Urban Observatory
		Percentage of dwellings within 400m of a public transport stop with a regular service at least every 30 minutes on weekdays between 7am and 7pm	2018 Australian Urban Observatory
	Alcohol availability	Percentage of dwellings with access to bus stop <400m	2018 Australian Urban Observatory
		Average number of off-licences within 800m	2018 Australian Urban Observatory
		Average number of on-licences within 400m	2018 Australian Urban Observatory
		Average distance to closest off-licence alcohol outlet	2018 Australian Urban Observatory
		Average distance to closest on-licence alcohol outlet	2018 Australian Urban Observatory

Theme/Outcome	Indicator	Measure/s	Reference
Fair and Equal Society	Cycling infrastructure	km of off-road shared paths	Whitehorse City Council
		km of on-road bike lanes	Whitehorse City Council
		km of on-road bike connections	Whitehorse City Council
	Employment/labour market participation	Percentage of employed persons who live and work in the local area (SA1 in SA3)	2018 Australian Urban Observatory
		Smoothed unemployment rate	Small Area Labour Markets June Qtr 2020
	Education	Percentage who completed a higher education qualification	2016 ABS Census of Population and Housing
		Percentage of Year 9 students achieving national benchmark in literacy	2017 Victorian Child and Adolescent Monitoring System (VCAMS) Indicators
		Percentage of Year 9 students achieving national benchmark in numeracy	2017 Victorian Child and Adolescent Monitoring System (VCAMS) Indicators
	Social cohesion/inclusion	Perceptions of neighbourhood – this is a close-knit neighbourhood (Ref. Connection to culture and communities)	-
		Perceptions of neighbourhood – people are willing to help each other (Ref. Connection to culture and communities)	-
		Perceptions of neighbourhood – people can be trusted (Ref. Connection to culture and communities)	-
	Access to social support	Social Infrastructure Index: measured by 16 individual service types including Community Centres, Culture and Leisure, Early Years, Education, Health and Social Services and Sport and Recreation which were used to calculate the presence of service mix within a threshold distance.	2018 Australian Urban Observatory
		People who could definitely access community services and resources	2015 DHHS Whitehorse Community Profile

Theme/Outcome	Indicator	Measure/s	Reference
	Financial security	Percentage of households in the lowest equivalised household income quartile	2016 ABS Census of Population and Housing
		Percentage of households in housing stress	2016 ABS Census of Population and Housing
		People who delayed medical consultation, unable to afford	2015 DHHS Whitehorse Community Profile
		People who delayed purchasing prescribed medication, unable to afford	2015 DHHS Whitehorse Community Profile
	Food security (affordability)	% of population experiencing food insecurity and hygiene insecurity (data not sourced)	-
		% of every \$1 spent on discretionary food (data not sourced)	-
	Gender equity	Low gender equality score (level of agreement that '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')	2015 Vic Health Indicators Survey Results
		Female median weekly income	2016 ABS Census of Population and Housing
		Male median weekly income	2016 ABS Census of Population and Housing
		Females undertaking 30+ hours of unpaid domestic work each week	2016 ABS Census of Population and Housing
		Males undertaking 30+ hours of unpaid domestic work each week	2016 ABS Census of Population and Housing
		Females employed full-time	2016 ABS Census of Population and Housing
		Males employed full-time	2016 ABS Census of Population and Housing
		Percentage of females in a managerial position	2016 ABS Census of Population and Housing
		Percentage of males in a managerial position	2016 ABS Census of Population and Housing
		Percentage of households with no internet connection	2016 ABS Census of Population and Housing
	Digital access		

Theme/Outcome	Indicator	Measure/s	Reference
Healthy start in life	Developmental vulnerability	Children developmentally vulnerable in one or more domains	2018 Australian Early Development Census
		Children developmentally vulnerable in two or more domains	2018 Australian Early Development Census
	Birth weight	Babies with low birth weight	2015 DHHS Whitehorse Community Profile
	Participation in MCH	Children attending 3.5 year old maternal and child health checks	2015 DHHS Whitehorse Community Profile
	Participation in Kindergarten	Kindergarten participation	2015 DHHS Whitehorse Community Profile
	Participation in Primary School	Number of full-time equivalent students enrolled in schools	2020 Department of Education and Training, Summary Statistics Snapshot Victorian Schools, February 2019
Healthy ageing	Ageism	No data defined	-
	Elder abuse	Victim reports for persons aged 55+ (ref. Healthy Relationships)	-
	Independent living	Need for assistance with core activities	2016 ABS Census of Population and Housing
Healthful behaviours	Healthy eating	Complied with vegetable consumption guidelines	2017 Victorian Population Health Survey
		Complied with fruit consumption guidelines	2017 Victorian Population Health Survey
		Daily consumer of sugar sweetened soft drinks	2017 Victorian Population Health Survey
		Take-away food consumed > 1 day/week	2017 Victorian Population Health Survey
		Pre-obese or obese	2017 Victorian Population Health Survey
	Active living	Insufficiently physically active	2017 Victorian Population Health Survey
		Sedentary (inactive)	2017 Victorian Population Health Survey
	Smoking	Current (i.e. daily or occasional) smoker	2017 Victorian Population Health Survey
	Alcohol misuse	Increased lifetime risk of alcohol-related harm	2017 Victorian Population Health Survey
		Increased risk of injury from a single occasion of drinking Alcohol hospitalisation admission rate	2017 Victorian Population Health Survey 2017/2018 AODStats Victoria

Theme/Outcome	Indicator	Measure/s	Reference
Health protection	Prescription medications misuse	Pharmaceutical Drugs (any) hospital admission rate	2017/2018 AODStats Victoria
	Illicit drug use	Drug usage and possession offences per 1,000 population	2015 DHHS Whitehorse Community Profile
		Illicit drugs (any) hospital admission rate	2017/2018 AODStats Victoria
	Oral health care	Proportion of adult population with excellent or very good self-reported dental health status	2017 Victorian Population Health Survey
		Dental service sites per 1,000 population	2015 DHHS Whitehorse Community Profile
		Poor dental health	2015 DHHS Whitehorse Community Profile
	Presence of chronic disease	People reporting arthritis	2017 Victorian Population Health Survey
		People reporting cancer	2017 Victorian Population Health Survey
		People reporting type 2 diabetes	2017 Victorian Population Health Survey
		People reporting heart disease	2017 Victorian Population Health Survey
		People reporting stroke	2017 Victorian Population Health Survey
		People reporting osteoporosis	2017 Victorian Population Health Survey
		More than one in five residents suffered from two or more chronic diseases	2017 Victorian Population Health Survey
	Access to primary care	General practice clinics per 1,000 population	2015 DHHS Whitehorse Community Profile
		Allied health service sites per 1,000 population	2015 DHHS Whitehorse Community Profile
	Immunisation	Children who were fully immunised at 12-15 months	2016/17 Australian Institute of Health & Welfare, Immunisation rates for children in 2016–17, Cat. no: HPF 16
		Number of vaccinations delivered to children in public immunisation program	2018/19 Whitehorse City Council Annual Report
	Communicable diseases	% of population with flu vaccination (data not sourced)	-
		Notifications of chlamydia per 100,000 population	2015 DHHS Whitehorse Community Profile

Theme/Outcome	Indicator	Measure/s	Reference
Climate change mitigation	Emergency management / preparedness	Rate of sexually transmissible infections in young people aged 12-17	2012 Victorian Child and Adolescent Monitoring System (VCAMS) Indicators
		Rate of newly acquired Hepatitis B cases per 100,000	2020 DHHS Local Government Areas Surveillance Report
		Number of Community Emergency Risk Assessment (CERA) risk treatments completed	Whitehorse City Council
		Antibiotic prescription rates (LGA data not available)	-
		Rate of salmonellosis (salmonella food poisoning) per 100,000 residents	2020 DHHS Local Government Areas Surveillance Report
		Hygiene measures / social distancing	-
	Health impacts	Excess deaths during extreme heat and heatwaves (LGA data not available)	The Health Impacts of the January 2014 Heatwave in Victoria
		Proportion of adult population ever diagnosed with asthma	2017 Victorian Population Health Survey
		Levels of high or very high psychological distress (ref. Mental Health and Wellbeing)	-
	Urban greening	Anxiety or depression (ref. Mental Health and Wellbeing)	-
		Tree canopy/ shade (ref. Neighbourhood Liveability)	-
		Ratio open space (ref. Neighbourhood Liveability)	-
	Renewable energy use	Solar panel installation (LGA data not available)	-

References

-
- ⁱ Victorian Government, Department of Health and Human Services LGA Profile 2015 <https://www2.health.vic.gov.au/about/publications/data/eastern-metro-region-2015>
- ⁱⁱ Victorian Government, Department of Health and Human Services LGA Profile 2015 <https://www2.health.vic.gov.au/about/publications/data/eastern-metro-region-2015>
- ⁱⁱⁱ Australian Government (2021). Victorian Childhood Immunisation Data by SA3, Department of Health. <https://www.health.gov.au/resources/publications/vic-childhood-immunisation-coverage-data-by-sa3>
- ^{iv} Australian Government (2018). Australian Early Development Census 2018 <https://www.aedc.gov.au/>
- ^v City of Greater Dandenong and the Victorian Local Government Association (2020). Statistical data for Victorian communities. <https://www.greaterdandenong.vic.gov.au/about-us/statistics-and-data>
- ^{vi} Victorian Government, Department of Health and Human Services LGA Profile 2015 <https://www2.health.vic.gov.au/about/publications/data/eastern-metro-region-2015>
- ^{vii} Australian Institute of Health and Welfare (2020). GEN aged care data: <https://www.gen-agedcaredata.gov.au/Topics/People-using-aged-care>
- ^{viii} Inner East Primary Care Partnership (2017). Health and Wellbeing Needs of Older People Living in the Eastern Region of Melbourne. Melbourne, January 2017.
- ^{ix} Australian Human Rights Commission (2014). Face The Facts: Lesbian, Gay, Bisexual, Trans and Intersex People, Canberra.
- ^x Brown, H. (2021). Lesbian, Gay, Bisexual and Intersex Individuals, City of Greater Dandenong.
- ^{xi} University of Adelaide (2021). Review of Australian Research on Older People from Culturally and Linguistically Diverse Backgrounds, Fact Sheet. https://www.adelaide.edu.au/apmrc/research/completed/ReviewofAustralianResearchonOlderPeoplefromCulturallyandLinguisticallyDiverseBackgrounds_FactSheets.pdf
- ^{xii} Ethnic Communities' Council of Victoria (2020). Inquiry into the Victorian Government's Response to the COVID-19 Pandemic, July 2020.
- ^{xiii} Jeffrey, K. (2020). Insights from Inner East Primary Care Partnership on International Student Wellbeing. IEPCP, Melbourne.
- ^{xiv} Deloitte Economics (2014). Economic contribution of Deakin University's Melbourne Burwood campus. Deakin University, October 2014. https://www.deakin.edu.au/_data/assets/pdf_file/0006/293604/Deakin-Universitys-Economic-Contribution-Burwood-Deloitte-Access-Economics-Final-Report-10-Oct-2014.pdf
- ^{xv} Inner East Primary Care Partnership (2020) International Students and Covid-19: Supporting International Students in Inner East Melbourne, www.iepcp.org.au
- ^{xvi} Lowe M., Whitzman C., Badland H. et al. (2013). Liveable, Healthy, Sustainable: What are the key indicators for Melbourne neighbourhoods? Research Paper 1. Place, Health and Liveability Research Program, University of Melbourne.
- ^{xvii} Victorian Government (2020). Crime Statistics Agency, Recorded Offences by LGA 2020 www.crimestatistics.vic.gov.au
- ^{xviii} Victorian Government (2020). Crime Statistics Agency, Recorded Offences by LGA 2020 www.crimestatistics.vic.gov.au
- ^{xix} VicHealth (2016). VicHealth Indicators Survey 2015 Selected findings, Victorian Health Promotion Foundation, Melbourne.
- ^{xx} VicHealth (2016). VicHealth Indicators Survey 2015 Selected findings, Victorian Health Promotion Foundation, Melbourne.

-
- ^{xxi} VicHealth (2016). VicHealth Indicators Survey 2015 Selected findings, Victorian Health Promotion Foundation, Melbourne.
- ^{xxii} VicHealth (2016). VicHealth Indicators Survey 2015 Selected findings, Victorian Health Promotion Foundation, Melbourne.
- ^{xxiii} VicHealth (2016). VicHealth Indicators Survey 2015 Selected findings, Victorian Health Promotion Foundation, Melbourne.
- ^{xxiv} VicHealth (2016). VicHealth Indicators Survey 2015 Selected findings, Victorian Health Promotion Foundation, Melbourne.
- ^{xxv} Victorian Government, Department of Health and Human Services LGA Profile 2015 <https://www2.health.vic.gov.au/about/publications/data/eastern-metro-region-2015>
- ^{xxvi} Victorian Government, Department of Health and Human Services LGA Profile 2015 <https://www2.health.vic.gov.au/about/publications/data/eastern-metro-region-2015>
- ^{xxvii} Australian Human Rights Commission (2020). <https://humanrights.gov.au/about/news/opinions/wheres-alldata-covid-19-racism>
- ^{xxviii} Department of Health and Human Services (2017). Racism in Victoria and what it means for the health of Victorians, State Government of Victoria, Melbourne.
- ^{xxix} Giles-Corti, B., Mavoa, S., Eagleson, S., Davern, M., Roberts B., Badland, H.M., (2014). Transport Walkability Index: Melbourne. McCaughey VicHealth Centre for Community Wellbeing, Melbourne: The University of Melbourne.
- ^{xxx} RMIT Centre for Urban Research (2018). Creating liveable cities in Australia: A scorecard and priority recommendations for Melbourne, <https://cur.org.au/cms/wp-content/uploads/2018/09/melbourne-city-score-cards.pdf>
- ^{xxxi} Australian Urban Observatory (2018). <https://auo.org.au/>
- ^{xxxii} Whitehorse City Council (2014). Urban Biodiversity Strategy 2014-2024.
- ^{xxxiii} Whitehorse City Council (2018). Urban Forest Strategy 2018-2021.
- ^{xxxiv} Whitehorse City Council (2018). Urban Forest Strategy 2018-2021.
- ^{xxxv} Whitehorse City Council, 2019/20 Whitehorse City Council Annual Report
- ^{xxxvi} Australian Urban Observatory (2018). <https://auo.org.au/>
- ^{xxxvii} Australian Urban Observatory (2018). <https://auo.org.au/>
- ^{xxxviii} 2018/19 Sustainability Victoria Kerbside Waste Data
- ^{xxxix} Whitehorse City Council (2018). Waste Management Strategy 2018 – 2028
- ^{xl} Victorian Government (2020). Department of Health and Human Services 2020 Rental Report December Quarter <https://www.dhhs.vic.gov.au/publications/rental-report#:~:text=For%20the%20September%20quarter%202020,%2410%20to%20%24340%20per%20week.>
- ^{xli} Australian Urban Observatory (2018). <https://auo.org.au/>
- ^{xlii} Australian Urban Observatory (2018). <https://auo.org.au/>
- ^{xliii} Australian Urban Observatory (2018). <https://auo.org.au/>
- ^{xliv} Australian Urban Observatory (2018). <https://auo.org.au/>
- ^{xlvi} Australian Urban Observatory (2018). <https://auo.org.au/>
- ^{xlvi} Victorian Government, Department of Health and Human Services LGA Profile 2015 <https://www2.health.vic.gov.au/about/publications/data/eastern-metro-region-2015>

-
- ^{xlvii} Victorian Government, Department of Health and Human Services LGA Profile 2015 <https://www2.health.vic.gov.au/about/publications/data/eastern-metro-region-2015>
- ^{xlviii} Whitehorse City Council (2019). 2018/19 Whitehorse City Council Annual Report
- ^{xliv} Australian Urban Observatory (2018). <https://auo.org.au/>
- ⁱ Australian Urban Observatory (2018). <https://auo.org.au/>
- ^{li} Australian Urban Observatory (2018). <https://auo.org.au/>
- ^{lii} Victorian Government (2020). REMPLAN Economy - Economy, Jobs and Business Insights City of Whitehorse, as at December 2020. <https://app.remplan.com.au/whitehorse-lga/economy/covid-19/impact-on-employment?state=mq43Ug!vPpylo5rmFKxnprfLanYKF4cJSMPqTwSZSmSbqlvS8hZZDQI4DB>
- ^{liii} Victorian Government (2020). REMPLAN Economy - Economy, Jobs and Business Insights City of Whitehorse, as at December 2020. <https://app.remplan.com.au/whitehorse-lga/economy/covid-19/impact-on-employment?state=mq43Ug!vPpylo5rmFKxnprfLanYKF4cJSMPqTwSZSmSbqlvS8hZZDQI4DB>
- ^{liv} Victorian Government (2020) REMPLAN Jobkeeper Explorer https://app.remplan.com.au/public/jobkeeper;m=6;z=au2018lga_26980
- ^{lv} Victorian Government (2020). REMPLAN Economy - Economy, Jobs and Business Insights City of Whitehorse, as at December 2020. <https://app.remplan.com.au/whitehorse-lga/economy/covid-19/impact-on-employment?state=mq43Ug!vPpylo5rmFKxnprfLanYKF4cJSMPqTwSZSmSbqlvS8hZZDQI4DB>
- ^{lvi} Whitehorse City Council (2020). Investment & Economic Development Extension Strategy 2020-2022 (Draft)
- ^{lvii} Whitehorse City Council (2020). Investment & Economic Development Extension Strategy 2020-2022 (Draft)
- ^{lviii} United Nations Development Programme (2015). Humanity Divided: Confronting Inequality in Developing Countries. Chapter 5. <https://www.undp.org/content/undp/en/home/librarypage/poverty-reduction/humanity-divided--confronting-inequality-in-developing-countries.html>
- ^{lix} Australian Government (2021), Labour Market Portal: Small Area Labour Markets Dec Qtr 2020. <https://lmip.gov.au/default.aspx?LMIP/Downloads/SmallAreaLabourMarketsSALM>
- ^{lx} Australian Institute of Health and Welfare (2020). People with disability in Australia. Cat. no. DIS 72. Canberra: AIHW. Viewed 21 January 2021, <https://www.aihw.gov.au/reports/disability/people-with-disability-in-australia>
- ^{lxi} Department of Social Services (2020). JobSeeker and Youth Allowance recipients - monthly profile <https://www.dta.gov.au/>
- ^{lxii} Australian Human Rights Commission. (2015). National prevalence survey of age discrimination in the workplace
- ^{lxiii} Westpac (2015). Women and Retirement Readiness Report. Accessed 20 January 2016 <http://www.mediagame.tv/retirement-tips-for-australian-women-westpac-women-and-retirement-readiness-report/>
- ^{lxiv} Australian Urban Observatory (2018). <https://auo.org.au/>
- ^{lxv} Workplace Gender Equality Agency (2017). Women's economic security in retirement, www.wgea.gov.au, accessed June 2017
- ^{lxvi} Australian Institute of Health and Welfare (2020). People with disability in Australia. Cat. no. DIS 72. Canberra: AIHW. Viewed 21 January 2021, <https://www.aihw.gov.au/reports/disability/people-with-disability-in-australia>
- ^{lxvii} Australian Institute of Health and Welfare (2020). People with disability in Australia. Cat. no. DIS 72. Canberra: AIHW. Viewed 21 January 2021, <https://www.aihw.gov.au/reports/disability/people-with-disability-in-australia>

^{lxviii} Australian Bureau of Statistics (2018). Survey of Disability, Ageing and Carers, Australia: Summary of Findings, Australia, 2019.

^{lxix} Australian Bureau of Statistics (2018). Survey of Disability, Ageing and Carers, Australia: Summary of Findings, Australia, 2019.

^{lxx lxx} Frohmader, C., Dowse, L., Didi, A., (2015). Preventing Violence against Women and Girls with Disabilities: Integrating a Human Rights Perspective. Women with Disabilities Australia

^{lxxi} Krnjacki, L., Emerson, E., Llewellyn, G., and Kavanagh, A., (2016). Prevalence and risk of violence against people with and without disabilities: findings from an Australian population-based study. *Australian and New Zealand Journal of Public Health*, 40(1), 16-21.

^{lxxii} Australian Institute of Health and Welfare (2020). People with disability in Australia. Cat. no. DIS 72. Canberra: AIHW. Viewed 21 January 2021, <https://www.aihw.gov.au/reports/disability/people-with-disability-in-australia>

^{lxxiii} Victorian Equal Opportunity and Human Rights Commission (2014). Beyond doubt: the experiences of people with disabilities reporting crime. Research Findings Jul 2014, State of Victoria

^{lxxiv} Australian Bureau of Statistics (2018). Survey of Disability, Ageing and Carers, Australia: Summary of Findings, Australia, 2019.

^{lxxv} University of Adelaide (2020). Review of Australian Research on Older People from Culturally and Linguistically Diverse Backgrounds https://www.adelaide.edu.au/apmrc/research/completed/ReviewofAustralianResearchonOlderPeoplefromCulturallyandLinguisticallyDiverseBackgrounds_FactSheets.pdf

^{lxxvi} LGBTIQ+ Health (2020). <https://www.lgbtiqhealth.org.au/statistics>

^{lxxvii} Inner East Primary Care Partnership (2020), Inner East Region Aboriginal and Torres Strait Islander Peoples Community Profile, February 2020

^{lxxviii} Victorian Government (2019). Aboriginal Affairs Report <https://www.aboriginalvictoria.vic.gov.au/victorian-government-aboriginal-affairs-report-2019/health-wellbeing>

^{lxxix} Victorian Government (2019). Aboriginal Affairs Report <https://www.aboriginalvictoria.vic.gov.au/victorian-government-aboriginal-affairs-report-2019/health-wellbeing>

^{lxxx} Victorian Government (2019). Aboriginal Affairs Report <https://www.aboriginalvictoria.vic.gov.au/victorian-government-aboriginal-affairs-report-2019/health-wellbeing>

^{lxxxi} Victorian Government (2019). Aboriginal Affairs Report <https://www.aboriginalvictoria.vic.gov.au/victorian-government-aboriginal-affairs-report-2019/health-wellbeing>

^{lxxxii} Australian Bureau of Statistics (2020). Causes of Death, Australia, 2019: Intentional self-harm (suicide), Catalogue No 3303.0.

^{lxxxiii} Australian Government (2013). Australian Aboriginal and Torres Strait Islander Health Survey: First Results, Australia, 2012-13. 4727.0.55.001 - Table 1.3

^{lxxxiv} Ferdinand, A., Paradies, Y., Kelaher, M. (2013). Mental health impacts of racial discrimination in Victorian Aboriginal communities: the Localities Embracing and Accepting Diversity (LEAD) Experiences of Racism Survey. Victoria: Lowitja Institute.

^{lxxxv} Victorian Government (2020). DHHS Rental Report, September Quarter, 2020.

-
- ^{lxxxvi} Australian Institute of Health and Welfare Annual Report 2019/2020.
<https://www.aihw.gov.au/reports/homelessness-services/specialist-homelessness-services-annual-report/contents/summary>
- ^{lxxxvii} Thomas, J, Barraket, J, Wilson, CK, et. al, (2020). Measuring Australia's Digital Divide: The Australian Digital Inclusion Index 2020, RMIT and Swinburne University of Technology, Melbourne, for Telstra.
- ^{lxxxviii} Thomas, J, Barraket, J, Wilson, CK, et. al, (2020). Measuring Australia's Digital Divide: The Australian Digital Inclusion Index 2020, RMIT and Swinburne University of Technology, Melbourne, for Telstra.
- ^{lxxxix} Maccora, J, Rees, K, Hosking, D & McCallum, J (2019). Senior Surfers: Diverse levels of digital literacy among older Australians. Brisbane: National Seniors Australia.
- ^{xc} Office of the eSafety Commissioner (2018). Understanding Digital Behaviours of Older Australians
- ^{xci} Victorian Government (2020). Ageing Well in a Changing World: A report by the Commissioner for Senior Victorians, State of Victoria, Australia. October 2020. [Access report here](#)
- ^{xcii} Australian Institute of Health and Welfare 2019. Potentially preventable hospitalisations in Australia by age groups and small geographic areas, 2017–18. Cat. no. HPF 36. Canberra
<https://www.aihw.gov.au/reports/primary-healthcare/potentially-preventable-hospitalisations>
- ^{xciii} VicHealth (2020). Coronavirus Victorian Wellbeing Impact Study: Follow-up survey. Victorian Health Promotion Foundation, Melbourne <https://doi.org/10.37309/2020.PO1011> accessed at
https://www.vichealth.vic.gov.au/-/media/ResearchandEvidence/20201208_VicHealth-Coronavirus-Wellbeing-Impact-Study_Survey.pdf?la=en&hash=2DBCCB47862FA5E07109C20611A06140496E727E
- ^{xciv} VicHealth (2015). Victorian Health Indicators Report, <https://www.vichealth.vic.gov.au/media-and-resources/publications/vichealth-indicators-report-2015>
- ^{xcv} Australian Institute of Health and Welfare (2020). National Drug Strategy Household Survey 2019. Drug Statistics series no. 32. PHE 270. Canberra www.aihw.gov.au/getmedia/4a26ccf6-4934-4dcc-8052-c6ee705ebb0f/aihw-phe-270-fact-sheet-Vic.pdf
- ^{xcvi} Parkinson, D, O'Halloran, K & Dinning, J (2020). The impact of COVID-19 pandemic response on older people. Melbourne, Victoria: Respect Victoria.
- ^{xcvii} COTA Victoria (2020). Coronavirus - Checking in on the older people's experience - A COTA Victoria Survey with older people June-August 2020
- ^{xcviii} Whitehorse City Council (2020). Whitehorse Pandemic Recovery Group, COVID19 Pandemic: Whitehorse Community Needs Assessment Report, September 2020, working paper [internal]
- ^{xcix} Victorian Government (2019). Victorian Population Health Survey, 2017.
<https://www2.health.vic.gov.au/public-health/population-health-systems/health-status-of-victorians/survey-data-and-reports/victorian-population-health-survey>
- ^c Victorian Government, Department of Health and Human Services LGA Profile 2015
<https://www2.health.vic.gov.au/about/publications/data/eastern-metro-region-2015>
- ^{ci} Cancer Council (2019). Cancer in Victoria Statistics & Trends 2019
- ^{cii} Victorian Government (2019). Victorian Population Health Survey, 2017.
<https://www2.health.vic.gov.au/public-health/population-health-systems/health-status-of-victorians/survey-data-and-reports/victorian-population-health-survey>
- ^{ciii} Melbourne University (2017). Understanding the needs of young people in Whitehorse – draft findings, Centre for Positive Psychology, Melbourne
- ^{civ} Melbourne University (2017). Understanding the needs of young people in Whitehorse – draft findings, Centre for Positive Psychology, Melbourne

-
- ^{cv} Australian Bureau of Statistics (2019) 4364.0.55.001 National Health Survey: First Results 2017–2018, ABS, Canberra. Available from <https://www.abs.gov.au/ausstats/abs@.nsf/Lookup/by%20Subject/4364.0.55.001~2017-18~Main%20Features~Victoria~10003>
- ^{cvi} Australian Institute of Health and Welfare (2020). People with disability in Australia. Cat. no. DIS 72. Canberra: AIHW. Viewed 21 January 2021, <https://www.aihw.gov.au/reports/disability/people-with-disability-in-australia>
- ^{cvi} Hayman J, Berecki-Gisolf J. (2020). Unintentional Hospital Treated Injury Victoria 2018/19 E-bulletin Edition 21 April 2020
- ^{cvi} Victorian Government, Department of Health and Human Services LGA Profile 2015 <https://www2.health.vic.gov.au/about/publications/data/eastern-metro-region-2015>
- ^{cix} Vic Roads (2018). Road Trauma Statistics by Local Government Area. https://public.tableau.com/views/Municipalfactsheets1_1/Overview?%3Aembed=y&%3Adisplay_count=yes&%3AshowTabs=y&%3AshowVizHome=no#1&%3Adisplay_count=yes&%3Atoolbar=no&:render=false
- ^{cx} Vic Roads (2018). Road Trauma Statistics by Local Government Area. https://public.tableau.com/views/Municipalfactsheets1_1/Overview?%3Aembed=y&%3Adisplay_count=yes&%3AshowTabs=y&%3AshowVizHome=no#1&%3Adisplay_count=yes&%3Atoolbar=no&:render=false
- ^{cxi} Vic Roads (2018). Road Trauma Statistics by Local Government Area. https://public.tableau.com/views/Municipalfactsheets1_1/Overview?%3Aembed=y&%3Adisplay_count=yes&%3AshowTabs=y&%3AshowVizHome=no#1&%3Adisplay_count=yes&%3Atoolbar=no&:render=false
- ^{cxi} Vic Roads (2018). Road Trauma Statistics by Local Government Area. https://public.tableau.com/views/Municipalfactsheets1_1/Overview?%3Aembed=y&%3Adisplay_count=yes&%3AshowTabs=y&%3AshowVizHome=no#1&%3Adisplay_count=yes&%3Atoolbar=no&:render=false
- ^{cxi} Victorian Government (2020). Crime Statistics Agency, Recorded Offences by LGA 2020. www.crimestatistics.vic.gov.au
- ^{cxi} City of Greater Dandenong and the Victorian Local Government Association (2020). Statistical data for Victorian communities. <https://www.greaterdandenong.vic.gov.au/about-us/statistics-and-data>
- ^{cxi} City of Greater Dandenong and the Victorian Local Government Association (2020). Statistical data for Victorian communities. <https://www.greaterdandenong.vic.gov.au/about-us/statistics-and-data>
- ^{cxi} City of Greater Dandenong and the Victorian Local Government Association (2020). Statistical data for Victorian communities. <https://www.greaterdandenong.vic.gov.au/about-us/statistics-and-data>
- ^{cxi} Australian Bureau of Statistics (2017). Personal safety, Australia, 2016. Canberra, ACT. Retrieved from: <http://www.abs.gov.au/ausstats/abs@.nsf/mf/4906.0>
- ^{cxi} Australian Bureau of Statistics. (2018) 4125.0 - Gender Indicators, Australia, Sep 2018 <https://www.abs.gov.au/ausstats/abs@.nsf/Lookup/by%20Subject/4125.0~Sep%202018~Main%20Features~Safety%20and%20Justice~8>
- ^{cxi} Richards K (2011). Children's exposure to domestic violence in Australia. Trends & issues in crime and criminal justice no. 419. Canberra: Australian Institute of Criminology. <https://www.aic.gov.au/publications/tandi/tandi419>
- ^{cxi} Bedi G & Goddard C (2007). Intimate partner violence: What are the impacts on children? Australian Psychologist 42(1): 66–77
- ^{cxi} Victorian Government (2020). Crime Statistics Agency December 2020 <https://www.crimestatistics.vic.gov.au/family-violence-data-portal/family-violence-data-dashboard/victoria-police>
- ^{cxi} Hutcheson, E. (2017). Family Violence in the Southern Metropolitan Region - a data analysis. Executive Summary. Southern Metropolitan Region Integrated Family Violence Executive Committee,

<https://southsafe.com.au/wp-content/uploads/2016/09/Family-Violence-in-the-SMR-Summary-Documents-v3.pdf>

^{cxixiii} Kelly Richards (2011). Children's exposure to domestic violence in Australia, Trends & issues in crime and criminal justice no.419, Australian Institute of Criminology, Canberra

^{cxixiv} Australian Institute of Health and Welfare (2020). People with disability in Australia. Cat. no. DIS 72. Canberra: AIHW. Viewed 21 January 2021, <https://www.aihw.gov.au/reports/disability/people-with-disability-in-australia>

^{cxixv} Frohmader C, Dowse L, Didi A (2015). Preventing Violence against Women and Girls with Disabilities: Integrating a Human Rights Perspective. Women with Disabilities Australia

^{cxixvi} Frohmader C, Dowse L, Didi A (2015). Preventing Violence against Women and Girls with Disabilities: Integrating a Human Rights Perspective. Women with Disabilities Australia

^{cxixvii} Whitehorse City Council (2020). Whitehorse Pandemic Recovery Group, COVID19 Pandemic: Whitehorse Community Needs Assessment Report, September 2020, working paper [internal]

^{cxixviii} Whitehorse City Council (2020). Whitehorse Pandemic Recovery Group, COVID19 Pandemic: Whitehorse Community Needs Assessment Report, September 2020, working paper [internal]

^{cxixix} Victorian Government (2020). Crime Statistics Agency <https://www.crimestatistics.vic.gov.au/family-violence-data-portal>

^{cxixxx} Victorian Government (2020). Crime Statistics Agency <https://www.crimestatistics.vic.gov.au/family-violence-data-portal>

^{cxixxi} Whitehorse City Council (2020). Whitehorse Pandemic Recovery Group, COVID19 Pandemic: Whitehorse Community Needs Assessment Report, September 2020, working paper [internal]

^{cxixxii} Victorian Government (2020). Crime Statistics Agency – Victim Reports <https://www.crimestatistics.vic.gov.au/family-violence-data-portal>

^{cxixxiii} Victorian Government (2020). Crime Statistics Agency <https://www.crimestatistics.vic.gov.au/family-violence-data-portal>

^{cxixxiv} Keleher Consulting (2016). Collaborative Planning Framework for Health and Wellbeing: A guide to integrated planning in local government, community health and women's health in Melbourne's Inner East, Inner East Primary Care Partnership, Melbourne

^{cxixxv} VicHealth (2016). VicHealth Indicators Survey 2015 Selected findings, Victorian Health Promotion Foundation, Melbourne.

^{cxixxvi} Victorian Agency for Health Information 2021, Victorian Population Health Survey 2019: summary of results, State of Victoria, Melbourne.

^{cxixxvii} Victorian Government (2019). Victorian Population Health Survey, 2017. <https://www2.health.vic.gov.au/public-health/population-health-systems/health-status-of-victorians/survey-data-and-reports/victorian-population-health-survey>

^{cxixxviii} Victorian Government (2019). Victorian Population Health Survey 2017. Department of Health and Human Services

^{cxixxix} Victorian Agency for Health Information (2018). Victorian Admitted Episodes Dataset 2018; (2) ABS Census, 2016.

^{cxl} Australian Institute of Health and Welfare (2020). Suicide and intentional self-harm. Retrieved from <https://www.aihw.gov.au/reports/australias-health/suicide-and-intentional-self-harm>

^{cxli} Victorian Commission for Gambling and Liquor Regulation, 2021

^{cxlii} Victorian Responsible Gambling Foundation (2016). Assessing gambling-related harm in Victoria: a public health perspective.

-
- ^{cxliii} Victorian Responsible Gambling Foundation (2019). Victorian population gambling and health study 2018–2019
- ^{cxliv} Dowling, N. (2014). The impact of gambling problems on families. AGRC Discussion Paper No. 1 – November 2014.
- ^{cxlv} Kessler, RD et al. (2005). Lifetime prevalence and age-of-onset distributions of DSM-IV disorders in the National Comorbidity Survey Replication. Archives of General Psychiatry, 62: p. 593-602.
- ^{cxlvi} Australian Bureau of Statistics (2020). Causes of Death, Australia, 2019: Intentional self-harm (suicide), Catalogue No 3303.0. Retrieved 23 October 2020.
- ^{cxlvii} Victorian Child and Adolescent Monitoring System (VCAMS) Indicators, <http://www.education.vic.gov.au/about/research/Pages/vcamsindicator.aspx>
- ^{cxlviii} Melbourne University (2017). Understanding the needs of young people in Whitehorse – draft findings, Centre for Positive Psychology, Melbourne
- ^{cxlix} Melbourne University (2017). Understanding the needs of young people in Whitehorse – draft findings, Centre for Positive Psychology, Melbourne
- ^{cl} Australian Bureau of Statistics. (2018). National Health Survey: First Results – Australia 2017-18. Canberra: ABS.
- ^{cli} Victorian Government (2019). Victorian Population Health Survey, 2017. <https://www2.health.vic.gov.au/public-health/population-health-systems/health-status-of-victorians/survey-data-and-reports/victorian-population-health-survey>
- ^{clii} VicHealth (2004). The health costs of violence: Measuring the burden of disease caused by intimate partner violence. A summary of findings. Victorian Health Promotion Foundation, Melbourne.
- ^{cliii} Australian Bureau of Statistics (2008). 4326.0 ABS National Survey of Mental Health and Wellbeing: Summary of Results, 2007.
- ^{cliv} Victorian Government (2019). Victorian Population Health Survey, 2017. <https://www2.health.vic.gov.au/public-health/population-health-systems/health-status-of-victorians/survey-data-and-reports/victorian-population-health-survey>
- ^{clv} Australian Bureau of Statistics (2020). Causes of Death, Australia, 2019: Intentional self-harm (suicide), Catalogue No 3303.0. Retrieved 23 October 2020.
- ^{clvi} Australian Bureau of Statistics (2020). Causes of Death, Australia, 2019: Intentional self-harm (suicide), Catalogue No 3303.0. Retrieved 23 October 2020.
- ^{clvii} LGBTIQ+ Health (2020). <https://www.lgbtiqhealth.org.au/statistics>
- ^{clviii} Suicide Prevention Australia Position Statement (2009). Suicide and self-harm among Gay, Lesbian, Bisexual and Transgender communities, 2009.
- ^{clix} Australian Human Rights Commission (2015). National prevalence survey of age discrimination in the workplace
- ^{clx} Westpac Retirement Readiness Report (2015). <https://rubyconnection.com.au/insights/lifestyle/2015-westpac-retirement-readiness-report.aspx>
- ^{clxi} Jooston M, Cartalla P, Feldman P, Brijanth B, Dow B (2020). Seven Years of Elder Abuse Data in Victoria. National Ageing Research Institute. (Released 25 August, 2020)
- ^{clxii} Inner East Primary Care Partnership (2017). Health and Wellbeing Needs of Older People Living in the Eastern Region of Melbourne 2017
- ^{clxiii} Carers Victoria (2021). Impact of Caring. <https://www.carersvictoria.org.au/about-us/impact-of-caring>
- ^{clxiv} Australian Drug Foundation (2012). DrugInfo, Vol.10, No. 3, Victoria.

-
- clxv Turning Point Victoria (2020). AOD Stats. <https://www.aodstats.org.au/index.php>
- clxvi Victorian Agency for Health Information 2021, Victorian Population Health Survey 2019: summary of results, State of Victoria, Melbourne.
- clxvii Australian Government (2020). Positive Choices Program, National Drug Strategy Household Survey 2019 <https://positivechoices.org.au/blog/young-people-alcohol-tobacco-and-illicit-drug-use>
- clxviii Australian Government (2020). Positive Choices Program, National Drug Strategy Household Survey 2019 <https://positivechoices.org.au/blog/young-people-alcohol-tobacco-and-illicit-drug-use>
- clxix Australian Institute of Health and Welfare (2020). People with disability in Australia. Cat. no. DIS 72. Canberra: AIHW. Viewed 21 January 2021, <https://www.aihw.gov.au/reports/disability/people-with-disability-in-australia>
- clxx Welfare, AI (2019). Alcohol, tobacco and other drugs in Australia . Retrieved from https://www.aihw.gov.au/getmedia/1ca12ec9-ded3-4319-90df-cc657212127d/AODTSFactsheet_PFCLDB.pdf.aspx
- clxxi Australian Institute of Health and Welfare (2016). Australia's Health 2016. <https://www.aihw.gov.au/getmedia/9844cefb-7745-4dd8-9ee2-f4d1c3d6a727/19787-AH16.pdf.aspx?inline=true>
- clxxii Victorian Government (2019). Victorian Population Health Survey, 2017. <https://www2.health.vic.gov.au/public-health/population-health-systems/health-status-of-victorians/survey-data-and-reports/victorian-population-health-survey>
- clxxiii Laslett, A. (2010). The range and magnitude of alcohol's harm to others. Canberra: Alcohol Education and Rehabilitation Foundation.
- clxxiv F. Markham, B. Doran & M. Young (2016). The relationship between electronic gaming machine accessibility and police-recorded domestic violence: a spatio-temporal analysis of 654 postcodes in Victoria, Australia, 2005–2014, Social Science & Medicine, vol. 162, pp. 106–14
- clxxv Livingston M. (2011). A longitudinal analysis of alcohol outlet density and domestic violence, Addiction 106, 919-925.
- clxxvi Centre for Alcohol Policy Research (2017). School of Psychology and Public Health, Packaged Liquor in Victoria: 2001 to 2016.
- clxxvii Colbert S, Wilkinson C, Thornton L, & Richmond R (2020). COVID-19 and alcohol in Australia: Industry changes and public health impacts. Drug and alcohol review, 39(5), 435–440. <https://doi.org/10.1111/dar.13092>
- clxxviii Colbert S, Wilkinson C, Thornton L, & Richmond R (2020). COVID-19 and alcohol in Australia: Industry changes and public health impacts. Drug and alcohol review, 39(5), 435–440. <https://doi.org/10.1111/dar.13092>
- clxxix Victorian Government (2019). Victorian Population Health Survey, 2017. <https://www2.health.vic.gov.au/public-health/population-health-systems/health-status-of-victorians/survey-data-and-reports/victorian-population-health-survey>
- clxxx Australian Government (2020). Positive Choices Program, National Drug Strategy Household Survey 2019. <https://positivechoices.org.au/blog/young-people-alcohol-tobacco-and-illicit-drug-use>
- clxxxi Greenhalgh, EM, Jenkins, S & Scollo, MM (2020). 18B.3 Extent of use. In Greenhalgh, EM, Scollo, MM and Winstanley, MH [editors]. Tobacco in Australia: Facts and issues. Melbourne: Cancer Council Victoria; 2020. Available from: <http://www.tobaccoinaustralia.org.au/chapter-18-harm-reduction/indepth-18b-e-cigarettes>
- clxxxii Better Health Channel, E-cigarettes, accessed on 15 January 2021 <https://www.betterhealth.vic.gov.au/health/HealthyLiving/e-cigarettes>

-
- clxxxiii Better Health Channel, E-cigarettes, accessed on 15 January 2021
<https://www.betterhealth.vic.gov.au/health/HealthyLiving/e-cigarettes>
- clxxxiv Victorian Government (2020). Health.vic interactive infectious disease reports.
<https://www2.health.vic.gov.au/public-health/infectious-diseases/infectious-diseases-surveillance/interactive-infectious-disease-reports/local-government-areas-surveillance-report>
- clxxxv Victorian Government (2020). Health.vic interactive infectious disease reports.
<https://www2.health.vic.gov.au/public-health/infectious-diseases/infectious-diseases-surveillance/interactive-infectious-disease-reports/local-government-areas-surveillance-report>
- clxxxvi Victorian Government (2020). Health.vic interactive infectious disease reports.
<https://www2.health.vic.gov.au/public-health/infectious-diseases/infectious-diseases-surveillance/interactive-infectious-disease-reports/local-government-areas-surveillance-report>
- clxxxvii Victorian Government (2017). Victorian Annual Surveillance Factsheet, 2017: Sexually transmissible infections: Chlamydia, gonorrhoea and syphilis, Department of Health and Human Services.
- clxxxviii Victorian Government (2019). Victoria's Climate Science. Retrieved from
https://www.climatechange.vic.gov.au/__data/assets/pdf_file/0029/442964/Victorias-Climate-Science-Report-2019.pdf
- clxxxix Victorian Government (2020). Tackling climate change and its impacts on health through municipal public health and wellbeing planning, Guidance for local government. Department of Health and Human Services, September 2020. <https://www2.health.vic.gov.au/public-health/environmental-health/climate-weatherand-public-health/climate-change-and-health>
- cx^c Victorian Government (2019). Victorian Climate Projections 2019
<https://www.climatechange.vic.gov.au/adapting-to-climate-change-impacts/victorian-climate-projections-2019>
- cx^{ci} Victorian Government (2020). Health impacts of climate change, Sustainability Victoria.
<https://www.sustainability.vic.gov.au/About-us/Research/Health-and-Climate-Change-Research#thermal>
- cx^{cii} Clarke JM, Grose M, Thatcher M, Round V & Heady C. (2019). Greater Melbourne Climate Projections 2019. CSIRO, Melbourne Australia.
- cx^{ciii} Australia State of the Environment (2016). Health Impacts of Air Pollution. Retrieved from
<https://soe.environment.gov.au/theme/ambient-air-quality/topic/2016/health-impacts-air-pollution>
- cx^{civ} Environmental Protection Authority Victoria (2020). Air quality categories on EPA AirWatch. Retrieved from
<https://www.epa.vic.gov.au/for-community/monitoring-your-environment/about-epa-airwatch/air-quality-categories>
- cx^{cv} The Australia Institute (2019). Climate of the Nation: Tracking Australia's attitudes towards climate change and energy.
- cx^{cvi} Ironbark Sustainability (2020) <https://snapshotclimate.com.au/locality/australia/victoria/whitehorse/#>
- cx^{cvi} Ironbark Sustainability (2020) <https://snapshotclimate.com.au/locality/australia/victoria/whitehorse/#>
- cx^{cvi} Commonwealth Government (2020). Energy.gov.au website. Department of Industry, Science, Energy and Resources <https://www.energy.gov.au/households/solar-pv-and-batteries>
- cx^{cix} Australian Government (2020). The Clean Energy Regulator website.
<http://www.cleanenergyregulator.gov.au/RET/Forms-and-resources/Postcode-data-for-small-scale-installations>
- cc Whitehorse City Council (2018). Waste Management Strategy 2018 – 2028
- cci Whitehorse City Council (2018). Waste Management Strategy 2018 – 2028
- ccii Whitehorse City Council (2018). Waste Management Strategy 2018 – 2028

-
- ^{cciii} Thien F, Beggs P, Csutoros D et al. (2018). The Melbourne epidemic thunderstorm asthma event 2016: an investigation of environmental triggers, effect on health services, and patient risk factors. *Lancet Planet Health* 2018; www.thelancet.com/planetary-health Vol 2 June 2018 e255 [https://doi.org/10.1016/S2542-5196\(18\)30120-7](https://doi.org/10.1016/S2542-5196(18)30120-7)
- ^{cciv} Beggs PJ (2016). Impacts of climate change on allergens and allergic diseases. Cambridge University Press, Cambridge 2016 [Crossref](#) [Scopus \(17\)](#) [Google Scholar](#)
- ^{ccv} Albertine JM, Manning WJ, DaCosta M, Stinson KA, Muilenberg ML, Rogers CA, (2014). Projected carbon dioxide to increase grass pollen and allergen exposure despite higher ozone levels. *PLoS One*. 2014; **9**: e111712 [Crossref](#) [PubMed](#) [Scopus \(55\)](#) [Google Scholar](#)
- ^{ccvi} Hunter DJ, Frumkin H, Jha A (2017). Preventive medicine for the planet and its peoples. *N Engl J Med*. 2017; **376**: 1605-1607 [Crossref](#) [PubMed](#) [Scopus \(19\)](#) [Google Scholar](#)
- ^{ccvii} D'Amato G, Pawankar R, Vitale C, et al. (2016). Climate change and air pollution: effects on respiratory allergy. *Allergy Asthma Immunol Res*. 2016; **8**: 391-395 [Crossref](#) [PubMed](#) [Scopus \(63\)](#) [Google Scholar](#)
- ^{ccviii} Thien F, Beggs P, Csutoros D et al. (2018). The Melbourne epidemic thunderstorm asthma event 2016: an investigation of environmental triggers, effect on health services, and patient risk factors. *Lancet Planet Health* 2018; www.thelancet.com/planetary-health Vol 2 June 2018 e255 [https://doi.org/10.1016/S2542-5196\(18\)30120-7](https://doi.org/10.1016/S2542-5196(18)30120-7)
- ^{ccix} Thien F, Beggs P, Csutoros D et al. (2018). The Melbourne epidemic thunderstorm asthma event 2016: an investigation of environmental triggers, effect on health services, and patient risk factors. *Lancet Planet Health* 2018; www.thelancet.com/planetary-health Vol 2 June 2018 e255 [https://doi.org/10.1016/S2542-5196\(18\)30120-7](https://doi.org/10.1016/S2542-5196(18)30120-7)
- ^{ccx} Thien F, Beggs P, Csutoros D et al. (2018). The Melbourne epidemic thunderstorm asthma event 2016: an investigation of environmental triggers, effect on health services, and patient risk factors. *Lancet Planet Health* 2018; www.thelancet.com/planetary-health Vol 2 June 2018 e255 [https://doi.org/10.1016/S2542-5196\(18\)30120-7](https://doi.org/10.1016/S2542-5196(18)30120-7)
- ^{ccxi} Thien F, Beggs P, Csutoros D et al. (2018). The Melbourne epidemic thunderstorm asthma event 2016: an investigation of environmental triggers, effect on health services, and patient risk factors. *Lancet Planet Health* 2018; www.thelancet.com/planetary-health Vol 2 June 2018 e255 [https://doi.org/10.1016/S2542-5196\(18\)30120-7](https://doi.org/10.1016/S2542-5196(18)30120-7)
- ^{ccxii} Thien F, Beggs P, Csutoros D et al. (2018). The Melbourne epidemic thunderstorm asthma event 2016: an investigation of environmental triggers, effect on health services, and patient risk factors. *Lancet Planet Health* 2018; www.thelancet.com/planetary-health Vol 2 June 2018 e255 [https://doi.org/10.1016/S2542-5196\(18\)30120-7](https://doi.org/10.1016/S2542-5196(18)30120-7)
- ^{ccxiii} Victorian Government (2014). The Health Impacts of the January 2014 Heatwave in Victoria, Department of Health.
- ^{ccxiv} Victorian Government (2020). Health impacts of climate change, Sustainability Victoria. <https://www.sustainability.vic.gov.au/About-us/Research/Health-and-Climate-Change-Research#thermal>
- ^{ccxv} Hayes K, Blashki G, Wiseman J, Burke S, Reifels L. (2018). Climate change and mental health: Risks, impacts and priority actions. *International Journal of Mental Health Systems*. 2018;12(1):28.
- ^{ccxvi} Sorensen C, Murray V, Lemery J, Balbus J. (2018). Climate change and women's health: Impacts and policy directions. *Plos Medicine*. 2018;15 (7):e1002603-e.
- ^{ccxvii} Parkinson D & Zara C (2013). 'The hidden disaster: domestic violence in the aftermath of natural disaster', *Australian Journal of Emergency Management*, vol. 28 no. 2. <https://ajem.infoservices.com.au/items/AJEM-28-02-09>
- ^{ccxviii} Hayes K, Blashki G, Wiseman J, Burke S, Reifels L. (2018) Climate change and mental health: Risks, impacts and priority actions. *International Journal of Mental Health Systems*. 2018;12 (1):28.