



The Impacts of COVID-19 on Health and Wellbeing

Rapid Evidence Review

Dr Anita Trezona

20 November 2020

Inner North West Primary Care Partnership acknowledges the peoples of the Kulin Nations as the Traditional Owners and Custodians of the land on which our work in the community takes place. We pay our respects to their Elders past, present and emerging.

Suggested Citation: Inner North West Primary Care Partnership (2020) The Impacts of COVID-19 on Health and Wellbeing: Rapid Evidence Review.



Inner North West Primary Care Partnership acknowledges the support of the Victorian Government.

Table of Contents

Background	6
Section One: Impact on Social Determinants of Health	7
1. Employment and work.....	7
1.1 Unemployment	7
1.2 Job insecurity	9
1.3 Income	10
1.4 Financial stress.....	11
1.5 Unpaid domestic work	13
1.6 Experiences of temporary migrants in Australia	13
2. Housing stress and vulnerability	14
2.1 Experiences of people living in share households.....	15
2.2 Experiences of international students	16
3. Racism and discrimination	17
3.1 Experiences of Asian-Australians	17
3.2 Experiences of temporary migrants	18
4. Education and learning	18
4.1 Learning and achievement gap.....	19
4.2 Perspectives of children and young people	19
5. Social connection and social support	21
5.1 Social connection.....	21
5.2 Social support.....	21
6. Social solidarity and community cohesion.....	22
6.1 Community connection and social solidarity	22
6.2 Community cohesion	23
6.3 Confidence in and satisfaction with government	24
7. Families and relationships	25
7.1 Quality of close relationships	25
7.2 Parenting roles and responsibilities.....	26
8. Gambling use	27
8.1 Gambling prevalence and frequency	27
8.2. Changes in use of gambling modes and products.....	29
8.3. Spending on gambling	29
9. Access to services	30
9.1 Changes to funding and health care delivery models.....	30
9.2 Service needs, demand and access.....	31
References.....	32

Section Two: Impact on Health and Wellbeing.....	36
Healthy eating	36
1. Impact on food systems	36
2. Dietary intake	37
2.1 Fruit and vegetable consumption.....	37
2.2 Takeaway consumption.....	38
2.3 Sugary drink consumption.....	38
3. Food practices	39
4. Food security	39
4.1 Access	40
4.2 Cost and affordability	41
4.3 Impact on food relief services	41
5. Breastfeeding support.....	42
Active living	43
1. Participation in physical activity	44
1.1 Physical activity in adults.....	44
1.2 Barriers to physical activity in adults.....	46
1.3 Sedentary time in adults.....	47
1.4 Physical activity in children and young people	47
2. Impact on mobility.....	49
2.1 Use of public transport	49
2.2 Use of active transport	50
2.3 Factors influencing transport decisions.....	50
Alcohol and other drug use.....	51
1. Alcohol supply and purchasing changes.....	51
2. Alcohol industry tactics	52
3. Alcohol consumption.....	53
3.1 Drinking frequency and levels	53
3.2 Changes in drinking behaviours and practices	55
4. Impact on illicit drug use	56
4.1 Frequency and level of drug use	57
4.2 Drug supply and access.....	58
4.3 Drug use behaviours and practices	59
5. Impact on AOD service access and provision.....	60
Family violence	61
1. Prevalence of violence against women	62
2. Frequency and severity of violence against women.....	63
2.1 Reports from women experiencing violence	63
2.2 Practitioner perspectives	63

2.3 COVID-19 specific forms of violence	64
3. Help-seeking by women experiencing violence.....	65
4. Impact on family services	65
4.1 Access and demand	65
4.2 Service provision challenges.....	66
References	67
Appendix 1: Ongoing COVID-19 Surveys.....	72

Background

On 30 January 2020 the World Health Organization (WHO) declared the coronavirus (COVID-19) disease outbreak a Public Health Emergency of International Concern, and within six weeks of the initial outbreak had declared COVID-19 a global pandemic (WHO 2020). The first cases of coronavirus were recorded in Australia in late January, and by early March the first case of community transmission was detected. This prompted states and territories across Australia to rapidly implement public health measures to slow the spread of the virus and prevent the health system from being overwhelmed (Duckett et al. 2020).

In Victoria these measures initially included the temporary closure of non-essential businesses, schools, public venues and recreational activities, as well as self-isolation, physical distancing and restrictions on travel, gatherings and other interactions between people (DHHS 2020a). By July there were hundreds of cases of COVID-19 recorded per day, and on 2 August the Victorian Government declared a state of disaster and imposed significantly tighter restrictions, including curfews, limits on the distance people could travel from home and amount of time they could spend outside (DHHS 2020b). While these measures have been effective in containing and suppressing the spread of COVID-19, they have had significant social, economic and health impacts on people and communities across Victoria.

Purpose and scope

The purpose of this review is to provide an overview of the social, economic and health impacts of COVID-19, to inform Municipal Public Health and Wellbeing planning and Integrated Health Promotion planning across the Inner North West Primary Care Partnership. Section One provides a summary of the impact of COVID-19 on various social and economic determinants of health, including:

- Employment and work
- Housing stress and vulnerability
- Racism and discrimination
- Education and learning
- Social connection and social support
- Social solidarity and community cohesion
- Families and relationships
- Gambling use
- Access to services

Section Two provides a summary of the impact of COVID-19 on the following Victorian health and wellbeing priorities: healthy eating, active living, alcohol and drug use, and family violence.

Section One: Impact on Social Determinants of Health

1. Employment and work

1.1 Unemployment

Employment and unemployment in Australia is routinely monitored through the *Labour Force Survey* conducted by the Australian Bureau of Statistics (ABS), with headline estimates of employment, unemployment, underemployment, participation and hours worked reported on a monthly basis (ABS 2020a). Rates of unemployment and underemployment have increased nationally and in Victoria since the start of the pandemic. In August 2020 the following figures were recorded:

- National unemployment rate was 6.8 per cent
- National underemployment rate was 11.2 per cent
- National youth unemployment rate was 14.3 per cent
- Victorian unemployment rate was 7.1 per cent
- Victorian underemployment rate in August was 13.8 per cent

It is important to note that in order to be classified as unemployed in Labour Force data, a person must have actively looked for full or part time work in the previous four weeks and be available to start work. People who have worked at least an hour or more for pay is considered employed. In addition, people who receive JobSeeker or other government payments are not automatically classified as unemployed, and people receiving JobKeeper are likely to be classified as employed (ABS 2020a). As such, unemployment and underemployment are likely to be higher than the official rates indicate.

ABS Household Impacts of COVID-19 Survey

The ABS is monitoring changes in employment during the pandemic through the *ABS Household Impacts of COVID-19 Survey* (ABS 2020b). This survey includes a smaller number of employment related questions and is therefore not comparable to Labour Force statistics. However, it provides a useful and reliable measure of job status as defined by respondents (self-reported). Results of the survey conducted in September showed that there had been a slight increase in the number of people with a job (66 to 68.3 per cent) since March, but a three per cent decrease in the number of people working paid hours, from 64 per cent down to 61 per cent (ABS 2020b).

There was also an increase in the number of people not working paid hours, from 2.2 per cent to 7.3 per cent, and 5 per cent of people reported having a job but not working any paid hours. The situation was much worse in Victoria, with 15 per cent of people reporting they had not worked any hours despite having a job. In terms of other job security factors, 33 per cent of people with a job reported not having any

sick leave and 18 per cent reported not having enough sick leave to take two weeks off if needed in August (ABS 2020b).

ANU COVID-19 Impact Monitoring Survey

The Australian National University (ANU) is conducting a national longitudinal study to monitor and understand the economic, health and social impacts of COVID-19 (Biddle et al. 2020a). The *COVID-19 Impact Monitoring Survey* involves more than 3,100 participants who are tracked over time to estimate the impact of the pandemic on specific population groups and geographic regions.

Data collected in April 2020 showed that the employment rate fell by 3 per cent between February and April (down to 58.9 per cent), which equated to job losses for approximately 670,000 people. The largest decline in employment rates over that period was for people aged 18-24 years (nearly 8 per cent) but was also high for people aged 65 years or older (Biddle et al. 2020a).

The employment rate fell even further between April and May to 57.1 per cent, but had increased again by August to 59.1 per cent. Despite this small increase, the employment rate remains significantly lower than the pre-COVID level (Biddle et al. 2020b). People without tertiary qualifications, people who had experienced unemployment at some point in the previous five years and people in casual work were more likely to lose their job as a result of COVID-19 than other groups (Biddle et al. 2020a).

Job losses by occupation

The introduction of COVID-19 lockdowns and other restrictions had significantly different impacts across industries and occupations (Biddle et al. 2020d). The occupations most impacted by job losses between February and May were:

- 27.1 per cent of Community and Personal Service Workers lost their job
- 25.1 per cent of Labourers lost their job
- 17.4 per cent of Technicians and Trades Workers lost their job

The occupation category that experienced the lowest rate of job loss was 'Professionals', with 5.3 per cent of people losing their job between February and May. The impact of COVID-19 on unemployment by industry classification is shown in Table 1. There were significant differences in job seeking activity between men and women of those who lost their jobs between February and May 2020. More than 32 per cent of men reported actively looking for work compared to 4.6 per cent of women. This suggests there may be constraints on women being able to actively look for work during the pandemic, including a substantial increase in unpaid domestic labour (Biddle et al. 2020d).

Reduction in work hours

Results of the ANU survey also indicate there was a reduction in the number of hours people worked between February and April (Biddle et al. 2020a). Specifically, 25 per cent of people experienced a reduction in their work hours and the average hours worked across all professions decreased by 4 per cent from 35 to 31 hours. Women experienced higher than average decrease in work hours with a decrease of 4.4

hours per week, while people born in non-English speaking countries were the most impacted, experiencing a decrease of 5.8 hours per week.

In August, 32.6 per cent of the population worked fewer hours than in February, while 20.5 per cent worked more (Biddle et al. 2020b) Over the same time period, women lost 2.2 more hours of work per week than men and people born overseas worked approximately 1.7 hours less than people born in Australia. In addition, people with a tertiary qualification were working more paid hours than those without one (Biddle et al. 2020b).

The decline in the number of hours worked also varied across industries and occupations, which is shown in Table 1. The occupations with the highest decline in hours were:

- Managers (6.2 hours per week)
- Machinery operators and drivers (6.1 hours per week)
- Community and personal service workers (5.5 hours per week)

Table 1: Job losses and change of hours between February and May 2020

Industry Classification	Job losses (%)	Change hours
Agriculture Forestry Fishing	6.1	+ 3.6
Mining	22.3	+ 1.5
Manufacturing	22.8	- 7.1
Electricity Gas Water and Waste Services	22.6	- 0.3
Construction	32.4	- 3.1
Wholesale Trade	33.8	- 5.2
Retail Trade	16	- 7.0
Accommodation and Food Services	19.2	- 24.4
Transport Postal and Warehousing	19.4	- 9.7
Information Media and Telecommunication	40.8	- 5.1
Financial and Insurance Services	14.9	+ 2.9
Rental Hiring and Real Estate Services	26.3	- 4.1
Professional, Scientific and Technical Services	24.5	- 3.7
Administrative and Support Services	24.7	- 14.0
Public Administration and Safety	14.6	+ 0.9
Education and Training	17.7	- 3.5
Health Care and Social Assistance	16.5	- 3.1
Arts and Recreation Services	37.2	- 21.3
Other Services	20.5	- 18.0

Source: Biddle 2020d

1.2 Job insecurity

The ANU COVID-19 Impact Monitoring Survey conducted in April showed that concern over job security was high at the start of the pandemic, with one in four employed Australians indicating that they believe there was a greater than 50 per cent chance of losing their jobs in the next 12 months (Biddle et al. 2020a). While the

average number of hours worked increased slightly over the May to August period, one in four people remained concerned about losing their job (Biddle et al. 2020b).

The *VicHealth COVID-19 Wellbeing Impacts Survey* also explored perceptions about job security and showed that concerns were similar in Victoria. Nearly one in three (29 per cent) Victorians reported that they were concerned about the stability of their future employment/job prospects when asked during the first lockdown (VicHealth 2020). This concern was not evenly spread, with the following groups more likely to report concern about future employment:

- People who were already unemployed (60 per cent)
- People who speak a language other than English at home (40 per cent)
- People living in inner metro areas (42 per cent)
- People aged 25-34 years (48 per cent)
- People aged 18-24 years (41 per cent)

1.3 Income

There was a substantial decline in overall income for households and individuals following the onset of the pandemic. Between February and April average household income fell 9.1 per cent, from \$1,795 to \$1,632 per week, while the average income per person fell from \$740 to \$663 per week (10.4 per cent). Over that time period, the greatest per person income declines were for people aged 18 to 24 years (\$64 per week) and people aged 65-74 years (\$38 per week) (Biddle et al. 2020a).

Weekly income declined by \$76 per person for those living in the most disadvantaged areas in Australia compared to a \$4 decline for those living in the most advantaged areas (Biddle et al. 2020a). Since the substantial decreases reported in April, income levels have remained relatively stable. The most significant declines in income have been experienced by:

- Younger Australians aged 18-24 (lost \$95 more than people aged 35-44)
- Older Australians aged 65-74 (lost \$87 more than people aged 35-44)
- People born overseas in non-English speaking countries (\$93 more than people born in Australia)
- People who have completed Year 12 but do not have a university degree (Biddle 2020b)

JobKeeper and JobSeeker

A number of economic policies were introduced between February and April, which provided cash payments to households, including a one-off stimulus payment (to social security recipients), the JobSeeker¹ Coronavirus Supplement, and the JobKeeper² payment (Biddle et al. 2020a).

¹ JobSeeker Payments - <https://www.servicesaustralia.gov.au/individuals/services/centrelink/jobseeker-payment>

² JobKeeper Payment Scheme - <https://www.ato.gov.au/general/jobkeeper-payment/>

Jobseeker is a fortnightly social security payment for eligible people who are not working. In April, a \$550 supplement to that payment was introduced for eligible individuals and households who were previously unemployed or unemployed due to COVID-19. The JobSeeker supplement was reduced to \$250 per fortnight in September and is due to be withdrawn completely in December 2020 (Phillips et al. 2020). JobKeeper provides a wage subsidy to eligible employees via their employers, which was introduced to incentivise employers to maintain a relationship with employees. JobKeeper payments commenced in April 2020, providing \$1,500 per fortnight to eligible employees of eligible businesses. These payments will gradually decrease over each financial quarter and are due to cease in March 2021 (Phillips et al. 2020).

Approximately 14 per cent of Australians were receiving the JobKeeper payment from their employer in August, while 13 per cent of Australians were receiving the Coronavirus Supplement as part of their JobSeeker Payment (ABS 2020b). Of the Australians receiving the JobKeeper Payment, 64 per cent were receiving less income than their usual pay, while 14 per cent were receiving more. In Victoria, more than 540,000 people were claiming the JobSeeker payment by August, with around the same number of people receiving the JobKeeper Payment (VCOSS 2020).

Although young people were more likely to be unemployed and more likely to face reduced hours due to COVID-19, they were less likely to receive JobSeeker than other age groups. Of those people who lost hours due to COVID-19 restrictions, 32 per cent received JobKeeper (Herault et al. 2020). Two out of three workers who had been negatively impacted by COVID-19 were not receiving JobKeeper support in May, which is unlikely to have changed in months following.

1.4 Financial stress

An estimated 740,000 people will be living in poverty when the JobSeeker and JobKeeper payments end, which means 212,000 more people than pre-COVID times (Phillips et al. 2020). A number of surveys are currently being conducted to understand the impact of COVID-19 on financial stress, including those conducted by the ABS, the ANU and the Melbourne Institute.

According to the most recent *ABS Household Impacts of COVID-19 Survey*, 14 per cent of Australians reported that their household was unable to pay one or more selected bills on time over the past twelve months due to a shortage of money, while 6 per cent of households said they would be unable to raise \$500 within a week if they needed to (ABS 2020b).

In the *ANU COVID-19 Impact Monitoring Survey*, respondents were asked how comfortably they can live on their household's current income, to which 16 per cent of people said they were finding it difficult to live comfortably, while more than 6 per cent were finding it very difficult (Biddle 2020a). Those at the lowest end of the income distribution were most likely to report financial stress of some degree (Biddle

2020a). It is important to note that nearly half of all respondents indicated that they are just 'coping' on their current income, which suggests that a significant number of people would be vulnerable to financial stress if their financial circumstances changed suddenly.

Findings from the Melbourne Institute's *Taking the Pulse of the Nation COVID-19 Survey* show that more than half of Australians have been vulnerable to financial stress during the pandemic (Melbourne Institute 2020a). The proportion of Australians vulnerable to financial stress at a national level has been over 50 per cent since early April. On average, between 25 and 30 per cent of people have had difficulty paying for essential goods and services, and between 30 and 35 per cent who have just been making ends meet since April. People aged 25-44 years have consistently been the group most vulnerable, with 65 per cent of people surveyed in July reporting financial stress (Melbourne Institute 2020a).

Findings from the September wave of the survey showed that there was a slight increase in the proportion of people experiencing financial stress nationally (up to 25 per cent). However, there was a larger increase in the proportion of Victorians experiencing financial stress, which increased from 22 per cent to 27 per cent over September (Melbourne Institute 2020c).

The *VicHealth COVID-29 Wellbeing Impacts Survey* included a series of questions about experiences of financial hardship during lockdown compared to the period before lockdown in Victoria. One in four respondents (24 per cent) reported experiencing some form of hardship during the first lockdown, compared to 16 per cent who reported experiencing hardship during February 2020 (VicHealth 2020). This included:

- 12 per cent who asked for financial help from friends or family
- 11 per cent who could not pay a utility bill on time
- 8 per cent who had pawned or sold something
- 8 per cent who asked for help from a welfare/community organisation
- 7 per cent who could not pay the rent or mortgage on time

Findings from the survey revealed that some groups were more likely to experience financial hardship than others, including:

- Aboriginal and Torres Strait Islander people (74 per cent)
- People who speak a language other than English at home (37 per cent)
- People with a self-reported disability (32 per cent)
- People aged 25-34 years (44 per cent)
- People aged 18-24 years (39 per cent)
- Single parents with children (40 per cent)
- Retired people (39 per cent)

1.5 Unpaid domestic work

Job losses, modified work hours and working from home arrangements, coupled with the home-based learning for most children and young people has resulted in changes in the unpaid domestic labour performed in the home (Biddle et al. 2020d). There was an increase in unpaid domestic labour for both men and women due to these working arrangements, however, there was a significant gender differential in the amount of unpaid domestic labour undertaken (Biddle et al. 2020d).

Half of all women surveyed reported that domestic labour was their main activity, while only 17.3 per cent of men reported it as their main activity. The proportion of men reporting it as one of their activities declined significantly between February and May (46.8 per cent down to 39.2 per cent), while the proportion of women who reported it as one of their main activities was consistently high between February and May (62.3 to 63.9 per cent). The study also showed that women who experienced an increase in unpaid domestic labour also experienced a large decline in paid work hours (Biddle et al. 2020d).

1.6 Experiences of temporary migrants in Australia

In July 2020, the Migrant Worker Justice Initiative conducted a study on the experiences of temporary migrants during COVID-19, including its impact on employment, working conditions financial stress (Berg & Farbenblum 2020). More than 6,100 temporary migrants participated in the study, 25 per cent of which were based in Victoria and 67 per cent in NSW. Participants were from 120 countries, 20 per cent of which were from China and 19 per cent from India. A significant majority (83 per cent) of respondents were living in Australia on a student visa (Berg & Farbenblum 2020).

As of 1 March 2020, 50 per cent of respondents were working in Australia, one third of which were working in hospitality and 22 per cent of which were working in administrative roles or professional and technical services (Berg & Farbenblum 2020). International students were the most significantly impacted, with 73 per cent either losing their job or have their work hours reduced. COVID-19 restrictions adversely impacted the employment circumstances of significant proportion of respondents, including:

- 54 per cent lost their jobs
- 16 per cent lost most work hours
- 13 per cent lost some work hours

The impact of COVID-19 has also increased the vulnerability of temporary migrants to exploitative and unsafe working conditions, which was already widespread prior to the pandemic (Berg & Farbenblum 2020). Since the pandemic started, 21 per cent of temporary migrants received a reduced wage, 11 per cent performed unpaid work, and 15 per cent had performed work for food and housing rather than wages. The loss of work and income, combined with the lack of financial support available to temporary migrants through government funded support payments

such as JobSeeker and JobKeeper, many are now experiencing financial stress and distress (Berg & Farbenblum 2020). Almost two in three people (63 per cent) were unable to pay for at least one essential item at some stage since March (Table 2). Financial stress was far greater for refugees and people seeking asylum than other temporary migrants.

Table 2: Impact of COVID-19 on ability to meet basic needs

Living expense	Proportion unable to pay	
	All temporary migrants	Refugees/asylum seekers
Rent	48 %	58 %
Food	28 %	53 %
Phone	25 %	59 %
Transport	21 %	44 %
Utilities	18 %	44 %
Health care (GP)	15 %	38 %
Essential medication	10 %	47 %

Source: Berg & Farbenblum 2020

2. Housing stress and vulnerability

As part of their *COVID-19 Impact Monitoring Survey*, the ANU recently examined housing stress, including the impact on mortgage and rental repayments (Biddle et al. 2020c). In this survey, housing stress was measured in terms of the ability for people to pay their rent or mortgage on time. Survey respondents included mortgage holders (40.5 per cent), renters (24.4 per cent) landlords (15.5 per cent) (Biddle et al. 2020c).

When surveyed in May, approximately 15 per cent of people reported they had not been able to pay their mortgage or rent on time during the previous three months, due to a shortage of money (Biddle et al. 2020c). This was more than twice the proportion of people who reported a degree of housing stress at the start of the pandemic. Housing stress was much higher among renters, with more than 26 per cent of people not being able to pay their rent on time (Biddle et al. 2020c).

There was a significant relationship between housing stress and age and income, with young people and people on low incomes experiencing the greatest level of housing stress. Specifically:

- 27 per cent of people 18-24 years could not pay their mortgage on time
- 44 per cent of people 18-24 years could not pay their rent on time
- 40 per cent of people on the lowest income quintile were unable to pay their rent on time, compared to 10 per cent of those in the highest income quintile

Temporary migrants (people with temporary visa status) were significantly more vulnerable to housing stress than Australian citizens. More than 20 per cent of temporary migrants were unable to pay their rent on time compared to 6 per cent of citizens. People who speak a language other than English at home and people

who had not completed Year 12 were also more likely to experience housing stress than other groups between April and May (Biddle 2020c).

The *VicHealth COVID-19 Wellbeing Impacts Survey* also explored housing stress and showed that 19 per cent of Victorians were concerned about the stability of their housing, with some groups significantly more concerned than the overall population, including:

- People aged 18-24 years (32 per cent)
- People aged 25-34 years (31 per cent)
- People living in inner metro areas (34 per cent)
- Aboriginal and Torres Strait Islander people (31 per cent)
- People who speak a language other than English at home (33 per cent)
- People who are unemployed (33 per cent)
- Students (31 per cent)

Housing affordability and financial stress are obvious factors associated with housing stress, however other precarious housing circumstances such as overcrowding, short-term tenure, use of emergency accommodation and homelessness also contribute to housing stress and vulnerability. This vulnerability not only significantly increases the risk of COVID-19 infection, but impacts on the capacity of individuals to follow key public health measures, such as physical distancing, self-isolation/quarantine and stay at home orders (Raynor et al. 2020). Findings from the *ANU COVID-19 Impact Monitoring Survey* show that dwelling occupancy increased at the start of the pandemic, with 6.4 per cent of respondents reporting that the number of people living in their household had increased between February and April (Biddle et al. 2020c).

2.1 Experiences of people living in share households

People living in share households are often more vulnerable to rental stress, housing vulnerability and homelessness than other groups. A study conducted by the University of Melbourne in June 2020 revealed that people living in share households in Victoria have experienced significant financial and housing shock³ as a result of COVID-19 (Raynor & Panza 2020).

Just over 1,050 people participated in the study, the majority (82 per cent) of which were aged 35 years or under, and 61 per cent of which were women. The majority were also Australian citizens or residents (78 per cent) and were engaged in either full or part time employment (71 per cent). However, only 50 per cent of respondents had permanent employment (Raynor & Panza 2020). The findings showed that 90 per cent of respondents had experienced at least one form of shock, with many experiencing multiple forms of shock. Specifically:

- 22 per cent could not pay the rent or mortgage

³ A shock is a sudden event or underlying condition that can impact a household or individual's ability to function (Raynor & Panza 2020)

- 39 per cent changed their living situation (i.e. moved or changed occupants in their home)
- 22 per cent were not confident they would be able to meet their housing costs over the next 6 months
- 26 per cent were experiencing housing stress⁴
- 18 per cent were experiencing extreme housing stress⁵

In terms of the impact of COVID-19 on housing vulnerability and precariousness for people in share households:

- 16 per cent were living in overcrowded housing
- 19 per cent have no rental contract or have contracts of less than 6 months
- 36 per cent are not confident about knowing or protecting their rights as a tenant
- Approximately one quarter of households expressed stress about not being able to control the use of their home and manage the risk of contracting COVID-19.

The study also showed that income and rental shock was significantly higher for temporary visa holders than it was for citizens and permanent residents. Three quarters (76 per cent) of temporary visa holders were experiencing income shock, whilst 40 per cent were experiencing housing shock (rent payment) (Raynor & Panza 2020).

2.2 Experiences of international students

COVID-19 restrictions and other government policies have had a significant impact on the housing circumstances of international students, including those in private accommodation, share households and those who were living on university and college campuses (Berg & Farbenblum 2020). Although a significant majority (77 per cent) had remained in their accommodation, 48 per cent reported experiencing housing stress (unable to pay for rent).

Nearly half (43 per cent) of international students reported that they were afraid they would become homeless, while a large number of students had experienced homelessness or precarious housing/sleeping circumstances (Berg & Farbenblum 2020), including:

- 419 had slept on a couch or the floor in someone's house
- 100 had slept in a car
- 95 had slept in a building on campus
- 47 had slept at work
- 41 were homeless in other circumstances
- 24 were on the streets for one or more nights
- 21 had slept in a homeless shelter

⁴ 30 per cent of income on rent or mortgage

⁵ 50 per cent of income on rent or mortgage

3. Racism and discrimination

While there is a lack of available data on experiences of racism in Australia, emerging evidence indicates there has been an increase in racism and discrimination related to COVID-19, including racist attitudes, racial abuse and racial attacks, particularly towards Asian Australians (Walsh 2020).

The mainstream media has exacerbated racist attitudes and behaviours by reporting false, misleading and/or discriminatory information about COVID-19 (Zheng et al. 2020). This has included reports blaming specific communities for outbreaks of the infection, namely Chinese, Muslim and Sudanese communities, people living in public housing towers in Melbourne, and Aboriginal and Torres Strait Islander people who attended Black Lives Matter protests across the country in June (Joshi 2020).

In February 2020, following the outbreak of COVID-19, the Australian Human Rights Commission recorded more complaints under the Racial Discrimination Act than at any time in the previous 12 months, and since that time, approximately one third of all complaints made to the Commission have been related to COVID-19 (Tan 2020).

Similarly, there was an increase in enquires about racism to the Victorian Equal Opportunity and Human Rights Commission, with anonymous reports of racism doubling over the March to May period (VEOHRC 2020). There was also a change in the type of incident reported, with fewer reports of discrimination relating to work or employment and more reports relating to racial abuse and other unfair treatment on the street, on public transport or online (Tan 2020).

3.1 Experiences of Asian-Australians

The Asian Australia Alliance (2020) launched the COVID-19 Racism Incident Report Survey in April to investigate experiences of racism and discrimination by Asian Australians. Between April and June more than 410 people reported a personal experience of racism, indicating a clear pattern of discrimination and abuse towards Asians and Asian-Australians related to COVID-19. The results also showed that women were more likely to experience or report racist incidents, and that many of these incidents occurred in Victoria (32 per cent). International students accounted for 15 per cent of the incidents reported, 80 per cent of which were students from Mainland China (Asian Australian Alliance 2020).

Of the incidents reported, almost 60 per cent involved verbal or physical harassment, the most common of which was racial slurs/name calling. Other incidents involved verbal threats, physical intimidation, being spat/coughed/sneezed on, being shunned and being barred from restaurants and public transport. Many of these incidents occurred in public places, including:

- 40 per cent on the street/sidewalk
- 22 per cent in the supermarket
- Nearly 10 per cent online

The survey also showed that people had experienced racism and discrimination in their workplace, including racialised comments from colleagues that were then minimised as being a joke (Asian Australian Alliance 2020).

3.2 Experiences of temporary migrants

The Migrant Worker Justice Initiative explored the experiences of temporary migrants during COVID-19, including of racism and marginalisation (Berg & Farbenblum 2020). Participants were asked whether they had experienced racism or discrimination in Australia, including verbal abuse, people avoiding or staring at them because of their appearance or other forms of racism and discrimination. Nearly a quarter (23 per cent) of respondents had experienced verbal abuse, while 25 per cent had experienced racism in the form of people avoiding them due to their appearance (Berg & Farbenblum 2020). Reports of racism and discrimination were significantly higher for people from the following regions:

- 52 per cent of Chinese respondents
- 40 per cent of East Asian and South East Asian respondents
- 20 per cent of South Asian respondents

Women were more likely to experience people avoiding them (26 per cent compared to 23 per cent of men), whilst men were more likely to experience verbal abuse (25 per cent compared to 22 per cent of women). More than 1,600 respondents described a specific personal experience of racism during COVID-19, which included situations involving verbal harassment, physical abuse, or being shunned in public spaces, workplaces and housing (Berg & Farbenblum 2020).

4. Education and learning

There are approximately 3.9 million students enrolled in schools in Australia, which includes just over 2.26 million primary students and 1.68 million secondary students (ABS 2020c). Approximately 20 per cent of these students live in low-income households (Drane et al. 2020).

COVID-19 lockdowns have had a significant impact on the education sector and the way students learn Across Australia. While many Australian schools transitioned to remote teaching in the first two terms of 2020, Victorian schools continued with remote schooling for most of Term 3, which equates to approximately 20 weeks of remote learning since the start of the pandemic. While many students have thrived under remote learning conditions, many students have struggled to adapt, have learnt less and have likely fallen behind in learning outcomes (Sonnermann & Goss 2020). Disadvantaged students and those who were already falling behind before the pandemic, are likely to have experienced greater learning losses and may find it harder to catch up in future years.

Some of these learning losses can be attributed to the lack of school preparedness and resources and the technical training of educators to adequately support remote/online learning. However, there are various social and economic barriers that have compounded these challenges for disadvantaged and vulnerable students, including their lack of access to learning technology such as computers, devices and the internet, overcrowding, not having a suitable space to work from, financial and housing stress and having other responsibilities at home (Sonnermann & Goss 2020; Drane et al. 2020).

Remote learning may also increase the risk of long-term educational disengagement, particularly for vulnerable students. This will not only negatively impact learning outcomes, but also the cognitive, emotional and behavioural development of many children and young people (Drane et al. 2020).

4.1 Learning and achievement gap

A national survey conducted in May showed that most teachers believed that students were learning at 50-75 per cent of their regular pace through remote learning, while teachers in disadvantaged schools reported that their students were learning 25-50 per cent of what they would learn in a classroom (Sonnermann & Goss 2020). Another study on the experiences of NSW teachers found that 35 per cent of teachers in high-SES schools were confident their students were learning well remotely, while only 18 per cent of teachers in low-SES schools were confident their students were learning well (Sonnermann & Goss 2020).

According to modelling conducted by the Grattan Institute, remote schooling will widen the achievement gap between disadvantaged and advantaged students. They estimate that a two-month period of remote learning will widen the gap by about 7 per cent (or six weeks of learning), on top of the existing gap between these students (Sonnermann & Goss 2020).

4.2 Perspectives of children and young people

Evidence on the experiences and perspectives of students about online/remote learning is currently limited. However, the Commission for Children and Young People conducted a qualitative study between April and July 2020 to understand the impact of the pandemic on young people, including on their education and learning experiences (CCYP 2020). They consulted with 644 children and young people as well as 172 staff from 70 organisations, who reported both negative and positive experiences with remote and flexible and learning. A summary of the findings across three key themes is presented in Table 3.

Table 3: Experiences of children and young people with remote learning

Theme	Experiences and comments
General	<ul style="list-style-type: none">– Some appreciated greater flexibility and fewer distractions– Some felt safer and more settled at home (especially those who had experienced bullying)– Many felt distracted and struggled to maintain motivation– Some felt confused and frustrated by the lack of clear information about changes– Many reported feeling lonely and isolated– Young people completing high school were anxious about performing well in assessments and the impact that would have on future opportunities– Some university students deferred their studies
Technology and connectivity	<ul style="list-style-type: none">– Many students had access to computers and internet at home– Many experienced ongoing barriers to access, including to internet connection (cost and connectivity) and computers– Some households only had one laptop that was shared between multiple children
Support from teachers, staff and counsellors	<ul style="list-style-type: none">– More than half of all children and young people reported receiving the support they need– Others reported that teachers were inaccessible, lacked specialist knowledge and too focused on curriculum– Some were unsure who to approach if they had concerns– Some children and young people had to provide additional support and supervision to younger siblings– There was wide variation in the availability of parental support

Source: CCYP 2020

An Independent Christian College in Melbourne recently conducted a survey on the digital learning experiences of its students during lockdown. There were 249 participants across years 7 to 12 (Sandvik 2020). The results showed that a large proportion of students had trouble focusing and working well at home:

- 34 per cent were somewhat focused but lagging at times
- 15 per cent were not really focused and not being productive
- 12 per cent were not being productive and could not complete work

The lockdown caused some students to worry about their future education and academic prospects, with 12 per cent reporting they were worried and 7 per cent reporting they were very worried that lockdown had affected their education (Sandvik 2020). Students also reported a number of barriers to online learning, including internet disruptions (42 per cent), and teachers not knowing how to use videoconferencing technology (27 per cent (Sandvik 2020).

5. Social connection and social support

5.1 Social connection

The restrictions implemented as part of lockdowns in Victoria had significant implications for the way people were able to interact and connect with family, friends and their local community more broadly. The VicHealth study on the wellbeing impacts of COVID-19 examined the impact of restrictions on people's sense of social and community connection (VicHealth 2020). Respondents were asked whether they felt connected to others before and during COVID-19. Overall there was a decrease in the proportion of people who felt connected during the first lockdown compared to February:

- 23 per cent disagreed they felt connected (up from 10 per cent in February)
- Only 37 per cent agreed they felt connected during lockdown, compared to 57 per cent who felt connected in February
- People with disability, people living alone, single parents with children, people living in share households and people who were unemployed felt less connected during lockdown

COVID-19 restrictions also changed the ways in which people connected during the first lockdown, with phone and technology based forms of connection and communication replacing face-to-face contact. The largest changes included:

- Use of videoconferencing technology (i.e. FaceTime, Zoom, House Party) increased from 18 to 41 per cent
- Voice only telephone calls increased from 45 to 56 per cent
- Use of social media (i.e. group email, Facebook or group messaging) increased from 30 to 38 per cent
- Walking with others decreased from 30 to 19 per cent
- Exercising outside with others decreased from 23 to 13 per cent

The survey also highlighted that 30 per cent of people found it either hard or very hard to stay connected with family and friends outside their household during the lockdown. Some groups were even more likely to find it difficult to stay connected with people outside their household, including:

- People who speak a language other than English at home (39 per cent)
- Aboriginal and Torres Strait Islander people (51 per cent)
- People aged 18-24 years (39 per cent)
- Single parents with children (37 per cent)

5.2 Social support

The Australian Institute of Family Studies conducted the *Life During Covid-19 Survey* involving more than 7,300 participants between 1 May and 9 June 2020. The study sought to understand how Australian families coped with the pandemic, including how they adjusted to restrictions and the social and economic impacts they experienced (AIFS 2020a). It also explored changes in social support, including financial, emotional and practical support.

The findings showed that of those people who were regularly providing support to others outside their household prior to the pandemic, one in five had to stop providing support and 50 per cent had to change the way they provided support (AIFS 2020c). However, a significant proportion (74 per cent) of respondents had provided some kind of support during the pandemic, including:

- Emotional support (55 per cent)
- Shopping or provision of food supplies (36 per cent)
- Transport or errands (20 per cent)
- Financial support (15 per cent)

Women were more likely than men to provide support to someone outside their household (76 per cent compared to 67 per cent), while people aged under 30 and over 70 years were less likely to be regularly supporting other people (AIFS 2020c). A large proportion (46 per cent) of people also indicated receiving support from someone outside their household during the pandemic, including:

- Emotional support (27 per cent)
- Physical support (24 per cent)
- Shopping or provision of food supplies (19 per cent)
- Financial support (4 per cent)

Relatives were the most common source of support overall (25 per cent), but emotional support was mostly likely to be provided by friends, work colleagues and relatives (AIFS 2020c).

As part of their study on the impact of COVID-19 on people living in share households in Victoria, the University of Melbourne examined social capital in terms of the availability of support from family and friends during the pandemic, including whether people had a support network and how often they used it. The findings showed that 71.5 per cent of respondents had a support network (family, friends or community) available to them, and that could help in times of financial hardship (Raynor & Panza 2020). The study also showed that:

- 68 per cent agreed their family worked very hard to support them during COVID-19
- 55 per cent agreed their friends worked very hard to support them
- Almost 20 per cent received financial support from family or friends
- Almost 52 per cent reported having access to emotional and practical support all or most of the time.

6. Social solidarity and community cohesion

6.1 Community connection and social solidarity

VicHealth examined the impact of the first lockdown in Victoria on community connection and social solidarity (VicHealth 2020). Participants were asked a series of questions relating to their connection to the local community (indicators of social solidarity), the results of which are shown in Table 4.

They indicate that only two in five people (39 per cent) agreed that neighbours are helping each other get through the pandemic, while 17 per cent disagreed that neighbours are helping each other. In addition, approximately three in five people (58 per cent) trust their neighbours, while 13 per cent say they do not trust their neighbours (VicHealth 2020).

Table 4: Community connection and social solidarity during lockdown

Question	% Agree	% Disagree
My neighbourhood is a good place to live	71	8
I trust my neighbours	58	13
I am proud to be a member of my community	50	10
People work together to get things done for this community	44	13
I feel I am a part of the community	42	18
People in my neighbourhood share the same values	39	14
My neighbours are helping each other get through coronavirus	39	17

Note: Proportion of people who selected 'not sure' or 'neither' as their response not presented here

Source: VicHealth 2020

Older people, people who were retired and people on high incomes were less likely to report that they trust their neighbours and that their neighbours are helping each other through the pandemic (VicHealth 2020).

6.2 Community cohesion

One marker of community cohesion in the context of the pandemic is the extent to which people are committed to following COVID-19 public health advice and measures to contain the virus (these may also be a potential source of tension and reduced solidarity within communities). Data collected by the ANU in April 2020 showed that based on self-reported behaviour, most people were following the public health advice on physical distancing, movement restrictions and isolation (Biddle et al. 2020a). In addition:

- More than 60 per cent of people reported that over the previous 7 days they always avoided crowded places and always maintained a 1.5 metre distance between others
- More than 30 per cent indicated that they avoided public places altogether
- Women, people aged over 75 years, and people who speak a language other than English at home were more likely to follow the physical distancing requirements than other groups.

The University of Melbourne have also been monitoring adherence to public health advice as part of its *COVID-19 Impacts Survey* (Melbourne Institute 2020b). They examined people's perceptions of whether others in their neighbourhood were complying with physical distancing recommendations, with the large majority of people agreeing that either most people or all people were following the guidelines between April and May 2020. The results also showed a strong correlation between

age and perceptions of compliance, with the youngest age group (18- 24 years) reporting the least compliance and the oldest age group (65+ years) reporting the highest level of compliance. This difference in perception may be due to differences in their own individual behaviours, awareness of peer groups and neighbours or differences in frequency of interaction with others (Melbourne Institute 2020b).

In August 2020, the University of Melbourne investigated people's acceptance of a wider range of public health measures and mandatory regulations, including mask wearing, 14-day quarantine and restricted capacity on public transport, routine weekly COVID-19 testing, closure of non-essential businesses, and use of phone data for contact tracing (i.e. COVIDSafe App) (Melbourne Institute 2020d). The results showed that a larger proportion of Victorians were willing to accept mandatory regulations than people from other states across all regulations except for routine testing (which was slightly higher for WA). Support for measures relating to physical distancing was much higher than other types of measures. The proportion of Victorians willing to accept mandatory measures to allow a return to normal activities is shown in Table 5.

Table 5: Proportion of Victorians willing to accept mandatory regulations

Mandatory regulation	Acceptance
Wearing a mask in all public areas	95 %
14-day quarantine whenever necessary	94 %
Restrict capacity on public transport	87 %
Routine weekly testing for COVID-19	70 %
Closure of non-essential businesses	71%
Use of phone data to contact trace	64 %

Source: Melbourne Institute 2020d

6.3 Confidence in and satisfaction with government

According to data collected as part of the ANU COVID-19 Impact Monitoring Survey, confidence in the Federal Government increased substantially following the onset of the pandemic from 27.3 per cent in February to 56.6 per cent in April. Confidence in State and Territory Governments also increased significantly from 40.4 per cent in February to 66.7 per cent in April, and there was a similar increase in people's confidence in the public service, from 48.8 per cent to 64.8 per cent (Biddle et al. 2020a).

Despite the challenges people were experiencing at the start of the pandemic, there was also an increase in satisfaction in the direction of the country, with 76.2 per cent reporting they were either satisfied or very satisfied in April compared to 59.5 per cent in January (an increase of 16.7 per cent). However, during the early stages of the pandemic, people had a more negative outlook for the future, with nearly 40 per cent of people indicating that they feel either a lot more or a little bit more negative about the next 5-10 years (Biddle et al. 2020a).

The University of Melbourne has been monitoring satisfaction with government policies since the start of the pandemic as part of its *COVID-19 Impacts Survey* (Melbourne Institute 2020d). Overall satisfaction with government policies to support jobs and keep people at work declined in August, with the number of people who were dissatisfied increasing from 17 to 20 per cent, and the number of people who were satisfied decreasing from 62 to 58 per cent (Melbourne Institute 2020d). Over the same period, Victoria had the second lowest net satisfaction with government policies of all the states, with approximately 36 per cent of Victorians reporting they were satisfied (Melbourne Institute 2020d).

7. Families and relationships

The COVID-19 pandemic has resulted in changes to family and relationship dynamics, including the time people spend at home, the things they spend their time doing, parenting and/or caring responsibilities, and the opportunities for connection and interaction with people. A number of surveys have been conducted recently to understand the impact of COVID-19 on relationships and family life, which show that there have been both positive and negative impacts (VicHealth 2020; AIFS 2020a, Relationships Australia 2020a).

7.1 Quality of close relationships

As part of the VicHealth Survey, participants were asked whether spending more time in the household has changed the quality of their relationships with those they live with. One in five respondents (21 per cent) said the first lockdown brought them closer to people in the household, while 20 per cent reported that it had placed more strain on their relationships (VicHealth 2020). People who were unemployed and people living in share households were more likely to report that their relationships had become more strained (30 per cent). The study also explored the positive impacts lockdown had on people's home life that they would like to maintain in future. More than a quarter of people (26 per cent) reported spending more time with family and friends, while 13 per cent acknowledged the lockdown had positively impacted their home life in general (VicHealth 2020).

Relationships Australia has also been monitoring the impact of COVID-19 restrictions on people's close relationships, including partners, children, parents, friends and neighbours (Relationships Australia 2020a). Of the 739 people who completed the survey in May, 33 per cent were living with their partner and children, 21 per cent lived with their partner and 15 per cent lived alone. Overall the results suggest that the pandemic has placed significant strain on people's close relationships. For example, 55 per cent of people said they had felt challenged by their living situation. People living with a partner only were the least likely to feel challenged by their living situation (36 per cent), while people living with one or more friends were most likely (63 per cent). A high proportion of people living alone and people living with family also reported feeling challenged (58 per cent) (Relationships Australia 2020a).

In addition, 59 per cent of respondents reported that they have spent more time and effort on their family relationships during COVID-19 restrictions, which for many was deemed necessary. The relationships most likely to change (for better or worse) during restrictions were partner, children and parent relationships, however partner relationships were significantly more likely to be negatively impacted, with 42 per cent of respondents reporting that their relationship had changed for the worse (Relationships Australia 2020a). When asked whether lifting restrictions would have an effect on close relationships, more than half of respondents reported that it would have a positive effect, while 10 per cent anticipate it will have a negative effect (Relationships Australia 2020b).

Finally, the study explored the relationship between people's feelings of loneliness and perceptions about relationship changes during COVID-19 restrictions. A significant proportion (45 per cent) of people reported feeling lonely. Of those who felt very lonely, more than half also reported that their close relationships had changed for the worse. The findings suggest that there is a relationship between relationship changes and loneliness, but it is unclear whether loneliness places strain on relationships or if relationship breakdown increases loneliness. It is also likely that increased social isolation and lack of social support has had an impact on relationships and loneliness (Relationships Australia 2020a).

7.2 Parenting roles and responsibilities

The *Life During Covid-19 Survey* on how Australian families were coping with the pandemic explored its impact on parenting roles and responsibilities. One of the most significant impacts of the pandemic was the way people worked, with the proportion of people 'always' working from home increasing from 7 per cent to 60 per cent. Of the parents who were working from home with children under 18 years, 60 per cent were mothers and 41 per cent were fathers (AIFS 2020a).

As expected, this change in work circumstances had an effect on the caring roles of parents. Families using parent-only care increased from 30 per cent to 64 per cent during the pandemic, with the use of childcare declining by half, and the use of grandparents or other informal care declining from 32 per cent to 9 per cent (AIFS 2020a). A significant proportion (40 per cent) of parents who worked from home reported actively caring for children, while 28 per cent reported passively caring for them. When asked who typically cares for children during COVID-19, the majority (52 per cent) reported that it was usually or always the mother, while 11 per cent said it was usually or always the father (AIFS 2020a).

A significant proportion of both mothers and fathers reported spending more time with their children during COVID-19, as shown in Table 6.

Table 6: Increase in time spent with children during COVID-19

Activity	Mothers	Fathers
Personal care activities (i.e. bathing, dressing)	12 %	16 %
Playing video games	19 %	21 %
Reading to or with them	27 %	17 %
Playing active games or sports	33 %	26 %
Having meaningful conversations	44 %	34 %
Playing quiet games, art and craft	54 %	46 %
Helping with learning and lessons including school and homework	61 %	68 %

Note: Figures indicate proportion of people doing these activities more often in the pandemic.

Source: AIFS 2020b

8. Gambling use

The closure of non-essential businesses and services as part of COVID-19 lockdowns significantly disrupted the operations of most land-based gambling venues, including casinos, pokies/electronic gaming machines (EGMs), keno and lottery retailers. In addition, the cancellation of major sporting events and competitions across the world reduced the availability of betting options. These disruptions have influenced changes to people's gambling behaviours, as revealed in national studies conducted in Australia.

The Australian Institute of Criminology (AIC) explored the potential for increased online gambling as a result of COVID-19 social distancing measures in an online survey conducted in the first week of April. The study involved 1,000 participants from an existing national panel sample (Brown & Hickman 2020).

The University of Sydney investigated the impact of the shutdown on the gambling behaviour of a sample of Australian gamblers, including in relation to existing gambling problems. They conducted an online survey in May 2020, which involved 764 participants who had gambled in the past 12 months, the majority (85 per cent) of which were men (Gainsbury & Blaszczynski 2020).

The Australian Gambling Research Centre (AGRC) explored the way people adjusted their gambling participation as a result of land-based gambling venue closures. They conducted an online survey conducted in June-July 2020 involving 2,019 gambling consumers who had gambled in the past 12 months. The majority of participants (73 per cent) were men (Jenkinson et al. 2020).

8.1 Gambling prevalence and frequency

Nearly one quarter (24 per cent) of participants in the study conducted by AIC reported engaging in online gambling in the previous month. Of these, 45 per cent indicated that they had increased their use and 50 per cent indicated they had decreased their use of at least one form of online gambling since COVID-19 restrictions were introduced (Brown & Hickman 2020). Nearly one in three people (31

per cent) who had decreased their use of one form of online gambling had not increased their use of another form, however 16 per cent of people who had increased their use of one form of online gambling had done so without decreasing their use of another form (Brown & Hickman 2020).

The study conducted by the University of Sydney showed similar decreases in the use of gambling products during COVID-19 lockdowns, with 74 per cent of participants reporting a decrease in gambling overall, including 10 per cent who had stopped completely (Gainsbury & Blaszczynski 2020). Just over half (51 per cent) decreased or stopped gambling online during lockdown, while 18 per cent increased their online gambling (Gainsbury & Blaszczynski 2020).

According to the AIC study, online gambling types that were most likely to increase were sporting events in Australia and online pokies, with 26 per cent and 19.6 per cent of people respectively reporting they participated in these more often in March compared to January and February. However, online gambling on sporting events in Australia was also the most likely to decrease, with 33.2 per cent of people indicating they had engaged in it less often after restrictions were introduced, followed by sporting events overseas which was used less often by 32.3 per cent of participants (Brown & Hickman 2020).

In contrast, the study conducted by AGRC showed that gambling on horse racing, greyhound racing and sports remained relatively stable during COVID-19 restrictions, with the exception of AFL and NRL football codes which increased by 4 per cent and 3 per cent respectively (Jenkinson et al. 2020). However, as expected there was a significant decrease in land-based venue gambling, including:

- Pokies/EGM use decreased from 35 to 14 per cent
- Keno use decreased from 12 to 6 per cent
- Casino table games decreased from 10 to 3 per cent

The AGRC study also found a significant increase in the frequency of gambling during COVID-19 restrictions, including a four per cent increase in the proportion of people who gambled once per week (from 79 to 83 per cent) and a nine per cent increase in the proportion of people who gambled at least four times per week, from 23 to 32 per cent (Jenkinson et al. 2020).

Participation in online gambling during COVID-19 restrictions varied significantly by gender, age and employment status. The AIC study showed that men were three times more likely to gamble online than women, while people aged 18-29 years and 30-39 years were six times more likely to gamble online than people aged 50 years and over. According to the AGRC study, men and young people (18 to 34 years) were also significantly more likely to increase the frequency of their gambling (Jenkinson et al. 2020). People who were employed full-time and were on annual incomes of over \$100,000 were also more likely to gamble online (Brown & Hickman 2020).

8.2. Changes in use of gambling modes and products

Evidence from both the University of Sydney and AGRC studies suggests that COVID-19 may have influenced a small number of people to engage in gambling for the first time. In the AGRC study, 3.6 per cent of people reported that they did not gamble before COVID-19 started, while the University of Sydney study showed that one per cent of respondents had started gambling online for the first time during lockdown (Jenkinson et al. 2020; Gainsbury & Blaszczynski 2020).

The proportion of people gambling online increased from 62 per cent prior to the pandemic to 78 per cent during COVID-19 restrictions. This included around 5 per cent of people who changed from using land-based modes of gambling only prior to the pandemic, to adopting online modes during restrictions. More than half (52 per cent) of those who took up online gambling for the first time during COVID-19 restrictions were women (Jenkinson et al. 2020). In addition, the study found that nearly one in three people (30 per cent) signed up for a new or additional online account during restrictions, with young men aged 18-34 years accounting for 79 per cent of all new accounts.

The University of Sydney study explored changes in the use of gambling modes and products and found that the proportion of people who took up the use of new gambling products for the first time during COVID-19 restrictions was high across a number of categories (Gainsbury & Blaszczynski 2020), including:

- Online non-sports betting (28 per cent)
- Online e-sports betting (31 per cent)
- Online private betting (36 per cent)
- Online poker (34 per cent)
- Online casino games (16 per cent)

8.3. Spending on gambling

There is evidence to suggest that overall median expenditure on gambling decreased during COVID-19 lockdowns compared to prior to the pandemic. According to the University of Sydney, median monthly gambling expenditure decreased from \$450 per month to 200 per month, while the AGRC study showed a smaller decline in median monthly expenditure from \$500 to \$460 (Jenkinson et al. 2020; Gainsbury & Blaszczynski 2020).

However, expenditure patterns varied significantly by gender and age. Overall, median monthly expenditure by men increased from \$594 to \$770 per month, while for women it decreased from \$250 to \$100 per month (Jenkinson et al. 2020). Young people (aged 18-34) were more likely to increase their spending than any other age group for both men and women. However, the largest increase in expenditure during COVID-19 restrictions was for young men aged 18-34 years, which rose from \$687 to \$1,075 (Jenkinson et al. 2020).

The University of Sydney explored associations between gambling expenditure and vulnerability factors and found that psychological distress, financial stress and people with high risk gambling behaviours were more likely to increase their spending on gambling during the pandemic (Gainsbury & Blaszczynski 2020). One in three (33 per cent) of people experiencing severe distress reported an increase in expenditure, while 27 per cent of people experiencing COVID-19 related financial difficulties increased their spending. In addition, 25 per cent of people characterised as 'problem gamblers' and 27 per cent of people characterised as moderate risk gamblers increased their spending on gambling during the pandemic (Gainsbury & Blaszczynski 2020).

9. Access to services

9.1 Changes to funding and health care delivery models

The onset of the COVID-19 pandemic in Australia placed the health care system under increased pressure, which prompted both federal and state governments to increase funding on health services and modify existing funding and service models to meet service demand. In March, the Federal Government agreed to an initial commitment of \$500 million, and an uncapped funding agreement with states and territories to cover half of the costs associated with care for COVID-19 patients (Duckett et al. 2020). Soon after they announced a \$2.4 billion health package to purchase PPE and expand telehealth across Australia, an introduced 250 new items to the Medicare Benefits Schedule (MBS) to increase access to allied health workers and specialists via phone or videoconference. This was coupled with changes to the Medicare Benefits Scheme (MBS) to enable electronic delivery of prescriptions to pharmacists and in some cases, home delivery of medication (Duckett et al. 2020).

As the spread of COVID-19 worsened and the increasing health impacts of the pandemic became apparent, the Federal Government announced a further \$1.1 billion in funding to expand telehealth services and fund additional mental health, domestic violence and emergency relief services (Duckett et al. 2020). To ensure continuity of essential services the Victorian Government initially provided an additional \$275 million in funding across the community sector, including to disability, family violence, mental health, housing and homelessness and food relief services (VCOSS 2020).

Nearly 4.3 million medical and health services were delivered to three million people via telehealth in the first month of its availability during COVID-19, and the RACGP has reported that 99 per cent of GPs are now offering telehealth services, with 97 per cent continuing face-to-face consultations (Duckett et al. 2020). Despite increases in funding and the expansion of flexible service models such as telehealth, COVID-19 restrictions have significantly disrupted health and social service delivery and have diminished the capacity of services to meet existing client needs and growing service demand. In Victoria, non-essential health and social services were closed during both lockdowns, and many organisations have had to reduce or modify their essential service operations in order to comply with social distancing

and infection control measures, whilst at the same time dealing with the challenges of transition to remote models of care (VCOSS 2020).

9.2 Service needs, demand and access

A number of studies have revealed an increase in demand for a range of health and social services across Australia, including mental health, family violence, drug and alcohol services and other emergency relief providers (FARE 2020; Pfitzner et al. 2020a; VCOSS 2020). This has included an increase in by people who had not engaged with community sector services prior to the pandemic (VCOSS 2020). The impact of COVID-19 on access to services and other service delivery gaps and challenges are explored in detail in Section Two of this report.

The closure of non-essential services and reduced capacity to provide services is likely to have a disproportionate impact on those who already face barriers to accessing services. A recent survey conducted by the Disability Advocacy Network Australia (DANA) showed that more than half of all advocacy organisations experienced an increase in demand, whilst one quarter reported a decrease in their capacity to take new clients (VCOSS 2020). Similarly, a survey conducted by People with Disability Australia (PWDA) showed that nearly 40 per cent of participants had received less NDIS support during the early stages of the pandemic, and that 46 per cent received less non-NDIS support. However, many people with disability reported that the availability of telehealth had improved their access to health services, with 38 per cent of participants reporting that they had accessed a GP, 32 per cent had accessed an allied health professional, 19 per cent had accessed a specialist and 11 per cent accessed a mental health service via telehealth (PWDA 2020).

As part of their study on the social and economic impacts of COVID-19, the ANU explored service usage and gaps across a broad range of services (Biddle & Gray 2020). In the survey conducted in May, participants were asked whether they had needed for a predefined list of ten issues. Overall, 38 per cent of people reported that they had needed at least one type of service, the most common being health and medical (26.8 per cent) and mental health support (10.8 per cent).

Women were more likely to report that they needed help than men overall (40 per cent compared to 36 per cent), however, women were significantly more likely to report a need for support with health/medical issues, mental health, and helpline support, while men were more likely to report a need for employment support (Biddle & Gray 2020). Age was also an important factor in patterns in reported support needs, with women aged 35-44 years more than 50 per cent more likely to report needing support than men in the same age bracket.

Of the people who reported needing some form of support, 76 per cent of people said they sought the help they needed, with help-seeking particularly high for health/medical needs, mental health needs and information, advice and referrals. People were less likely to seek support for financial and material support, employment support and residential care, with around 60- 65 per cent of people

seeking these types of supports when they needed it (Biddle & Gray 2020). However, the types of support people were least likely to seek support from when they needed it were domestic and family violence services (35 per cent), drug and alcohol services (39 per cent) and day-to-day living support (44 per cent).

Finally, the study explored barriers to access services and found that women and people aged 65 years and over were less likely to report difficulty accessing services, while people who were born in a non-English speaking country and those living outside capital cities were more likely to report difficulty (Biddle & Gray 2020). Overall, participants reported the following barriers to accessing the services they needed:

- Unable to speak to someone/operator busy (47.3 per cent)
- Appointment not available when needed (44 per cent)
- Not sure who to contact (33.4 per cent)
- Isolating due to COVID-19 (28.8 per cent)
- Cost (22.7 per cent)
- Dislike or fear of service (20.2 per cent)

The *COVID-19 Impacts Survey* conducted by the University of Melbourne recently included a question on engagement with health care, which showed that around 17 per cent of people had chosen not to see a health professional when they needed to. However, the proportion of people who had consulted a health professional when they needed to increased from 38 per cent in June to 44 per cent in late August (Melbourne Institute 2020e).

The survey also showed that face-to-face appointments have been the preferred mode of consultation with health professionals between June and August, with 70-80 per cent attending in-person consultations compared to around 20-25 per cent of people who used telehealth (Melbourne Institute 2020e).

References

Asian Australian Alliance 2020, COVID-19 Coronavirus Racism Incident Report: Reporting Racism Against Asians in Australia due to the COVID-19 Coronavirus Pandemic, Asian Australian Alliance, Sydney.

ABC News 2020, 'As Victoria endures prolonged coronavirus lockdown, mental health workers see devastating impacts of COVID-19', ABC News, 2 September.

Australian Bureau of Statistics (ABS) 2020a, Labour Force Australia: Headline estimates of employment, unemployment, underemployment, participation and hours worked from the monthly Labour Force Survey, ABS, Canberra, accessed 8 October 2020, <<https://www.abs.gov.au/statistics/labour/employment-and-unemployment/labour-force-australia>>.

Australian Bureau of Statistics (ABS) 2020b, *Household Impacts of COVID-19 Survey*, ABS, Canberra, accessed 8 October 2020, <<https://www.abs.gov.au/statistics/people/people-and-communities/household-impacts-covid-19-survey>>.

Australian Bureau of Statistics (ABS) 2020c, *Schools*, ABS, Canberra, accessed 14 October 2020, <<https://www.abs.gov.au/statistics/people/education/schools/latest-release>>.

Australian Institute of Family Studies (AIFS) 2020a, *Life During COVID-19: Early Findings*, AIFS, Canberra.

Australian Institute of Family Studies (AIFS) 2020b, *Life During COVID-19: Dads spend more quality time with kids*, AIFS, Canberra.

Australian Institute of Family Studies (AIFS) 2020c, *Life During COVID-19: Health and Support*, AIFS, Canberra.

Berg, L & Farbenblum, B 2020, *As if we weren't humans: The abandonment of temporary migrants in Australia during COVID-19*, Migrant Worker Justice Initiative (MWJI), Sydney.

Biddle, N, Edwards, B, Gray, M & Sollis, K 2020a, *Hardship, distress and resilience: The initial impacts of COVID-19 in Australia*, Australian National University: Centre for Social Research Methods, Canberra.

Biddle, N, Edwards, B, Gray, M & Sollis, K 2020b, *Tracking outcomes during the COVID-19 pandemic (August 2020) – Divergence within Australia*, Australian National University: Centre for Social Research Methods, Canberra.

Biddle, N, Edwards, B, Gray, M & Sollis, K 2020c, *COVID-19 and mortgage and rental payments: May 2020*, Australian National University: Centre for Social Research Methods, Canberra.

Biddle, N, Gray, M, Jahromi, M & Marasinghe, D 2020d, *Changes in paid and unpaid activities during the COVID-19 pandemic: Exploring labour supply and labour demand*, Australian National University: Centre for Social Research Methods, Canberra.

Biddle, N & Gray, M 2020, *Service usage and service gaps during the COVID-19 pandemic*, Australian National University: Centre for Social Research Methods, Canberra.

Brown, R & Hickman, A 2020, *Changes in online gambling during the COVID-19 pandemic*, Australian Institute of Criminology, Canberra.

Commission for Children and Young People (CCYP) 2020, *Impact of COVID-19 on Children and Young People: Education*, CCYP, Melbourne.

Davidson, P 2020, *Inequality in Australia, Part 1: Overview. Supplement: The impact of COVID-19 on income inequality*, Australian Council of Social Service and UNSW, Sydney.

Department of Health and Human Services (DHHS) 2020a, *Your Coronavirus (COVID-19) Questions Answered*, Victorian Government, Melbourne, accessed 12 May 2020, <<https://www.dhhs.vic.gov.au/your-coronavirus-covid-19-questions-answered>>.

Department of Health and Human Services (DHHS) 2020b, *Victoria's roadmap for reopening – how we live in Victoria*, Victorian Government, Melbourne.

Drane, C, Vernon, L & O'Shea, S 2020, *The impact of 'learning at home' on the educational outcomes of vulnerable children in Australia during the COVID-19 pandemic*, Curtin University, Perth.

Duckett, S, Mackey, W, Stobart, A, Swerissen, H, & Parsonage, H 2020, *Coming out of COVID-*

19 lockdown: the next steps for Australian health care, Grattan Institute, Melbourne.

Gainsbury, S & Blaszczynski, A 2020, *The impact of the COVID-19 shutdown on gambling in Australia: Preliminary results from Wave 1 cross-sectional survey*, The University of Sydney, Sydney.

Herault, N, Kabatek, J, Kalb, G, Meekes, J & Guillou, M 2020, *Research Insights: Did Jobseeker and JobKeeper Achieve their Aims?*, Melbourne Institute: Applied Economic and Social Research, Melbourne.

Jenkinson, R, Sakata, K, Khokhar, T, Tajin, R & Jatkar, U 2020, *Gambling in Australia during COVID-19*, Australian Gambling Research Centre, Australian Institute of Family Studies, Canberra.

Joshi, K 2020, *The pandemic is making Australian media racism even more dangerous*, accessed 6 October 2020, <<https://ketanjoshi.co/2020/07/30/the-pandemic-is-making-australian-media-racism-even-more-dangerous/>>.

Melbourne Institute: Applied Economic and Social Research 2020a, *Taking the Pulse of the Nation 29 June – 3 July: The Impact of COVID-19 in Australia*, University of Melbourne, Melbourne.

Melbourne Institute: Applied Economic and Social Research 2020b, *Research Insights: Is the collective action of social distancing the new normal?* University of Melbourne, Melbourne.

Melbourne Institute: Applied Economic and Social Research 2020c, *Research Insights: Strong preference for working mostly from home as more Australians expect a “new normal” within 6 months*, University of Melbourne, Melbourne.

Melbourne Institute: Applied Economic and Social Research 2020d, *Taking the Pulse of the Nation 3-8 August: The Impact of COVID-19 in Australia*, University of Melbourne, Melbourne.

Melbourne Institute: Applied Economic and Social Research 2020e, *Taking the Pulse of the Nation 17-21 August: The Impact of COVID-19 in Australia*, University of Melbourne, Melbourne.

People with Disability Australia (PWDA) 2020, *People with disability and COVID-19*, PWDA, Sydney.

Phillips, B, Gray, M & Biddle, N 2020, *COVID-19 JobKeeper and JobSeeker impacts on poverty and housing stress under current and alternative economic and policy scenarios*, Australian National University: Centre for Social Research Methods, Canberra.

Raynor, K & Panza, L 2020, *The Impact of COVID-19 on Victorian Share Households*, University of Melbourne: Hallmark Research Initiative for Affordable Housing, Melbourne.

Raynor, K, Wiesel, I & Bentley, B 2020, *Why staying at home during a pandemic can increase risk for some*, University of Melbourne, Melbourne.

Relationships Australia 2020a, *COVID-19 and its Effects on Relationships*, Relationships Australia, Canberra.

Relationships Australia 2020b, *COVID-19 and its Effects on Relationships: What effects will the easing of restrictions have on people's relationships and mental health*, Relationships Australia, Canberra.

- Sandvik, D 2020, 'Lessons from locked-down learning', *Agora*, vol. 55, no. 2, pp. 12-16.
- Sonnermann, J & Goss, P 2020, *COVID Catch-Up: Helping Disadvantaged Students Close the Equity Gap*, Grattan Institute, Melbourne.
- Tan, C 2020, COVID-19 has prompted a spike in racist attacks. We need to start tracking them better, ABC News, Australia.
- VicHealth 2020, *VicHealth Coronavirus Victorian Wellbeing Impact Study: Report for Survey 1*, VicHealth, Melbourne.
- Victorian Council of Social Services (VCOSS) 2020, *COVID-19 and the community sector: VCOSS submission to the PAEC Inquiry into the Victorian Government's response to the COVID-19 pandemic*, VCOSS, Melbourne.
- Victorian Equal Opportunity and Human Rights Commission (VEOHRC) 2020, *Reducing racism during COVID-19*, VEOHRC, Melbourne.
- Walsh, M 2020, Here's what you told us about racism in Australia during the coronavirus pandemic, ABC News, Australia.
- World Health Organization (WHO) 2020, *Responding to Community Spread of COVID-19: Interim Guidance*, WHO, Geneva.
- Zheng, Yi, Edmund, G & Wen, J 2020, 'The effects of misleading media reports about COVID-19 on Chinese tourists' mental health: A perspective article', *Anatolia*, DOI: 10.1080/13032917.2020.1747208.

Section Two: Impact on Health and Wellbeing

Healthy eating

The introduction of lockdowns in response to the COVID-19 pandemic has had several impacts on Australia's food systems, including shortages on the supply of food products, limits on the sale of essential items (and therefore purchasing decisions), and a reduction in the provision of food services, including cafes and restaurants. These factors coupled with the economic impacts of COVID-19 have changed the eating behaviours and practices as well as increased food insecurity for many individuals and households across Australia and Victoria (Carey et al. 2020a; McKay et al. 2020; VicHealth 2020). This section provides an overview of the impact of COVID-19 on Australia's food system, dietary intake, food practices and food insecurity.

1. Impact on food systems

Australia has a robust food system and is considered a food secure nation due to the fact it produces substantially more food than the Australian population consumes (DAWE 2020). In Victoria, the peri-urban region has the capacity to meet 40 per cent of metropolitan Melbourne's food needs and 80 per cent of its fresh vegetable needs (Carey et al. 2020b).

However, the COVID-19 pandemic disrupted food systems across Australia and in Victoria. In the early stages of the pandemic, fear of food shortages led to many people stockpiling dry food staples, including flour, rice and canned food. This in turn led to supply shortages in stores, which was compounded by border closures and disruption to global logistics and transportation systems (Carey et al. 2020a; Kent et al. 2020). There has also been an increase in the cost of some fruits and vegetables, some local food markets have been forced to close down and cafes and restaurants have had to modify their operations due to restrictions.

In addition, while food might be in abundance in Australia, many people are unable to access or afford the amount and quality of food they need. Prior to the pandemic, the prevalence of food insecurity was estimated to be between 4 and 14 per cent, and was as high as 83 per cent for some disadvantaged populations (National Rural Health Alliance 2020). The economic impacts of the pandemic have increased the extent of food insecurity in Australia, not just in terms of the number of people experiencing it, but also the severity of it for some individuals and households (VicHealth 2020). This has substantially increased demand for emergency food relief services, which has placed significant strain on the ability of the sector to meet people's food needs, particularly given many services have been under resourced and operating at reduced capacity (see Section 5). In response to these challenges

many community groups, social enterprises and community garden networks have increased their efforts to address food insecurity by preparing and delivering produce, meals and gardening kits to low income households across Melbourne and Victoria (Moving Feast 2020).

The food system and food security challenges have also prompted policy responses and the expansion of food programs by governments at all levels. For example, the Victorian Government introduced coronavirus emergency relief packages for people who are required to self-isolate, as well as established the Community Food Relief Fund to support local community organisations to continue supplying food to people in need during the pandemic (DHHS 2020). The Australian Government has provided an additional \$59 million in funding for the national Meals on Wheels Program to increase the number of meals delivered to senior citizens during the pandemic, and municipal councils play a significant role in the delivery of this program at a local level (Department of Health 2020).

As Victoria moves into the recovery stage of COVID-19, governments, service providers and community organisations will have an ongoing role to play in ensuring the food system adequately meets the needs of the population, particularly those experiencing or who are vulnerable to food insecurity as a result of the pandemic and economic fallout.

2. Dietary intake

A national study conducted by the CSIRO in June explored the impact of COVID-19 on the wellbeing of Australians, including on 'lifestyle' behaviours (CSIRO 2020). The study found that nearly 36 per cent of respondents felt the pandemic had a negative impact on their diet, with nearly a quarter reporting it had gotten worse and 11 per cent reporting it had gotten a lot worse (CSIRO 2020).

However, a large number of people reported that their diet had improved during the pandemic, citing an increase in their vegetable consumption, a reduction in their takeaway consumption and an increase in their intake of home-cooked meals (CSIRO 2020).

2.1 Fruit and vegetable consumption

The VicHealth COVID-19 survey explored the impact of the first lockdown on vegetable consumption as a proxy measure of healthy food intake overall (VicHealth 2020). The recommended intake of vegetables is at least five serves per day (NHMRC 2013). The findings showed that only 8 per cent of adults were eating five or more vegetables per day, while the average intake was 2.5 serves per day (VicHealth 2020). Some population groups were significantly less likely to consume the recommended daily vegetable intake, including:

- People who speak a language other than English at home (4 per cent)
- People who are unemployed (4 per cent)
- Single parents with children (5 per cent)

Nearly one in five people (19 per cent) reported that they were eating more vegetables during lockdown, while 14 per cent reported eating fewer vegetables (VicHealth 2020).

The CSIRO study showed similar patterns in vegetable consumption at the national level, with nearly 25 per cent of people reporting increased consumption during the pandemic, and 9 per cent reporting decreased consumption of vegetables. There was also changes to fruit consumption, with 18.9 per cent of people reporting an increase and 11.7 per cent reporting a decrease (CSIRO 2020).

2.2 Takeaway consumption

The VicHealth COVID-19 survey explored the impact of the first lockdown on takeaway⁶ food as a proxy measure of unhealthy, discretionary food intake overall (VicHealth 2020). Four per cent of Victorian adults reported consuming takeaway foods at least three times per week, though this was much higher for students, people aged 25 to 34 years, and single parents with children (11 per cent). It was also higher for people who speak a language other than English at home, and people with self-reported disability (8 per cent) (VicHealth 2020). When asked about takeaway food consumption during lockdown compared to in February 2020, 12 per cent of people reported eating it more often, while 34 per cent said they were eating it less often (VicHealth 2020).

The CSIRO study showed similar increases in takeaway food consumption at a national level (12.7 per cent) but showed a significantly higher proportion of people had decreased their takeaway food intake (52.8 per cent). It also showed that an equal proportion of people had increased to those who had decreased their junk food intake (31 per cent), while 34 per cent of people reported eating more snacks during the pandemic (CSIRO 2020).

2.3 Sugary drink consumption

During the first lockdown in Victoria, 32 per cent of Victorians reported consuming a sugary drink at least once per day, which is significantly higher than the proportion of adults who consumed one sugary drink per day in 2017 (10.1 per cent) (VicHealth 2020). Those groups most likely to consume at least one sugary drink per day were:

- People aged 18-24 years (50 per cent)
- Single parents with children (49 per cent)
- People living in share households (41 per cent)

Despite the significant increase in the consumption of sugary drinks during lockdown, only 11 per cent of people reported an increase in their consumption compared to February 2020, while 18 per cent of people reported that their consumption had decreased (VicHealth 2020).

⁶ Takeaway food refers to burgers, pizza, chicken or chips from fast food chain outlets or local takeaway places.

3. Food practices

Findings from the VicHealth COVID-19 Wellbeing Impact Survey revealed that Victorians made various changes to their food practices during the first lockdown (VicHealth 2020). Firstly, a significant proportion of people (28 per cent) reported that their household was cooking dinner more often, while 7 per cent said they were cooking dinner less often. Some of the main reasons for these changes are highlighted in Table 1.

Table 1: Reasons for cooking more or less often during lockdown

Cooking more often	%	Cooking less often	%
More time to prepare and cook food	57	Concern about going to the supermarket	31
Home cooked food costs less	46	Cost of food	28
Prefer to stay home at this time	43	I don't care about what I eat	17
Family/household want to eat home cooked meals	30	Concern about food safety and contamination	13
More time to shop for food	22	Limited supply at the shops	10

Source: VicHealth 2020

At the national level, 45 per cent of people reported eating home cooked meals more often, while only 4 per cent reported a decrease in the number of home cooked meals they consumed (CSIRO 2020).

In addition to changes in the frequency of cooking meals at home, the lockdown influenced a number of changes to the way Victorians sourced and prepared food. Around half of all respondents reported that they had started keeping more food and essential items at home, planning meals for the week and shopping local fresh food suppliers after the lockdown started (VicHealth 2020). Other changes included ordering directly from a local restaurant or cafe (36 per cent) or through online food delivery services (28 per cent) and planting seeds and food plants at home (34 per cent).

4. Food security

Food security is defined as a situation in which all people in a population have physical, social and economic access to sufficient amounts of safe and nutritious food at all times (FAO 2012). Food security is underpinned by four key pillars: i) availability of sufficient amounts of safe and nutritious foods to meet dietary needs; ii) access to socially and culturally appropriate food, including adequate economic and physical resources to acquire it; iii) utilisation, which refers to the resources and infrastructure to convert food into meals; and iv) stability of all food security pillars at all times (McKay et al. 2019; McKechnie et al. 2018).

Food insecurity can be acute, chronic and/or cyclical, in that people may move between being food secure and food insecure depending on their circumstances. It also occurs along a continuum, ranging from concern and anxiety about being

able to access enough food through to experiencing hunger due to not having enough food to eat (McKay et al. 2019).

Food insecurity is influenced by a range of factors, including income and financial position, household composition, geographic location and sudden changes in employment and social circumstances. Studies have shown that some population groups are more vulnerable to food insecurity than others, including Aboriginal and Torres Islander people, people with disability, young people (aged 18-25), and temporary residents including refugees and asylum seekers (Kent et al. 2020; McKay et al. 2019).

Estimates of the prevalence and severity of food insecurity vary significantly according to the measures used to assess it. In Australia, population surveys tend to use a single-item measure that asks whether a person has run out of food and not been able to purchase more to estimate household food insecurity (Kleve et al. 2017). It is important to note that studies have shown this measure to underestimate the prevalence of food insecurity by at least 5 per cent (McKechnie et al. 2018; Kleve et al. 2017; McKay et al. 2019). Therefore, measures that report on multiple dimensions of food security are likely to be a more reliable estimate of prevalence and severity, some of which are presented below.

4.1 Access

The VicHealth COVID-19 survey explored the impact of the first lockdown on food security. Nearly a quarter of respondents (23 per cent) indicated they have had to rely on a restricted range of low-cost unhealthy food because they were running out of money to buy food. This experience was far more likely for Aboriginal and Torres Strait Islander people (54 per cent), people aged 18 to 24 years (44 per cent), people who are unemployed (40 per cent), and single parents with children (39 per cent).

A further 7 per cent of people reported that they had run out of money and were unable to afford to buy more. Again, this was significantly more likely to occur for Aboriginal and Torres Strait Islander people (46 per cent), single parents with children (24 per cent), students (16 per cent), people who are unemployed (15 per cent), and people with self-reported disability (14 per cent).

The survey asked a series of other questions relating to food security, which revealed a significant increase in the proportion of people who were worried about having enough money to buy food, which nearly doubled from 9 per cent to 17 per cent. It also showed that a significant proportion of people had been forced to adopt survival strategies for coping with food security. These included:

- Skipping a meal in order to feed the household (10 per cent)
- Went without meals (8 per cent)
- Accessed food relief (7 per cent)

A study on the experiences of temporary migrants during COVID-19 found that 28 per cent of respondents had been unable to pay for meals or food at some stage

during COVID-19 restrictions, while 30 per cent of international students and 53 per cent of refugees and asylum seekers had been in that situation (Berg & Farbenblum 2020).

A significant proportion of Victorians living in share households also experienced food insecurity during the pandemic. A study conducted by the University of Melbourne found that one in five people living in share households had to go without meals/food in order to afford other necessities (Raynor & Panza 2020).

4.2 Cost and affordability

Ipsos Research Institute recently conducted a global study on the impact of COVID-19 on the cost of living, which showed that the majority of people in all 26 participating countries believed the cost of food, goods and services had increased for them and their family since the start of the pandemic (Ipsos 2020).

More than half (52 per cent) of Australians reported an increase in the cost of these items, and a majority agreed that food and groceries had increased more than any other cost for them. When asked about the reason for the increase, more than 50 per cent of people believed it was due to having to buy more expensive items or pay delivery charges due supply shortages or store closures (Ipsos 2020).

These findings are supported by consumer price figures released by the Australian Bureau of statistics, which have risen by 2.2 per cent overall over this year (ABS 2020). This included significant increases in the price of food items, which rose by 4.1 per cent in the 12 months up to June 2020. The food items with the largest cost increases were:

- Meat and seafood (6.1 per cent)
- Cereal products (6.1 per cent)
- Fruit and vegetables (5.8 per cent)

4.3 Impact on food relief services

Increased food insecurity due to the pandemic has led to an increase in the number of people seeking emergency food assistance. Deakin University recently conducted a study to understand the way in which emergency and community food providers were responding to the increased demand for food relief. More than 100 emergency food aid providers in Victoria (predominantly Melbourne) participated in the survey, including pantries, community meal services, soup kitchen and similar programs (McKay et al. 2020).

All service providers reported a change in their service delivery, with two in five services reporting that they had extended or changed their operations during the pandemic, while 31 per cent had temporarily closed and nearly 38 per cent had reduced their hours of operation (McKay et al. 2020).

Just over 50 per cent of service providers indicated that they were providing services to more people during the pandemic than they were previously. Nearly 42 per cent

reported there had been an increase in people seeking food, including nearly 28 per cent who reported an increase in access from people on temporary visas, international students and other people who were ineligible for government support (McKay et al. 2020). There was also an increase in parents accessing food for children, and women fleeing domestic violence situations.

A significant number of agencies also reported challenges with their food supply:

- 55 per cent were unable to source quality foods
- 23 per cent were unable to source food for specific cultural groups
- 22 per cent were unable to source food for special dietary requirements (McKay et al. 2020).

Many agencies expressed concern that they are already stretched and struggling to meet demand, but anticipate an even greater demand for food relief after September when JobSeeker and JobKeeper payments are reduced (McKay et al. 2020).

A similar study was undertaken by Emergency Management Victoria to assess the impact of COVID-19 on Victoria's emergency relief sector (EMV 2020). More than 460 people participated in the survey from a broad range of agencies, including emergency relief organisations, neighbourhood houses, local governments, health services, family support services and faith-based organisations (EMV 2020). The study showed an overall increase of 2.6 per cent in the number of clients accessing emergency relief during the pandemic, an increase of around 1,400 clients per month (EMV 2020). Approximately 27 per cent of new and existing clients were newly vulnerable people who were not self-isolating, while more than 50 per cent of people accessing services were existing cohorts of vulnerable people whose needs had continued or increased during the pandemic (EMV 2020).

Overall there was an increase in demand from younger people (including children) and people living in share households, while the number of couples, families and individuals accessing services decreased, and access by single parents remained consistent with pre-pandemic levels (EMV 2020). The study also revealed that a significant number of services experienced challenges with food supply, including a significant decrease in revenue to purchase food supplies as well as a substantial reduction in the number of food donations (EMV 2020).

5. Breastfeeding support

In response to concerns about the risks of breastfeeding during the COVID-19 pandemic, the World Health Organization released guidelines on breastfeeding. The guidelines included recommendations for health workers providing maternal services to: i) encourage mothers to initiate or continue breastfeeding, even if they are a suspected or confirmed case of COVID-19; ii) provide counselling and education on the benefits of breastfeeding and assurances that they outweigh the potential risks of transmission; and iii) support the mother and infant to practice skin-to-skin contact, and to room together during the day and night (WHO 2020). The

WHO guidelines also emphasised the importance of providing ongoing health care and support to mothers following the birth of their child.

However, the closure of health services and changes in service delivery in Victoria due to COVID-19 restrictions have had implications for the support available for new mothers and parents, including with the initiation and continuation of breastfeeding. In the early stages of the pandemic the Australian Breastfeeding Association (ABA) observed changes in the feeding practices and support requests from new mothers, which prompted them to conduct a national survey of ABA volunteers to determine their support needs as well as those of mothers and other service users (Hull et al. 2020).

The survey was completed by 211 respondents who reported on the concerns of 340 ABA service users. A significant proportion (64 per cent) of mothers had contacted the ABA seeking support to breastfeed because they wanted to protect their infants from COVID-19. This included support to continue breastfeeding, increase their milk supply or to restart breastfeeding (Hull et al. 2020).

More than 60 per cent of those who sought support from the ABA also reported that they were unable to access a face-to-face health service, either due to service closures and changes to service operations (i.e. reduced outreach), or because they did not want to visit their general practitioner or maternal and child health nurse due to fears of being exposed to COVID-19 (Hull et al. 2020). In terms of specific breastfeeding concerns and its implications for infant nutrition, 38 per cent of mothers sought assistance from ABA due to concerns about insufficient milk supply and the impact it was having on inadequate infant weight gain. These concerns were sometimes exacerbated by the lack of health care access and ability to attend routine maternal health checks (Hull et al. 2020).

Active living

The introduction of lockdowns in Melbourne to control the spread of the COVID-19 pandemic had a significant impact on the daily activities of people living and working in Melbourne. Various aspects of the lockdown limited the ability for people to be physically active, including restrictions on time permitted outside and the distances people were allowed to travel from home; restrictions on the types of activities people were allowed to engage in; limited access to green space for some communities; and reduced opportunities for incidental exercise due to working from home and remote learning arrangements. In addition, the closure of gyms, recreation centres, pools, and other indoor venues and the disruption to community sport and recreation prevented participation in structured physical activities, while the closure of childcare centres and schools also disrupted the movement and play behaviours of children and young people (Ding et al. 2020; United Nations 2020; Gallo et al. 2020). Together, these restrictions and closures also influenced overall mobility trends, including changes in transport attitudes, behaviours and future intentions (Transurban 2020, MPTG 2020).

This section provides an overview of the impact of COVID-19 on participation in physical activity and sedentary time, barriers to physical activity, and urban mobility and use of public transport.

1. Participation in physical activity

1.1 Physical activity in adults

The Australian physical activity guidelines recommend that adults (18-64 years) undertake 150-300 minutes of moderate physical activity or 75-150 minutes of vigorous activity per week. They also recommend that adults be active on most - if not all days of the week, that muscle-strengthening activities be included at least two days per week, and that people take breaks in the time they spend being sedentary⁷ (Department of Health 2014).

VicHealth explored the impact of the first lockdown on participation in physical activity as part of their COVID-19 Survey, including frequency, duration and factors that influenced changes in activity (VicHealth 2020a). The results showed that overall Victorian adults were doing less physical activity during the first lockdown than they were in February. The proportion of people meeting the physical activity guidelines dropped from 37 per cent to 32 per cent, while the proportion of people who were inactive⁸ increased from 20 per cent to 27 per cent (VicHealth 2020a). Physical activity levels in Victoria were similar to those reported in a national research study conducted by Monash University, which found that 30 per cent of adults across Australia were meeting the physical activity guidelines during lockdown, while 20 per cent were inactive (Kunstler et al. 2020).

In Victoria, almost all population groups reported a decrease in the frequency of physical activity, including those who were still meeting the physical activity guidelines and those who were inactive during lockdown. However, the most significant drop in the proportion of people meeting recommended physical activity levels occurred for the following population groups (VicHealth 2020a):

- People aged 18-24 years (dropped from 38 to 29 per cent)
- People aged 75 and over (dropped from 42 to 30 per cent)
- Aboriginal and Torres Strait Islander people (dropped from 52 to 38 per cent)
- Students (dropped from 34 to 22 per cent)
- Single parents with children (dropped from 37 to 26 per cent)

The proportion of men who reported undertaking physical activity five or more days per week dropped slightly more than the proportion of women (7 per cent drop compared to 4 per cent), however women were slightly more likely to report being inactive during lockdown than men with some reporting this was due to increased caring responsibilities (VicHealth 2020a).

⁷ Sedentary time is defined as time spent in activities like sitting, reclining or lying that require low energy expenditure

⁸ Participating in physical activity on 1 day or less per week

People aged 75 years and over and people with self-reported disability were more likely to report being inactive during the first lockdown, at 37 per cent and 39 per cent respectively (VicHealth 2020a). However, the groups with the highest increase in the proportion of people being inactive during lockdown compared to February were:

- Students (increased from 13 to 27 per cent)
- People aged 65 to 74 years (increased from 20 to 32 per cent)
- People aged 45 to 54 years (increased from 18 to 29 per cent)
- People who speak a language other than English at home (increased from 15 to 26 per cent)
- People living in share households (increased from 21 to 31 per cent)

In terms of self-reported changes in physical activity levels, the lockdowns in Victoria had a negative impact overall, with 21 per cent of people reporting they were doing more physical activity and 37 per cent reporting they were doing less physical activity compared to February (VicHealth 2020a). The Life During Covid-19 Survey conducted by the Australian Institute of Family Studies (AIFS) showed more positive results at the national level. The study showed that restrictions did have a significant impact on leisure activities, particularly on the time spent exercising, but that more people (32 per cent) reported exercising more than those who reported exercising less (27 per cent) during the pandemic (AIFS 2020). Differences between physical activity levels at the national and Victorian level are likely to be in part due to tighter restrictions, sustained over a longer period of time.

According to the AIFS study, working arrangements were a major factor influencing leisure time activities during the pandemic, with those who worked from home more likely to report increases in physical activity (AIFS 2020). This is in contrast to the findings of a Heart Foundation study that explored the impact of working from home on walking at the start of COVID-19 lockdowns. The results showed that overall 25 per cent of people walked less, but that significantly more (40 per cent) of those working from home walked less than they usually would (Heart Foundation 2020). This may indicate that people had more opportunities to participate in planned or structured physical activities, while their opportunities for incidental exercise decreased.

Changes in type of activity

According to the VicHealth COVID-19 Survey, there were no major changes in the types of activity people participated in during lockdown (VicHealth 2020a). The significant majority of people reported walking as a form of exercise during lockdown (73 per cent), which dropped only slightly from 77 per cent in February. There was also a drop in the proportion of people running (down 2 per cent). The most significant increases were in the proportion of people undertaking strength exercises at home (up 6 per cent) and yoga/Pilates at home (up 4 per cent). There was also a slight increase in the proportion of people cycling, up from 13 per cent in February to 15 per cent during lockdown (VicHealth 2020a).

A small national study conducted in April by a sport and entertainment consultancy, Gemba showed greater variations in the types of activity people were undertaking during the first lockdown compared to the period prior to the pandemic (Gemba 2020). While this study relied on self-reported changes, more than 30 per cent of participants reported doing more walking than they usually do, which increased across adult age groups. This increase was highest among people aged 18-29 years, with approximately 55 per cent doing more walking. There were a number of people who indicated running more often (15 per cent), and approximately 8 per cent indicated cycling more often (Gemba 2020). In addition, one quarter of participants reported taking up a new form of exercise during lockdown, including 40 per cent of women. More than one third of people also felt positive about the use of digital and online technologies to enable physical activity, with the support for this type of activity highest among women (42 per cent) and people aged 18-29 years (43 per cent) (Gemba 2020).

1.2 Barriers to physical activity in adults

In order to better understand barriers to physical activity during the first lockdown, participants in the VicHealth COVID-19 Survey were asked to report on the factors that had led to a decrease in physical activity levels. The reason most commonly cited was low motivation to exercise (39 per cent), while a large proportion (29 per cent) of people also reported not having a space to exercise at home as a barrier (VicHealth 2020a). Other reported barriers included:

- Concerns about catching COVID (26 per cent)
- Having no one to exercise with (18 per cent)
- Not feeling safe doing physical activity outside (17 per cent)
- No suitable park or path for physical activity (12 per cent)
- More childcare responsibilities (12 per cent)

Those who reported an increase in physical activity during lockdown cited having more time (34 per cent), wanting to improve their health (33 per cent), wanting to get out of the house (31 per cent) and having more flexible working arrangements (15 per cent) as some of the main reasons for being more active (VicHealth 2020a). This suggests that some of the previous barriers to physical activity had been reduced during lockdown, and that people perceived physical activity as a useful strategy for coping with the stress of restrictions.

Early findings from a joint study on physical activity by the University of Auckland and La Trobe University also showed that people experienced additional barriers to participating in physical activity during the pandemic (Dalton 2020), including:

- Increased caring responsibilities (coupled with closures of childcare services)
- Increased workloads limiting time for exercise
- Not being able to engage with trainers, physiotherapists and exercise physiologists for guidance and technical instruction
- Decreased motivation and capacity due to stress and mental health issues

Fears around personal health and safety have been reported as a significant barrier to people participating in physical activity, which are likely to continue long after lockdowns and restrictions are eased. A national survey conducted by Relationships Australia in July explored people's perceptions and level of comfort about the prospect of participating in everyday activities once restrictions are eased (Relationships Australia 2020). Of the 665 survey participants, 56 per cent reported feeling uncomfortable about the prospect of attending a public pool, while 47 per cent were uncomfortable about the idea of attending a gym or other indoor exercise facility. In addition, 6 per cent of people indicated they would no longer feel comfortable engaging in exercise even if COVID-19 is being managed effectively (Relationships Australia 2020).

1.3 Sedentary time in adults

The Life During Covid-19 Survey explored the types of recreation and leisure activities people participated in during the pandemic (between May and June). Whilst one in three people nationally reported exercising more often, significantly higher proportions of people reported engaging in sedentary activities more often, including 51 per cent who watched TV or movies more often, and 43 per cent who played games or puzzles more often (AIFS 2020). Young people aged 18-29 were most likely to report spending more time watching TV or movies (68 per cent) and playing games or puzzles (54 per cent). However, there was a general trend across all activities according to age, in that young people were more likely to spend more time on all activities than they did previously, while older age groups were progressively less likely to have spent more time on new activities (AIFS 2020).

A national research study conducted by Monash University also explored physical activity levels and sedentary behaviour during the pandemic and found that just under 60 per cent of people reporting what is considered low levels of sedentary time (defined as less than 9 hours per day), and that young people (aged 18 to 29 years) were more likely to be sedentary than any other age groups (Kunstler et al. 2020).

1.4 Physical activity in children and young people

Evidence on the impact of the COVID-19 pandemic on the health and wellbeing of children in Australia is currently limited, including on their daily movement and sedentary screen time.

The Australian physical activity guidelines recommend that children and young people (5-17 years) accumulate 60 minutes of moderate to vigorous (aerobic) physical activity per day, and that muscle and bone strengthening activities be incorporated at least three days per week (Department of Health 2014). They also recommend that children and young people limit their sedentary recreational screen time to a maximum of two hours per day.

Children and young people generally achieve their physical activity needs through active travel to and from school, active play at recess and lunch and through physical education classes and organised sports, games and dance at school. Many also engage in physical activity in playgrounds and parks as well as organised sport outside of school hours (Guan et al. 2020).

Evidence suggests that children are less active and more sedentary on non-school days/unstructured days than on school days (Guan et al. 2020). Therefore, the closure of schools and transition to remote learning in Australia, coupled with other restrictions limiting after school and weekend activities is likely to have had a negative impact on the physical activity levels and sedentary screen time of children and young people. This impact is likely to have been more significant for those living in Melbourne, due to prolonged school closures and stricter lockdowns. Some international studies have explored the impact of COVID-19 on physical activity and sedentary time of children and young people, which may provide insights relevant to the Australian context.

In a national Canadian study, parents were surveyed about the movement and play behaviours of their children (aged 5-17 years) during the early stages of the pandemic, following the introduction of school closures and other restrictions (Moore et al. 2020). The study showed a significant decrease in all physical activities for children and youth, except for household chores. As expected, the most substantial decline was in outdoor activities and sport, while leisure screen time and social media use increased dramatically. Parents also reported that family time involving sedentary activities increased while family time involving physical activities decreased (Moore et al. 2020).

The study highlighted the key factors associated with higher levels of physical activity in children. Owning a dog and living in a free-standing house was associated with more outdoor play, while parental encouragement and co-participation was associated with more outdoor physical activity, outdoor play, time spent walking and cycling, indoor physical activity and household chores (Moore et al. 2020). There were also gender and age differences observed in levels of physical activity, with girls less active than boys overall, and youth (aged 12-17 years) less active than children aged 5-11 years (Moore et al. 2020).

A similar study was conducted in the United States to examine the impact of COVID-19 on the physical activity and sedentary behaviour of children aged 5-13 years. Parents were surveyed about the activities their children had participated in the previous day, as well as self-reported changes in activities following the introduction of school closures and other restrictions (Dunton et al. 2020). Overall, parents perceived that their children's physical activity decreased during the early stages of the pandemic, with 36 per cent reporting that their children were doing much less physical activity. The activities most frequently reported were unstructured play/physical activity (90 per cent), walking (54 per cent) and cycling (38 per cent) (Dunton et al. 2020).

Gender and age differences were also observed in this study, however it was girls who were more likely to participate in most outdoor physical activities (i.e. walking, running, cycling), while boys were more likely to participate in structured sports and training (i.e. circuit training, weightlifting). Younger children (aged 5-8 years) were more likely to participate in most outdoor physical activities than older children (aged 9-13 year), with the exception of circuit training and weightlifting (Dunton et al. 2020).

The study examined sedentary behaviours in terms of minutes spent per day on each activity, and showed that children spent the most time watching television or movies (105 minutes), hanging out with friends or family (62 minutes), doing school related work (55 minutes), and playing computer/videos games (50 minutes). However, use of internet/social media was also quite high at 39 minutes per day, with girls using it approximately 15 minutes more per day than boys on average (Dunton et al. 2020).

2. Impact on mobility

The COVID-19 pandemic has had a significant impact on the movement and travel behaviours of people in Australia, particularly in major cities like Melbourne and Sydney (Transurban 2020). Prior to the pandemic, public transport accounted for 10 per cent of all trips, active transport accounted for 15 per cent, while motor vehicle travel on road networks accounted for 75 per cent of all trips (Transurban 2020).

The introduction of stage three restrictions across most Australia states resulted in a reduction in trips made by road and active transport modes by more than 50 per cent, and public transport travel by as much as 80 per cent in some cities. By August, congestion levels were starting to reach pre COVID-19 levels in Sydney and Brisbane, but remained 50 per cent lower than normal in Melbourne (Transurban 2020).

2.1 Use of public transport

The use of public transport decreased significantly following the onset of the pandemic and remained low in the months following. Data from public transport apps showed that the use of public transport in Melbourne was more than 85 per cent lower than normal in July, and 37 per cent lower than normal in Sydney and Brisbane, despite restrictions being eased in those cities (Transurban 2020).

An international study conducted in July on public transport behaviours in some Australian, Canadian and the US cities showed that 84 per cent of people in Melbourne had reduced their train use, while 77 per cent had reduced their bus use (Transurban 2020). In terms of future intentions, more than 25 per cent of people surveyed indicated they would reduce their public transport use even after the pandemic was over. Of the Melbourne respondents, 19 per cent indicated they did not intend to use trains on a daily basis and 30 per cent do not intend to use buses on a daily basis even after the pandemic is over (Transurban 2020).

The Monash Public Transport Group (MPTG) is also conducting an ongoing study on the transport behaviours of Melbourne residents, with early findings suggesting that the COVID-19 pandemic is likely to have long-term impacts on the use of public transport in Melbourne (MPTG 2020). The results indicate that public transport use may only reach 80 per cent of pre-pandemic levels and could take five to ten years to return to normal. This shift away from public transport is likely to result in a substantial increase in the use of cars, with 30 per cent of people reporting they will increase the use of their vehicle (MPTG 2020).

2.2 Use of active transport

The international study conducted by Transurban in July showed that 24 per cent of people living in Melbourne had reduced their use of cycling as a form of active transport during the pandemic. This was in contrast to Sydney and Brisbane, which showed a 4 per cent and 36 per cent increase respectively. However, 32 per cent of Melbourne respondents indicated they would increase their use of cycling for transport once the pandemic ends (Transurban 2020). According to the study conducted by the Monash Public Transport Group, active commuting could increase by as much as 55 per cent on pre COVID-19 levels in Melbourne (MPTG 2020).

A recent survey conducted by VicHealth on attitudes and behaviours towards travel before, during and after the pandemic revealed there is strong community interest in active travel across Victoria (VicHealth 2020b). Just over one third of respondents indicated they plan to travel more by using walking or cycling once COVID-19 restrictions end, and more than three quarters (76 per cent) of respondents want local and state governments to improve infrastructure to enable more people to walk or ride (VicHealth 2020b).

2.3 Factors influencing transport decisions

Personal health and safety is a key concern that is likely to influence transport decisions. Firstly, there is concern about using public transport due to risk of virus transmission. According to the study conducted by Transurban (2020):

- 50 per cent of people feel less safe using public transport
- 25 per cent of people feel much less safe using public transport
- More than 50 per cent of people feel less safe about using ride share services and travelling in a carpool.

The disruption to daily lives and routines caused by COVID-19 has positively influenced people's perceptions of walking and cycling as a means transport, which represents an opportunity to enhance active transport systems and strengthen urban sustainability agendas in Australia (Goetsch & Quiros 2020). However, concerns about physical safety is likely to be a barrier to people adopting active transport modes, as highlighted in the VicHealth study on transport attitudes and behaviours (VicHealth 2020b). Specifically, the study found that:

- 1 in 3 people reported lack of lighting to be a barrier to walking more
- 50 per cent of people did not feel safe riding on roads or near cars

- 2 in 3 people may cycle as a mode of transport if bike lanes were physically separated from the road

Alcohol and other drug use

Evidence from past pandemics and other disasters has shown that people often experience confusion, psychological distress, anxiety and other mental health issues, which can lead to increases in alcohol consumption and other drug use. There is also evidence to suggest that the alcohol and drug use behaviours adopted during these events may be sustained after it ends (Cancer Council 2020; VAADA 2020). The COVID-19 pandemic and associated lockdowns and restrictions have had an impact on the supply, procurement and consumption of alcohol and other drugs, as well as on behaviours, practices and service access.

This section provides an overview of the ways in which COVID-19 has impacted alcohol and drug use, including changes in alcohol and drug use behaviours and practices. It also provides insights into the supply and sale of alcohol and drugs, and the tactics being used by the alcohol industry to promote alcohol consumption during the pandemic. Finally, it presents the impact COVID-19 has had on the alcohol and drug service sector, including on access to and demand for services.

1. Alcohol supply and purchasing changes

The COVID-19 pandemic has significantly influenced alcohol supply and purchasing patterns in Australia. Lockdown measures across all states involved the closure of non-essential businesses, including restaurants, bars, clubs and other venues that typically sell on-premise alcohol (i.e. casinos). These closures led to state liquor and gaming commissions rapidly relaxing liquor-licensing conditions to allow for the sale of take away alcohol by businesses that are not usually authorised to do so. This not only increased the number of food businesses providing take-away alcohol, but also significantly expanded the availability of alcohol products via home-delivery services (Colbert et al. 2020).

There have been several reports of increases in the sale and purchasing of alcohol across Australia. The Foundation for Alcohol Research and Education (FARE) commissioned a survey in order to understand the alcohol purchasing and consumption behaviours of Australians during the first lockdown (FARE 2020). One in five people (20 per cent) reported buying more alcohol than usual since the COVID-19 pandemic started. This is supported by sales results from major supermarkets in Australia, which indicate a significant increase in alcohol sales between January and March 2020. There has also been a trend towards buying in bulk, purchasing cheaper products, and buying online, with some retailers reporting a 50 to 500 per cent increase in online sales compared to the same period in 2019 (Colbert et al. 2020).

These purchasing trends were also supported by Commonwealth Bank of Australia (CBA) card spending data, which showed that total card spending on alcohol increased by 34 per cent in March 2020. Despite a decline in spending at venues such as pubs and clubs, overall spending on alcohol products between May and August 2020 was higher than in the same period for the previous year, due to the increase in spending on alcohol goods (i.e. bottle shops) (AIHW 2020).

2. Alcohol industry tactics

There is growing evidence that the alcohol industry, including alcohol companies and retailers are taking advantage of the COVID-19 pandemic to boost sales through aggressive sales and marketing tactics. When reports of alcohol stockpiling emerged at the start of the pandemic, the representative body for the retail alcohol industry in Australia introduced a voluntary initiative encouraging its members to place temporary purchase limits on alcohol products (Colbert et al. 2020). However, these limits on purchasing were relatively modest and still allowed for each customer to purchase the equivalent of three-month supply in one transaction. In addition, research suggests that this kind of initiative can create a perception of product scarcity and influence people to purchase larger quantities than they otherwise would (Colbert et al. 2020).

Research has also shown that online advertisements influence intentions to purchase alcohol and increase alcohol consumption (Lobstein et al. 2017). The widespread use of handheld digital technology, including social media and other smartphone applications has created significant opportunities for efficient and individualised alcohol marketing to potential customers.

The Cancer Council recently conducted a study to investigate the marketing tactics of the alcohol industry during the COVID-19 pandemic (Cancer Council 2020). The study found that over a period of one hour, there were 107 alcohol advertisements displayed on a single personal Instagram and Facebook page, which equates to one advertisement every 35 seconds. The advertisements were analysed for their content and key messages, through which the following six overarching categories were identified (Cancer Council 2020):

- Get easy alcohol access without leaving your home (58 per cent)
- Save money (55 per cent)
- Buy more (35 per cent)
- Drink alcohol during COVID-19 (24 per cent)
- Use alcohol to cope, survive or feel better (16 per cent)
- Choose 'healthier' alcohol products (14 per cent)

In addition, 71 per cent of the advertisements explicitly mentioned the COVID-19 pandemic, or related words and hash tags such as #iso and #lockdown. A further 66 per cent of the advertisements contained a 'shop now' or 'get offer' button with a direct link to an online store, with many alcohol providers also offering free home-delivery, discounts or other incentives (Cancer Council 2020).

3. Alcohol consumption

The National Health and Medical Research Council (NHMRC) alcohol guidelines contain two general guidelines for adults to reduce health-related risks from drinking alcohol (NHMRC 2009). The first guideline recommends that healthy adults limit their alcohol intake to no more than two standard drinks per day to reduce the lifetime risk of harm from alcohol-related disease or injury. The second guideline recommends that healthy adults limit their intake to no more than four standard drinks on a single occasion to reduce the immediate risk of alcohol-related injury (NHMRC 2009).

A number of surveys and studies have been conducted to explore the impact of COVID-19 on alcohol consumption and behaviours, which have revealed varying and sometimes contradictory findings. There are a number of possible reasons for this variation, including differences in the timing of survey completion, differences in the study sample, social desirability bias and the tendency for people to under report alcohol consumption in self-report surveys (Biddle et al. 2020; FARE 2020). Therefore, results of the studies are presented separately in the next section, which provide a snapshot of individual perceptions and overall social sentiment at a point in time.

3.1 Drinking frequency and levels

VicHealth COVID-19 Wellbeing Impacts Survey

The VicHealth COVID-19 Wellbeing Impacts Survey conducted between May and June 2020 explored changes in both the frequency and level of alcohol consumption during the first lockdown in Victoria (VicHealth 2020). The survey involved 2000 participants and the sample was weighted to ensure similar demographic distribution to the Victorian population.

Almost one in five (18 per cent) people reported drinking on more days during lockdown compared to February 2020, while a similar proportion (19 per cent) reported drinking on fewer days. A small proportion (7 per cent) of people reported drinking every day, which for over one third of those people was more frequently than they were drinking pre-lockdown (VicHealth 2020).

Most people reported consuming the same quantity (standard drinks) of alcohol in a single session during lockdown compared to February, and one in five people reported drinking fewer standard drinks. However, 16 per cent of people reported drinking more standard drinks during each drinking session than they did before the first lockdown. In addition, 30 per cent of people reported drinking more than four standard drinks per session, while 11 per cent of people had consumed more than four standard drinks in a session at least weekly (VicHealth 2020).

ANU COVID-19 Study

The Australian National University (ANU) is conducting a national longitudinal study to monitor and understand the economic, health and social impacts of COVID-19. The 34th ANUPoll was conducted between 12-24 May 2020, and involved 3,219

participants across all states and territories, weighted to ensure similar demographic distribution to Australian population (Biddle et al. 2020). The findings of this study are likely to be more reliable than some other surveys on alcohol consumption, as it asked people to quantify their alcohol consumption and compared the results to standardised population benchmarks.

The study categorised alcohol consumption into three levels of frequency:

- High - Three or more days per week
- Moderate – Once per month to twice per week
- Low – Less than one per month or never

Results of the survey showed that 33.8 per cent of men and 21.9 per cent of women reported high alcohol consumption levels in the past 12 months (Biddle et al. 2020). When compared to standard benchmark data, this represents a 3.5 per cent increase in the proportion of men drinking and a 5.5 per cent increase in the proportion of women drinking during COVID-19 (Biddle et al. 2020).

The survey also asked people to make judgements about changes in their own drinking since the spread of COVID-19 in Australia. One in five people (20.2 per cent) reported an increase in their alcohol consumption, while more than one quarter (27 per cent) reported a decrease in consumption. Women were more likely to report an increase in alcohol consumption than men (22.8 per cent compared to 17.9 per cent), and women aged 35 to 44 years were the group with the largest self-reported increase in alcohol consumption (Biddle et al. 2020).

In terms of the extent of the increase in alcohol consumption, 45.8 per cent of those who reported drinking more during COVID-19 said they were drinking 1-2 more standard drinks per week, while 27.8 per cent of people said they were drinking 3-4 more standard drinks per week (Biddle et al. 2020).

ABS Household COVID-19 Survey

The ABS Household Impacts of COVID-19 Survey conducted in the first week of May explored self-reported changes in alcohol consumption in the previous four weeks. The results showed that 14.4 per cent of people had increased their alcohol consumption since COVID-19 restrictions began, while 10 per cent reported drinking less. Significantly more women reported drinking more alcohol than men, with 18 per cent and 11 per cent respectively reporting an increase in consumption during COVID-19 restrictions (ABS 2020).

FARE National Survey

The Foundation for Alcohol Research and Education (FARE) conducted a national survey on alcohol use and harm during COVID in the first week of April 2020, which involved a nationally representative sample of 1,045 participants. The survey revealed that nearly one in five (18 per cent) people reported drinking more since COVID-19 restrictions began, while 17 per cent reported drinking less (FARE 2020). Men were more likely to increase their drinking than women (20 per cent compared to 15 per cent), and people aged 35-49 years were most likely to have increased

their alcohol consumption (25 per cent), followed by people aged 18-34 years (22 per cent).

Alcohol and Drug Foundation National Survey

The Alcohol and Drug Foundation (ADF) commissioned a survey on alcohol consumption before, during and after lockdown (for other states and territories), including the factors that influenced changes. The survey was conducted in late July and involved 1000 participants across Australia (ADF 2020). The survey showed that overall there was a positive change in alcohol consumption, with 20 per cent of people drinking less and 4 per cent giving up alcohol completely during lockdown.

However, 12 per cent of Australians reported an increase in alcohol consumption, and 10 per cent reported drinking above safe levels (more than 11 drinks per week) (ADF 2020). There was also an age trend observed in changes to alcohol consumption, with 20 per cent of younger people reporting an increase, compared to 13 per cent of middle-aged people and 5 per cent of older people (ADF 2020).

3.2 Changes in drinking behaviours and practices

Prior to the COVID-19 pandemic, Australians were significantly more likely to drink at home (63 per cent of people), and packaged alcohol products accounted for 80 per cent of all alcohol sold in Australia (FARE 2020). This is likely to have continued given the closure of on-premise alcohol services and other restrictions limiting public social gatherings. However, evidence from some studies on the impact of COVID-19 on alcohol consumption suggests that drinking behaviours and practices in the home changed for some people during the pandemic.

For example, the FARE survey revealed that many people had adopted new drinking patterns following the introduction of COVID-19 restrictions, including:

- Drinking alcohol daily (14 per cent)
- Drinking alcohol on their own more often (12 per cent)
- Having their first drink earlier in the day (8 per cent)

Similar changes in drinking practices were also reported in the ADF study, which also showed that those who reported exceeding safe drinking limits were even more likely to report other changes in drinking patterns, including drinking on a daily basis or on more days of the week and consuming their first drink earlier in the day (ADF 2020).

Reasons for changes in drinking behaviour

The VicHealth survey explored the reasons people were drinking more during the first lockdown in Victoria. Participants were able to select multiple response options on reasons for drinking more, with the most commonly reported reason being boredom (43 per cent), followed by anxiety and stress (42 per cent) and having more time (38 per cent). Another key reason for drinking more was the fact people were driving less frequently, therefore did not need to remain under the safe drinking limit (13 per cent).

For those who reported drinking less during the first lockdown, the most commonly reported reasons were (VicHealth 2020):

- Not able to socialise with the people I normally would (37 per cent)
- The places I usually drink are closed (35 per cent)
- I wanted to improve my health in general (30 per cent)
- I had less income (14 per cent)
- I had fewer opportunities to drink at home (13 per cent)

The ANU study also explored the reasons people were drinking more during the pandemic using a similar set of response options. The most common reason reported by both men and women was that they were spending more time at home, however boredom, stress and anxiety were also common reasons for drinking more (Biddle et al. 2020). As shown in Table 1, a significantly higher proportion of women than men reported stress and anxiety as the reasons they were drinking more during COVID-19.

Table 1: Self-reported reasons for drinking during COVID-19

Reasons for increase	Women %	Men %
Spending more time at home	63.7	67.3
Boredom, nothing else to do	38.4	49.0
Increased stress	41.9	28.5
Increased anxiety	37.8	29.7
Worried about COVID-19/ The future	25.9	24.6
I enjoy drinking more	19.7	18.4
Dependent on alcohol	1.5	1.5

Source: Biddle 2020

Concerns about drinking behaviour

The FARE survey found that 13 per cent of people were concerned about the amount of alcohol they or someone in their household was drinking during COVID-19 (FARE 2020). Similarly, the ADF survey explored people's perceptions about their own drinking and found that nearly 20 per cent of participants wanted to reduce their alcohol consumption, while 50 per cent of those who had been drinking more during lockdown wanted to cut down their drinking (ADF 2020).

4. Impact on illicit drug use

The introduction of measures to control the spread of COVID-19, such as border closures, travel restrictions, lockdowns, disruptions to mail and freight services, limits on social interactions and the closure of non-essential services, have significant implications for the supply, procurement and use of illicit drugs, as well as access to prevention, harm reduction and treatment services (Dietze & Peacock 2020; Dietze et al. 2020; VAADA 2020).

4.1 Frequency and level of drug use

ADAPT Study

The National Drug and Alcohol Research Centre (NDARC) is currently conducting the *Australians' Drug Use: Adapting to Pandemic Threats (ADAPT) Longitudinal Study* to explore the short and long-term impacts of the COVID-19 pandemic on the experiences of illicit drug users in Australia (NDARC 2020a). The first wave of the survey was conducted between 29 April and 15 June. There were 702 participants, which were recruited from all states and territories, however the sample was not representative of the Australian population as it was mostly comprised of young, higher educated people living in capital cities (Sutherland et al. 2020a).

The results of the first survey revealed that the most commonly used illicit drugs following the introduction of COVID-19 restrictions were cannabis (82 per cent), MDMA (41 per cent) and cocaine (30 per cent). Other drugs used at much lower levels were ketamine (4 per cent), heroin (3 per cent) and pharmaceutical opioids (3 per cent) (Sutherland et al. 2020a).

Table 2 provides an overview of changes in drug use prior to and following the introduction of COVID-19 restrictions, which shows that cannabis, benzodiazepines⁹, pharmaceutical opioids and LSD had most commonly increased, while MDMA, cocaine and ketamine had most commonly decreased (Sutherland et al. 2020a).

Table 2: Changes in illicit drug use before and after COVID-19 restrictions

Drug of choice	Wave 1		Wave 2	
	Increase %	Decrease %	Increase %	Decrease %
Cannabis	57	15	44	23
MDMA	15	49	9	47
Cocaine	16	45	14	42
Ketamine	17	44	8	40
Heroin	15	39	-	-
Meth/amphetamine	24	37	-	-
GHB/GBL	17	28	19	24
LSD	26	24	17	32
Benzodiazepines (i.e. Valium)	29	16	16	29
Pharmaceutical opioids	26	18	16	19

Source: Sutherland et al. 2020

The second wave of the ADAPT study was conducted between July and September 2020 and involved 308 participants who consented to being followed up over time (Sutherland et al. 2020b). Cannabis, MDMA and cocaine remained the main drug of choice for participants followed up in the second survey, however 13 per cent of

⁹ Benzodiazepines and prescription opioids not prescribed to the user, or not taken in accordance with prescription directions

people reported that their drug of choice had changed since the first survey (Sutherland et al. 2020b).

Participants were asked again about changes in their drug use since COVID-19 restrictions were implemented in March. The changes in drug use are shown in Table 2, which indicate that cannabis continued to be the substance with the highest proportion of people reporting an increase, while MDMA, cocaine and ketamine were the substances with the highest proportion of people reporting a decrease in use (Sutherland et al. 2020b).

Ecstasy and Drug Reporting System (EDRS)

The Ecstasy and Drug Reporting Systems (EDRS) is an illicit drug monitoring system that includes annual interviews with people who regularly use ecstasy and other illicit stimulants (Peacock et al. 2020). The project was adapted to collect information on people's experiences during COVID-19, and the modified study was conducted with 389 participants between 25 April and 10 June 2020. The study sample was people aged 18 or older who had used ecstasy and other illicit stimulants at least once monthly in the previous six months and had lived in a capital city for the last 12 months (Peacock et al. 2020).

The study found that 71 per cent of participants reported a change in frequency in the use of ecstasy/MDMA and related drugs compared to February, the majority of which reported a reduction in their use. It also found that 35 per cent of participants had changed their main drug of choice in the past month from the one they used in February 2020.

Burnet Institute Study

The Burnet Institute conducts the Melbourne Injecting Drug User Cohort Study annually, which involves a sample of approximately 1,300 participants. In order to understand the impact of COVID-19 on injecting drug users, they conducted interviews with 60 people from the existing cohort between March and May 2020 (Dietze et al. 2020). The study found that heroin, methamphetamine and benzodiazepine use all decreased slightly following the introduction of COVID-19 restrictions. Specifically:

- 80 per cent reported heroin use (down from 86 per cent)
- 74 per cent reported methamphetamine use (down from 81 per cent)
- 82 per cent reported benzodiazepine use (down from 84 per cent)

4.2 Drug supply and access

There is evidence to suggest that COVID-19 has or will reduce the supply of and access to various drugs in Australia, which may subsequently result in the use of drugs of reduced purity or quality, drugs cut with dangerous substances, use of higher-potency substitutes, and changes in a person's choice of drug and/or combining the use of drugs or 'drug cocktails' (Dietze & Peacock 2020).

Almost half of all participants in the ERDS Study reported that MDMA pills were harder to obtain, while between 30-50 per cent of participants said it was more difficult to access MDMA capsules, crystal, cocaine, LSD and ketamine. Nearly one quarter (23 per cent) of people reported being concerned about not being able to access illicit drugs due to COVID-19 restrictions (Peacock 2020). The Burnet Institute study also indicated that supply and access had been an issue for some participants, with 20 per cent indicating they had wanted to purchase heroin in the last month, but were unable to due to supply, transport or financial issues (Dietze et al. 2020).

With regard to purity and quality, 40 per cent of people who purchased heroin after restrictions were introduced believed that the purity was weaker than normal, while 47 per cent of people who purchased methamphetamine believed the purity was weaker than normal and 35 per cent believed it was stronger (Dietze et al. 2020).

4.3 Drug use behaviours and practices

COVID-19 lockdowns and restrictions have decreased social and pedestrian/street activity, which is likely to increase the visibility and risk of street-based drug use, and subsequently encourage people to engage in drug taking practices that increase their risk, such as taking opioids in isolation or commencing unplanned or unsupervised withdrawal. Concerns about supply shortages may also encourage stockpiling, which can lead people to use in higher quantities than they normally would, and which carries higher legal risks if they are caught in possession of the drugs (Dietze & Peacock 2020).

The first wave results of the ADAPT Study showed that the majority of illicit drug users (76 per cent) continued to receive their drugs in person, while 33 per cent of people received their drugs through a delivery service. There was a very small decrease in the proportion of people reporting injecting drug use, which was 8 per cent compared to 10 per cent in the previous year (Sutherland et al. 2020a).

The Burnet Institute Study explored injecting behaviour and found that 17 per cent of people reported injecting with fewer people, while 10 per cent reported a decrease in the frequency of injecting as a result of COVID-19. The ADAPT Study (Sutherland et al. 2020a) also explored changes in drug practices and found that a number of participants had adopted new practices, including harm reduction behaviours during the pandemic, including:

- Stocked up on illicit drugs (25 per cent)
- Stocked up on prescribed medications (12 per cent)
- Prepared drugs themselves (11 per cent)
- Avoided sharing drug use equipment (24 per cent)
- Washed hands before handling drugs/money (36 per cent)
- Wiped down drug packages with soap/sanitizer (16 per cent)

5. Impact on AOD service access and provision

Alcohol and other drug (AOD) treatment and harm reduction services face a range of COVID-19 related challenges, including closure of services, changes to some operations (i.e. outreach distribution of needles and syringes), restrictions on face-to-face contact with clients and deployment of staff to COVID-19 roles, alongside increasing demand for services (Dietze & Peacock 2020; Dunlop et al. 2020). As a result, people who use illicit drugs are experiencing reduced access to various forms of treatment, limited access to opioid replacement therapy (ORT), changes in illicit drug consumption and increased alcohol consumption (VAADA 2020).

The state peak bodies for alcohol and drug services conducted a survey in June 2020 to investigate the impact of COVID-19 on AOD treatment agencies across Australia. More than 90 agencies from Victoria participated in the survey, all of which indicated that COVID-19 had impacted their services, and 62 per cent of which said they had been impacted 'a great deal' (VAADA 2020). Just over 93 per cent of agencies reported that they had transitioned to a telehealth (phone or online) service model, which accounted for more than 80 per cent of all service delivery for some agencies. In addition, more than 2 in 5 (45 per cent) agencies had to reduce their client numbers in order to comply with physical distancing and other risk measures, and 89 per cent of residential service providers had to reduce the number of beds available.

A number of other key barriers and challenges were also reported, including:

- Barriers to clients accessing residential detox and rehabilitation services
- Challenges supporting clients with complex issues
- Challenges progressing harm reduction services, such as needle and syringe programs and naloxone training
- Increased stress and anxiety of the workforce relating to COVID-19 infection risks (limited PPE) and delivering treatment and support services from their home environment

The survey also revealed significant changes in demand for drug and alcohol services, with 42.5 per cent of agencies reporting an increase in demand and 18.7 per cent reporting a decrease (VAADA 2020). There has also been an increase in demand for phone-based and online support services, with calls to the national AOD Hotline almost doubling in the months of January to May 2020 compared to the number of calls in the same period in 2019 (FARE 2020). In addition, engagement with the Hello Sunday Morning App (treatment and early intervention) by existing members increased by nearly 30 per cent over March-April, while new member registrations were more than 35 per cent higher than the same period in 2019 (FARE 2020).

The ADAPT study explored service access from the perspective of drug users and showed that engagement with treatment services was low between March and June 2020, with only 4 per cent reporting they had accessed drug treatment in the previous four weeks. A further 3 per cent had tried but were unable to get access to a drug treatment service (Sutherland et al. 2020a). Access and engagement levels

were similar between July and September, with 5 per cent of people reporting they had accessed drug treatment and 2 per cent of people had tried to access treatment in the previous four weeks (Sutherland et al. 2020b).

The Victorian Alcohol and Drug Association has made a submission to the Victorian Government, which outlines a series of policy and funding recommendations that will better position the AOD sector to respond to the ongoing needs of people who use drugs and the unique challenges emerging from the COVID-19 pandemic.

Family violence

Natural disasters and other crisis situations such as the COVID-19 pandemic increase the risk, prevalence and severity of family violence, and disrupt the provision of specialist family violence and other relevant services (Parkinson & Zara 2013; UN Women 2020). The introduction of lockdowns and other COVID-19 restrictions across Australia has also created conditions that exacerbate experiences of family violence, such as (Boxall et al 2020; Evans et al. 2020; Pfitzner et al. 2020a).

- Victims spending more time with perpetrators, including confinement to the home without the option to leave
- Increased social isolation and decreased visibility of victims and perpetrators
- Limited opportunities for victims (including children) to seek support from family, friends and service providers (including online and phone-based)
- Increased financial and housing vulnerability
- Increased family/household pressures such as remote working and learning
- Increased stress, anxiety and other mental health issues
- Exacerbation of other contributing factors, such as alcohol consumption, drug use and gambling

The United Nations Population Fund (UNFPA) estimates that for every three months of lockdown, there will be an additional 15 million cases of gender-based violence across the world (UNFPA 2020). They have also reported that the COVID-19 pandemic will significantly constrain progress towards the ending gender-based violence by 2030 agenda, due to increasing incidents of violence coupled with a reduction in prevention and protection efforts.

While there is a limited range of data sources currently available on the impact of COVID-19 on family and domestic violence, evidence has started to emerge at a national and Victorian level. This section provides an overview the prevalence, frequency and severity of family violence during the early stages of the pandemic in Australia, as well as its impact on services. The purpose of this evidence review is to inform the Municipal Public Health and Wellbeing Plans (MPHWP) and Integrated Health Promotion (IHP) Strategic Plans of Inner North West PCP partner agencies.

1. Prevalence of violence against women

The Australian Institute of Criminology (AIC) conducted a national survey in May 2020 to understand women's experiences of domestic violence in the early stages of the COVID-19 pandemic. The survey involved 15,000 women and aimed to measure the prevalence of violence since the pandemic started in Australia, including experiences of physical and sexual violence, as well as emotional abuse, harassment and control (Boxall et al. 2020).

The study showed that overall 6.8 per cent of women had experienced at least one form of violence in the past three months. There were 4.2 per cent of women who experienced physical violence, 2.2 per cent who experienced sexual violence and 11.6 per cent who experienced emotionally abusive or controlling behaviours by a current or former partner (Boxall et al. 2020). For those women who had been in a cohabiting¹⁰ relationship in the previous 12 months, the prevalence of violence was significantly higher, with 8.2 per cent experiencing physical violence, 4.2 per cent experiencing sexual violence and 22.4 per cent experiencing emotional abuse or controlling behaviours.

A further 5.8 per cent of all respondents and 11.1 per cent of those in cohabiting relationships also experienced coercive control¹¹ in the past three months (Boxall et al. 2020). The findings indicate that coercive control is strongly associated with other forms of violence. Of those women who experienced coercive control, 61.1 per cent also reported physical or sexual violence, while 76.9 per cent of those who reported physical or sexual violence also experienced coercive control (Boxall et al. 2020).

Physical or sexual violence

Of the women who experienced physical or sexual violence in the past three months, the most commonly reported forms of violence were:

- Pushed, grabbed or shoved them (71.7 per cent)
- Threw something that could hurt them or slapped, bit, kicked or hit them with a fist (52.7 per cent)
- Forced them to take part in a sexual activity against their will (47.1 per cent)
- Choked/strangled or grabbed them around the neck (41.6 per cent)
- Hit them with an object, beat, stabbed them with a knife, or shot them with a gun (35.1 per cent)

Emotional abuse, harassment and control

Of the women who experienced emotionally abusive, harassing or controlling behaviour in the past three months, women most commonly reported that their partner had:

- Constantly insulted them to make them feel ashamed, belittled or humiliated; or shouted, yelled or verbally abused them to intimidate them (47.2 per cent)

¹⁰ A cohabiting partner is a person the respondent lives with or lived with at some point in the last 12 months, in a current or former married or de facto relationship.

¹¹ Experienced three or more forms of emotionally abusive, harassing and controlling behaviours

- Was jealous or suspicious of their friends (46.2 per cent)
- Monitored their time or whereabouts (41.3 per cent)
- Used their money or made important financial decisions without talking to them (40.2 per cent)
- Interfered with their relationships with other family members (33.8 per cent)
- Accused the respondent of having an affair (28.5 per cent)
- Tried to keep them from doing things to help themselves (24.3 per cent)
- Threatened to hurt themselves (23.5 per cent)
- Used coercive control (49.7 per cent)

2. Frequency and severity of violence against women

2.1 Reports from women experiencing violence

Results of the AIC survey indicate that a number of women experienced violence or abuse from their partner for the first time following the onset of the COVID-19 pandemic. Of those women who reported experiencing physical or sexual violence in the past three months, one in three (33.1 per cent) said it was the first time their partner had been violent towards them. Similarly, of those who experienced coercive control in the past three months, one in five (19.9 per cent) reported it was the first time with their current partner (Boxall et al. 2020).

For many women, the onset of COVID intensified the violence and abuse they had already been experiencing. Of those women who had experienced physical or sexual violence from their cohabiting partner prior to the pandemic, more than half (53.1 per cent) reported that the violence had increased in frequency or severity, while 47 per cent of women who had experienced coercive control prior to the pandemic said the abuse had increased (Boxall et al. 2020). Approximately one in three women reported that the frequency and severity of violence and abuse remained the same after the onset of the pandemic, and 13 per cent reported that it had decreased.

2.2 Practitioner perspectives

The Monash Gender and Family Violence Prevention Centre also explored the impact of COVID-19 on the frequency and severity of family violence from the perspective of practitioners working with women experiencing violence in Victoria (Pfitzner et al. 2020a). The survey was conducted during the first lockdown and involved 166 practitioners working across child and family services, specialist family violence services, the legal and justice sector and other health and social services.

Two in five (42 per cent) of practitioners indicated that COVID-19 had increased the number of women reporting family violence for the first time, while 59 per cent reported that it had increased the frequency of violence, and 50 per cent reported that it had increased the severity of violence experienced by women (Pfitzner et al. 2020a). In addition, the majority of practitioners (86 per cent) reported that the pandemic had increased the complexity of women's needs.

The Queensland Domestic Violence Services Network conducted a similar study with practitioners in Queensland to understand the impact of COVID-19 restrictions on women experiencing violence (Pfitzner et al. 2020b). They administered two surveys, one in April and one in May. In the first survey, one in three (36 per cent) practitioners reported that COVID-19 had escalated violence for their clients, while 70 per cent of practitioners in survey two reported an escalation (Pfitzner et al. 2020b). In the second survey, respondents reported on the specific types of violence escalation, which included:

- Escalation of controlling behaviour and manipulation (81 per cent)
- Escalation from non-physical to physical forms of violence (36 per cent)
- Escalation of threats to kill the client (33 per cent)
- Escalation of threats to children (21 per cent)
- Increase in client visits to emergency/hospital (20 per cent)

Women's Safety New South Wales undertook a survey with frontline workers across New South Wales (NSW) to explore the impact of COVID-19 on domestic and family violence. The first survey was administered in March, which found that 44.9 per cent of frontline workers reported that violence against women had escalated and worsened, and 36.2 per cent indicated that women had reported violence and abuse specifically related to COVID-19 (Foster & Fletcher 2020a). The second survey was administered in June after COVID-19 restrictions had started to ease in NSW. It showed that 41.9 per cent of workers reported an increase in client numbers, while 47.6 per cent reported an increase in the proportion of high-risk cases they were receiving (Foster & Fletcher 2020b).

2.3 COVID-19 specific forms of violence

The Monash study also revealed that women were experiencing new forms of family violence specific to COVID-19, including perpetrators using restrictions and the threat of infection to control women's movements, gain entry to their homes and coerce them into cohabiting with them (Pfitzner et al. 2020a).

The study conducted by the Queensland Domestic Violence Services Network also provided evidence that women were experiencing COVID-19 specific forms of violence (Pfitzner et al. 2020b). The practitioners surveyed reported that their clients had experienced the following forms of violence:

- Partner used COVID-19 as a reason not to let her leave the home (68 per cent)
- Partner threatened to infect her and/or their children (10 per cent)
- Partner threatening to bring infected people to the house (9 per cent)
- Partner not letting her use hand sanitiser or stopping her from protecting herself and/or her children (6 per cent)

3. Help-seeking by women experiencing violence

In the AIC survey, women were asked whether they had reported the incident or sought support or advice. Women who had experienced physical or sexual violence and coercive control in the past three months reported seeking formal and informal support during the pandemic. Specifically:

- 54.1 per cent said they had called the police
- 52.5 per cent sought support from a service (Government or NGO)
- 67.7 per cent reached out to informal supports (i.e. family, friends, colleagues)
- 22.3 per cent had not sought any form of support (Boxall et al. 2020).

Women who had experienced either violence (physical/sexual) or coercive control, but not both forms of violence were significantly less likely to seek formal or informal support. More than two thirds (67.1 per cent) of women who had experienced sexual or physical violence and 49.5 per cent of women who had experienced coercive control had not sought any form for support during the pandemic (Boxall et al. 2020). The decision not to seek support was often driven by safety concerns. Nearly 37 per cent of women who experienced either violence or abuse had wanted to seek advice or support but were unable to due to safety concerns, while nearly 60 per cent of women who experienced violence and coercive control were unable to seek support.

Both the Monash study and the Queensland Domestic Violence Services Network study showed that COVID-19 restrictions had impacted the ability of women to seek support. Firstly, restrictions allowed perpetrators to increase their surveillance of women's online and phone communications, which limits their opportunities to reach out to services. Secondly, they enabled perpetrators to further isolate women from their family, friends and other social support networks, which not only limits their ability to seek informal support, but also decreases the visibility of their victimisation (Pfitzner et al. 2020a; Pfitzner et al. 2020b). Practitioners also reported that women were more likely to prioritise survival and material needs over engagement with services during the pandemic.

4. Impact on family services

4.1 Access and demand

Level of demand and access to family violence services has varied across the country, with evidence suggesting that there has been an increase in demand and contact from women seeking support in QLD and NSW, but a decrease in Victoria.

In Queensland, 29 per cent of practitioners surveyed in April reported an increase in client demand from women experiencing violence, while 43 per cent of practitioners reported an increase in May (Pfitzner et al. 2020b). In NSW, 41.7 per cent of frontline workers reported an increase in client numbers during the early stages of COVID-19 restrictions, and 41.9 per cent reported an increase once restrictions started to ease (Foster & Fletcher 2020a; Foster & Fletcher 2020b).

In Victoria, there was a significant decrease in the number of women seeking support, with Safe Steps family violence support service reporting a 30 per cent decrease in calls from women (Pfitzner et al. 2020a). In contrast, there was a substantial increase in demand for services by perpetrators, with an average weekly increase of 400 calls to the Men's Referral Service at the start of the pandemic compared to the same period in 2019 (Pfitzner et al. 2020a).

Reported family violence incidents

The decrease in demand for services by women experiencing violence in Victoria is concerning, given the increase in the number of family violence incidents reported to Victoria police during the early stages of lockdown in Victoria. A report published by the Crime Statistics Agency revealed that reports of family violence assaults increased by 11 per cent between April and June 2020 compared to the same period in 2019 (Rmandic et al. 2020). Overall, family violence incidents were 15 per cent higher in June 2020 than they were in June 2019, with an increase in reported cases across the following family violence offence categories between April and June (Rmandic et al. 2020):

- Serious assault (1,801 reported incidents)
- Common assault (3,853 reported incidents)
- Stalking (381 reported incidents)
- Harassment and private nuisance (475 reported incidents)
- Threatening behaviour (1,000 reported incidents)
- Breach of family violence order (12,669 reported incidents)

4.2 Service provision challenges

The study conducted by Monash Gender and Family Violence Prevention Centre explored the challenges of providing services to women experiencing violence during COVID-19 restrictions. Practitioners across Victoria reported the following challenges and service gaps (Pfitzner et al. 2020a):

- A change in focus of service provision from early intervention to crisis-driven responses
- Difficulties effectively maintaining contact with women experiencing violence
- Challenges associated with assessing risk and protective factors via remote service delivery models
- Working under the assumption that women did not have privacy or a confidential space to discuss family violence issues
- Challenge of keeping perpetrators 'in view' through effective service coordination

Practitioners also reported personal challenges of providing services during the pandemic restrictions, including the increased stress of working with clients from home, the blurring of boundaries between work and home life, and difficulties supporting staff with vicarious trauma and holding risk in relation to women and children (Pfitzner et al. 2020a).

References

- Australian Bureau of Statistics (ABS) 2020, *Household Impacts of COVID-19 Survey: September*, ABS, Canberra, accessed 1 November 2020, <<https://www.abs.gov.au/statistics/people/people-and-communities/household-impacts-covid-19-survey/latest-release>>.
- Australian Bureau of Statistics (ABS) 2020, *Consumer Price Index Australia*, ABS, Canberra, accessed 15 October 2020, <<https://www.abs.gov.au/statistics/economy/price-indexes-and-inflation/consumer-price-index-australia/latest-release#main-contributors-to-change>>.
- Australian Institute of Family Studies (AIFS) 2020, *Life During COVID-19: What we did during lockdown*, AIFS, Canberra.
- Australian Drug Foundation (ADF) 2020, *Polling Snapshot: Change in drinking behaviours during lockdown*, ADF, Melbourne, accessed 1 November 2020, <<https://www.littlehabit.com.au/about/research/>>.
- Australian Institute of Health and Welfare (AIHW) 2020, *Alcohol, tobacco and other drugs in Australia*, AIHW, Canberra, accessed 1 November 2020, <<https://www.aihw.gov.au/reports/alcohol/alcohol-tobacco-other-drugs-australia/contents/impact-of-covid-19-on-alcohol-and-other-drug-use>>.
- Bas, D, Martin, M, Pollack, C and Venne, R 2020, *Policy Brief 73: The impact of COVID-19 on sport, physical activity and well-being and its effects on social development*, United Nations, New York.
- Berg, L & Farbenblum, B 2020, *As if we weren't humans: The abandonment of temporary migrants in Australia during COVID-19*, Migrant Worker Justice Initiative (MWJI), Sydney.
- Biddle, N, Edwards, B, Gray, M & Sollis, K 2020, *Alcohol consumption during the COVID-19 period: May 2020*, The Australian National University: Centre for Social Research and Methods, Canberra.
- Boxall, H, Morgan, A & Brown, R 2020, *The prevalence of domestic violence among women during the COVID-19 pandemic*, Statistical Bulletin no. 28, Australian Institute of Criminology, Canberra.
- Cancer Council 2020, *An alcohol ad every 35 seconds: A snapshot of how the alcohol industry is using a global pandemic as a marketing opportunity*, Cancer Council, Perth.
- Carey, R, Murphy, M & Alexandra, L 2020a, *Insights from Melbourne, Australia during COVID-19: Civil society leading in the response to strengthen the city region food system*, University of Melbourne, accessed 15 October 2020, <<http://www.fao.org/in-action/food-for-cities-programme/news/detail/en/c/1275112/>>.
- Carey, R, Larsen, K & Sheridan, J 2019, *Roadmap for a resilient and sustainable Melbourne food bowl*, University of Melbourne, Melbourne.
- 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*, DOI: 10.1111/dar.13092.

CSIRO 2020, A wellbeing survey of the CSIRO Total Wellbeing Diet database during the COVID-19 Pandemic, CSIRO, Canberra.

Dalton, T 2020, 'Disruptions to exercise routines during coronavirus leave Australians feeling sluggish', ABC News, 3 July.

Department of Agriculture, Water and the Environment (DAWE) 2020, *Analysis of Australia's food security and the COVID-19 pandemic*, Australian Government, Canberra, accessed 15 October 2020, <<https://www.agriculture.gov.au/abares/publications/insights/australian-food-security-and-COVID-19#global-supply-chains-and-migrant-labour-provide-important-inputs-to-australian-agriculture--and-will-require-careful-attention-and-management>>.

Department of Health 2014, *Australia's Physical Activity and Sedentary Behaviour Guidelines and the Australian 24-Hour Movement Guidelines*, Australian Government, Canberra, accessed 26 October 2020, <<https://www1.health.gov.au/internet/main/publishing.nsf/Content/health-pubhlth-strateg-phys-act-guidelines#npa1864>>.

Department of Health 2020, *National Meals on Wheels Day*, Australian Government, Canberra, accessed 15 October 2020, <<https://www.health.gov.au/ministers/senator-the-hon-richard-colbeck/media/national-meals-on-wheels-day>>.

Department of Health and Human Services (DHHS) 2020, *Community inclusion and food relief – coronavirus (COVID-19)*, Victorian Government, Melbourne, accessed 15 October 2020, <<https://www.dhhs.vic.gov.au/community-inclusion-and-food-relief-coronavirus-covid-19>>.

Dietze, P, Maher, L & Stoove, M 2020, *Impact of COVID-19 on people who inject drugs in Melbourne: Preliminary analyses*, Burnet Institute, Melbourne.

Dietze, P & Peacock, A 2020, 'Illicit drug use and harms in Australia in the context of COVID-19 and associated restrictions: Anticipated consequences and initial responses', *Drug and Alcohol Review*, vol. 39, pp. 297-300.

Ding, D, Pozo Cruz, B, Green, M & Bauman, A 2020, 'Is the COVID-19 lockdown nudging people to be more active: a big data analysis', *British Journal of Sports Medicine*, vol. 54, no. 2, pp. 1183-1187.

Dunlop, A, Lokuge, B, Masters, D, Sequeira, M, Saul, P, Dunlop, G, Ryan, J, Hall, M, Ezard, N, Haber, P, Lintzeris, N & Maher, L 2020, 'Challenges in maintaining treatment services for people who use drugs during the COVID-19 pandemic', *Harm Reduction Journal*, vol. 17, no. 26, DOI: 10.1186/s12954-020-00370-7.

Dunton, G, Do, B & Wang, S 2020, 'Early effects of the COVID-19 pandemic on physical activity and sedentary behaviour in children living in the U.S.', *BMC Public Health*, DOI: 10.1186/s12889-020-09429-3.

Emergency Management Victoria (EMV) 2020, *Food and Material Aid Survey: Summary of Key Results*, EMV, Melbourne.

Evans, M, Lindauer, M & Farrell, M 2020, 'A pandemic within a pandemic – intimate partner violence during COVID-19', *New England Journal of Medicine*, DOI: 10.1056/NEJMp2024046.

Food and Agricultural Organization 2012, *Coming to Terms with Terminology*, Proceedings of the Committee on World Food Security, Rome, Italy, 15-20 October 2012.

Foster, H & Fletcher, A 2020a, *Impact of COVID-19 on Women and Children Experiencing Domestic and Family Violence and Frontline Domestic and Family Violence Services*, Women's Safety NSW, Sydney.

Foster, H & Fletcher, A 2020b, *Update: Impacts of COVID-19 on Domestic and Family Violence as Restrictions Ease*, Women's Safety NSW, Sydney.

Foundation for Alcohol Research and Education (FARE) 2020, *Alcohol use and harm during COVID-19: July Report*, FARE, Canberra, accessed 1 November 2020, <<https://fare.org.au/wp-content/uploads/Alcohol-use-and-harm-during-COVID-19.pdf>>.

Gallo, L, Gallo, T, Young, S, Moritz, K & Akison, L 2020, 'The impact of isolation measures due to COVID-19 on energy intake and physical activity levels in Australian university students', *Nutrients*, vol. 12, no. 1865, DOI: 10.3390/nu12061865.

Gemba 2020, *Physical activity during COVID-19 lockdown: Insights into Australian's physical activity and fitness during the COVID19 shutdown*, Gemba, Melbourne, accessed 26 October 2020, <<http://thegembagroup.com/news/free-covid-19-sports-entertainment-insights/>>.

Goetsch, H & Quiros, TP 2020, *COVID-19 creates new momentum for cycling and walking. We can't let it go to waste*, The World Bank, Washington, accessed 26 October 2020, <<https://blogs.worldbank.org/transport/covid-19-creates-new-momentum-cycling-and-walking-we-cant-let-it-go-waste>>.

Guan, H, Okely, A, Aguilar-Farias, N, Pozo Cruz, B, Draper, C, Hamdouchi, A, Florindo, A, Jauregui, A, Katzmarzyk, P, Kontsevaya, A, Lof, M, Park, W, Reilly, J, Sharma, D, Tremblay, M & Veldman, S 2020, 'Promoting healthy movement behaviours among children during the COVID-19 pandemic', *The Lancet Child & Adolescent Health*, vol. 4, DOI: 10.1016/S2352-4642(20)30131-0

Heart Foundation 2020, *New survey: 40% of Aussies working from home walking less during lockdown* [Press release], 30 April.

Hull, N, Kam, R & Gribble, K 2020, *Providing breastfeeding support during the COVID-19 pandemic: Concerns of mothers who contacted the Australian Breastfeeding Association*, Australian Breastfeeding Association, South Melbourne.

Ipsos 2020, *Press Release: Cost of living – majority say cost of food goods and services have increased since COVID-19 began*, Ipsos, Sydney, accessed 15 October 2020, <https://www.ipsos.com/sites/default/files/ct/news/documents/2020-07/press_release.pdf>.

Kent, K, Murray, S, Penrose, B, Auckland, S, Visentin, D, Godrich, S & Lester, E 2020, 'Prevalence and Socio-Demographic Predictors of Food Insecurity in Australia during the COVID-19 Pandemic', *Nutrients*, vol. 12, no. 9, DOI: 10.3390/nu12092682.

Kleve, S, Davidson, Z, Gearon, E, Booth, S & Palermo, C 2017, 'Are low-to-middle-income households experiencing food insecurity in Victoria, Australia? An examination of the Victorian population health survey, 2006-2009', *Australian Journal of Primary Health*, vol. 23, pp. 249-256.

Kunstler, B, Slattery, P, Grundy, E, Goodwin, D & Saeri, A 2020, *Physical activity and sedentary behaviour during the COVID-19 pandemic: An Australian population study*, Monash University, Melbourne.

Lakhani, A, Wollersheim, D, Kendall, E & Korah, P 2020, '340,000 Melburnians have little or no parkland within 5km of their home', *The Conversation*, 12 August, accessed 26 October 2020, <<https://theconversation.com/340-000-melburnians-have-little-or-no-parkland-within-5km-of-their-home-144069>>.

Lobstein, T, Landon, J, Thornton, N & Jernigan, D 2017, 'The commercial use of digital media to market alcohol products: a narrative review', *Addiction*, vol. 112 (Supp. 1), pp. 21-27.

Mark, D 2020, 'Australia is facing a 'once-in-a-lifetime' opportunity as cycling booms, advocates say' ABC News, 17 May, accessed 26 October 2020, <<https://www.abc.net.au/news/2020-05-17/coronavirus-brings-once-in-a-lifetime-opportunity-for-cycling/12247870>>.

McKay, F, Haines, B & Dunn, M 2019, 'Measuring and Understanding Food Insecurity in Australia: A Systematic Review', *International Journal of Environmental Research and Public Health*, vol. 16, DOI: doi:10.3390/ijerph16030476.

McKay, F, Bastian, A, Lindberg, R 2020, Exploring the responses of Victorian emergency and community food services to the COVID-19 pandemic: Selected Findings, Deakin University, Geelong.

McKechnie, R, Turrell, G, Giskes, K & Gallegos, D 2018, 'Single items measure of food insecurity used in the National Health Survey may underestimate prevalence in Australia', *Australian and New Zealand Journal of Public Health*, vol. 42, no. 4, pp. 389-95.

Melbourne Public Transport Group (MPTG) 2020, *Post-pandemic gridlock? Public transport users expected to shift to driving cars*, MPTG, Melbourne, accessed 28 October 2020, <<https://www.monash.edu/news/articles/post-pandemic-gridlock-public-transport-users-expected-to-shift-to-driving-cars>>.

Moore, S, Faulkner, G, Rhodes, R, Brussoni, M, Chulak-Bozzer, T, Ferguson, L, Mitra, R, O'Reilly, N, Spence, J, Vanderloo, L & Tremblay, M 2020, 'Impact of the COVID-19 virus outbreak on movement and play behaviours of Canadian children and youth: a national survey', *International Journal of Behavioural Nutrition and Physical Activity*, vol. 17, no. 85, DOI:10.1186/s12966-020-00987-8

National Drug and Alcohol Research Centre (NDARC) 2020a, *Welcome to the ADAPT Study*, NDARC, Sydney, accessed 1 November 2020, <<https://www.adaptstudy.org.au/>>.

National Health and Medical Research Council (NHMRC) 2009, *Australian Guidelines to Reduce Health Risks from Drinking Alcohol*, NHMRC, Canberra.

National Health and Medical Research Council (NHMRC) 2013, *Dietary Guidelines for Australian Adults*, NHMRC, Canberra.

Moving Feast 2020, *Social enterprises helping vulnerable people during our current crisis while building a resilient and just food future*, Moving Feast, Melbourne, accessed 15 October 2020, <<https://movingfeast.net/>>.

Parkinson, D & Zara, C 2013, 'The hidden disaster: Domestic violence in the aftermath of natural disasters', *Australian Journal of Emergency Management*, vol. 28, no. 2, pp. 28-35.

Peacock, A, Price, O, Dietze, P, Bruno, R, Salom, C, Lenton, S, Swanton, R, Uporova, J, Karlsson, A, Chan, R, Gibbs, D, Grigg, J, Daly, C, Hall, C, Wilson, T, Degenhardt, L & Farrell, M 2020, *Impacts of COVID-19 and associated restrictions on people who use illicit stimulants in*

Australia: *Preliminary findings from the Ecstasy and Related Drug Reporting System 2020*, NDARC, UNSW, Sydney.

Pfitzner, N, Fitz-Gibbon, K & True, J 2020a, *Responding to the 'shadow pandemic': practitioner views on the nature of and responses to violence against women in Victoria, Australia during the COVID-19 restrictions*, Monash Gender and Family Violence Prevention Centre, Monash University, Victoria.

Pfitzner, N, Fitz-Gibbon, K, Meyer, S, and True, J 2020, *Responding to Queensland's 'shadow pandemic' during the period of COVID-19 restrictions: practitioner views on the nature of and responses to violence against women*, Monash Gender and Family Violence Prevention Centre, Monash University, Victoria.

Raynor, K & Panza, L 2020, *The Impact of COVID-19 on Victorian Share Households*, University of Melbourne: Hallmark Research Initiative for Affordable Housing, Melbourne.

Relationships Australia 2020, *COVID-19 and its Effects on Relationships: What effects will the easing of restrictions have on people's relationships and mental health*, Relationships Australia, Canberra.

Rmandic, S, Walker, S, Bright, S & Milsteed, M 2020, *Police-recorded crime trends in Victoria during the COVID-19 pandemic*, Crime Statistics Agency, Melbourne.

Rural Health Alliance 2020, *'COVID-19 puts the spotlight on food insecurity in rural and remote Australia'*, *Australian Journal of Rural Health*, vol. 28, pp. 319-320.

Sutherland, R, Baillie, G, Memedovic, S, Hammoud, M, Barratt, M, Bruno, R, Dietze, P, Ezard, N, Salom, C, Degenhardt, L, Hughes, C & Peacock, A 2020b, *Key findings from the 'Australians' Drug Use: Adapting to Pandemic Threats (ADAPT)' Study: ADAPT Wave 2 Bulletin*, NDARC, UNSW, Sydney.

Transurban 2020, *Industry Report: Urban mobility Trends from COVID-19*, Transurban, Melbourne, accessed 26 October 2020, <<https://www.transurban.com/content/dam/transurban-pdfs/03/Urban-Mobility-Trends-from-COVID-19.pdf>>.

United Nations Population Fund (UNFPA) 2020, *Impact of the COVID-19 Pandemic on Family Planning and Ending Gender-based Violence, Female Genital Mutilation and Child Marriage*, Interim Technical Note, UNFPA, New York.

UN Women 2020, *Prevention: Violence against women and girls & COVID-19*, UN Women, New York.

VicHealth 2020, *VicHealth Coronavirus Victorian Wellbeing Impact Study: Report for Survey 1*, VicHealth, Melbourne.

VicHealth 2020b, *Health promotion agency VicHealth is applauding Victorian councils for creating pop-up cycle lanes and footpaths, so locals can easily travel by bike or foot when coronavirus restrictions ease [Press release], 27 August*.

Victorian Alcohol and Drug Association (VAADA) 2020, *COVID-19 supplementary pre-budget submission 2020-21*, VAADA, Melbourne.

World Health Organization (WHO) 2020, *Breastfeeding and COVID-19: Scientific brief*, WHO, Geneva, accessed 15 October 2020, <<https://www.who.int/news-room/commentaries/detail/breastfeeding-and-covid-19>>.

Appendix 1: Ongoing COVID-19 Surveys

Institution	Title	Link
VicHealth	VicHealth Coronavirus Victorian Wellbeing Impact Study	https://www.vichealth.vic.gov.au/media-and-resources/publications/coronavirus-victorian-wellbeing-impact-study
ABS	Household Impacts of COVID-19 Survey	https://www.abs.gov.au/statistics/people/people-and-communities/household-impacts-covid-19-survey
Melbourne Institute, University of Melbourne	Impact of COVID-19 in Australia – <i>Taking the Pulse of the Nation</i>	https://melbourneinstitute.unimelb.edu.au/publications/research-insights/covid-19
Centre for Social Research Methods, ANU	COVID-19 Impact Monitoring Survey Program	https://csmr.cass.anu.edu.au/research/publications/covid-19
National Drug and Alcohol Research Centre, UNSW	Australians' Drug Use: Adapting to Pandemic Threats (ADAPT) Study	https://www.adaptstudy.org.au/
Monash University	COVID-19 knowledge, attitude and behaviours survey	https://www.monash.edu/medicine/sphpm/mchri/research/covid-19-knowledge-attitude-and-behaviours-survey-results
Unions NSW	No Worker Left Behind: Support equal access to welfare for temporary migrants	https://unionsnsw.org.au/NWLB_survey_results_aug_2020.pdf