



Government of **Western Australia**  
Department of **Health**

# Health and wellbeing of adults in Western Australia 2020



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# Executive summary

The Health and Wellbeing Surveillance System is a continuous data collection initiated in 2002 to monitor the health status of the population of Western Australia. In 2020, 6,259 adults aged 16 years and over were randomly sampled and completed a computer assisted telephone interview between January and December, with an average participation rate of approximately 90 per cent. The sample was then weighted to reflect the Western Australian adult population.

This report describes the findings from the 2020 Health and Wellbeing Surveillance System and provides the health sector and the general public with important information about various aspects of the health and wellbeing of Western Australian adults at the population level. Key estimates from the report include:

## General health:

- Approximately three out of five (57.0%) adults self-reported their health status as excellent or very good.

## Chronic health conditions:

- More than one in eight adults (13.1%) and one-third (36.9%) of those aged 65 years and older have been diagnosed with skin cancer.
- The prevalence of diabetes increased significantly from 4.8% in 2002 to 7.0% in 2020.
- It is estimated that close to one in six (17.7%) adults have suffered an injury in the past 12 months that required treatment from a health professional, with one-third (32.7%) of those injuries being due to falls.
- Approximately one in six (17.9%) adults had been diagnosed with a mental health condition in the past 12 months. The proportion of adults with a current mental health condition increased significantly from 12.0% in 2006 to 18.1% in 2020.

## Lifestyle and physiological risk factors:

- The proportion of adults who were current smokers has declined significantly from 21.6% in 2002 to 10.1% in 2020.
- Approximately one in eight (12.0%) adults and one in five (18.0%) adults aged 16 to 44 years had ever tried an e-cigarette.
- Almost one in three (28.3%) adults aged 16 to 44 years reported drinking at levels considered to be high risk for long-term harm. Males were almost twice as likely as females to report drinking at levels considered high risk for long-term alcohol-related harm (31.9% compared with 17.8%). Similarly, males were more than twice as likely as females to report drinking at levels considered high risk for short-term alcohol-related harm (5.4% compared with 13.0%).
- Nearly one in fourteen (7.0%) adults aged 16 years and over reported using illicit drugs in 2020.
- More than two in five (42.6%) Western Australian adults met the recommended minimum daily intake of fruit while only one in fifteen (6.8%) adults met the recommended minimum daily intake of vegetables.

- Approximately one in three (35.4%) adults reported eating fast food meals at least once a week, and almost one in three (29.1%) adults also reported drinking sugar-sweetened soft drinks or energy drinks (29.1%) at least once week in 2020.
- Almost three in five adults (57.5%) reported engaging in at least 150 minutes of moderate physical activity per week.
- More than two in every five adults (44.4%) spent more than 21 hours per week watching TV/DVDs or using a computer/smartphone/tablet device.
- Approximately one in three (30.1%) adults reported sleeping less than the recommended number of hours on a usual night in 2020.
- One in three (33.8%) adults were estimated to be obese in 2020. The overall trend for standardised mean BMI has been increasing steadily over time since 2002.

### **Psychosocial:**

- One in ten (9.7%) adults experienced high or very high levels of psychological distress.
- One out of twenty (5.6%) Western Australian adults had seriously thought about ending their own life in the past 12 months.
- Almost half (45.4%) of Western Australian adults did not belong to any groups or associations.

### **Health service utilisation:**

- Nine out of ten (92.9%) adults used primary health services within the past 12 months, but only one out of eight (13.4%) reported using mental health services.
- Approximately half (48.9%) of Western Australian adults had received a flu vaccination in 2020. The prevalence of flu vaccination received by adults was significantly higher in 2020 as compared to previous years (almost double that of the previous years).

### **Social characteristics:**

- Three out of five (62.1%) adults reported having both hospital and ancillary private health insurance in 2020.

# Introduction and methodology



# 1. Introduction

The WA Health and Wellbeing Surveillance System (HWSS) is a continuous data collection system developed to monitor the health and wellbeing of Western Australians. The HWSS began in March 2002 and is run on a continual basis, with around 6,000 people throughout Western Australia (WA) interviewed each year. As at December 2020, over 110,000 interviews have been conducted with WA adults. This report presents the information on the health and wellbeing of 6,259 adults aged 16 years and over during 2020, as well as trends over time.

Information from the survey is used to monitor the health status of Western Australian adults, to inform health education programs, to evaluate interventions and programs, to inform health research, to support health policy development, to identify and monitor emerging trends and to support health service planning and development. Respondents are asked questions on a range of health and wellbeing topics, including chronic health conditions, lifestyle risk factors, protective factors, health service utilisation, mental health and socio-demographics.

The questions included in the HWSS are selected either to provide information about state or national indicators of health and wellbeing, or to provide information about areas of health, lifestyle and demography that are not available elsewhere and are necessary to understand the dynamics of healthy behaviours and outcomes. A copy of the questionnaire is available on the WA Department of Health website:

<https://ww2.health.wa.gov.au/Reports-and-publications/Population-surveys>

An important feature of this surveillance system is that it is population based, meaning that it is designed to examine trends at the population level. Although major socio-demographic group estimates are possible, it is not the purpose of the system to investigate smaller subgroups. Therefore, the information provided in this report is representative of Western Australian adults by age and sex but is unlikely to be reliably representative of small or specific groups within the population, such as Aboriginal people, culturally and linguistically diverse (CALD) populations, those who are homeless or those without telephones. People requiring information about Aboriginal health are recommended to consult the most recent results of the National Aboriginal and Torres Strait Islander Social Survey<sup>1</sup>, which are more representative of the Aboriginal and Torres Strait Islander population.

The HWSS has been approved by the WA Department of Health's Human Research Ethics Committee (RGS0000002698).

## 2. Methodology

### 2.1 Mode of administration and sampling

The HWSS is conducted as a Computer Assisted Telephone Interview (CATI). Households are selected from the 2013 Electronic White Pages<sup>®</sup> by a stratified random process. Rural and remote areas of WA were over-sampled relative to their population size to provide enough interviews to enable reliable and robust estimates to be made for these locations.

An approach letter was sent to selected households informing them that their household had been selected to participate. The approach letter explained the purpose of the survey, gave the time within which they could expect to be contacted by the data collection agency and explained that one person from the household would be selected to participate. A specially

prepared brochure was included which explained more about the HWSS and provided contact numbers for respondents to call for further information. The Survey Research Centre at Edith Cowan University conducted the survey on behalf of the WA Department of Health.

All information provided in this report is based on self-reported respondent data. Testing has shown that the responses to the questions on the survey are reliable but very occasionally may not be completely accurate. For example, people are likely to underestimate their weight and alcohol consumption<sup>2,3</sup> but they do so consistently, so in some cases it is possible to make adjustments for this. Although the estimates for some indicators are likely to be less than the 'true' population value because of this, changes in estimates over time are meaningful and reliable. This identification of patterns over time is the basis of a monitoring and surveillance system.

## 2.2 Weighting and presentation of data

One of the most important features of a report describing the health and wellbeing of any population is the ability to make comparisons. To do this, data must be weighted to the population that is being described. In this case, the estimates are weighted to the WA adult population aged 16 years and over.

The HWSS data are weighted to compensate for oversampling in the rural and remote areas of WA and then weighted by age and sex to the most recent Estimated Resident Population (ERP) for the year of the survey. For 2020, this was the 2019 ERP released by the Australian Bureau of Statistics (ABS) in September 2020<sup>4</sup>, where the total adult population aged 16 years and over in WA was 2,078,419. Weighting of data can result in rounding discrepancies so in some cases totals may not add up to exactly 100 per cent.

The data presented in this report are for the period January 2020 to December 2020. Responses such as “**Don't know**” and “**refused**” were not included in the analysis unless otherwise specified.

A full explanation of the current methodology can be found in the paper titled, 'WA Health and Wellbeing Surveillance System, Technical Paper Series No 1: Design and Methodology, 2018', which is available on the WA Department of Health website:

<https://ww2.health.wa.gov.au/Reports-and-publications/Population-surveys>

## 2.3 Review of survey collection methodology

As part of continuous improvement of the program, a review of the HWSS sample frame and mode of collection was conducted in 2020. This review identified the need for an update to the sample frame, respondent options for the survey mode and a review of the content of the survey. Several trials were conducted alongside the usual data collection to test the feasibility of the following:

- several new sample frame data sources including the existing Electronic White Pages, the WA Electoral Roll and a third-party consumer database
- providing respondents with options to complete the survey in different modes, including via CATI or online
- the use of QR codes to navigate to the online survey using a phone or tablet
- updates to the weighting methodology to ensure the estimates are representative of the WA population, regardless of the collection mode.

Analysis of the results of the sample frame, survey mode and weighting trials are currently underway. Details of any methodological updates will be noted in subsequent reports and technical papers. Implementation of the findings from the review of the survey content will be undertaken in consultation with key stakeholders.

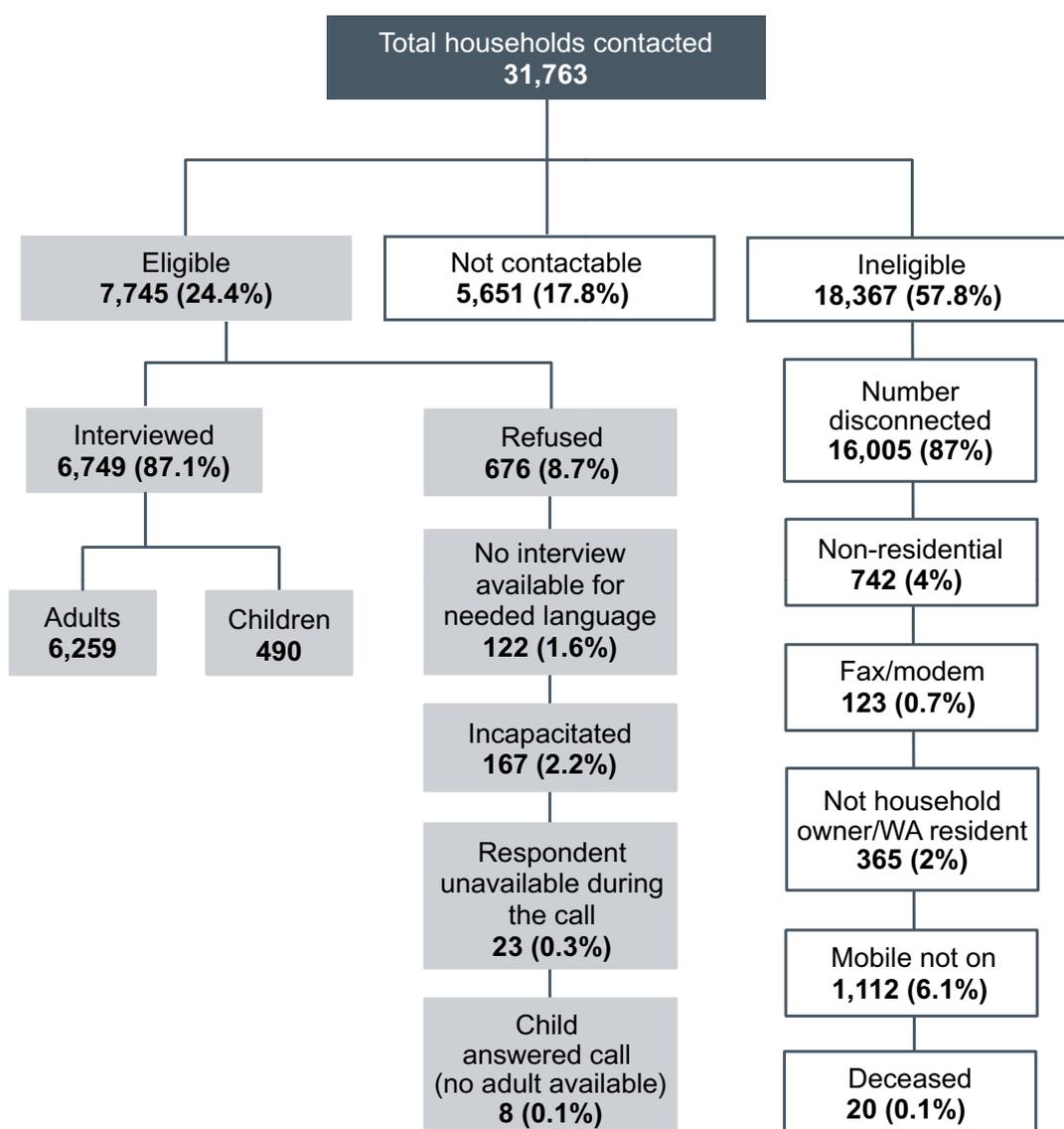
## 2.4 COVID Module

During 2020, the HWSS incorporated an additional voluntary module to measure the impact of the public health response to COVID-19 on the health and wellbeing of Western Australians. For information on the impact of COVID-19 on health in WA, see the COVID-19 Bulletin series: [COVID-19 in WA bulletin \(health.wa.gov.au\)](https://health.wa.gov.au)

## 2.5 Survey response

A total of 31,763 households were contacted out of which 57.8% were ineligible, 17.8% had unknown eligibility and 24.4% were eligible. Out of 7,745 eligible households, 6,749 interviews were conducted resulting in an overall participation rate of 87.1%. The full breakdown of the response rates is presented in **Figure 1**. The data presented in this report are for 6,259 Western Australian adults aged 16 years and over.

**Figure 1: Flowchart of response rates to the HWSS survey, 2020**



# 3. How estimates are reported

## 3.1 Percentage and prevalence

The information in this report is presented either as a percentage of the population who have a particular risk factor or demographic characteristic, or as the prevalence of a particular health condition within the adult population. Prevalence refers to the number or proportion of individuals in a community who exhibit a given condition or characteristic and is usually expressed as a percentage. Prevalence is distinct from incidence. Prevalence is concerned with all individuals with a given condition or characteristic regardless of when it began. Incidence on the other hand refers only to new cases of a condition or characteristic during a specified time interval. Surveys generally do not collect or report on incidence of disease.

There are three main types of prevalence that are typically reported. Lifetime prevalence represents the proportion of the population that have ever exhibited a given condition or characteristic. Period prevalence represents the proportion of the population who have exhibited a condition or characteristic within a specified time period, for example 12 months. Point prevalence represents the proportion of the population who exhibited a condition or characteristic at the time of the survey. In this report, most of the prevalence estimates are presented as period prevalence. In some cases, such as with asthma, lifetime and point prevalence are reported. This is because a person may have had asthma at some point in their life but not have it currently.

## 3.2 Confidence intervals

Survey results are estimates of 'true' population values and will always contain some error because they are based on a sample of the population and not the entire population. Therefore, each table presents both a prevalence estimate for a given condition or characteristic as well as a 95 per cent confidence interval for that estimate.

The 95 per cent confidence interval is the range within which the true estimate would lie 95 out of 100 times. The wider the confidence interval is around an estimate, the less precise the estimate is and therefore more caution should be applied when using it.

One way to compare two prevalence estimates is to assess whether the difference between them is statistically significant. Statistical significance is a statement about the likelihood of a finding being due to chance. Confidence intervals can be used to determine statistical significance. Overlapping confidence intervals indicate that there is probably no meaningful difference in the estimates being compared. If the confidence intervals do not overlap, then the estimates are considered significantly different.

Further information on how to determine whether a difference is statistically significant can be found on the WA Department of Health website:

<http://ww2.health.wa.gov.au/Reports-and-publications/Population-surveys>

Along with helping to determine statistically significant differences, confidence intervals can also be used as a measure of the level of stability around an estimate. The level of stability around an estimate can also be guided by the relative standard error (RSE). The RSE is a measure of the extent to which the survey estimate is likely to be different from the actual population result.

For example, in this report, wide confidence intervals and high RSEs can be present for younger age groups (e.g. 16 to 44 years) for certain chronic health conditions, because they are less likely to be present and detectable at younger ages. It is also possible to see wide confidence intervals and high RSEs for some variables that have multiple response options (four or more); for example, self-reported level of physical activity and fast food intake.

Therefore, throughout this report, estimates with RSEs between 25 per cent and 50 per cent have been annotated by an asterisk and should be used with caution. Estimates with RSEs above 50 per cent are considered too unreliable for general use and have been withheld.

### 3.3 Using this report

This report is intended to be a reference document and therefore contains little interpretative text. The confidence intervals should be used to determine statistical significance if no text has been provided. If more detailed information is required or interpretation needed, please contact the Health Survey Unit, Epidemiology Directorate, WA Department of Health at [DOH.HWSS@health.wa.gov.au](mailto:DOH.HWSS@health.wa.gov.au).

## 4. Comparisons

One of the strengths of the HWSS is its ability to show changes over time. Therefore, trends for selected major health conditions and risk factors have been provided. The prevalence or proportion of males and females who reported a selected condition or risk factor of interest was derived for each year from 2002 to 2020. As questions on chronic conditions were not always asked of those aged 16 to 24 years until 2006, chronic condition estimates are presented for those aged 25 years and over to ensure comparability across years.

To ensure any changes in prevalence estimates over time are not due to changes in the age and sex distribution of the population, all yearly data presented in trend tables have been standardised by weighting them to the 2011 Estimated Resident Population. The data used for comparisons over time is weighted to the 2011 ERP because it represents an approximate mid-point of the years for which estimates are provided.

Comparison over time data are weighted to the 2011 ERP, while the 2020 data are weighted to the 2019 ERP. As a result, 2020 estimates presented in trend tables may differ slightly from 2020 estimates presented in point prevalence tables due to weighting the data to the different populations. Small changes in estimates from those presented in previous reports may also occur due to weighting the data to more recent population estimates.

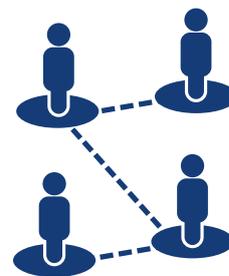
# Demographics



## 5. Demographics

In 2020, 6,259 Western Australians aged 16 years and over participated in the HWSS.

The demographic and socioeconomic characteristics of the adult sample that participated in the 2020 HWSS collection period are shown in Table 1 and Table 2. The tables show the unweighted number in the sample for each group and the weighted population prevalence estimate expressed as a percentage.



Of 6,259 adults included in this report:

- There were slightly more females (50.4%) than males (49.6%)
- The majority (70.1%) were born in Australia
- More than half (52.7%) reported they were married
- The majority were living metropolitan areas (80.0%)
- Most of them were employed for wages, salary or payment in kind (47.8%)
- 62.1% possessed private health insurance with both hospital and ancillary cover

**Table 1: Demographic characteristics, 16 years & over, HWSS 2020**

	Unweighted Sample (n)	Weighted survey sample (%)
<b>Age groups</b>		
16 to 24 yrs	127	14.0
25 to 44 yrs	282	36.3
45 to 64 yrs	1,989	31.1
65 yrs and over	3,861	18.7
<b>Sex</b>		
Females	3,916	50.4
Males	2,343	49.6
<b>Australian born</b>		
Yes	4,349	70.1
No	1,909	29.9
<b>Marital status</b>		
Married	3,781	52.7
De facto	297	9.6
Widowed	1,045	3.5
Divorced	472	3.4
Separated	138	1.8
Never married	510	29.0
<b>Region of residence</b>		
Metro	3,289	80.0
Rural	2,426	14.2
Remote	544	5.8
<b>Health region</b>		
East Metro	1,066	29.8
Goldfields	291	2.2
Great Southern	462	3.0
Kimberley	146	1.6
Midwest	377	2.0
North Metro	1,050	23.4
Pilbara	107	2.0
South Metro	1,173	26.7
South West	1,103	6.2
Wheatbelt	484	2.9
<b>ARIA+</b>		
Accessible	1,997	8.2
Highly Accessible	3,148	77.4
Moderately Accessible	1,208	7.8
Remote	494	4.4
Very Remote	212	2.3

Numbers may not add up to total sample due to refusal and "don't know" responses.

**Table 2: Socioeconomic characteristics, 16 years & over, HWSS 2020**

	Unweighted Sample (n)	Weighted survey sample (%)
<b>Current Place of Living</b>		
Rented from govt or public authority	144	1.6*
Rented privately	345	13.3
Being paid off by you/your partner	1,000	34.8
Fully owned/outright owner	4,494	47.0
Other	199	3.2
<b>Current Living Arrangement</b>		
Living with parent(s)	170	20.0
Living with other family members	357	8.5
Living with friends	23	1.7*
Living with a partner and children	776	26.8
Living with a partner but no children	3,074	31.4
Living alone	1,662	9.4
Living in a retirement village	102	0.5
Other living arrangement	83	1.7*
<b>Household Income</b>		
Under \$20,000	519	5.8
\$20,000 to \$40,000	1,347	13.7
\$40,000 to \$60,000	679	14.0
\$60,000 to \$80,000	442	11.4
\$80,000 to \$100,000	350	11.7
\$100,000 to \$120,000	232	7.3
\$120,000 to \$140,000	157	8.3
\$140,000 to \$160,000	156	7.1
More than \$160,000	436	20.6
<b>Household Spending</b>		
Spend more money than earn/get	187	4.0
Have just enough money to get by	824	16.8
Spend left over money	253	5.9
Save a bit every now and then	1,727	28.2
Save some regularly	2,089	36.3
Save a lot	538	8.7

\* Prevalance estimate has an RSE between 25%-50% and should be used with caution.  
Numbers may not add up to total sample due to refusal and "don't know" responses.

**Table 2: Socioeconomic characteristics, 16 years & over, HWSS 2020**

	Unweighted Sample (n)	Weighted survey sample (%)
<b>Highest Level of Education (a)</b>		
Less than Year 10	597	3.1
Year 10 or Year 11	1,155	13.7
Year 12	614	15.6
TAFE/Trade qualification	2,561	38.4
Tertiary degree or equivalent	1,272	29.2
<b>Employment Status</b>		
Self employed	690	11.9
Employed for wages, salary or payment in kind	1,490	47.8
Unemployed for less than one year	66	3.1
Unemployed for more than one year	50	2.3*
Engaged in home duties	183	3.2
Retired	3,535	19.4
Unable to work	120	3.5
A student	64	7.0
Other	54	1.8*
<b>Working away (fly-in fly-out) (b)</b>		
Yes	89	8.7
No	1,621	91.3
<b>Shift worker (b)</b>		
Yes	126	10.0
No	1,494	90.0
<b>Receiving a Government Pension</b>		
Yes	2,792	20.2
No	3,418	79.8
<b>Possess a Government Health Care Card</b>		
Yes	3,181	27.9
No	3,023	72.1
<b>Possess Private Health Insurance</b>		
Yes - Hospital only	152	4.0
- Ancillary only	385	7.6
- Both hospital and ancillary	3,938	62.1
No	1,696	26.2

(a) Excludes respondents who are currently still at school. (b) Adults aged 16 to 64 years.

\* Prevalence estimate has an RSE between 25%-50% and should be used with caution.

Numbers may not add up to total sample due to refusal and "don't know" responses.

General health



## 6. General health



Self-ratings of health are used internationally, with poor health ratings associated with increased mortality and psychological distress, and lower physical functioning compared with excellent or very good ratings.<sup>5, 6</sup> This section will focus on the following general health issues:

- Self-reported health status
- Disability

Approximately three out of five (57.0%) adults reported their current health status as 'excellent' or 'very good'.

### 6.1 Self-reported health status

We asked respondents several questions regarding their general health, including their current health status. **Table 3** shows Western Australian's self-reported general health status.

- Adults aged 65 years and over were significantly less likely to report their current health status as 'excellent' compared to the total population (12.4% vs. 20.2%).
- Approximately one in eight (12.9%) adults reported that their current health status was 'fair' or 'poor'.

**Table 3: Self-reported health status, 16 years & over, HWSS 2020**

	Excellent		Very good		Good		Fair		Poor	
	%	95% CI	%	95% CI	%	95% CI	%	95% CI	%	95% CI
<b>16 to 44 yrs</b>										
Males	19.8	(11.8 – 27.8)	39.8	(30.0 – 49.6)	27.9	(18.7– 37.0)	10.3*	(3.8 – 16.8)	2.3*	(0.1 – 4.5)
Females	27.2	(19.2 – 35.2)	36.1	(27.2 – 45.0)	26.8	(18.6 – 34.9)	6.0*	(2.0 – 9.9)	4.0*	(0.4 – 7.6)
Persons	23.5	(17.8 – 29.1)	37.9	(31.3 – 44.6)	27.3	(21.2– 33.5)	8.1	(4.3 – 12.0)	3.1*	(1.0 – 5.2)
<b>45 to 64 yrs</b>										
Males	18.8	(15.1 – 22.5)	37.3	(32.8 – 41.7)	32.2	(27.9–36.4)	9.3	(7.0 – 11.6)	2.5	(1.3 – 3.7)
Females	20.2	(17.0 – 23.5)	37.2	(33.3 – 41.1)	30.3	(26.5– 34.1)	8.9	(6.5 – 11.3)	3.4	(1.9 – 4.8)
Persons	19.5	(17.1 – 22.0)	37.2	(34.3 – 40.2)	31.2	(28.4 – 34.1)	9.1	(7.4 – 10.7)	2.9	(2.0 – 3.9)
<b>65 yrs &amp; over</b>										
Males	11.5	(9.6 – 13.4)	32.5	(29.8 – 35.3)	37.3	(34.4– 40.1)	13.1	(11.1 – 15.1)	5.6	(4.2 – 7.0)
Females	13.2	(11.6 – 14.9)	33.5	(31.3 – 35.7)	33.8	(31.6 – 36.0)	13.6	(12.0 – 15.2)	5.9	(4.8 – 6.9)
Persons	12.4	(11.2 – 13.7)	33.1	(31.3 – 34.8)	35.4	(33.7 – 37.2)	13.3	(12.1 – 14.6)	5.7	(4.9 – 6.6)
<b>Total</b>										
Males	18.0	(13.8 – 22.3)	37.7	(32.5 – 42.9)	30.9	(26.0– 35.8)	10.5	(7.0 – 13.9)	2.9	(1.7 – 4.1)
Females	22.3	(18.2 – 26.4)	35.9	(31.3 – 40.5)	29.2	(25.0– 33.5)	8.4	(6.2 – 10.5)	4.2	(2.3 – 6.0)
Persons	20.2	(17.2 – 23.1)	36.8	(33.3 – 40.3)	30.1	(26.8 – 33.3)	9.4	(7.4 – 11.4)	3.5	(2.4 – 4.7)

\* Prevalence estimate has an RSE between 25%-50% and should be used with caution.

The annual prevalence estimates of self-reported health status since 2004 are shown in Table 4. This question was not asked prior to 2004.

- Estimates for 2020 were similar to those for previous years.

**Table 4: Prevalence of self-reported health status over time, 16 years & over, HWSS 2004-2020**

	Excellent		Very good		Good		Fair		Poor	
	%	95%CI	%	95%CI	%	95%CI	%	95%CI	%	95%CI
2004	21.5	(16.4 – 23.6)	40.4	(38.0 – 42.8)	25.5	(23.4 – 27.5)	9.5	(8.1 – 10.8)	3.1	(2.4 – 3.9)
2005	19.9	(18.4 – 21.3)	40.5	(38.8 – 42.2)	27.8	(26.3 – 29.3)	8.8	(7.9 – 9.7)	3.0	(2.5 – 3.5)
2006	18.8	(17.4 – 20.2)	40.6	(38.7 – 42.5)	28.4	(26.7 – 30.2)	9.3	(8.3 – 10.4)	2.8	(2.3 – 3.4)
2007	18.5	(17.7 – 20.2)	41.4	(39.4 – 43.5)	29.6	(27.7 – 31.6)	8.2	(7.1 – 9.2)	2.3	(1.8 – 2.7)
2008	19.2	(16.4 – 20.8)	37.7	(35.8 – 39.6)	32.1	(30.3 – 33.9)	8.3	(7.4 – 9.3)	2.6	(2.1 – 3.2)
2009	20.3	(17.0 – 21.6)	39.2	(37.6 – 40.7)	29.9	(28.5 – 31.3)	8.0	(7.2 – 8.8)	2.7	(2.2 – 3.2)
2010	18.1	(15.0 – 19.5)	40.7	(38.9 – 42.4)	30.5	(28.8 – 32.1)	8.2	(7.4 – 9.1)	2.6	(2.0 – 3.2)
2011	19.6	(17.5 – 21.2)	40.1	(38.1 – 42.1)	29.4	(27.7 – 31.2)	8.4	(7.4 – 9.4)	2.5	(2.0 – 3.1)
2012	20.6	(19.5 – 22.5)	37.9	(35.7 – 40.1)	29.9	(27.8 – 31.5)	8.9	(7.8 – 10.1)	2.7	(2.2 – 3.3)
2013	18.1	(18.5 – 19.7)	37.9	(35.8 – 40.1)	32.1	(30.0 – 34.2)	9.2	(8.0 – 10.4)	2.7	(2.1 – 3.2)
2014	20.3	(17.3 – 22.2)	39.0	(36.8 – 41.2)	30.4	(28.5 – 32.4)	8.1	(7.0 – 9.2)	2.1	(1.6 – 2.6)
2015	19.2	(16.8 – 21.1)	39.7	(37.5 – 42.0)	29.5	(27.5 – 31.4)	8.8	(7.4 – 10.1)	2.8	(2.1 – 3.5)
2016	20.0	(17.6 – 22.4)	39.3	(36.6 – 42.1)	29.6	(27.1 – 32.0)	8.2	(7.0 – 9.5)	2.8	(2.2 – 3.5)
2017	19.1	(19.0 – 21.8)	39.1	(36.0 – 42.2)	28.0	(25.3 – 30.7)	9.2	(7.7 – 10.6)	4.7	(2.9 – 6.5)
2018	19.4	(16.7 – 21.9)	35.5	(32.6 – 38.3)	32.7	(29.8 – 35.6)	9.0	(7.5 – 10.6)	3.4	(2.5 – 4.2)
2019	17.5	(17.9 – 20.0)	39.6	(36.3 – 42.8)	31.6	(28.6 – 34.6)	8.1	(6.7 – 9.4)	3.3	(2.5 – 4.0)
2020	20.6	(18.6 – 23.6)	37.2	(33.7 – 40.7)	29.7	(26.4 – 32.9)	9.2	(7.2 – 11.3)	3.3	(2.3 – 4.4)

## 6.2 Disability

Disability can be experienced in a number of different ways, including cognitive, physical, sensory and psycho-social difficulties.<sup>7</sup> We asked respondents whether they or a family member had any disability. If respondents answered “yes”, they were asked how much of an impact this is for them personally or for their family (**Figure 2**).



In 2020, 16.9% of Western Australian adults were in a family where at least one person had a disability.

- The prevalence of adults living with a family member with a disability did not significantly vary by age group or sex

**Figure 2: Prevalence of disability, long term illness or pain within the family that puts pressure on them personally or on their family, 16 years & over, HWSS 2020**

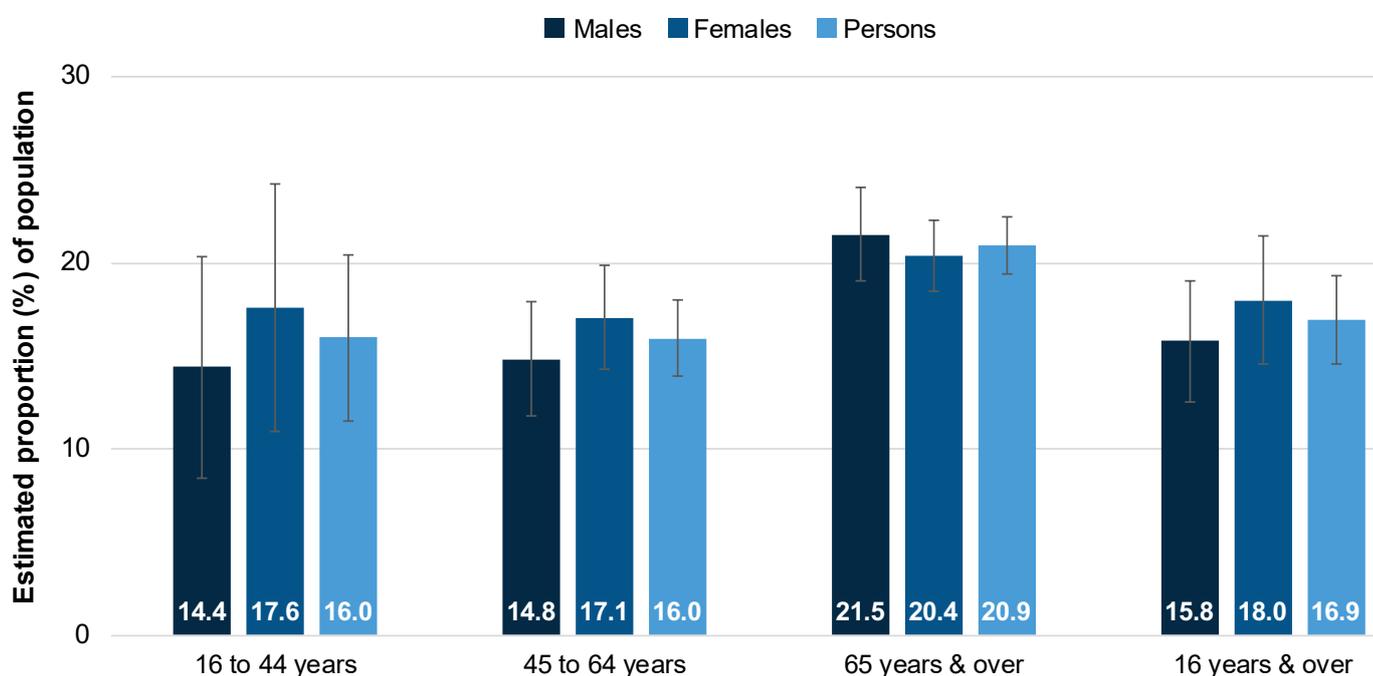


Table 5 shows how the respondents in 2020 rated the impact of their disability or their family member’s disability on the themselves and their family.

- Of those with a family member with some form of disability, 44.1% reported that this had a ‘big impact’ or ‘very big impact’ on themselves or their family.

**Table 5: Rating of the impact of disability on the respondents themselves and their family, 16 years & over, HWSS 2020**

	Not much of an impact at all		Some impact		A fairly big impact		A big impact		A very big impact	
	%	95% CI	%	95% CI	%	95% CI	%	95% CI	%	95% CI
<b>16 to 44 yrs</b>										
Males	21.1*	(3.6 – 38.6)	30.1	(9.0 – 51.3)	14.2*	(1.9 – 26.5)	19.4*	(2.1 – 36.7)	15.2*	(1.5 – 28.9)
Females	N/A	(N/A – N/A)	22.9	(6.8 – 39.0)	N/A	(N/A – N/A)	12.2*	(1.9 – 22.5)	52.4	(32.1 – 72.7)
Persons	13.9	(3.5 – 24.4)	26.2	(13.0 – 39.4)	8.9*	(2.5– 15.4)	15.5*	(5.6 – 25.3)	35.5	(20.8 – 50.2)
<b>45 to 64 yrs</b>										
Males	11.6*	(5.5 – 17.7)	26.6	(16.7 – 36.6)	20.6	(12.5 – 27.8)	9.9*	(3.9 – 15.9)	31.3	(20.6 – 42.1)
Females	14.1	(7.8 – 20.4)	25.5	(17.6 – 33.4)	23.1	(15.5– 30.6)	14.0	(8.6 – 19.3)	23.4	(16.3 – 30.5)
Persons	12.9	(8.5 – 17.3)	26.0	(19.7 – 32.3)	21.9	(16.4 – 27.5)	12.1	(8.1 – 16.1)	27.1	(20.7 – 33.5)
<b>65 yrs &amp; over</b>										
Males	22.1	(16.6 – 27.6)	22.7	(17.2 – 28.2)	18.8	(13.7 – 23.8)	22.9	(17.2 – 28.6)	13.6	(8.9 – 18.2)
Females	18.7	(14.7 – 22.8)	25.4	(20.7 – 30.2)	20.4	(16.2 – 24.5)	16.2	(12.2 – 20.1)	19.3	(15.0 – 23.6)
Persons	20.4	(17.0 – 23.8)	24.1	(20.5 – 27.7)	19.6	(16.4 – 22.8)	19.4	(16.0 – 22.9)	16.5	(13.3 – 19.7)
<b>Total</b>										
Males	18.5	(10.0 – 27.3)	27.3	(16.8 – 42.9)	17.2	(10.7– 23.6)	17.5	(9.0 – 25.9)	19.5	(12.1 – 27.0)
Females	12.1*	(5.9 – 18.3)	24.2	(15.9 – 32.5)	13.5	(9.2– 17.8)	13.6	(8.2 – 19.0)	36.6	(25.3 – 47.9)
Persons	15.1	(9.9 – 20.3)	25.7	(19.0 – 32.3)	15.2	(11.4 – 19.0)	15.4	(10.5 – 20.3)	28.7	(21.2 – 36.1)

\* Prevalence estimate has an RSE between 25%-50% and should be used with caution.

N/A Prevalence estimate has an RSE greater than 50% and is considered too unreliable for general use.

# Chronic health conditions



# Chronic health conditions

Chronic health conditions refer to long-term conditions (lasting more than six months) that can have a significant impact on a person's life. The chronic conditions collected by the HWSS are included due to their health impact and the potential to reduce their burden.<sup>8</sup> To determine the prevalence of a chronic condition we asked respondents whether or not a doctor had ever diagnosed them with a number of common health conditions. This section will focus on the following chronic conditions:

- Arthritis and osteoporosis
- Heart disease and stroke
- Cancer and skin cancer
- Diabetes
- Injury
- Asthma
- Respiratory condition other than asthma
- Mental health

In 2020, one in five (19.1%) adults were diagnosed with arthritis and one in twenty (5.5%) were diagnosed with osteoporosis.

## 7.1 Arthritis and osteoporosis

Arthritis and osteoporosis are musculoskeletal conditions that can greatly reduce quality of life. Arthritis is an umbrella term for a wide range of degenerative and inflammatory conditions affecting the bones, muscles and joints.<sup>9</sup> Osteoporosis is a disease where bone density and structural quality deteriorate, leading to an increased risk of fracture.<sup>10</sup>



The lifetime prevalence of self-reported doctor diagnosed arthritis and/or osteoporosis in Western Australian adults is shown in **Table 6**.

- The prevalence of arthritis was 19.1%, while for osteoporosis it was 5.5%.
- The prevalence of arthritis and osteoporosis increased significantly with age (arthritis - 16 to 44 years: 6.1%, 45 to 64 years: 23.6%, and 65 years and over: 47.0%; osteoporosis - 45 to 64 years: 5.4%, and 65 years and over: 18.7%).

Females were significantly more likely than males to report having been diagnosed with arthritis (22.9% vs 15.3%) and osteoporosis (8.7% vs 2.2%).

**Table 6: Prevalence of arthritis and osteoporosis, 16 years & over, HWSS 2020**

	Arthritis		Osteoporosis	
	%	95% CI	%	95% CI
<b>16 to 44 yrs</b>				
Males	5.9*	(0.9 - 10.8)	N/A	(N/A - N/A)
Females	6.4*	(2.2 - 10.5)	N/A	(N/A - N/A)
Persons	6.1*	(2.9 - 9.3)	N/A	(N/A - N/A)
<b>45 to 64 yrs</b>				
Males	18.6	(15.2 - 22.0)	2.2*	(1.1 - 3.3)
Females	28.5	(25.1 - 32.0)	8.6	(6.5 - 10.6)
Persons	23.6	(21.1 - 26.0)	5.4	(4.2 - 6.6)
<b>65 yrs &amp; over</b>				
Males	36.8	(33.9 - 39.7)	8.5	(6.8 - 10.1)
Females	56.2	(53.8 - 58.5)	27.9	(25.8 - 30.0)
Persons	47.0	(45.2 - 48.9)	18.7	(17.3 - 20.1)
<b>Total</b>				
Males	15.3	(12.3 - 18.2)	2.2	(1.7 - 2.7)
Females	22.9	(20.1 - 25.8)	8.7	(7.3 - 10.1)
Persons	19.1	(17.1 - 21.2)	5.5	(4.7 - 6.2)

\* Prevalence estimate has an RSE between 25%-50% and should be used with caution.

N/A Prevalence estimate has an RSE greater than 50% and is considered too unreliable for general use.

Due to changes in the way the questions on arthritis and osteoporosis were asked, standardised annual prevalence estimates for arthritis and osteoporosis can be compared only for adults aged 25 years and over from 2002 to 2020 and are shown in **Table 7** and **Table 8**, respectively.

- The lifetime prevalence of arthritis was significantly lower in 2020 for all persons when compared to 2002-2006.
- There was no difference in the lifetime prevalence of osteoporosis for males, females or all persons when the 2020 estimates are compared with previous years.

**Table 7: Prevalence of arthritis over time, 25 years & over, HWSS 2002-2020**

	Males		Females		Persons	
	%	95% CI	%	95% CI	%	95% CI
2002	21.0	(18.9 – 23.1)	28.3	(26.3 – 30.3)	24.6	(23.2 – 26.1)
2003	23.0	(20.9 – 25.0)	28.7	(26.9 – 30.6)	25.9	(24.5 – 27.3)
2004	20.6	(17.5 – 23.6)	31.7	(28.6 – 34.7)	26.1	(24.0 – 28.3)
2005	21.9	(19.8 – 24.0)	28.4	(26.4 – 30.3)	25.1	(23.7 – 26.6)
2006	20.5	(18.3 – 22.6)	28.7	(26.8 – 30.7)	24.6	(23.2 – 26.1)
2007	20.0	(17.5 – 22.5)	28.3	(26.2 – 30.5)	24.2	(22.5 – 25.8)
2008	20.3	(18.0 – 22.6)	28.1	(26.0 – 30.1)	24.2	(22.6 – 25.7)
2009	19.6	(17.8 – 21.5)	27.4	(25.7 – 29.0)	23.5	(22.3 – 24.7)
2010	21.2	(19.1 – 23.4)	26.4	(24.6 – 28.1)	23.8	(22.4 – 25.2)
2011	18.1	(16.2 – 20.1)	27.0	(25.1 – 28.9)	22.6	(21.2 – 24.0)
2012	18.3	(16.1 – 20.5)	25.9	(23.9 – 27.8)	22.1	(20.6 – 23.6)
2013	18.6	(16.2 – 21.0)	26.5	(24.6 – 28.3)	22.5	(21.0 – 24.0)
2014	18.0	(15.8 – 20.2)	26.8	(24.9 – 28.7)	22.4	(21.0 – 23.9)
2015	18.3	(16.1 – 20.5)	25.9	(24.0 – 27.8)	22.1	(20.6 – 23.6)
2016	19.8	(17.0 – 22.6)	26.9	(24.4 – 29.4)	23.4	(21.5 – 25.3)
2017	19.1	(15.7 – 22.5)	27.0	(24.0 – 29.9)	23.1	(20.8 – 25.3)
2018	19.7	(16.5 – 22.9)	27.3	(24.3 – 30.3)	23.5	(21.3 – 25.7)
2019	14.1	(11.9 – 16.2)	25.0	(22.2 – 27.9)	19.6	(17.8 – 21.4)
2020	16.1	(12.7 – 19.4)	25.0	(21.8 – 28.2)	20.5	(18.2 – 22.8)

**Table 8: Prevalence of osteoporosis over time, 25 years & over, HWSS 2002-2020**

	Males		Females		Persons	
	%	95% CI	%	95% CI	%	95% CI
2003	2.0	(1.4 – 2.6)	8.2	(7.2 – 9.2)	5.1	(4.5 – 5.7)
2004	2.1	(1.2 – 2.9)	9.9	(8.0 – 11.8)	6.0	(4.9 – 7.0)
2005	2.7	(1.9 – 3.5)	8.8	(7.7 – 10.0)	5.8	(5.1 – 6.5)
2006	2.8	(2.0 – 3.5)	8.5	(7.3 – 9.6)	5.6	(4.9 – 6.3)
2007	2.8	(1.9 – 3.8)	8.2	(7.0 – 9.4)	5.5	(4.8 – 6.3)
2008	2.4	(1.7 – 3.1)	9.2	(8.0 – 10.5)	5.8	(5.1 – 6.5)
2009	2.4	(1.8 – 3.0)	8.6	(7.7 – 9.5)	5.5	(5.0 – 6.1)
2010	2.5	(1.8 – 3.1)	8.9	(8.0 – 9.9)	5.7	(5.1 – 6.3)
2011	2.6	(1.9 – 3.4)	8.1	(7.2 – 9.1)	5.4	(4.8 – 6.0)
2012	2.7	(2.0 – 3.4)	8.6	(7.5 – 9.7)	5.7	(5.0 – 6.3)
2013	2.9	(2.1 – 3.6)	8.1	(7.2 – 9.1)	5.5	(4.9 – 6.1)
2014	2.7	(2.1 – 3.3)	8.4	(7.4 – 9.5)	5.6	(5.0 – 6.2)
2015	2.7	(2.0 – 3.3)	8.4	(7.1 – 9.8)	5.6	(4.8 – 6.3)
2016	3.1	(2.1 – 4.1)	8.2	(7.0 – 9.3)	5.6	(4.9 – 6.4)
2017	2.5	(1.9 – 3.1)	9.1	(6.9 – 11.2)	5.8	(4.7 – 6.9)
2018	3.3	(2.2 – 4.4)	8.5	(6.7 – 10.3)	5.9	(4.8 – 7.0)
2019	2.6	(1.9 – 3.3)	7.9	(6.9 – 9.0)	5.3	(4.6 – 5.9)
2020	2.2	(1.7 – 2.8)	9.4	(7.7 – 11.0)	5.8	(4.9 – 6.7)

## 7.2 Heart disease and stroke



Cardiovascular diseases (including heart disease and stroke) include a range of conditions that affect the heart or blood vessels<sup>11</sup> and are the third-leading cause of burden in WA.<sup>12</sup> Nationally, cardiovascular disease accounts for the highest proportion of health system costs, much of which is preventable.<sup>13, 14</sup> We asked respondents whether a doctor had ever told them they had heart disease or stroke. Lifetime prevalence for WA adults is shown in **Table 9**.

The prevalence of heart disease among Western Australian adults in 2020 was 6.7%, while the prevalence of stroke was 2.4%.

- Males aged 65 years and over were significantly more likely to report having a heart disease when compared to females aged 65 and over (25.3% vs 17.1%).
- The prevalence of stroke was similar in males and females.
- The prevalence of heart disease and stroke increased significantly with age (heart disease - 45 to 64 years: 6.3%, and 65 years and over: 21.0%, stroke - 45 to 64 years: 1.6%, and 65 years and over: 5.6%).

The prevalence of heart disease in adults aged 65 and over was 8% higher among males than females in 2020

**Table 9: Prevalence of heart disease and stroke, 16 years & over, HWSS 2020**

	Heart disease		Stroke	
	%	95% CI	%	95% CI
<b>16 to 44 yrs</b>				
Males	N/A	(N/A – N/A)	N/A	(N/A – N/A)
Females	N/A	(N/A – N/A)	N/A	(N/A – N/A)
Persons	N/A	(N/A – N/A)	N/A	(N/A – N/A)
<b>45 to 64 yrs</b>				
Males	8.0	(5.8 – 10.2)	1.9*	(0.5 – 3.3)
Females	4.7	(3.1 – 6.3)	1.3*	(0.4 – 2.1)
Persons	6.3	(5.0 – 7.7)	1.6*	(0.8 – 2.4)
<b>65 yrs &amp; over</b>				
Males	25.3	(22.7 – 27.9)	6.4	(6.8 – 10.1)
Females	17.1	(15.4 – 18.9)	5.0	(25.8 – 30.0)
Persons	21.0	(19.4 – 22.5)	5.6	(17.3 – 20.1)
<b>Total</b>				
Males	7.3	(6.1 – 8.6)	2.7*	(1.2 – 4.1)
Females	6.0	(4.4 – 7.6)	2.1*	(0.8 – 3.5)
Persons	6.7	(5.6 – 7.7)	2.4	(1.4 – 3.4)

\* Prevalence estimate has an RSE between 25%-50% and should be used with caution.

N/A Prevalence estimate has an RSE greater than 50% and is considered too unreliable for general use.

Due to the changes in the way the questions on heart disease and stroke were asked, standardised annual prevalence estimates of heart disease and stroke can be compared only for adults aged 25 years and older from 2002 to 2020 and are shown in **Table 10** and **Table 11**, respectively.

- There was no significant difference in the lifetime prevalence of heart disease or stroke for males, females or for all persons when the 2020 estimates were compared with previous years.

**Table 10: Prevalence of heart disease over time, 25 years & over, HWSS 2002-2020**

	Males		Females		Persons	
	%	95% CI	%	95% CI	%	95% CI
2002	9.2	(7.6 – 10.7)	6.5	(5.5 – 7.5)	7.8	(6.9 – 8.7)
2003	9.0	(7.8 – 10.3)	4.5	(3.7 – 5.2)	6.7	(6.0 – 7.5)
2004	9.7	(7.7 – 11.6)	6.4	(5.0 – 7.8)	8.1	(6.9 – 9.2)
2005	8.8	(7.5 – 10.1)	5.9	(5.0 – 6.8)	7.3	(6.5 – 8.1)
2006	9.2	(7.9 – 10.6)	5.4	(4.5 – 6.3)	7.6	(6.5 – 8.1)
2007	9.2	(7.7 – 10.8)	5.9	(4.9 – 7.0)	7.6	(6.6 – 8.5)
2008	7.8	(6.3 – 9.3)	5.1	(4.2 – 5.9)	6.4	(5.6 – 7.3)
2009	8.3	(7.2 – 9.4)	5.5	(4.7 – 6.3)	6.9	(6.2 – 7.6)
2010	9.0	(7.7 – 10.2)	5.1	(4.3 – 5.8)	7.0	(6.3 – 7.7)
2011	8.6	(7.4 – 9.9)	5.7	(4.9 – 6.6)	7.2	(6.4 – 7.9)
2012	8.2	(6.9 – 9.6)	4.8	(4.0 – 5.6)	6.5	(5.8 – 7.3)
2013	8.9	(7.1–10.6)	5.2	(4.3 – 6.1)	7.0	(6.0 – 8.0)
2014	8.0	(6.8 – 9.2)	5.1	(4.3 – 5.9)	6.5	(5.8 – 7.3)
2015	7.5	(6.4 – 8.6)	4.8	(4.1 – 5.4)	6.2	(5.5 – 6.8)
2016	7.5	(6.3 – 8.7)	4.9	(3.9 – 5.9)	6.2	(5.4 – 7.0)
2017	7.7	(6.5 – 9.0)	5.0	(4.1 – 5.9)	6.4	(5.6 – 7.1)
2018	7.2	(5.5 – 9.0)	5.4	(4.3 – 6.5)	6.3	(5.3 – 7.3)
2019	7.2	(6.1 – 8.3)	4.9	(4.1 – 5.6)	6.0	(5.4 – 6.7)
2020	7.3	(6.0 – 8.5)	6.5	(4.6 – 8.3)	6.9	(5.8 – 8.0)

**Table 11: Prevalence of stroke over time, 25 years & over, HWSS 2002-2020**

	Males		Females		Persons	
	%	95% CI	%	95% CI	%	95% CI
2002	2.3	(1.6 – 3.0)	1.1	(0.7–1.5)	1.7	(1.3 – 2.1)
2003	2.5	(1.8 – 3.2)	2.4	(1.8 – 3.0)	2.5	(2.0 – 2.9)
2004	3.1	(2.0 – 4.1)	2.1	(1.4 – 2.8)	2.6	(2.0 – 3.2)
2005	1.9	(1.3 – 2.5)	1.9	(1.4 – 2.4)	1.9	(1.5 – 2.3)
2006	2.6	(1.9 – 3.3)	1.6	(1.1 – 2.0)	2.1	(1.7 – 2.5)
2007	3.0	(2.0 – 3.9)	1.7	(1.2 – 2.2)	2.3	(1.8 – 2.9)
2008	2.7	(2.0 – 3.3)	2.2	(1.7 – 2.8)	2.4	(2.0 – 2.9)
2009	2.6	(2.0 – 3.3)	2.0	(1.5 – 2.5)	2.3	(1.9 – 2.7)
2010	2.4	(1.9 – 3.0)	1.6	(1.2 – 2.1)	2.0	(1.7 – 2.4)
2011	2.5	(1.9 – 3.1)	1.9	(1.4 – 2.4)	2.2	(1.8 – 2.6)
2012	2.3	(1.7– 3.0)	1.5	(1.1 – 1.9)	1.9	(1.6 – 2.3)
2013	2.0	(1.6 – 2.5)	1.5	(1.0 – 2.1)	1.8	(1.4 – 2.2)
2014	1.8	(1.3 – 2.3)	1.6	(1.2 – 2.1)	1.7	(1.4 – 2.1)
2015	2.2	(1.6 – 2.7)	1.4	(1.1 – 1.7)	1.8	(1.5 – 2.1)
2016	2.5	(1.7– 3.4)	2.1	(1.3 – 2.9)	2.3	(1.7 – 2.9)
2017	2.1	(1.4 – 2.7)	1.8	(1.0 – 2.6)	1.9	(1.4 – 2.5)
2018	2.0	(1.3 – 2.6)	1.6	(1.0 – 2.2)	1.8	(1.3 – 2.2)
2019	3.0*	(1.2 – 4.8)	2.1	(1.4 – 2.9)	2.6	(1.6 – 3.5)
2020	2.9*	(1.2 – 4.6)	2.3*	(0.8 – 3.8)	2.6	(1.4 – 3.7)

\* Prevalence estimate has an RSE between 25%-50% and should be used with caution.

## 7.3 Cancer and skin cancer



Cancer is the name given to diseases that are characterised by the abnormal proliferation of cells that invade tissue, spread through the body and do not respond to normal growth controls.<sup>15</sup> According to the Cancer Council Australia, approximately 33 per cent of cancer cases could be prevented by modifying lifestyle behaviours.<sup>16</sup>

We asked respondents whether a doctor had ever told them they had skin cancer or another type of cancer (**Table 12**).

- Among all persons, the prevalence of skin cancer was significantly higher than other cancers (13.1% compared with 6.1%).
- The prevalence of cancer increased with age (skin cancer - 16 to 44 years: 1.9%, 45 to 64 years: 16.9%, and 65 years and over: 36.9%, other cancer - 45 to 64 years: 7.2%, and 65 years and over: 18.1%).
- The prevalence of skin cancer and other cancers was similar in males and females for all persons.

One in eight (13.1%) Western Australian adults in 2020 reported they were ever diagnosed with skin cancer and one in fifteen (6.1%) reported they were ever diagnosed with other cancers.

**Table 12: Prevalence of skin cancer and other cancer, 16 years & over, HWSS 2020**

	Skin cancer		Other cancer	
	%	95% CI	%	95% CI
<b>16 to 44 yrs</b>				
Males	N/A	(N/A – N/A)	N/A	(N/A – N/A)
Females	1.2*	(0.2 – 2.3)	N/A	(N/A – N/A)
Persons	1.9*	(0.1 – 3.7)	1.0*	(0.1 – 1.9)
<b>45 to 64 yrs</b>				
Males	17.6	(14.4 – 20.9)	5.5	(3.7 – 7.2)
Females	16.2	(13.3 – 19.1)	8.9	(6.7 – 11.2)
Persons	16.9	(14.8 – 19.1)	7.2	(5.8 – 8.6)
<b>65 yrs &amp; over</b>				
Males	40.5	(37.6 – 43.5)	19.8	(17.4 – 22.2)
Females	33.6	(31.4 – 35.8)	16.6	(14.9 – 18.4)
Persons	36.9	(35.1 – 38.7)	18.1	(16.6 – 19.6)
<b>Total</b>				
Males	14.0	(11.6 – 16.4)	5.3	(4.4 – 6.2)
Females	12.2	(10.6 – 13.7)	6.9	(5.6 – 8.3)
Persons	13.1	(11.7 – 14.5)	6.1	(5.3 – 6.9)

\* Prevalence estimate has an RSE between 25%-50% and should be used with caution.

N/A Prevalence estimate has an RSE greater than 50% and is considered too unreliable for general use.

Due to changes in the way the question on cancer was asked, standardised annual prevalence estimates of other cancer for adults aged 16 years and over can only be compared since 2007 (**Table 13**).

- The prevalence of people ever diagnosed with cancer (excluding skin cancer) was similar in 2020 when compared with previous years.

**Table 13: Prevalence of cancer, excluding skin cancer, over time, 16 years & over, HWSS 2007–2020**

	Males		Females		Persons	
	%	95% CI	%	95% CI	%	95% CI
2007	4.4	(3.4 – 5.4)	5.6	(4.6 – 6.7)	5.0	(4.3 – 5.7)
2008	4.5	(3.4 – 5.5)	5.3	(4.5 – 6.2)	4.9	(4.2 – 5.5)
2009	4.3	(3.5 – 5.1)	5.6	(4.9 – 6.3)	4.9	(4.4 – 5.5)
2010	4.9	(4.0 – 5.7)	5.8	(5.0 – 6.6)	5.3	(4.7 – 5.9)
2011	4.0	(3.2 – 4.7)	6.4	(5.4 – 7.3)	5.2	(4.6 – 5.8)
2012	4.4	(3.4 – 5.3)	6.6	(5.3 – 7.9)	5.5	(4.7 – 6.3)
2013	5.0	(3.6 – 6.3)	5.6	(4.7 – 6.5)	5.3	(4.5 – 6.1)
2014	4.4	(3.6 – 5.2)	6.0	(5.2 – 6.8)	5.2	(4.6 – 5.8)
2015	5.2	(4.1 – 6.3)	6.4	(5.2 – 7.6)	5.8	(4.9 – 6.6)
2016	4.2	(3.4 – 4.9)	5.2	(4.4 – 6.1)	4.7	(4.1 – 5.3)
2017	5.3	(4.1 – 6.4)	5.9	(4.8 – 6.9)	5.6	(4.8 – 6.3)
2018	5.8	(4.1 – 7.6)	6.6	(5.3 – 7.9)	6.2	(5.1 – 7.3)
2019	4.2	(3.5 – 5.0)	6.3	(5.1 – 7.4)	5.3	(4.6 – 5.9)
2020	4.6	(3.7 – 5.4)	6.5	(5.2 – 7.8)	5.5	(4.8 – 6.3)

## 7.4 Diabetes

Diabetes is a chronic condition marked by high levels of glucose in the blood.<sup>17</sup> The most common form of diabetes is type 2 diabetes.<sup>17</sup> In Australia, diabetes contributes significantly to ill health, disability and premature death.<sup>17</sup> We asked respondents whether they had ever been told by a doctor or nurse that they had diabetes and what type of diabetes they were told they had. The prevalence of diabetes (all types) and type 2 diabetes is shown in **Table 14**.



Approximately one in thirteen (7.4%) people reported being diagnosed with diabetes and one in eighteen (5.4%) people reported being diagnosed with type 2 diabetes.

The prevalence of diabetes has increased among Western Australian adults by more than 2% from 2002 to 2020.

- The prevalence of diabetes increased significantly with age (all diabetes - 16 to 44 years: 3.3%, 45 to 64 years: 9.3%, and 65 years and over: 15.4%, type 2 diabetes - 16 to 44 years: 0.8%, 45 to 64 years: 7.4%, and 65 years and over: 14.3%).
- There was no variation by sex in the prevalence of all diabetes and type 2 diabetes.

**Table 14: Prevalence of diabetes and type 2 diabetes, 16 years & over, HWSS 2020**

	All diabetes (a)		Type 2 diabetes (b)	
	%	95% CI	%	95% CI
<b>16 to 44 yrs</b>				
Males	2.1	(0.0 – 4.2)	N/A	(N/A – N/A)
Females	4.6*	(1.4 – 7.8)	N/A	(N/A – N/A)
Persons	3.3*	(1.4 – 5.2)	0.8*	(0.1 – 1.9)
<b>45 to 64 yrs</b>				
Males	9.9	(7.3 – 12.5)	9.2	(6.7 – 11.7)
Females	8.7	(6.5 – 10.8)	5.6	(4.0 – 7.2)
Persons	9.3	(7.6 – 11.0)	7.4	(5.9 – 8.9)
<b>65 yrs &amp; over</b>				
Males	18.5	(16.2 – 20.8)	17.5	(15.2 – 19.7)
Females	12.6	(11.0 – 14.1)	11.5	(10.0 – 13.0)
Persons	15.4	(14.0 – 16.7)	14.3	(13.0 – 15.6)
<b>Total</b>				
Males	7.4	(5.9 – 9.0)	6.3	(5.1 – 7.6)
Females	7.4	(5.6 – 9.2)	4.4	(3.6 – 5.2)
Persons	7.4	(6.2 – 8.6)	5.4	(4.6 – 6.1)

(a) Includes type 1 (insulin dependent, juvenile onset), type 2, gestational, other and unknown diabetes.

(b) Type 2 (non-insulin dependent, mature onset) diabetes.

\* Prevalence estimate has an RSE between 25%-50% and should be used with caution.

N/A Prevalence estimate has an RSE greater than 50% and is considered too unreliable for general use.

The standardised annual prevalence estimates of all diabetes for adults aged 16 years and over from 2002 to 2020 are shown in **Table 15** and **Figure 3**.

- The prevalence of diabetes for males and all persons was significantly higher in 2020 than in 2002.
- The prevalence of diabetes for females remained unchanged over this time.

**Table 15: Prevalence of diabetes over time, 16 years & over, HWSS 2002–2020**

	Males		Females		Persons	
	%	95% CI	%	95% CI	%	95% CI
2002	4.2	(3.4 – 5.1)	5.4	(4.4 – 6.4)	4.8	(4.2 – 5.5)
2003	5.4	(4.5 – 6.3)	4.7	(3.8 – 5.5)	5.0	(4.4 – 5.6)
2004	5.0	(3.7 – 6.3)	5.5	(4.2 – 6.7)	5.2	(4.3 – 6.1)
2005	5.8	(4.8 – 6.8)	5.4	(4.6 – 6.2)	5.6	(4.9 – 6.3)
2006	6.2	(5.0 – 7.3)	6.1	(5.2 – 7.1)	6.2	(5.4 – 6.9)
2007	5.0	(3.7 – 6.3)	5.8	(4.8 – 6.7)	5.4	(4.6 – 6.2)
2008	6.0	(5.0 – 7.1)	5.3	(4.4 – 6.2)	5.7	(5.0 – 6.4)
2009	5.8	(4.9 – 6.7)	5.5	(4.7 – 6.3)	5.7	(5.1 – 6.2)
2010	6.7	(5.7 – 7.8)	6.3	(5.3 – 7.2)	6.5	(5.8 – 7.2)
2011	6.2	(5.0 – 7.4)	5.8	(4.9 – 6.8)	6.0	(5.3 – 6.8)
2012	5.8	(4.8 – 6.8)	7.0	(5.8 – 8.3)	6.4	(5.6 – 7.2)
2013	6.1	(4.8 – 7.3)	5.5	(4.6 – 6.3)	5.8	(5.0 – 6.5)
2014	6.3	(5.0 – 7.5)	5.7	(4.8 – 6.7)	6.0	(5.2 – 6.8)
2015	5.9	(5.0 – 6.9)	5.9	(4.8 – 7.1)	5.9	(5.2 – 6.7)
2016	7.0	(5.3 – 8.6)	6.0	(5.0 – 7.1)	6.5	(5.5 – 7.5)
2017	7.0	(5.3 – 8.8)	7.3	(4.9 – 9.7)	7.2	(5.7 – 8.6)
2018	7.6	(6.0 – 9.3)	5.5	(4.3 – 6.7)	6.6	(5.6 – 7.6)
2019	6.6	(4.8 – 8.3)	6.9	(4.2 – 9.6)	6.7	(5.1 – 8.4)
2020	6.8	(5.3 – 8.3)	7.2	(5.4 – 9.0)	7.0	(5.8 – 8.2)

**Figure 3: Prevalence of diabetes over time, 16 years & over, HWSS 2002–2020**



## 7.5 Injury

Injury is a major contributor to mortality, morbidity and permanent disability in Australia.<sup>8</sup> One of the primary contributors to injury burden arises from the management of injuries in older people that result from falls.<sup>18</sup>



We asked respondents whether they had any injuries in the past 12 months that required treatment from a health professional, and if so, whether these injuries were due to falls. Prevalence estimates for injury are shown in **Table 16**. One in six (17.7%) adults reported an injury in the past 12 months that required treatment from a health professional, with one-thirds (32.7%) of these injuries occurring because of a fall.

Approximately one in four males aged 16 to 44 years reported an injury in 2020 as compared to one in 10 females.

- There was no significant difference in the prevalence estimates for injury across the three age groups.
- Of those who sustained an injury, those aged 65 years and over were more likely than other age groups to indicate that this was due to a fall (56.8% compared with 25.3% for 16 to 44 years and 32.5% for 45 to 64 years).

**Table 16: Prevalence of injuries and falls in the past 12 months, 16 years & over, HWSS 2020**

	Injury		Injuries due to falls (of those injured) (a)		Injury due to falls all respondents (b)	
	%	95% CI	%	95% CI	%	95% CI
<b>16 to 44 yrs</b>						
Males	26.1	(17.7 – 34.4)	16.4*	(5.2 – 27.6)	4.3*	(1.3 – 7.3)
Females	10.5	(6.2 – 14.8)	47.9	(27.3 – 68.5)	5.0*	(1.9 – 8.1)
Persons	18.4	(13.5 – 23.2)	25.3	(14.3 – 36.3)	4.6	(2.5 – 6.8)
<b>45 to 64 yrs</b>						
Males	18.8	(15.2 – 22.3)	27.6	(18.1 – 37.2)	5.2	(3.1 – 7.3)
Females	17.0	(13.9 – 20.0)	37.8	(27.9 – 47.6)	6.4	(4.3 – 8.5)
Persons	17.9	(15.5 – 20.2)	32.5	(25.6 – 39.4)	5.8	(4.3 – 7.3)
<b>65 yrs &amp; over</b>						
Males	14.7	(12.6 – 16.9)	47.8	(40.0 – 55.7)	7.0	(5.5 – 8.5)
Females	16.3	(14.6 – 18.1)	64.1	(58.5 – 69.7)	10.4	(9.0 – 11.9)
Persons	15.6	(14.2 – 16.9)	56.8	(52.0 – 61.6)	8.8	(7.8 – 9.9)
<b>Total</b>						
Males	21.8	(17.4 – 26.2)	23.2	(15.3 – 31.0)	5.0	(3.3 – 6.7)
Females	13.7	(11.2 – 16.1)	47.8	(39.0 – 56.6)	6.5	(4.8 – 8.2)
Persons	17.7	(15.1 – 20.2)	32.7	(26.2 – 39.2)	5.8	(4.6 – 7.0)

(a) As a proportion of respondents reporting an injury. (b) As a proportion of all respondents.

\*Prevalence estimate has an RSE between 25% and 50% and should be used with caution.

The standardised annual prevalence of injury requiring treatment by a health professional for adults aged 16 years and over from 2002 to 2020 is shown in **Table 17** and **Figure 4**.

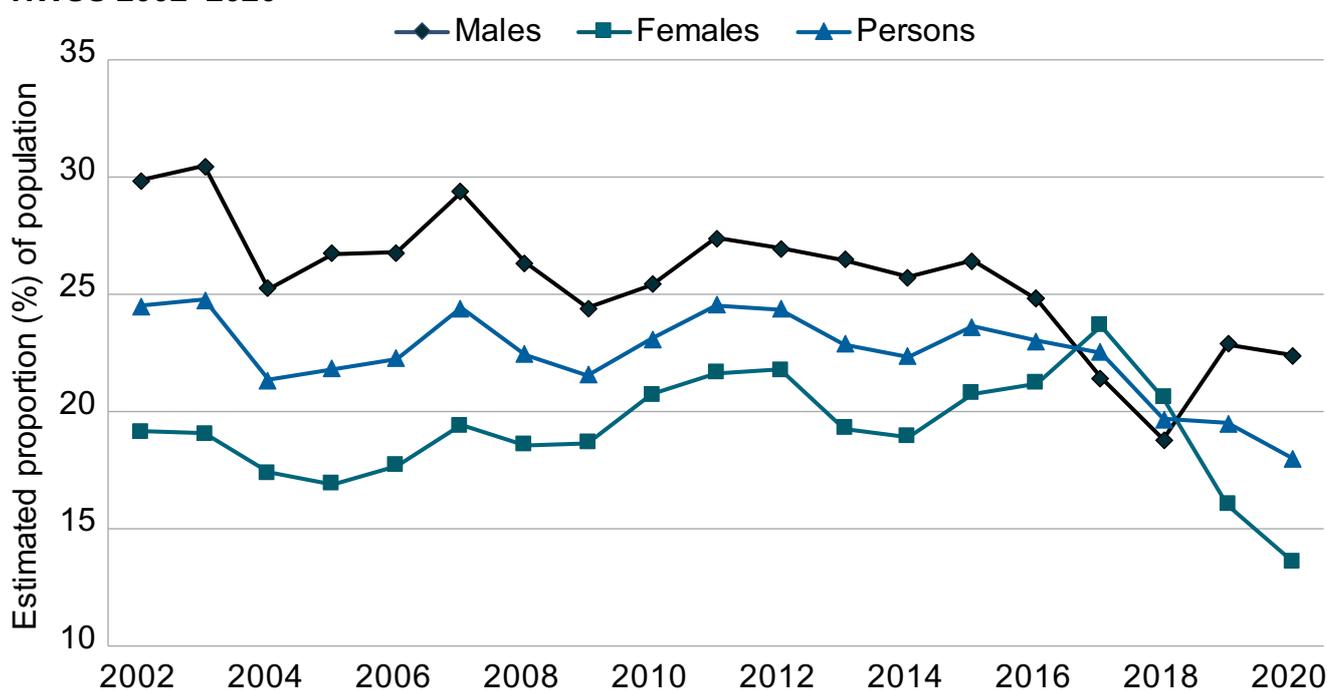
- The prevalence of injuries in the past 12 months for all persons was significantly lower in 2020 when compared with 2002-2003, 2007-2008, 2010-2013 and 2015

- The prevalence of injuries in the past 12 months for females was significantly lower in 2020 when compared with 2002-2003 and 2007-2019.
- For males, the prevalence of injuries in the past 12 months was significantly lower in 2020 when compared with 2002- 2003.

**Table 17: Prevalence of injuries in the past 12 months over time, 16 years & over, HWSS 2002–2020**

	Males		Females		Persons	
	%	95% CI	%	95% CI	%	95% CI
2002	29.9	(27.5 – 32.3)	19.2	(17.4 – 20.9)	24.5	(23.0 – 26.0)
2003	30.5	(28.3 – 32.7)	19.1	(17.5 – 20.7)	24.8	(23.4 – 26.2)
2004	25.3	(22.2 – 28.4)	17.4	(15.1 – 19.8)	21.4	(19.4 – 23.3)
2005	26.8	(24.4 – 29.2)	16.9	(15.3 – 18.5)	21.9	(20.4 – 23.3)
2006	26.8	(24.0 – 29.5)	17.7	(16.0 – 19.5)	22.3	(20.6 – 23.9)
2007	29.4	(26.1 – 32.7)	19.5	(17.5 – 21.4)	24.4	(22.5 – 26.4)
2008	26.4	(23.5 – 29.2)	18.6	(16.7 – 20.5)	22.5	(20.8 – 24.2)
2009	24.5	(22.3 – 26.6)	18.7	(17.1 – 20.3)	21.6	(20.2 – 22.9)
2010	25.4	(23.0 – 27.9)	20.8	(18.9 – 22.6)	23.1	(21.6 – 24.6)
2011	27.4	(24.5 – 30.4)	21.7	(19.6 – 23.8)	24.6	(22.8 – 26.4)
2012	27.0	(23.6 – 30.4)	21.8	(19.4 – 24.2)	24.4	(22.3 – 26.5)
2013	26.5	(23.3 – 29.8)	19.3	(17.2 – 21.4)	22.9	(21.0 – 24.9)
2014	25.8	(22.8 – 28.8)	19.0	(16.8 – 21.1)	22.4	(20.5 – 24.2)
2015	26.5	(23.2 – 29.8)	20.8	(18.4 – 23.2)	23.7	(21.6 – 25.7)
2016	24.8	(21.1 – 28.6)	21.3	(18.2 – 24.3)	23.0	(20.6 – 25.5)
2017	21.4	(17.3 – 25.6)	23.7	(19.7 – 27.7)	22.6	(19.7 – 25.4)
2018	18.8	(15.1 – 22.5)	20.6	(17.2 – 24.1)	19.7	(17.2 – 22.3)
2019	22.9	(18.3 – 27.5)	16.1	(13.1 – 19.1)	19.5	(16.7 – 22.3)
2020	22.4	(17.9 – 27.0)	13.6	(11.2 – 16.1)	18.0	(15.4 – 20.7)

**Figure 4: Prevalence of injuries in the past 12 months over time, 16 years & over, HWSS 2002–2020**



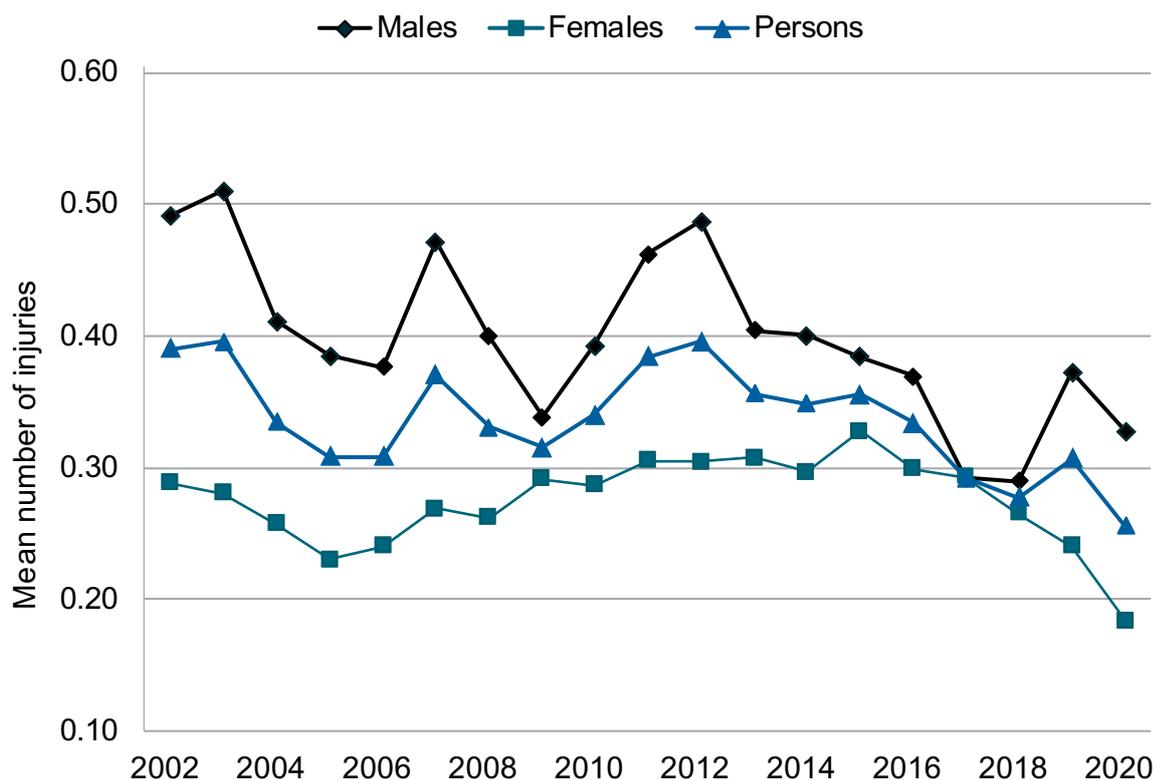
The mean number of injuries over time is shown in **Table 18** and **Figure 5**. The estimates in **Table 18** are reported to two decimal places given changes over time (even those that are significant) are very small.

- For all persons, the mean number of injuries in 2020 was significantly lower when compared with 2002-2003, 2010-2013 and 2015.
- For females, the mean number of injuries in 2020 was significantly lower when compared with 2002-2003, 2009-2013 and 2015-2017.
- For males, the mean number of injuries in 2020 was significantly lower when compared with 2002-2003.

**Table 18: Mean number of injuries in the past 12 months over time, 16 years & over, HWSS 2002-2020**

	Males		Females		Persons	
	mean	95% CI	mean	95% CI	mean	95% CI
<b>2002</b>	0.49	(0.43 – 0.55)	0.29	(0.25 – 0.32)	0.39	(0.36 – 0.43)
<b>2003</b>	0.51	(0.46 – 0.56)	0.28	(0.25 – 0.31)	0.40	(0.37 – 0.43)
<b>2004</b>	0.41	(0.34 – 0.48)	0.26	(0.22 – 0.30)	0.33	(0.29 – 0.38)
<b>2005</b>	0.39	(0.34 – 0.43)	0.23	(0.20 – 0.26)	0.31	(0.28 – 0.33)
<b>2006</b>	0.38	(0.33 – 0.43)	0.24	(0.21 – 0.27)	0.31	(0.28 – 0.34)
<b>2007</b>	0.47	(0.34 – 0.60)	0.27	(0.23 – 0.31)	0.37	(0.30 – 0.44)
<b>2008</b>	0.40	(0.35 – 0.45)	0.26	(0.23 – 0.29)	0.33	(0.30 – 0.36)
<b>2009</b>	0.34	(0.30 – 0.38)	0.29	(0.25 – 0.34)	0.32	(0.29 – 0.34)
<b>2010</b>	0.39	(0.34 – 0.45)	0.29	(0.26 – 0.32)	0.34	(0.31 – 0.37)
<b>2011</b>	0.46	(0.38 – 0.55)	0.31	(0.27 – 0.35)	0.38	(0.34 – 0.43)
<b>2012</b>	0.49	(0.39 – 0.59)	0.30	(0.26 – 0.35)	0.40	(0.34 – 0.45)
<b>2013</b>	0.40	(0.34 – 0.46)	0.31	(0.24 – 0.38)	0.36	(0.31 – 0.40)
<b>2014</b>	0.40	(0.33 – 0.47)	0.30	(0.22 – 0.37)	0.35	(0.30 – 0.40)
<b>2015</b>	0.38	(0.33 – 0.44)	0.33	(0.26 – 0.40)	0.36	(0.31 – 0.40)
<b>2016</b>	0.37	(0.29 – 0.45)	0.30	(0.25 – 0.35)	0.33	(0.29 – 0.38)
<b>2017</b>	0.29	(0.24 – 0.35)	0.29	(0.25 – 0.34)	0.29	(0.26 – 0.33)
<b>2018</b>	0.29	(0.21 – 0.37)	0.27	(0.22 – 0.31)	0.28	(0.23 – 0.32)
<b>2019</b>	0.37	(0.27 – 0.47)	0.24	(0.16 – 0.32)	0.31	(0.24 – 0.37)
<b>2020</b>	0.33	(0.25 – 0.41)	0.18	(0.14 – 0.23)	0.26	(0.21 – 0.30)

**Figure 5: Mean number of injuries in the past 12 months over time, 16 years & over, HWSS 2002–2020**



## 7.6 Asthma

Asthma is a common chronic lung condition defined clinically by the presence of respiratory symptoms (e.g. wheezing, coughing, chest tightness, breathing difficulty) and excessive variation in lung function (i.e. airflow limitation).<sup>19</sup>



We asked respondents whether a doctor had ever told them they had asthma and whether they had symptoms or had taken treatment for asthma during the past 12 months. Respondents who reported ever being diagnosed with asthma were also asked if they have a written asthma action plan; that is, a written instruction of what to do if their asthma gets worse or out of control.

The lifetime prevalence of asthma, prevalence of asthma over the past 12 months, and proportion of adults who have asthma action plans (for those who reported having asthma) is shown in **Table 19**.

- Of WA adults, 18.5% reported ever being diagnosed with asthma in their lives (lifetime asthma), with 11.4% reporting having symptoms or taken treatment for asthma in the past 12 months.
- The prevalence of lifetime asthma or having symptoms or treatment for asthma in the past 12 months did not significantly differ between females and males.
- Of those who had ever been diagnosed with asthma, 24.9% of them reported they had an action plan on what to do if their asthma worsens.

Younger adults aged 16 to 44 years were more likely to report ever being diagnosed with asthma as compared to older adults, aged 45 and over in 2020.

**Table 19: Prevalence of asthma and asthma action plan, 16 years & over, HWSS 2020**

	Lifetime (a)		Period (b)		Action plan (c)	
	%	95% CI	%	95% CI	%	95% CI
<b>16 to 44 yrs</b>						
Males	24.2	(15.4 – 33.0)	13.5*	(6.5 – 20.5)	19.4*	(3.2 – 35.7)
Females	25.7	(17.5 – 33.8)	14.8	(7.8 – 21.8)	27.4*	(11.5 – 43.4)
Persons	24.9	(18.9 – 30.9)	14.1	(9.2 – 19.1)	23.4	(11.9 – 34.8)
<b>45 to 64 yrs</b>						
Males	10.0	(7.4 – 12.6)	6.7	(4.5 – 8.9)	21.5*	(9.7 – 33.4)
Females	15.8	(12.9 – 18.6)	12.0	(9.5 – 14.5)	30.6	(21.6 – 39.6)
Persons	12.9	(11.0 – 14.8)	9.4	(7.7 – 11.1)	27.1	(19.9 – 34.3)
<b>65 yrs &amp; over</b>						
Males	7.9	(6.4 – 9.5)	5.4	(4.0 – 6.7)	26.8	(17.6 – 36.0)
Females	13.2	(11.6 – 14.8)	9.5	(8.1 – 10.8)	31.3	(25.3 – 37.3)
Persons	10.7	(9.6 – 11.8)	7.5	(6.6 – 8.5)	29.7	(24.7 – 34.8)
<b>Total</b>						
Males	16.9	(12.2 – 21.5)	9.9	(6.2 – 13.6)	20.4*	(8.3 – 32.6)
Females	20.2	(16.0 – 24.3)	12.9	(9.3 – 16.5)	28.8	(18.7 – 38.8)
Persons	18.5	(15.4 – 21.7)	11.4	(8.9 – 14.0)	24.9	(17.1 – 32.7)

(a) People who reported they had been told by a doctor or nurse that they have asthma (ever).

(b) People who reported they have had symptoms of, or treatment for, asthma in the last 12 months.

(c) For respondents with lifetime asthma, written instructions developed with a doctor of what to do if their asthma worsens.

\* Prevalence estimate has an RSE between 25%-50% and should be used with caution.

The standardised annual prevalence estimates for lifetime and point prevalence asthma for adults aged 16 years and over for 2002 to 2020 are shown in **Table 20** and **Table 21**, respectively.

- The prevalence estimate for lifetime asthma in 2020 was significantly higher compared to estimates in 2013 and 2014 for all persons.
- Point prevalence of asthma in 2020 for all persons, was significantly higher compared to the estimate in 2013.

**Table 20: Lifetime (a) prevalence of asthma over time, 16 years & over, HWSS 2002 – 2020**

	Males		Females		Persons	
	%	95% CI	%	95% CI	%	95% CI
2002	16.3	(14.4 – 18.3)	17.7	(16.1 – 19.4)	17.0	(15.7 – 18.3)
2003	15.9	(14.2 – 17.6)	18.5	(16.9 – 20.0)	17.2	(16.0 – 18.4)
2004	17.0	(14.2 – 19.9)	18.8	(16.4 – 21.3)	17.9	(16.1 – 19.8)
2005	14.5	(12.6 – 16.3)	18.1	(16.4 – 19.9)	16.3	(15.0 – 17.6)
2006	16.5	(14.2 – 18.8)	18.3	(16.4 – 20.3)	17.4	(15.9 – 18.9)
2007	15.5	(12.8 – 18.2)	21.4	(19.2 – 23.6)	18.5	(16.7 – 20.2)
2008	16.9	(14.4 – 19.4)	17.9	(16.0 – 19.8)	17.4	(15.8 – 18.9)
2009	14.0	(12.3 – 15.8)	16.3	(14.8 – 17.7)	15.2	(14.0 – 16.3)
2010	14.3	(12.4 – 16.2)	17.3	(15.6 – 19.0)	15.8	(14.5 – 17.1)
2011	13.2	(11.1 – 15.3)	17.2	(15.2 – 19.2)	15.2	(13.8 – 16.7)
2012	13.4	(10.7 – 16.1)	17.3	(15.1 – 19.5)	15.3	(13.6 – 17.1)
2013	11.5	(9.0 – 13.9)	14.9	(13.0 – 16.7)	13.2	(11.6 – 14.7)
2014	13.6	(10.9 – 16.3)	13.5	(11.7 – 15.3)	13.6	(12.0 – 15.2)
2015	13.6	(11.1 – 16.0)	16.5	(14.1 – 18.8)	15.0	(13.3 – 16.7)
2016	15.3	(12.0 – 18.7)	15.7	(13.0 – 18.4)	15.5	(13.4 – 17.7)
2017	11.2	(7.7 – 14.7)	15.6	(12.7 – 18.6)	13.4	(11.1 – 15.7)
2018	14.1	(10.6 – 17.6)	18.2	(14.7 – 21.7)	16.1	(13.7 – 18.6)
2019	16.4	(12.0 – 20.7)	14.6	(11.5 – 17.8)	15.5	(12.8 – 18.2)
2020	17.3	(12.6 – 22.0)	20.3	(16.1 – 24.5)	18.8	(15.6 – 21.9)

(a) People who reported they had been told by a doctor or nurse that they have asthma (ever).

**Table 21: Point (b) prevalence of asthma over time, 16 years & over, HWSS 2002–2020**

	Males		Females		Persons	
	%	95% CI	%	95% CI	%	95% CI
2002	8.7	(6.6 – 10.8)	11.4	(9.5 – 13.4)	10.1	(8.7 – 11.5)
2003	8.5	(7.3 – 9.8)	12.4	(11.1 – 13.7)	10.5	(9.5 – 11.4)
2004	9.9	(7.6 – 12.1)	11.7	(9.8 – 13.7)	10.8	(9.3 – 12.3)
2005	8.3	(6.9 – 9.7)	12.6	(11.1 – 14.1)	10.4	(9.4 – 11.5)
2006	9.2	(7.5 – 10.9)	12.2	(10.5 – 13.9)	10.7	(9.5 – 11.9)
2007	6.9	(5.1 – 8.7)	12.4	(10.6 – 14.1)	9.6	(8.4 – 10.9)
2008	8.9	(6.8 – 10.9)	10.6	(9.1 – 12.1)	9.7	(8.5 – 11.0)
2009	7.2	(5.9 – 8.5)	10.1	(8.9 – 11.3)	8.6	(7.8 – 9.5)
2010	6.5	(5.3 – 7.8)	11.0	(9.6 – 12.4)	8.8	(7.8 – 9.7)
2011	7.3	(5.7 – 8.9)	9.8	(8.4 – 11.2)	8.6	(7.5 – 9.6)
2012	5.4	(3.9 – 6.8)	11.0	(9.3 – 12.7)	8.2	(7.0 – 9.3)
2013	6.0	(4.1 – 7.8)	9.0	(7.6 – 10.4)	7.5	(6.3 – 8.6)
2014	7.6	(5.4 – 9.9)	9.1	(7.6 – 10.5)	8.3	(7.0 – 9.7)
2015	7.2	(5.3 – 9.0)	11.4	(9.4 – 13.4)	9.3	(7.9 – 10.7)
2016	6.9	(4.7 – 9.1)	9.9	(7.8 – 12.1)	8.4	(6.8 – 9.9)
2017	7.9	(4.6 – 11.2)	9.9	(7.5 – 12.4)	8.9	(6.9 – 10.9)
2018	5.9	(3.6 – 8.3)	11.2	(8.5 – 14.0)	8.6	(6.8 – 10.4)
2019	6.7	(3.8 – 9.6)	10.0	(7.3 – 12.7)	8.4	(6.4 – 10.4)
2020	10.3	(6.5 – 14.0)	12.8	(9.3 – 16.4)	11.5	(8.9 – 14.1)

(b) People who reported they have had symptoms of, or treatment for, asthma in the last 12 months.

We asked respondents who have ever been diagnosed with asthma how often their asthma interfered with daily activities in the last 4 weeks. The prevalence of asthma interference is shown in **Table 22**.

- Of those adults who had ever been diagnosed with asthma, 77.3% reported that their asthma had not interfered with their daily activities in the last 4 weeks.
- There were no significant differences in the prevalence of asthma interfering with daily activities between age groups and sex.

**Table 22: Prevalence of asthma interfering with daily activities in the last 4 weeks, 16 years & over, HWSS 2020**

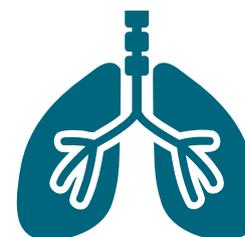
	All or most of the time		Some of the time		None of the time	
	%	95% CI	%	95% CI	%	95% CI
<b>16 to 44 yrs</b>						
Males	N/A	(N/A – N/A)	N/A	(N/A – N/A)	82.6	(68.4 – 96.9)
Females	N/A	(N/A – N/A)	19.3*	(4.0 – 34.6)	76.6	(60.4 – 92.7)
Persons	N/A	(N/A – N/A)	15.6*	(5.8 – 25.3)	79.5	(68.6 – 90.4)
<b>45 to 64 yrs</b>						
Males	N/A	(N/A – N/A)	19.9*	(8.8 – 31.1)	75.4	(63.6 – 87.1)
Females	9.0*	(3.8 – 14.3)	21.4	(13.4 – 29.3)	69.6	(60.8 – 78.4)
Persons	7.4*	(3.6 – 11.1)	20.8	(14.3 – 27.3)	71.8	(64.7 – 78.9)
<b>65 yrs &amp; over</b>						
Males	N/A	(N/A – N/A)	18.6	(10.5 – 26.7)	78.5	(70.0 – 87.1)
Females	4.7*	(2.1 – 7.3)	23.3	(17.7 – 28.8)	72.0	(66.2 – 77.9)
Persons	4.1*	(2.0 – 6.2)	21.6	(17.0 – 26.2)	74.3	(69.4 – 79.2)
<b>Total</b>						
Males	N/A	(N/A – N/A)	13.7*	(4.9 – 22.5)	81.0	(70.2 – 91.7)
Females	5.4*	(0.8 – 10.0)	20.3	(10.5 – 30.2)	74.3	(63.9 – 84.7)
Persons	5.4*	(1.4 – 9.3)	17.3	(10.5 – 24.1)	77.3	(69.7 – 84.9)

\* Prevalence estimate has an RSE between 25%-50% and should be used with caution.

N/A Prevalence estimate has an RSE greater than 50% and is considered too unreliable for general use.

## 7.7 Respiratory conditions other than asthma

We asked respondents if a doctor had told them they had a respiratory problem other than asthma, such as chronic bronchitis, emphysema, or chronic lung disease that lasted six months or more. The prevalence of respiratory conditions in WA adults is shown in **Table 23**.



- The lifetime and point prevalence of a respiratory problem other than asthma increased significantly with age (lifetime – 45 to 64 years: 3.5%, 65 years and over: 7.7%, point – 45 to 64 years: 2.7%, 65 years and over: 6.6%).

The prevalence of respiratory conditions other than asthma remained unchanged from 2007 to 2020 for Western Australian adults.

**Table 23: Prevalence of respiratory conditions other than asthma, 16 years & over, HWSS 2020**

	Lifetime (a)		Point (b)	
	%	95% CI	%	95% CI
<b>16 to 44 yrs</b>				
Males	N/A	(N/A – N/A)	N/A	(N/A – N/A)
Females	N/A	(N/A – N/A)	N/A	(N/A – N/A)
Persons	N/A	(N/A – N/A)	N/A	(N/A – N/A)
<b>45 to 64 yrs</b>				
Males	3.0*	(1.5 – 4.5)	2.4*	(1.0 – 3.7)
Females	4.0	(2.7 – 5.4)	2.9	(1.8 – 4.1)
Persons	3.5	(2.5 – 4.5)	2.7	(1.8 – 3.6)
<b>65 yrs &amp; over</b>				
Males	6.9	(5.4 – 8.4)	5.7	(4.4 – 7.0)
Females	8.5	(7.2 – 9.8)	7.3	(6.1 – 8.5)
Persons	7.7	(6.8 – 8.7)	6.6	(5.7 – 7.5)
<b>Total</b>				
Males	3.4*	(1.6 – 5.2)	2.6*	(1.0 – 4.3)
Females	3.7	(2.3 – 5.1)	2.5	(2.0 – 3.0)
Persons	3.6	(2.4 – 4.7)	2.6	(1.7 – 3.4)

(a) People who reported they were told by a doctor or nurse that they have a respiratory condition other than asthma that lasted 6 months or more, such as bronchitis, emphysema or chronic lung disease (ever).

(b) People who reported they had a respiratory condition other than asthma that lasted 6 months or more that is still present.

\* Prevalence estimate has an RSE between 25%-50% and should be used with caution.

N/A Prevalence estimate has an RSE greater than 50% and is considered too unreliable for general use.

**Table 24** and **Table 25** show the standardised annual lifetime and point prevalence estimates respectively of a respiratory condition other than asthma, for adults aged 16 years and over for 2007 to 2020. Due to changes in the way the questions were asked, comparisons can only be made from 2007.

- The lifetime and point prevalence of respiratory conditions remained unchanged from 2007 to 2020.

**Table 24: Lifetime (a) prevalence of respiratory conditions other than asthma over time, 16 years & over, HWSS 2007-2020**

	Males		Females		Persons	
	%	95% CI	%	95% CI	%	95% CI
2007	3.6	(2.7 – 4.6)	3.2	(4.6 – 3.2)	3.4	(2.8 – 4.0)
2008	3.7	(2.7 – 4.7)	3.4	(4.7 – 3.4)	3.6	(2.9 – 4.2)
2009	3.9	(3.1 – 4.7)	3.0	(4.7 – 3.0)	3.4	(2.9 – 3.9)
2010	2.6	(2.0 – 3.3)	3.3	(3.3 – 3.3)	3.0	(2.5 – 3.4)
2011	3.8	(2.8 – 4.7)	3.3	(4.7 – 3.3)	3.5	(2.9 – 4.1)
2012	2.5	(1.8 – 3.2)	2.6	(3.2 – 2.6)	2.5	(2.0 – 3.1)
2013	3.9	(2.3 – 5.5)	2.6	(5.5 – 2.6)	3.3	(2.4 – 4.1)
2014	2.8	(2.0 – 3.6)	3.2	(3.6 – 3.2)	3.0	(2.5 – 3.6)
2015	3.2	(2.0 – 4.4)	3.1	(4.4 – 3.1)	3.2	(2.4 – 3.9)
2016	2.5	(1.5 – 3.5)	3.3	(3.5 – 3.3)	2.9	(2.3 – 3.6)
2017	2.8	(1.7 – 3.9)	2.2	(3.9 – 2.2)	2.5	(1.9 – 3.2)
2018	2.7*	(1.1 – 4.2)	2.3	(4.2 – 2.3)	2.5	(1.6 – 3.3)
2019	2.4	(1.7 – 3.0)	2.9	(3.0 – 2.9)	2.6	(2.1 – 3.1)
2020	3.3*	(1.3 – 5.2)	3.4	(5.2 – 3.4)	3.3	(2.2 – 4.5)

(a) People who reported they were told by a doctor or nurse that they have a respiratory condition other than asthma that lasted 6 months or more, such as bronchitis, emphysema or chronic lung disease (ever).

\* Prevalence estimate has an RSE between 25% and 50% and should be used with caution.

**Table 25: Point (b) prevalence of respiratory conditions other than asthma over time, 16 years & over, HWSS 2007-2020**

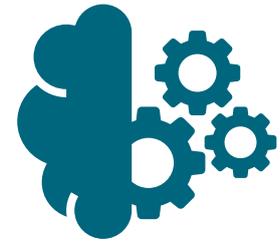
	Males		Females		Persons	
	%	95% CI	%	95% CI	%	95% CI
2007	2.6	(1.9 – 3.3)	1.8	(1.3 – 2.4)	2.2	(1.8 – 2.7)
2008	2.4	(1.6 – 3.2)	2.2	(1.6 – 2.8)	2.3	(1.8 – 2.8)
2009	2.5	(1.9 – 3.1)	1.7	(1.3 – 2.0)	2.1	(1.7 – 2.4)
2010	1.7	(1.2 – 2.1)	1.9	(1.5 – 2.3)	1.8	(1.5 – 2.1)
2011	2.7	(1.9 – 3.5)	1.9	(1.5 – 2.4)	2.3	(1.9 – 2.8)
2012	1.9	(1.2 – 2.5)	1.6	(1.1 – 2.0)	1.7	(1.3 – 2.1)
2013	2.6	(1.3 – 3.8)	1.6	(1.3 – 2.0)	2.1	(1.4 – 2.8)
2014	1.8	(1.3 – 2.2)	1.8	(1.4 – 2.3)	1.8	(1.5 – 2.1)
2015	2.3	(1.2 – 3.4)	1.8	(1.4 – 2.2)	2.0	(1.4 – 2.7)
2016	1.7	(0.8 – 2.6)	2.3	(1.7 – 2.9)	2.0	(1.5 – 2.6)
2017	2.3	(1.3 – 3.4)	1.5	(1.1 – 1.9)	1.9	(1.4 – 2.5)
2018	2.2*	(0.7 – 3.8)	1.8	(1.3 – 2.2)	2.0	(1.2 – 2.8)
2019	1.6	(1.2 – 2.1)	2.2	(1.7 – 2.7)	1.9	(1.6 – 2.2)
2020	2.5*	(0.7 – 4.4)	2.3	(1.8 – 2.8)	2.4	(1.5 – 3.4)

(a) People who reported they had a respiratory condition other than asthma that lasted 6 months or more that is still present.

\* Prevalence estimate has an RSE between 25% and 50% and should be used with caution.

## 7.8 Mental health

Mental health issues encompass a wide range of conditions that vary in severity and duration. People living with a mental health issue are at an increased risk of experiencing other disorders including physical disorders such as diabetes.<sup>20</sup>



We asked respondents if a doctor had diagnosed them with a mental health condition during the past 12 months. **Table 26** shows the population prevalence of each condition.

The prevalence of doctor diagnosed anxiety, depression and stress-related conditions within the past 12 months was significantly lower in those aged 65 years and over compared to the younger age groups.

Almost one in six (17.9%) Western Australian adults reported having a mental health condition in the last 12 months.

- The prevalence of each mental health condition did not vary significantly with sex.

**Table 26: Prevalence of mental health conditions, 16 years & over, HWSS 2020**

	Anxiety		Depression		Stress-related problem		Other mental health condition	
	%	95% CI	%	95% CI	%	95% CI	%	95% CI
<b>16 to 44 yrs</b>								
Males	13.7*	(6.1 – 21.3)	11.3*	(4.3 – 18.2)	11.8*	(5.3 – 18.3)	8.1*	(1.4 – 14.7)
Females	15.0	(8.9 – 21.1)	12.9*	(6.1 – 19.6)	14.0	(8.1 – 19.9)	11.3*	(4.3 – 18.2)
Persons	14.4	(9.5 – 19.2)	12.1	(7.2 – 16.9)	12.9	(8.5 – 17.3)	9.7*	(4.8 – 14.5)
<b>45 to 64 yrs</b>								
Males	6.1	(3.7 – 8.4)	6.7	(4.1 – 9.3)	6.6	(4.2 – 9.0)	2.2*	(0.7 – 3.6)
Females	10.5	(8.1 – 12.9)	10.7	(7.9 – 13.5)	13.4	(10.4 – 16.4)	2.2*	(0.6 – 3.8)
Persons	8.3	(6.6 – 10.0)	8.7	(6.8 – 10.6)	10.0	(8.1 – 11.9)	2.2*	(1.1 – 3.2)
<b>65 yrs &amp; over</b>								
Males	2.9	(1.9 – 4.0)	4.0	(2.8 – 5.1)	3.4	(2.3 – 4.6)	0.7*	(0.2 – 1.1)
Females	5.0	(4.0 – 6.0)	4.9	(3.9 – 5.9)	5.1	(4.0 – 6.1)	1.0*	(0.5 – 1.5)
Persons	4.0	(3.3 – 4.7)	4.5	(3.7 – 5.2)	4.3	(3.5 – 5.1)	0.8	(0.5 – 1.2)
<b>Total</b>								
Males	9.4	(5.4 – 13.3)	8.6	(4.9 – 12.2)	8.7	(5.3 – 12.1)	4.9*	(1.4 – 8.4)
Females	11.6	(8.6 – 14.7)	10.6	(7.2 – 14.1)	12.1	(9.0 – 15.1)	6.4*	(2.9 – 10.0)
Persons	10.5	(8.0 – 13.0)	9.6	(7.1 – 12.1)	10.4	(8.1 – 12.7)	5.7	(3.2 – 8.2)

\* Prevalence estimate has an RSE between 25%-50% and should be used with caution.

N/A Prevalence estimate has an RSE greater than 50% and is considered too unreliable for general use.

Respondents were asked if they were currently receiving treatment for a mental health condition. **Table 27** shows the prevalence of adults with any mental health condition doctor diagnosed within the past 12 months, as well as those currently receiving treatment.

- Almost one in six (17.9%) Western Australian adults reported being diagnosed with a mental health condition in the previous 12 months, with one in ten (9.5%) currently receiving treatment.

- The prevalence of any mental health condition decreased significantly with age (16 to 44 years: 22.6%; 45 to 64 years: 16.1% and 65 years and over: 8.2%).
- The prevalence of receiving treatment for a mental health condition also decreased significantly with age (16 to 44 years: 11.4%; 45 to 64 years: 9.3% and 65 years and over: 4.6%).
- Overall, there were no significant differences between males and females.

**Table 27: Current mental health status, 16 years & over, HWSS 2020**

	Any mental health condition (a)		Any condition currently receiving treatment (b)	
	%	95% CI	%	95% CI
<b>16 to 44 yrs</b>				
Males	21.2	(12.5 – 29.9)	8.6*	(2.5 – 14.8)
Females	24.0	(16.0 – 32.1)	14.2	(7.2 – 21.2)
Persons	22.6	(16.7 – 28.5)	11.4	(6.7 – 16.1)
<b>45 to 64 yrs</b>				
Males	10.9	(7.9 – 13.9)	4.6	(2.7 – 6.5)
Females	21.1	(17.5 – 24.8)	13.9	(10.6 – 17.2)
Persons	16.1	(13.7 – 18.4)	9.3	(7.3 – 11.2)
<b>65 yrs &amp; over</b>				
Males	6.1	(4.7 – 7.5)	3.3	(2.2 – 4.3)
Females	10.1	(8.7 – 11.5)	5.8	(4.7 – 6.9)
Persons	8.2	(7.2 – 9.2)	4.6	(3.9 – 5.4)
<b>Total</b>				
Males	15.3	(10.7 – 20.0)	6.4*	(3.2 – 9.7)
Females	20.4	(16.2 – 24.6)	12.5	(8.8 – 16.1)
Persons	17.9	(14.8 – 21.0)	9.5	(7.0 – 11.9)

(a) People who reported that they had been diagnosed with a mental health condition in the previous 12 months.

(b) People who reported that they are currently receiving treatment for a mental health condition.

\* Prevalence estimate has an RSE between 25%-50% and should be used with caution.

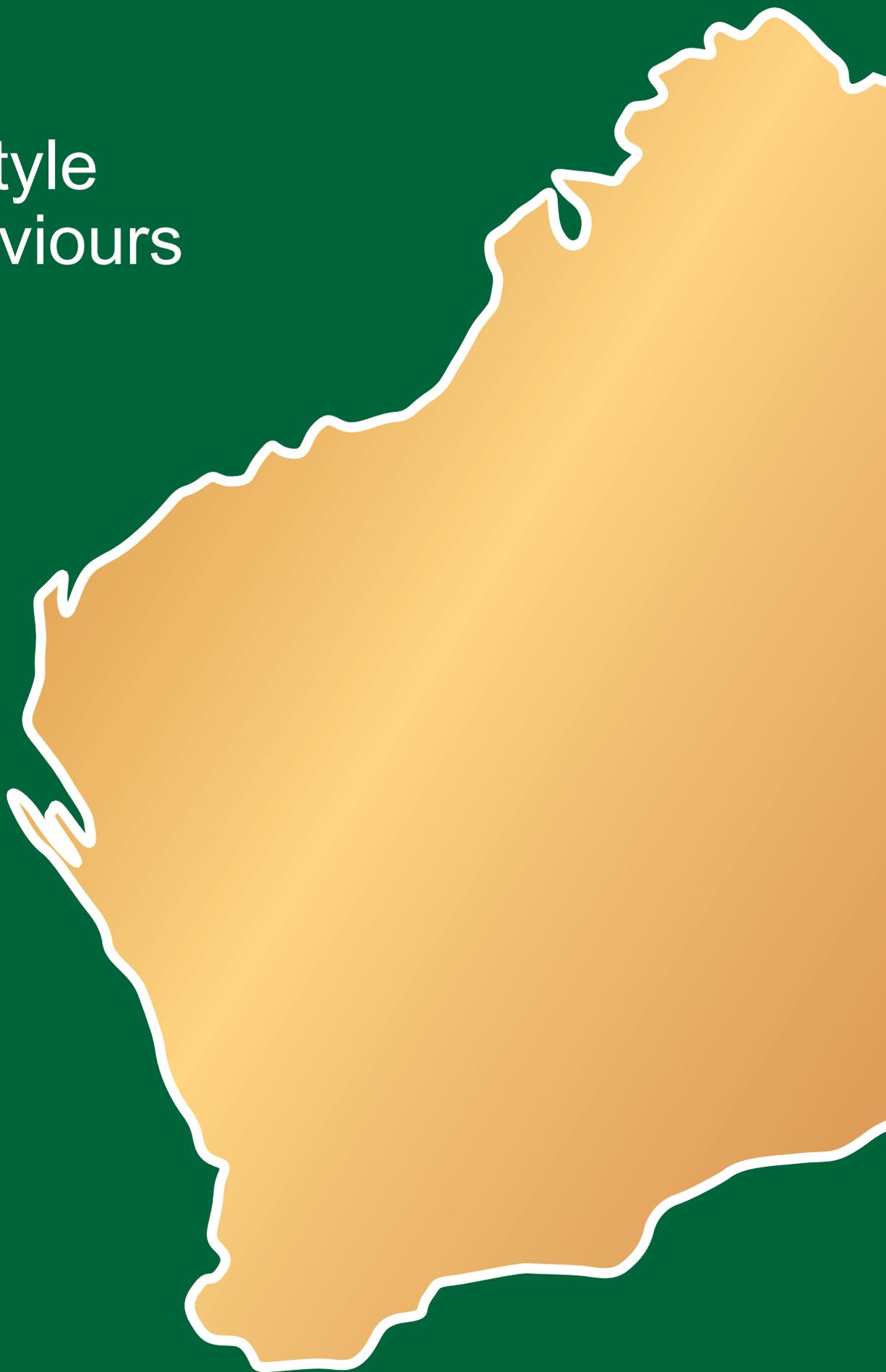
**Table 28** shows the standardised annual prevalence estimates for a current mental health condition for adults aged 16 years and over from 2006 to 2020. Due to changes in the way the questions were asked, comparisons can only be made from 2006.

- The prevalence of all persons with a current mental health condition was significantly higher in 2020 compared with prevalence estimates in 2006 to 2009.
- The prevalence of males with a current mental health condition was significantly higher in 2020 compared with prevalence estimates in 2006.
- The prevalence of females with a current mental health condition in 2020 did not differ significantly from prevalence estimates in previous years.

**Table 28: Prevalence of current mental health condition over time, 16 years & over, HWSS 2006-2020**

	Males		Females		Persons	
	%	95% CI	%	95% CI	%	95% CI
<b>2006</b>	8.1	(6.6 – 9.6)	15.9	(14.1 – 17.8)	12.0	(10.8 – 13.2)
<b>2007</b>	10.7	(8.5 – 12.9)	15.8	(14.1 – 17.6)	13.3	(11.8 – 14.7)
<b>2008</b>	9.1	(7.4 – 10.9)	17.5	(15.7 – 19.4)	13.3	(12.1 – 14.6)
<b>2009</b>	10.7	(9.2 – 12.2)	16.8	(15.3 – 18.3)	13.7	(12.7 – 14.8)
<b>2010</b>	11.3	(9.6 – 13.1)	18.2	(16.5 – 19.9)	14.8	(13.5 – 16.0)
<b>2011</b>	10.7	(8.8 – 12.5)	18.3	(16.3 – 20.2)	14.4	(13.1 – 15.8)
<b>2012</b>	12.5	(9.9 – 15.2)	16.1	(14.1 – 18.1)	14.3	(12.7 – 16.0)
<b>2013</b>	11.4	(9.0 – 13.7)	19.2	(17.0 – 21.4)	15.3	(13.7 – 16.9)
<b>2014</b>	11.6	(9.2 – 14.0)	16.1	(14.1 – 18.0)	13.8	(12.3 – 15.4)
<b>2015</b>	10.3	(8.1 – 12.5)	17.3	(14.9 – 19.6)	13.8	(12.2 – 15.4)
<b>2016</b>	11.7	(9.2 – 14.2)	20.3	(17.2 – 23.4)	16.0	(13.9 – 18.0)
<b>2017</b>	12.2	(9.0 – 15.4)	22.1	(18.1 – 26.0)	17.1	(14.5 – 19.7)
<b>2018</b>	12.0	(9.0 – 15.1)	21.0	(17.6 – 24.5)	16.5	(14.2 – 18.9)
<b>2019</b>	12.7	(9.3 – 16.1)	20.7	(16.9 – 24.6)	16.7	(14.1 – 19.3)
<b>2020</b>	15.5	(10.8 – 20.1)	20.6	(16.5 – 24.8)	18.1	(14.9 – 21.2)

Lifestyle  
behaviours



# 8. Lifestyle behaviours

There are many factors that influence a person's health, including genetics, lifestyle, environmental and social factors. These lifestyle behaviours may have a positive effect on health, such as the consumption of sufficient fruit and vegetables, or a negative effect, such as smoking and physical inactivity.<sup>8</sup> Modifiable lifestyle behaviours such as smoking, unhealthy eating and physical inactivity are also associated with the onset of physiological risk factors, such as high cholesterol and high blood pressure.<sup>21</sup> This section will focus on the following lifestyle behaviours:

- Smoking
- Alcohol
- Illicit drug use
- Physical activity and sedentary behaviour
- Nutrition
- Sleep

## 8.1 Smoking

Smoking is the leading cause of preventable death and disease in Australia.<sup>8</sup> Smoking increases the risk of a number of health conditions, including cancer, respiratory diseases and cardiovascular disease.<sup>8, 22</sup>



### 8.1.1 Tobacco smoking

In 2020, respondents were asked about their smoking status (including cigarettes, cigars and pipes) and whether people smoked in their home. **Table 29** shows the smoking status for Western Australian adults.

- Females were significantly more likely than males to report that they had never smoked (60.7% compared with 49.4%).
- Adults aged 45 to 64 years were significantly more likely than adults aged 65 years and over to report smoking daily (9.4% compared with 3.4%).

The prevalence of current smokers has halved from 21.8% in 2002 to 10.4% in 2020.

**Table 29: Current smoking status, 18 years & over, HWSS 2020**

	I smoke daily		I smoke occasionally		I don't smoke now but I used to		I've tried it a few times but never smoked regularly		I've never smoked	
	%	95% CI	%	95% CI	%	95% CI	%	95% CI	%	95% CI
<b>18 to 44 yrs</b>										
Males	9.3*	(3.4 – 15.2)	3.3*	(0.3 – 6.4)	24.8	(15.4 – 34.2)	9.3*	(3.9 – 14.6)	53.3	(42.8 – 63.8)
Females	4.7*	(1.7 – 7.8)	N/A	(N/A – N/A)	15.4	(9.5 – 21.3)	10.1*	(4.4 – 15.9)	64.9	(56.1 – 73.8)
Persons	7.0	(3.7 – 10.4)	4.1*	(1.1 – 7.0)	20.2	(14.5 – 25.8)	9.7	(5.8 – 13.6)	59.0	(52.1 – 66.0)
<b>45 to 64 yrs</b>										
Males	10.0	(7.2 – 12.7)	2.2*	(0.9 – 3.5)	33.6	(29.4 – 37.8)	9.2	(6.7 – 11.8)	44.9	(40.3 – 49.5)
Females	8.9	(6.6 – 11.3)	2.6*	(1.3 – 3.8)	32.2	(28.5 – 35.9)	6.9	(4.9 – 8.8)	49.5	(45.4 – 53.5)
Persons	9.4	(7.6 – 11.2)	2.4	(1.5 – 3.3)	32.9	(30.1 – 35.7)	8.0	(6.4 – 9.7)	47.2	(44.2 – 50.3)
<b>65 yrs &amp; over</b>										
Males	3.8	(2.8 – 4.9)	0.8*	(0.3 – 1.2)	49.6	(46.6 – 52.6)	6.5	(5.1 – 8.0)	39.3	(36.4 – 42.2)
Females	2.9	(2.2 – 3.7)	0.5*	(0.2 – 0.8)	26.5	(24.4 – 28.5)	6.7	(5.4 – 7.9)	63.5	(61.2 – 65.7)
Persons	3.4	(2.8 – 4.0)	0.6	(0.3 – 0.9)	37.4	(35.5 – 39.2)	6.6	(5.7 – 7.6)	52.0	(50.2 – 53.9)
<b>Total</b>										
Males	8.5	(5.5 – 11.6)	2.5*	(0.9 – 4.1)	32.2	(27.3 – 37.1)	8.8	(6.0 – 11.6)	48.0	(42.5 – 53.5)
Females	5.7	(4.1 – 7.4)	3.2*	(0.7 – 5.7)	23.0	(19.7 – 26.3)	8.4	(5.5 – 11.2)	59.7	(55.2 – 64.2)
Persons	7.1	(5.4 – 8.8)	2.9*	(1.4 – 4.3)	27.6	(24.6 – 30.5)	8.6	(6.6 – 10.6)	53.9	(50.3 – 57.5)

\* Prevalence estimate has an RSE between 25%-50% and should be used with caution.

N/A Prevalence estimate has an RSE greater than 50% and is considered too unreliable for general use.

Current smoking status was categorised into those who smoke (daily or occasionally), ex-smokers, and those who have never smoked regularly according to definitions in the National Health Data Dictionary.<sup>23</sup> Those who had smoked 100 or more cigarettes in their lifetime but no longer currently smoked were classified as ex-smokers, while those who had smoked less than 100 cigarettes were classified as having never smoked or never smoked regularly (**Table 30**).

- Females were significantly more likely than males to report that they had never smoked or never smoked regularly (68.1% compared with 57.2%).
- Persons aged 18 to 44 years were significantly more likely to have never smoked compared with people aged 45 to 64 years and 65 years and over (69.5% compared with 54.4% and 59.4%).
- Persons aged 65 years and over were significantly less likely to be current smokers compared with the total population (4.0% compared with 10.0%).
- There were significantly more people who reported being ex-smokers with increasing age.

**Table 30: Lifetime smoking status, 18 years & over, HWSS 2020**

	Current smoker		Ex-smoker		Never smoked or never smoked regularly	
	%	95% CI	%	95% CI	%	95% CI
<b>18 to 44 yrs</b>						
Males	12.7*	(6.1 – 19.2)	23.8	(14.5 – 33.0)	63.6	(53.4 – 73.7)
Females	9.5*	(3.8 – 15.3)	14.9	(9.0 – 20.8)	75.6	(67.8 – 83.3)
Persons	11.1	(6.8 – 15.5)	19.4	(13.8 – 25.0)	69.5	(63.0 – 76.0)
<b>45 to 64 yrs</b>						
Males	12.2	(9.2 – 15.2)	34.5	(30.3 – 38.8)	53.3	(48.7 – 57.8)
Females	11.5	(8.9 – 14.1)	33.1	(29.3 – 36.8)	55.5	(51.5 – 59.5)
Persons	11.8	(9.9 – 13.8)	33.8	(31.0 – 36.6)	54.4	(51.3 – 57.4)
<b>65 yrs &amp; over</b>						
Males	4.6	(3.5 – 5.7)	48.5	(45.5 – 51.4)	46.9	(44.0 – 49.9)
Females	3.4	(2.6 – 4.2)	26.0	(24.0 – 28.1)	70.5	(68.4 – 72.6)
Persons	4.0	(3.3 – 4.7)	36.6	(34.8 – 38.4)	59.4	(57.6 – 61.2)
<b>Total</b>						
Males	11.0	(7.6 – 14.4)	31.7	(26.9 – 36.6)	57.2	(51.9 – 62.5)
Females	8.9	(6.0 – 11.8)	23.0	(19.7 – 26.2)	68.1	(64.1 – 72.2)
Persons	10.0	(7.8 – 12.2)	27.3	(24.4 – 30.3)	62.7	(59.3 – 66.1)

Respondents were asked if their home was smoke free or if people occasionally or frequently smoke in their home (**Table 31**).

- The majority (96.5%) of WA adults live in a smoke free home.

**Table 31: Smoking in the home, 18 years & over, HWSS 2020**

	Never	
	%	95% CI
<b>18 to 44 yrs</b>		
Males	96.4	(92.6 – 100.0)
Females	94.2	(89.4 – 99.0)
Persons	95.3	(92.2 – 98.4)
<b>45 to 64 yrs</b>		
Males	97.4	(96.2 – 98.7)
Females	96.8	(95.3 – 98.4)
Persons	97.1	(96.2 – 98.1)
<b>65 yrs &amp; over</b>		
Males	97.9	(97.1 – 98.6)
Females	98.6	(98.2 – 99.1)
Persons	98.3	(97.8 – 98.7)
<b>Total</b>		
Males	97.0	(95.1 – 99.0)
Females	95.9	(93.6 – 98.3)
Persons	96.5	(94.9 – 98.0)

\* Prevalence estimate has an RSE between 25%-50% and should be used with caution.

N/A Prevalence estimate has an RSE greater than 50% and is considered too unreliable for general use.

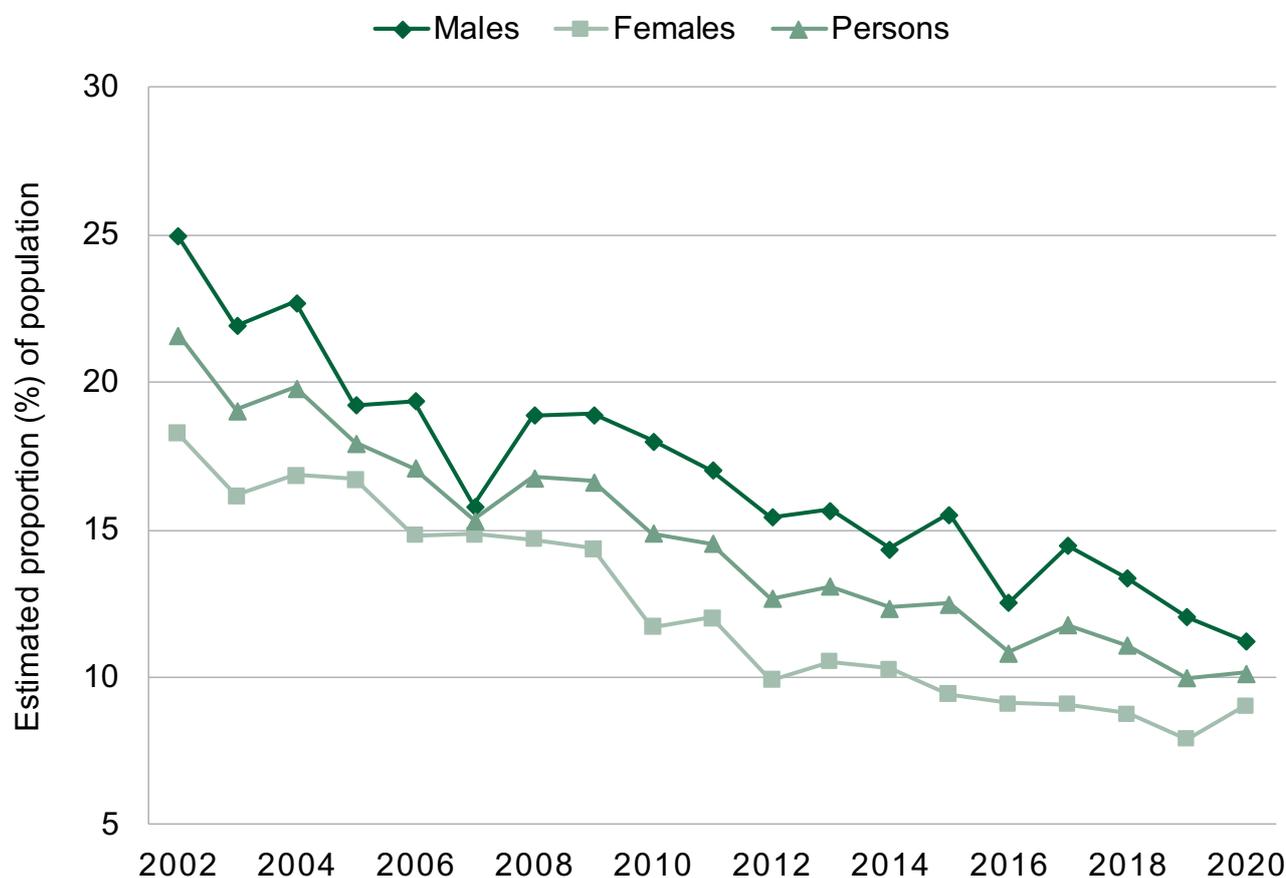
The standardised annual prevalence estimates of current smoking for adults aged 18 years and over continues to decline (**Table 32** and **Figure 6**).

- For all persons, the prevalence estimate of current smokers was significantly lower in 2020 compared with estimates from 2002-2011.
- For males, the 2020 prevalence of current smokers was significantly lower compared with estimates from 2002-2006 and 2008-2011.
- For females, the 2020 prevalence of current smokers was significantly lower compared with estimates from 2002-2009.

**Table 32: Prevalence of current smokers over time, 18 years & over, HWSS 2002-2020**

	Males		Females		Persons	
	%	95% CI	%	95% CI	%	95% CI
2002	24.9	(22.6 – 27.2)	18.6	(16.8 – 20.3)	21.8	(20.3 – 23.2)
2003	22.7	(20.6 – 24.8)	16.1	(14.7 – 17.6)	19.4	(18.1 – 20.7)
2004	23.4	(20.1 – 26.7)	17.2	(14.7 – 19.6)	20.3	(18.2 – 22.3)
2005	19.7	(17.5 – 22.0)	17.3	(15.6 – 19.0)	18.5	(17.1 – 19.9)
2006	20.1	(17.6 – 22.7)	15.2	(13.4 – 17.0)	17.6	(16.1 – 19.2)
2007	16.7	(14.1 – 19.3)	15.3	(13.5 – 17.2)	16.0	(14.4 – 17.6)
2008	19.5	(17.0 – 22.1)	15.3	(13.5 – 17.0)	17.4	(15.8 – 19.0)
2009	19.4	(17.4 – 21.4)	14.6	(13.1 – 16.0)	17.0	(15.8 – 18.2)
2010	18.5	(16.3 – 20.7)	11.7	(10.3 – 13.1)	15.1	(13.8 – 16.5)
2011	17.5	(15.1 – 20.0)	12.5	(10.8 – 14.1)	15.0	(13.5 – 16.5)
2012	15.9	(13.0 – 18.8)	10.3	(8.6 – 12.0)	13.1	(11.4 – 14.8)
2013	16.2	(13.3 – 19.2)	10.5	(8.9 – 12.1)	13.4	(11.7 – 15.1)
2014	14.9	(12.3 – 17.4)	10.6	(8.8 – 12.3)	12.7	(11.2 – 14.2)
2015	16.2	(13.1 – 19.3)	9.1	(7.7 – 10.6)	12.7	(10.9 – 14.4)
2016	12.7	(10.0 – 15.5)	9.5	(7.6 – 11.4)	11.1	(9.4 – 12.8)
2017	14.8	(11.3 – 18.4)	9.3	(7.0 – 11.6)	12.1	(9.9 – 14.2)
2018	13.9	(10.4 – 17.5)	9.1	(6.8 – 11.4)	11.5	(9.4 – 13.6)
2019	12.5	(9.5 – 15.5)	8.2	(5.8 – 10.5)	10.3	(8.4 – 12.2)
2020	11.5	(8.0 – 15.0)	9.2	(6.3 – 12.1)	10.4	(8.1 – 12.6)

**Figure 6: Prevalence of current smokers over time, 18 years & over, HWSS 2002-2020**



## 8.1.2 E-cigarette smoking

HWSS respondents were asked if they had ever tried an electronic cigarette or e-cigarette including electronic-shisha, electronic-hookah, personal vaporisers and vape pens (**Table 33**).



- Approximately one in eight (12.2%) adults aged 18 years and over had ever tried e-cigarettes.
- The prevalence of adults ever trying e-cigarettes decreased significantly with age (18 to 44 years: 18.4%; 45 to 64 years: 8.8% and 65 and over: 1.9%).
- There was no significant difference in the prevalence of ever trying e-cigarettes between females and males.

**Table 33: Prevalence of adults who have (ever) tried an e-cigarette, 18 years & over, HWSS 2020**

	Ever tried an e-cigarette		Never tried an e-cigarette	
	%	95% CI	%	95% CI
<b>18 to 44 yrs</b>				
Males	20.8	(12.1 – 29.5)	79.2	(70.5 – 87.9)
Females	16.0	(8.9 – 23.1)	84.0	(76.9 – 91.1)
Persons	18.4	(12.8 – 24.1)	81.6	(75.9 – 87.2)
<b>45 to 64 yrs</b>				
Males	9.8	(7.0 – 12.6)	90.2	(87.4 – 93.0)
Females	7.9	(5.7 – 10.1)	92.1	(89.9 – 94.3)
Persons	8.8	(7.1 – 10.6)	91.2	(89.4 – 92.9)
<b>65 yrs &amp; over</b>				
Males	2.1	(1.3 – 3.0)	97.9	(97.0 – 98.7)
Females	1.6	(1.0 – 2.2)	98.4	(97.8 – 99.0)
Persons	1.9	(1.4 – 2.4)	98.1	(97.6 – 98.6)
<b>Total</b>				
Males	13.9	(9.4 – 18.4)	86.1	(81.6 – 90.6)
Females	10.5	(7.0 – 14.0)	89.5	(86.0 – 93.0)
Persons	12.2	(9.3 – 15.0)	87.8	(85.0 – 90.7)

\* Prevalence estimate has an RSE between 25%-50% and should be used with caution.

We asked those respondents who said that they had ever tried an e-cigarette if they had tried an e-cigarette in the past 12 months (**Table 34**).

- Of those who had ever tried e-cigarettes, more than half (53.8%) had used an e-cigarette in the past 12 months
- There were no significant differences in the use of e-cigarettes in the past 12 months by sex or age groups.

**Table 34: Prevalence of adults who tried an e-cigarette in the last 12 months, of those who had ever tried an e-cigarette, 18 years & over, HWSS, 2020**

	Tried an e-cigarette in the last 12 months		Did not try an e-cigarette in the last 12 months	
	%	95% CI	%	95% CI
<b>18 to 44 yrs</b>				
Males	68.5	(47.2 – 89.7)	31.5*	(10.3 – 52.8)
Females	42.3*	(18.0 – 66.6)	57.7	(33.4 – 82.0)
Persons	57.3	(40.5 – 74.0)	42.7	(26.0 – 59.5)
<b>45 to 64 yrs</b>				
Males	50.2	(35.1 – 65.4)	49.8	(34.6 – 64.9)
Females	39.9	(25.7 – 54.1)	60.1	(45.9 – 74.3)
Persons	45.6	(35.0 – 56.2)	54.4	(43.8 – 65.0)
<b>65 yrs &amp; over</b>				
Males	42.1	(22.5 – 61.7)	57.9	(38.3 – 77.5)
Females	23.1*	(9.2 – 37.0)	76.9	(63.0 – 90.8)
Persons	33.5	(20.7 – 46.2)	66.5	(53.8 – 79.3)
<b>Total</b>				
Males	63.6	(47.1 – 80.2)	36.4	(19.8 – 52.9)
Females	41.1	(23.1 – 59.2)	58.9	(40.8 – 76.9)
Persons	53.8	(41.1 – 66.6)	46.2	(33.4 – 58.9)

\* Prevalence estimate has an RSE between 25%-50% and should be used with caution.

**Table 35** presents the prevalence of current e-cigarette use among current smokers.

- Among the current smokers, 13.9% reported currently using e-cigarettes and the prevalence of use did not vary by sex.

**Table 35: Prevalence of current e-cigarette use among current smokers, 18 years & over, HWSS 2020.**

	Current e-cigarette use among current smokers		Not current e-cigarette use among current smokers	
	%	95% CI	%	95% CI
Males	13.4*	(4.4 – 22.3)	86.6	(77.7 – 95.6)
Females	14.7*	(6.1 – 23.3)	85.3	(76.7 – 93.9)
Persons	13.9	(7.7 – 20.2)	86.1	(79.8 – 92.3)

The standardised annual prevalence estimates of adults who have ever tried an e-cigarette are presented in **Table 36**.

- The prevalence of adults ever trying an e-cigarette did not change significantly over time.

**Table 36: Prevalence of having ever tried an e-cigarette over time, 18 years & over, HWSS 2017-2020.**

	Males		Females		Persons	
	%	95% CI	%	95% CI	%	95% CI
<b>2017</b>	13.1	(9.0 – 17.1)	8.5	(5.6 – 11.4)	10.8	(8.3 – 13.3)
<b>2018</b>	14.7	(10.8 – 18.5)	7.1	(4.8 – 9.4)	10.9	(8.6 – 13.1)
<b>2019</b>	14.8	(11.2 – 18.4)	9.1	(6.3 – 11.9)	12.0	(9.7 – 14.3)
<b>2020</b>	14.2	(9.7 – 18.7)	10.9	(7.3 – 14.5)	12.6	(9.7 – 15.5)

## 8.2 Alcohol

Excessive alcohol consumption increases the risk of some health conditions, including coronary heart disease, stroke, high blood pressure, and liver and pancreatic disease. It also increases the risk of violence and anti-social behaviour, accidents and mental illness.<sup>24</sup> The guidelines for the consumption of alcohol in Australia were developed by the National Health and Medical Research Council (NHMRC) in 2009.<sup>25</sup>



We asked respondents about their alcohol drinking habits, including how many days a week they usually drink and how many drinks they usually have. We categorised the alcohol consumption information into risk levels based on the 2009 guidelines, where any drinking by people aged less than 18 years is regarded as risky. The first risk is long-term harm over a lifetime of drinking (**Table 37**) and the second risk is short-term harm from injury due to a single occasion of drinking (**Table 38**).

The prevalence of Western Australian adults who drink more than two standard drinks on any one day has declined since 2002 by 10.7%.

- Almost one in three (28.3%) adults aged 16 to 44 years drink at levels considered to be high risk for long-term harm (**Table 37**).
- Males were significantly more likely than females to report drinking at levels considered high risk for long-term alcohol related harm (31.9% compared with 17.8%) (**Table 37**).
- Males were significantly more likely than females to report drinking at levels considered high risk for short-term alcohol related harm (13.0% compared with 5.4%) (**Table 38**).
- For both long-term and short-term harm alcohol related harm, the prevalence of high-risk alcohol consumption was significantly lower for those aged 65 years and over when compared with the younger age groups (**Table 37 and Table 38**).

New Australian Guidelines to reduce health risks from drinking alcohol were released in December 2020. Data for alcohol risk in this report are measured against the 2009 guidelines. HWSS data relating to the updated guidelines will be released following the 2022 survey.

**Table 37: Risk of long-term alcohol related harm, 16 years & over, HWSS 2020**

	Doesn't drink/drinking level undetermined		Low risk (a)		High risk (b)	
	%	95% CI	%	95% CI	%	95% CI
<b>16 to 44 yrs</b>						
Males	42.5	(32.5 – 52.5)	24.4	(15.7 – 33.1)	33.1	(23.7 – 42.5)
Females	34.9	(26.6 – 43.2)	41.7	(32.4 – 51.0)	23.4	(15.8 – 31.1)
Persons	38.7	(32.2 – 45.3)	33.0	(26.4 – 39.5)	28.3	(22.2 – 34.4)
<b>45 to 64 yrs</b>						
Males	26.3	(22.2 – 30.4)	35.8	(31.4 – 40.2)	37.9	(33.5 – 42.3)
Females	38.4	(34.4 – 42.3)	44.2	(40.1 – 48.2)	17.5	(14.5 – 20.4)
Persons	32.4	(29.5 – 35.3)	40.0	(37.0 – 43.0)	27.6	(24.9 – 30.3)
<b>65 yrs &amp; over</b>						
Males	32.8	(30.0 – 35.5)	49.2	(46.2 – 52.2)	18.0	(15.7 – 20.3)
Females	52.1	(49.8 – 54.5)	43.6	(41.2 – 45.9)	4.3	(3.4 – 5.2)
Persons	43.0	(41.2 – 44.8)	46.2	(44.4 – 48.1)	10.8	(9.6 – 12.0)
<b>Total</b>						
Males	35.7	(30.4 – 41.1)	32.4	(27.6 – 37.1)	31.9	(26.9 – 36.9)
Females	32.4	(35.0 – 43.7)	42.8	(38.0 – 47.6)	17.8	(13.9 – 21.7)
Persons	39.4	(34.1 – 41.0)	37.6	(34.2 – 41.1)	24.8	(21.6 – 28.0)

(a) Drinks two or less standard drinks on any one day. (b) Drinks more than two standard drinks on any one day.

**Table 38: Risk of short-term alcohol related harm, 16 years & over, HWSS 2020**

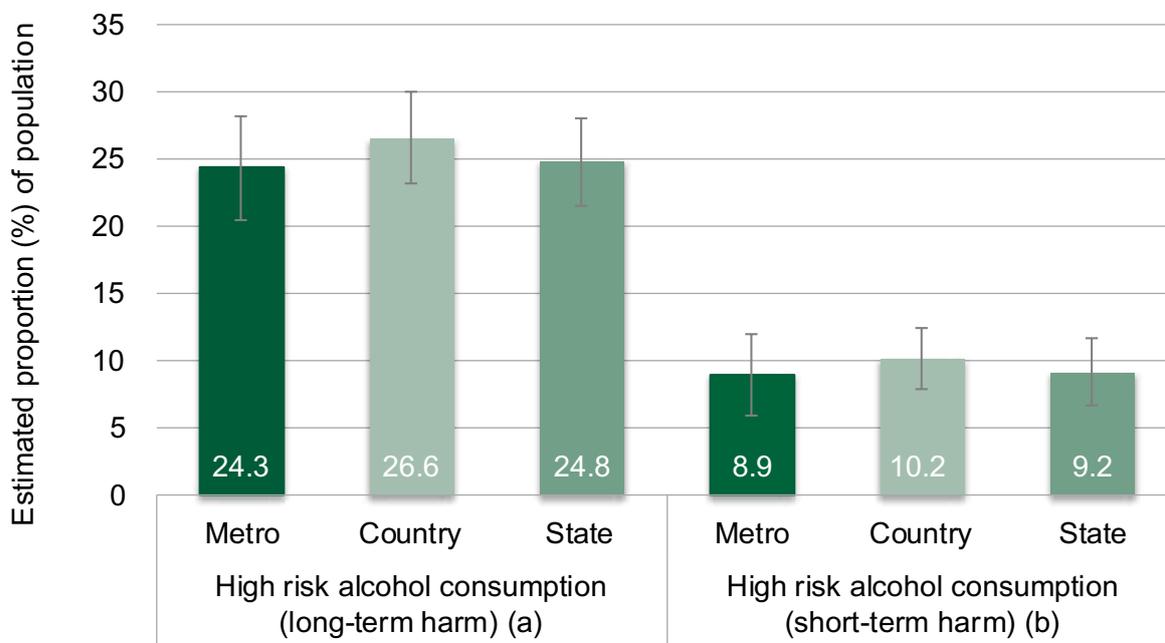
	Doesn't drink/drinking level undetermined		Low risk (a)		High risk (b)	
	%	95% CI	%	95% CI	%	95% CI
<b>16 to 44 yrs</b>						
Males	42.5	(32.5 – 52.5)	40.2	(30.3 – 50.1)	17.3	(9.6 – 24.9)
Females	34.9	(26.6 – 43.2)	56.1	(47.2 – 65.1)	9.0*	(3.5 – 14.4)
Persons	38.7	(32.2 – 45.3)	48.1	(41.3 – 54.9)	13.2	(8.4 – 17.9)
<b>45 to 64 yrs</b>						
Males	26.3	(22.2 – 30.4)	62.8	(58.4 – 67.3)	10.9	(8.1 – 13.6)
Females	38.4	(34.4 – 42.3)	58.9	(54.9 – 62.9)	2.8	(1.5 – 4.0)
Persons	32.4	(29.5 – 35.3)	60.8	(57.9 – 63.8)	6.8	(5.3 – 8.3)
<b>65 yrs &amp; over</b>						
Males	32.8	(30.0 – 35.5)	62.9	(58.4 – 67.3)	4.4	(3.2 – 5.5)
Females	52.1	(49.8 – 54.5)	47.2	(54.9 – 62.9)	0.7*	(0.3 – 1.0)
Persons	43.0	(41.2 – 44.8)	54.6	(57.9 – 63.8)	2.4	(1.8 – 3.0)
<b>Total</b>						
Males	35.7	(30.4 – 41.1)	51.3	(45.8 – 56.7)	13.0	(9.0 – 17.0)
Females	39.4	(35.0 – 43.7)	55.2	(50.6 – 59.9)	5.4*	(2.6 – 8.2)
Persons	37.6	(34.1 – 41.0)	53.3	(49.7 – 56.8)	9.2	(6.7 – 11.6)

(a) Drinks four or less standard drinks on any one day. (b) Drinks more than four standard drinks on any one day.

**Figure 7** shows the prevalence of high-risk alcohol consumption for long-term and short-term harm in Western Australia by geographic area of residence.

- The prevalence of high-risk consumption was no different in the country areas when compared with the metropolitan area.

**Figure 7: Prevalence of high-risk alcohol consumption for long-term and short-term harm, 16 years & over, by geographic area of residence in WA, HWSS 2020**



(a) Drinks more than two standard drinks on any one day. (b) Drinks more than four standard drinks on any one day.

The standardised annual prevalence estimates of high risk long-term and short-term alcohol-related harm for Western Australia adults aged 16 years and over are shown in **Table 39** and **Table 40** respectively, as well as in **Figure 8**.

- The prevalence of all persons drinking at levels associated with both long-term and short-term harm was significantly lower in 2020 compared with estimates from 2002 to 2011.
- The prevalence of males drinking at levels associated with long-term harm was significantly lower in 2020 than in the years 2002-2011 and 2013, and for short-term harm the prevalence in 2020 was significantly lower than in the years 2002-2011.
- The prevalence of females drinking at levels associated with long-term harm was significantly lower in 2020 than in the years 2008, 2010 and 2011, and for the short-term harm, the prevalence in 2020 was significantly lower than in the years 2007, 2008 and 2011.

**Table 39: Prevalence of high-risk alcohol consumption for long-term harm (a) over time, 16 years & over, HWSS 2002-2020**

	Males		Females		Persons	
	%	95% CI	%	95% CI	%	95% CI
2002	49.6	(47.1 – 52.2)	22.6	(20.7 – 24.5)	36.2	(34.5 – 37.8)
2003	46.8	(44.4 – 49.2)	23.9	(22.2 – 25.7)	35.4	(33.9 – 36.9)
2004	47.8	(44.2 – 51.5)	22.9	(20.2 – 25.6)	35.4	(33.1 – 37.7)
2005	46.8	(44.2 – 49.4)	21.8	(19.9 – 23.7)	34.3	(32.7 – 36.0)
2006	45.1	(42.1 – 48.1)	22.8	(20.5 – 25.1)	34.0	(32.1 – 35.9)
2007	48.0	(44.7 – 51.4)	23.9	(21.5 – 26.2)	36.0	(33.9 – 38.1)
2008	48.0	(44.9 – 51.1)	25.9	(23.6 – 28.1)	37.0	(35.0 – 39.0)
2009	46.9	(44.5 – 49.3)	24.4	(22.6 – 26.3)	35.7	(34.1 – 37.3)
2010	49.1	(46.5 – 51.8)	25.5	(23.4 – 27.6)	37.4	(35.6 – 39.1)
2011	48.2	(45.1 – 51.3)	25.4	(23.0 – 27.8)	36.8	(34.8 – 38.9)
2012	39.7	(36.1 – 43.3)	18.6	(16.3 – 20.9)	29.2	(27.0 – 31.4)
2013	42.1	(38.5 – 45.7)	19.1	(16.8 – 21.3)	30.6	(28.4 – 32.9)
2014	37.0	(33.7 – 40.3)	18.7	(16.3 – 21.2)	27.9	(25.8 – 30.0)
2015	38.7	(35.2 – 42.1)	17.1	(14.9 – 19.4)	27.9	(25.8 – 30.1)
2016	37.6	(33.4 – 41.7)	17.5	(14.4 – 20.6)	27.5	(24.9 – 30.2)
2017	37.5	(32.7 – 42.3)	19.3	(15.2 – 23.4)	28.4	(25.2 – 31.7)
2018	35.4	(30.8 – 39.9)	12.6	(10.2 – 15.0)	24.0	(21.3 – 26.8)
2019	38.2	(33.4 – 42.9)	16.1	(12.7 – 19.5)	27.1	(24.2 – 30.1)
2020	32.4	(27.3 – 37.5)	18.7	(14.7 – 22.7)	25.5	(22.3 – 28.8)

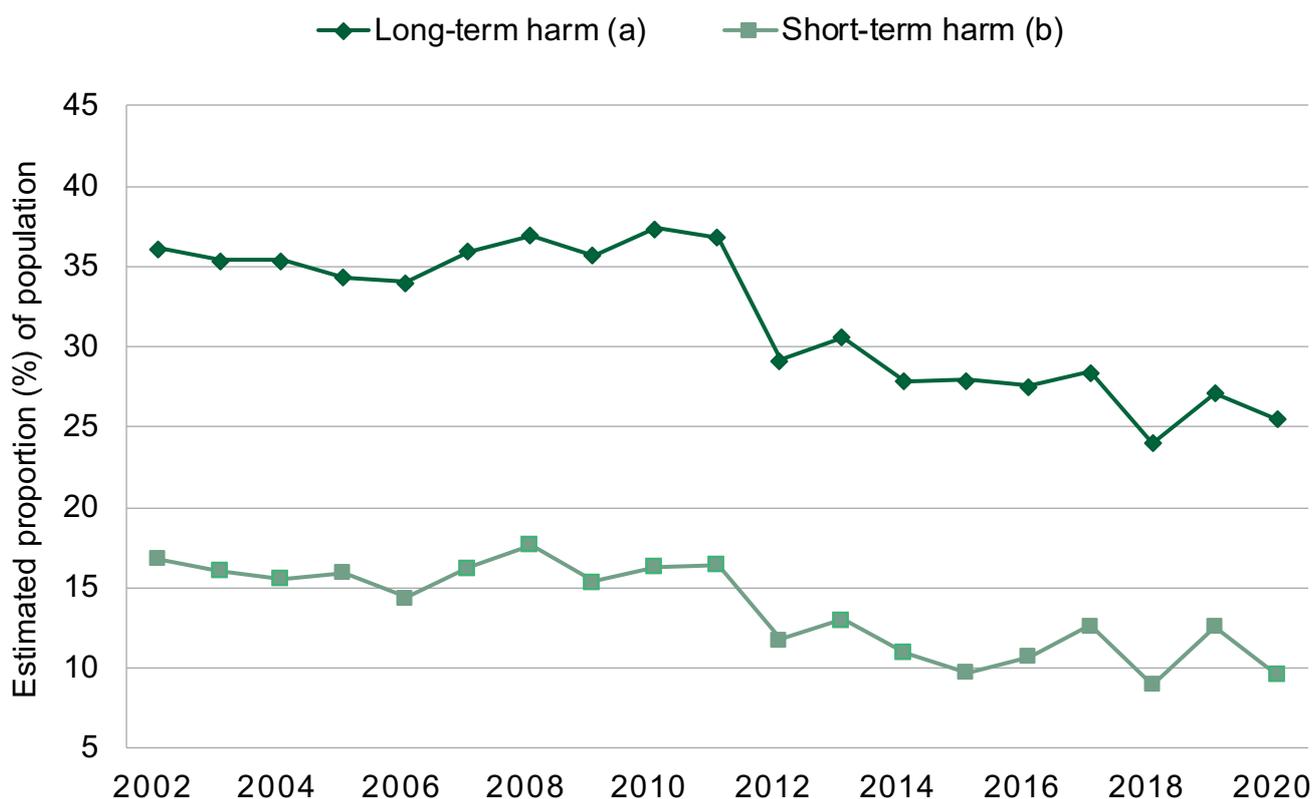
(a) Drinks more than two standard drinks on any one day.

**Table 40: Prevalence of high-risk alcohol consumption for short-term harm (b) over time, 16 years & over, HWSS 2002-2020**

	Males		Females		Persons	
	%	95% CI	%	95% CI	%	95% CI
2002	25.1	(22.9 – 27.4)	8.5	(7.1 – 9.8)	16.8	(15.5 – 18.2)
2003	23.7	(21.7 – 25.7)	8.3	(7.2 – 9.4)	16.0	(14.9 – 17.2)
2004	24.6	(21.4 – 27.7)	6.6	(5.2 – 8.0)	15.6	(13.8 – 17.4)
2005	23.4	(21.1 – 25.6)	8.5	(7.1 – 9.8)	15.9	(14.6 – 17.3)
2006	21.2	(18.6 – 23.8)	7.5	(5.8 – 9.2)	14.4	(12.8 – 15.9)
2007	22.2	(19.4 – 24.9)	10.3	(8.5 – 12.0)	16.2	(14.6 – 17.9)
2008	24.8	(21.8 – 27.7)	10.6	(8.9 – 12.3)	17.7	(15.9 – 19.4)
2009	21.8	(19.7 – 23.8)	8.9	(7.6 – 10.1)	15.3	(14.1 – 16.6)
2010	24.3	(21.8 – 26.8)	8.2	(6.8 – 9.7)	16.3	(14.8 – 17.7)
2011	22.6	(19.7 – 25.4)	10.3	(8.5 – 12.1)	16.4	(14.7 – 18.2)
2012	17.6	(14.6 – 20.5)	5.9	(4.4 – 7.4)	11.8	(10.1 – 13.5)
2013	20.5	(17.2 – 23.8)	5.5	(4.0 – 7.0)	13.0	(11.1 – 14.9)
2014	15.4	(12.7 – 18.0)	6.6	(4.7 – 8.5)	11.0	(9.4 – 12.6)
2015	14.8	(12.2 – 17.5)	4.5	(3.3 – 5.8)	9.7	(8.2 – 11.2)
2016	16.1	(12.6 – 19.6)	5.3	(3.4 – 7.2)	10.7	(8.7 – 12.8)
2017	20.4	(15.9 – 24.9)	4.9	(3.0 – 6.7)	12.7	(10.1 – 15.2)
2018	14.8	(11.3 – 18.3)	3.2	(1.9 – 4.4)	9.0	(7.1 – 10.9)
2019	19.2	(15.0 – 23.4)	6.0	(3.5 – 8.5)	12.6	(10.1 – 15.1)
2020	13.5	(9.4 – 17.6)	5.7	(2.9 – 8.4)	9.6	(7.1 – 12.1)

(b) Drinks more than four standard drinks on any one day.

**Figure 8: Prevalence of high-risk alcohol consumption for long-term and short-term harm over time, 16 years & over, HWSS 2002-2020**



## 8.3 Nutrition

### 8.3.1 Fruit and Vegetables

Diet has an important effect on health and can influence the risk of various diseases, including coronary heart disease, type 2 diabetes, stroke, some cancers and obesity.<sup>26</sup> The current Australian Dietary Guidelines<sup>26</sup> developed in 2013 by the National Health and Medical Research Council (NHMRC) are presented in **Table 41**.



We asked respondents how many serves of fruit or vegetables they usually eat each day. A serve of fruit is equal to one medium piece, two small pieces of fruit or a cup of diced fruit. A serve of vegetables is equal to half a cup of cooked vegetables or one cup of salad. As the consumption of half serves is not captured in the questions currently asked in the HWSS, for the purposes of reporting, the recommended number of serves are rounded down to the nearest whole number (**Table 41**).

Just 6.8% Western Australian adults in 2020 met the recommended minimum daily intake for vegetables, while 42.6% met the recommended minimum daily intake for fruit

**Table 41: NHMRC Australian Dietary Guidelines for fruit and vegetable daily consumption guidelines and HWSS reporting definitions, 16 years & over**

	Minimum recommended serves of fruit per day	Minimum recommended serves of vegetables per day		Minimum serves of vegetables per day for HWSS reporting	
	Females and males	Females	Males	Females	Males
<b>16 – 18 years</b>	2	5	5.5	5	5
<b>19 – 50 years</b>	2	5	6	5	6
<b>51 – 70 years</b>	2	5	5.5	5	5
<b>70 + years</b>	2	5	5	5	5

**Table 42** shows the proportion of adults aged 16 years and over, by the number of serves of fruit they usually eat daily.

- Over 80% of adults ate at least one serve of fruit each day.
- Approximately two-fifths (42.6%) of adults ate two or more serves of fruit daily.
- There was no significant difference in the number of serves of fruit consumed daily between females and males.
- Adults aged 65 years and over (53.0%) were more likely to consume two or more serves of fruit daily than the total population (42.6%).

**Table 42: Serves of fruit consumed daily, 16 years & over, HWSS 2020**

	Does't eat fruit		Eats less than one serve of fruit daily		Eats one serve of fruit daily		Eats two or more serves of fruit daily	
	%	95% CI	%	95% CI	%	95% CI	%	95% CI
<b>16 to 44 yrs</b>								
Males	12.6*	(6.3 – 18.9)	13.3	(7.2 – 19.5)	35.9	(25.8 – 46.0)	38.2	(28.6 – 47.8)
Females	7.7*	(3.6 – 11.7)	10.5*	(4.9 – 16.1)	41.3	(32.1 – 50.6)	40.5	(31.7 – 49.4)
Persons	10.1	(6.4 – 13.9)	11.9	(7.8 – 16.1)	38.6	(31.7 – 45.5)	39.3	(32.8 – 45.9)
<b>45 to 64 yrs</b>								
Males	11.2	(8.2 – 14.3)	12.4	(9.5 – 15.3)	38.0	(33.5 – 42.5)	38.4	(34.0 – 42.7)
Females	10.2	(7.6 – 12.9)	7.9	(5.7 – 10.0)	37.2	(33.3 – 41.1)	44.7	(40.7 – 48.7)
Persons	10.7	(8.7 – 12.7)	10.1	(8.3 – 11.9)	37.6	(34.6 – 40.6)	41.6	(38.6 – 44.5)
<b>65 yrs &amp; over</b>								
Males	6.1	(4.8 – 7.5)	8.5	(6.8 – 10.2)	37.3	(34.4 – 40.2)	48.0	(45.1 – 51.0)
Females	4.7	(3.8 – 5.7)	6.2	(5.0 – 7.3)	31.7	(29.5 – 33.9)	57.4	(55.1 – 59.8)
Persons	5.4	(4.6 – 6.2)	7.3	(6.3 – 8.2)	34.3	(32.5 – 36.1)	53.0	(51.1 – 54.9)
<b>Total</b>								
Males	11.0	(7.6 – 14.4)	12.2	(8.9 – 15.5)	36.8	(31.5 – 42.2)	40.0	(34.8 – 45.2)
Females	7.9	(5.7 – 10.0)	8.8	(6.0 – 11.7)	38.1	(33.3 – 42.9)	45.1	(40.5 – 49.8)
Persons	9.4	(7.4 – 11.4)	10.5	(8.3 – 12.7)	37.5	(33.9 – 41.1)	42.6	(39.1 – 46.0)

\* Prevalence estimate has an RSE between 25%-50% and should be used with caution.

**Table 43** shows the proportion of adults aged 16 years and over, by the number of serves of vegetables they usually eat daily.

- The proportion of adults who consumed five or more serves of vegetables per day was 8.9% overall. This proportion was not significantly different between males and females.
- Females aged 65 years and over (9.3%) were significantly more likely to consume five or more serves of vegetables daily than males (5.6%)

**Table 43: Serves of vegetables consumed daily, 16 years & over, HWSS 2020**

	Doesn't eat vegetables		Eats less than one serve of vegetables daily		Eats one to two serves of vegetables daily		Eats three to four serves of vegetables daily		Eats five or more serves of vegetables daily	
	%	95% CI	%	95% CI	%	95% CI	%	95% CI	%	95% CI
<b>16 to 44 yrs</b>										
Males	N/A	(N/A – N/A)	N/A	(N/A – N/A)	51.3	(41.1 – 61.4)	34.5	(24.9 – 44.0)	8.2*	(2.8 – 13.6)
Females	N/A	(N/A – N/A)	N/A	(N/A – N/A)	52.6	(43.4 – 61.8)	36.5	(27.6 – 45.3)	8.2*	(3.4 – 12.9)
Persons	N/A	(N/A – N/A)	1.9*	(0.5 – 3.2)	51.9	(45.1 – 58.7)	35.5	(28.9 – 42.0)	8.2	(4.6 – 11.8)
<b>45 to 64 yrs</b>										
Males	N/A	(N/A – N/A)	3.1*	(1.5 – 4.7)	60.7	(56.3 – 65.1)	26.4	(22.5 – 30.3)	9.4	(6.7 – 12.1)
Females	0.9*	(0.1 – 1.7)	1.8*	(0.7 – 2.9)	41.6	(37.6 – 45.7)	43.6	(39.6 – 47.6)	12.0	(9.5 – 14.6)
Persons	0.6*	(0.2 – 1.1)	2.5	(1.5 – 3.4)	51.1	(48.0 – 54.1)	35.1	(32.2 – 37.9)	10.7	(8.9 – 12.6)
<b>65 yrs &amp; over</b>										
Males	0.6*	(0.2 – 1.0)	2.1	(1.3 – 2.8)	57.5	(54.6 – 60.5)	34.2	(31.4 – 37.1)	5.6	(4.2 – 7.0)
Females	1.0	(0.6 – 1.5)	1.7	(1.2 – 2.3)	44.1	(41.8 – 46.5)	43.8	(41.5 – 46.2)	9.3	(7.9 – 10.7)
Persons	0.8	(0.5 – 1.1)	1.9	(1.4 – 2.4)	50.4	(48.6 – 52.3)	39.3	(37.5 – 41.1)	7.6	(6.6 – 8.5)
<b>Total</b>										
Males	N/A	(N/A – N/A)	2.0	(1.2 – 2.8)	55.3	(49.9 – 60.7)	34.2	(26.8 – 37.0)	8.1	(5.2 – 11.0)
Females	0.7*	(0.2 – 1.1)	2.1*	(0.8 – 3.4)	47.5	(42.8 – 52.3)	43.8	(35.6 – 44.7)	9.6	(7.1 – 12.1)
Persons	1.7*	(0.3 – 3.0)	2.0	(1.3 – 2.8)	51.4	(47.8 – 55.0)	39.3	(32.6 – 39.5)	8.9	(6.9 – 10.8)

\* Prevalence estimate has an RSE between 25%-50% and should be used with caution.  
 N/A Prevalence estimate has an RSE greater than 50% and is considered too unreliable for general use.

The proportion of adults aged 16 years and over meeting the 2013 Australian Dietary Guidelines for fruit and vegetable consumption (rounded down to the nearest whole number) is shown in **Table 44**.

- Two in five (42.6%) of adults aged 16 years and over met the fruit consumption guidelines.
- Only one in fifteen (6.8%) adults aged 16 years and over met the vegetables consumption guidelines.
- Adults aged 65 years and over (53.0%) were significantly more likely to meet fruit consumption guidelines compared with adults aged 45 to 64 years (41.6%) and those aged 16 to 44 years (39.3%).
- Females were significantly more likely to meet vegetables consumption guidelines compared to males (9.6% compared with 3.9%).

**Table 44: Prevalence of meeting fruit and vegetable consumption guidelines, 16 years & over, HWSS 2020**

	Met fruit consumption guidelines		Met vegetable consumption guidelines	
	%	95% CI	%	95% CI
<b>16 to 44 yrs</b>				
Males	38.2	(28.6 – 47.8)	N/A	(N/A – N/A)
Females	40.5	(31.7 – 49.4)	8.2*	(3.4 – 12.9)
Persons	39.3	(32.8 – 45.9)	4.6*	(2.0 – 7.1)
<b>45 to 64 yrs</b>				
Males	38.4	(34.0 – 42.7)	7.7	(5.3 – 10.2)
Females	44.7	(40.7 – 48.7)	12.0	(9.5 – 14.6)
Persons	41.6	(38.6 – 44.5)	9.9	(8.1 – 11.7)
<b>65 yrs &amp; over</b>				
Males	48.0	(45.1 – 51.0)	5.6	(4.2 – 7.0)
Females	57.4	(55.1 – 59.8)	9.3	(7.9 – 10.7)
Persons	53.0	(51.1 – 54.9)	7.6	(6.6 – 8.5)
<b>Total</b>				
Males	40.0	(34.8 – 45.2)	3.9	(2.7 – 5.1)
Females	45.1	(40.5 – 49.8)	9.6	(7.1 – 12.1)
Persons	42.6	(39.1 – 46.0)	6.8	(5.4 – 8.2)

\* Prevalence estimate has an RSE between 25%-50% and should be used with caution.

Note: See Table 40 for definitions of meeting the fruit and vegetable consumption guidelines based on age.

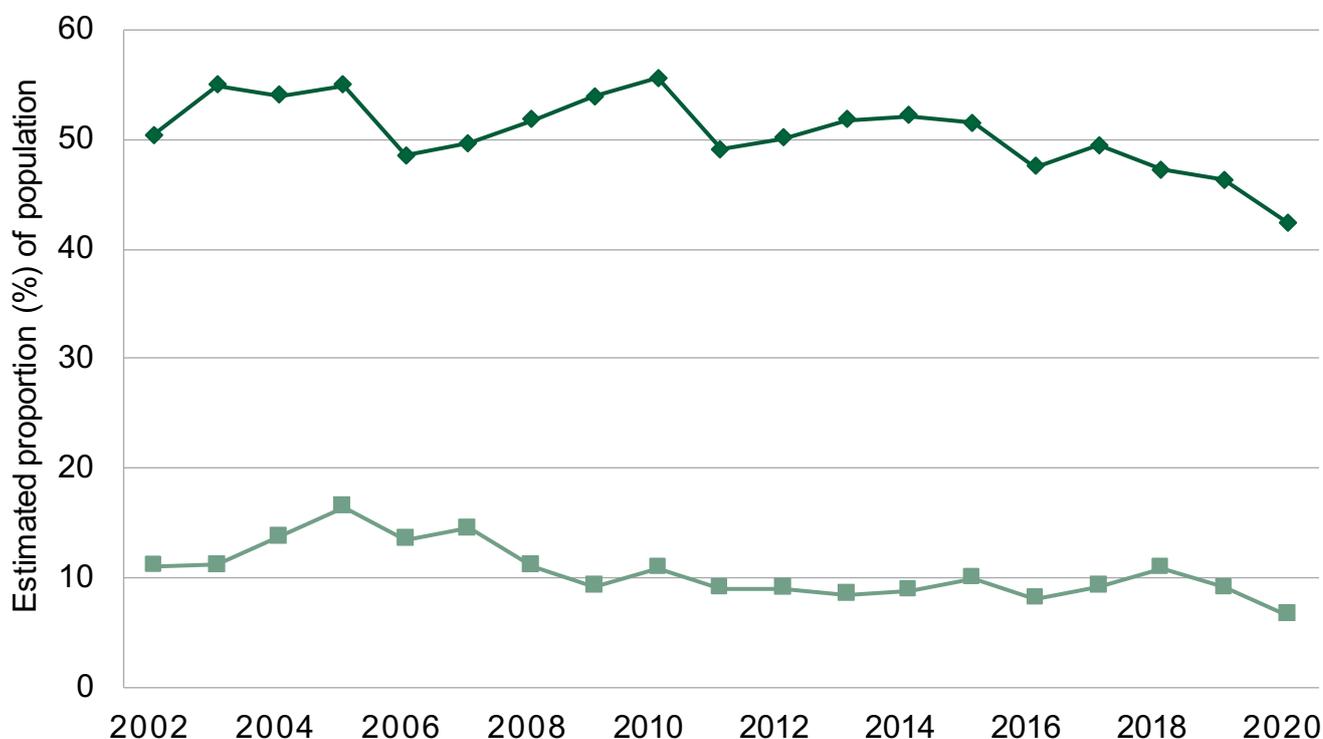
The standardised annual prevalence estimates for adults 16 years and over who met the recommended minimum daily intake of fruit and vegetables based on the 2013 Australian Dietary Guidelines (rounded down to the nearest whole number) over time are shown in **Table 45** and **Figure 9**.

- The prevalence of adults who met the fruit consumption guidelines in 2020 is significantly lower when compared to the prevalence estimates in 2002 to 2017, excluding 2016.
- The prevalence of adults who met the vegetable consumption guidelines in 2020 is significantly lower when compared to the prevalence estimates in 2002- 2011, 2015 and 2018.

**Table 45: Prevalence of adults 16 years and over who met fruit and vegetable consumption guidelines over time, 2013 Australian Dietary Guidelines, HWSS 2002-2020**

	Fruit		Vegetables	
	%	95% CI	%	95% CI
2002	50.4	(48.7 – 52.1)	11.0	(10.0 – 12.1)
2003	54.9	(53.3 – 56.4)	11.2	(10.3 – 12.1)
2004	54.0	(51.6 – 56.4)	13.8	(12.1 – 15.4)
2005	54.9	(53.2 – 56.6)	16.5	(15.3 – 17.7)
2006	48.5	(46.5 – 50.4)	13.5	(12.4 – 14.6)
2007	49.6	(47.5 – 51.7)	14.5	(13.2 – 15.9)
2008	51.8	(49.8 – 53.7)	11.1	(10.0 – 12.2)
2009	53.9	(52.3 – 55.5)	9.2	(8.4 – 10.0)
2010	55.6	(53.8 – 57.3)	10.9	(9.9 – 11.8)
2011	49.1	(47.1 – 51.1)	9.1	(8.1 – 10.1)
2012	50.1	(47.8 – 52.4)	9.0	(7.9 – 10.2)
2013	51.7	(49.5 – 53.9)	8.5	(7.4 – 9.6)
2014	52.2	(49.9 – 54.4)	8.9	(7.8 – 10.0)
2015	51.5	(49.2 – 53.7)	10.0	(8.8 – 11.2)
2016	47.5	(44.7 – 50.2)	8.2	(7.0 – 9.3)
2017	49.4	(46.2 – 52.6)	9.2	(7.4 – 11.1)
2018	47.2	(44.2 – 50.2)	10.9	(9.1 – 12.8)
2019	46.3	(43.1 – 49.5)	9.2	(7.6 – 10.8)
2020	42.4	(38.8 – 45.9)	6.7	(5.2 – 8.1)

**Figure 9: Prevalence of adults 16 years and over who met the recommended minimum daily intake of fruit and vegetables over time, 2013 Australian Dietary Guidelines, HWSS 2002-2020**



Note: See Table 40 for definitions of sufficient fruit and vegetable consumption.

The mean serves of fruit and vegetables eaten daily from 2002 to 2020 are shown in **Table 46** and **Table 47** respectively.

- The mean serves of fruit eaten by females and all persons in 2020 is not significantly different from means of the past years.
- The mean serves of fruit eaten by males in 2020 is significantly lower than the means in 2002-2005, 2008-2010 and 2012-2015.
- The mean serves of vegetables eaten by females in 2020 is significantly lower than the means in 2002-2012, 2014-2015 and 2018.
- The mean serves of vegetables eaten by males in 2020 is significantly lower than the means in 2004-2008 and 2010.
- The mean serves of vegetables eaten by all persons in 2020 is significantly lower than the means in 2002-2011 and 2014-2015.

**Table 46: Mean serves of fruit over time, 16 years & over, HWSS 2002-2020**

	Males		Females		Persons	
	mean	95% CI	mean	95% CI	mean	95% CI
<b>2002</b>	1.6	(1.5 – 1.6)	1.8	(1.8 – 1.9)	1.7	(1.7 – 1.8)
<b>2003</b>	1.7	(1.7 – 1.8)	1.9	(1.9 – 2.0)	1.8	(1.8 – 1.8)
<b>2004</b>	1.7	(1.6 – 1.8)	1.9	(1.8 – 2.1)	1.8	(1.7 – 1.9)
<b>2005</b>	1.7	(1.6 – 1.7)	1.8	(1.8 – 1.9)	1.8	(1.7 – 1.8)
<b>2006</b>	1.5	(1.5 – 1.6)	1.7	(1.7 – 1.8)	1.6	(1.6 – 1.7)
<b>2007</b>	1.6	(1.5 – 1.6)	1.7	(1.7 – 1.8)	1.6	(1.6 – 1.7)
<b>2008</b>	1.6	(1.5 – 1.7)	1.8	(1.7 – 1.8)	1.7	(1.6 – 1.7)
<b>2009</b>	1.7	(1.6 – 1.7)	1.8	(1.7 – 1.8)	1.7	(1.7 – 1.8)
<b>2010</b>	1.7	(1.6 – 1.8)	1.8	(1.8 – 1.9)	1.8	(1.7 – 1.8)
<b>2011</b>	1.5	(1.5 – 1.6)	1.7	(1.6 – 1.7)	1.6	(1.6 – 1.6)
<b>2012</b>	1.6	(1.5 – 1.7)	1.7	(1.6 – 1.8)	1.7	(1.6 – 1.7)
<b>2013</b>	1.6	(1.5 – 1.7)	1.7	(1.7 – 1.8)	1.7	(1.6 – 1.7)
<b>2014</b>	1.6	(1.5 – 1.7)	1.8	(1.7 – 1.8)	1.7	(1.6 – 1.7)
<b>2015</b>	1.7	(1.6 – 1.7)	1.8	(1.7 – 1.9)	1.7	(1.6 – 1.8)
<b>2016</b>	1.5	(1.4 – 1.6)	1.6	(1.6 – 1.7)	1.6	(1.5 – 1.6)
<b>2017</b>	1.6	(1.5 – 1.7)	1.6	(1.6 – 1.7)	1.6	(1.6 – 1.7)
<b>2018</b>	1.5	(1.4 – 1.6)	1.6	(1.5 – 1.7)	1.5	(1.5 – 1.6)
<b>2019</b>	1.4	(1.3 – 1.5)	1.6	(1.5 – 1.7)	1.5	(1.4 – 1.6)
<b>2020</b>	1.4	(1.3 – 1.5)	1.9	(1.3 – 2.6)	1.7	(1.3 – 2.0)

**Table 47: Mean serves of vegetables over time, 16 years & over, HWSS 2002-2020**

	Males		Females		Persons	
	mean	95% CI	mean	95% CI	mean	95% CI
2002	2.5	(2.4 – 2.7)	2.9	(2.8 – 3.0)	2.7	(2.7 – 2.8)
2003	2.5	(2.5 – 2.6)	3.0	(2.9 – 3.1)	2.8	(2.7 – 2.8)
2004	2.7	(2.6 – 2.8)	3.1	(3.0 – 3.2)	2.9	(2.8 – 3.0)
2005	3.0	(2.9 – 3.0)	3.2	(3.2 – 3.3)	3.1	(3.0 – 3.2)
2006	2.8	(2.7 – 2.9)	3.1	(3.1 – 3.2)	3.0	(2.9 – 3.0)
2007	2.8	(2.7 – 2.9)	3.2	(3.1 – 3.2)	3.0	(2.9 – 3.1)
2008	2.6	(2.5 – 2.7)	3.0	(2.9 – 3.0)	2.8	(2.7 – 2.8)
2009	2.5	(2.5 – 2.6)	2.9	(2.8 – 2.9)	2.7	(2.7 – 2.7)
2010	2.6	(2.5 – 2.7)	3.0	(3.0 – 3.1)	2.8	(2.8 – 2.9)
2011	2.5	(2.4 – 2.6)	2.9	(2.8 – 3.0)	2.7	(2.7 – 2.8)
2012	2.4	(2.3 – 2.5)	2.9	(2.8 – 3.0)	2.6	(2.6 – 2.7)
2013	2.4	(2.3 – 2.5)	2.8	(2.7 – 2.8)	2.6	(2.5 – 2.6)
2014	2.5	(2.4 – 2.6)	2.8	(2.8 – 2.9)	2.7	(2.6 – 2.7)
2015	2.6	(2.5 – 2.7)	2.9	(2.8 – 3.1)	2.8	(2.7 – 2.8)
2016	2.5	(2.4 – 2.6)	2.8	(2.7 – 2.9)	2.6	(2.5 – 2.7)
2017	2.5	(2.3 – 2.6)	2.8	(2.7 – 2.9)	2.6	(2.5 – 2.7)
2018	2.4	(2.3 – 2.6)	2.9	(2.8 – 3.0)	2.7	(2.6 – 2.8)
2019	2.5	(2.4 – 2.6)	2.8	(2.6 – 2.9)	2.6	(2.5 – 2.7)
2020	2.4	(2.2 – 2.5)	2.6	(2.5 – 2.7)	2.5	(2.4 – 2.6)

### 8.3.2 Milk

Milk has various health benefits and is a good source of many nutrients including calcium, protein, vitamin A, vitamin D, vitamin B12 and zinc. The 2013 Australian Dietary Guidelines recommends the consumption of mostly reduced fat milk and/or alternatives to ensure that nutrition requirements are met within energy requirements.<sup>26</sup>



- We asked respondents what type of milk they usually consume, shown in **Table 48**.
- Approximately half (46.9%) of adults consumed full fat or whole milk.
- Males were significantly more likely to consume full fat or whole milk compared to females (52.7% vs 41.1%)
- Adults aged 16 to 44 years (16.8%) were significantly more likely not to consume milk compared to persons aged 45 to 64 years (8.9%) and 65 to 64 years (8.2%).

Almost half (46.9%) of Western Australian adults consumed full fat/whole milk in 2020, with males consuming more than females.

**Table 48: Type of milk consumed, 16 years & over, HWSS 2020**

	Full fat/whole		Low/reduced fat /skim milk		Other		Don't use milk	
	%	95% CI	%	95% CI	%	95% CI	%	95% CI
<b>16 to 44 yrs</b>								
Males	52.7	(42.6 – 62.7)	19.9	(12.4 – 27.3)	13.4*	(5.8 – 21.1)	14.1*	(7.0 – 21.2)
Females	42.6	(33.8 – 51.5)	20.6	(14.1 – 27.2)	17.2	(9.9 – 24.4)	19.6	(10.9 – 28.2)
Persons	47.7	(40.9 – 54.5)	20.2	(15.3 – 25.2)	15.3	(10.0 – 20.5)	16.8	(11.1 – 22.4)
<b>45 to 64 yrs</b>								
Males	54.5	(49.9 – 59.0)	35.8	(31.4 – 40.1)	2.1*	(0.9 – 3.2)	7.7	(5.1 – 10.3)
Females	37.3	(33.4 – 41.2)	43.3	(39.2 – 47.3)	9.3	(6.7 – 11.8)	10.1	(7.8 – 12.4)
Persons	45.8	(42.8 – 48.9)	39.5	(36.6 – 42.5)	5.7	(4.3 – 7.1)	8.9	(7.2 – 10.7)
<b>65 yrs &amp; over</b>								
Males	49.9	(46.9 – 52.8)	37.9	(35.0 – 40.8)	3.6	(2.5 – 4.8)	8.6	(6.9 – 10.3)
Females	43.2	(40.9 – 45.5)	43.8	(41.4 – 46.1)	5.2	(4.1 – 6.2)	7.8	(6.6 – 9.1)
Persons	46.3	(44.5 – 48.2)	41.0	(39.1 – 42.8)	4.5	(3.7 – 5.2)	8.2	(7.2 – 9.3)
<b>Total</b>								
Males	52.7	(47.4 – 58.1)	28.0	(23.7 – 32.3)	8.1*	(4.1 – 12.2)	11.1	(7.4 – 14.9)
Females	41.1	(36.5 – 45.7)	32.2	(28.3 – 36.0)	12.4	(8.6 – 16.1)	14.3	(9.9 – 18.8)
Persons	46.9	(43.3 – 50.4)	30.1	(27.2 – 33.0)	10.3	(7.5 – 13.0)	12.8	(9.8 – 15.7)

\* Prevalence estimate has an RSE between 25%-50% and should be used with caution.

### 8.3.3 Food security

We asked respondents whether there was any time in the last 12 months when they had run out of food and could not afford to buy more (**Table 49**).

- Those aged 16 to 44 years were significantly more likely to have experienced running out of food in the last 12 months with the inability to afford more compared with those aged 65 years and over (5.1% compared with 0.5%).

**Table 49: Ran out of food and could not afford to buy more, 16 years & over, HWSS 2020**

	Yes		No	
	%	95% CI	%	95% CI
<b>16 to 44 yrs</b>				
Males	4.1*	(0.1 – 8.2)	95.9	(91.8 – 99.9)
Females	6.0*	(1.8 – 10.3)	94.0	(89.7 – 98.2)
Persons	5.1*	(2.2 – 8.0)	94.9	(92.0 – 97.8)
<b>45 to 64 yrs</b>				
Males	0.5*	(0.0 – 0.9)	99.5	(99.1 – 100.0)
Females	1.5*	(0.7 – 2.4)	98.5	(97.6 – 99.3)
Persons	1.0*	(0.5 – 1.5)	99.0	(98.5 – 99.5)
<b>65 yrs &amp; over</b>				
Males	N/A	(N/A – N/A)	99.7	(99.4 – 100.0)
Females	0.6*	(0.3 – 1.0)	99.4	(99.0 – 99.7)
Persons	0.5	(0.2 – 0.7)	99.5	(99.3 – 99.8)
<b>Total</b>				
Males	2.3*	(0.2 – 4.4)	97.7	(95.6 – 99.8)
Females	3.6*	(1.5 – 5.7)	96.4	(94.3 – 98.5)
Persons	2.9*	(1.5 – 4.4)	97.1	(95.6 – 98.5)

Prevalence estimate has an RSE between 25%-50% and should be used with caution.

### 8.3.4 Older adult dentition

Respondents aged 65 years and over were asked whether their teeth or dentures affect the type of food they are able to eat (**Table 50**)

- The food eaten by approximately one in ten (10.5%) adults aged 65 years and over was affected by the condition of their teeth or dentures.



In 2020, one in ten (10.5%) adults aged 65 years and over reported that their teeth or dentures affected the type of food they were able to eat.

**Table 50: Teeth or dentures affect food eaten, 65 years & over, HWSS 2020**

	Yes		No	
	%	95% CI	%	95% CI
Males	9.5	(7.8 – 11.3)	90.5	(88.7 – 92.2)
Females	11.3	(9.8 – 12.7)	88.7	(87.3 – 90.2)
Persons	10.5	(9.3 – 11.6)	89.5	(88.4 – 90.7)

\* Prevalence estimate has an RSE between 25%-50% and should be used with caution.

N/A Prevalence estimate has an RSE greater than 50% and is considered too unreliable for general use.

## 8.4 Discretionary foods

In 2020 the HWSS began asking respondents about their consumption of discretionary foods. The discretionary foods included:

- Fast food (burgers, pizza, chicken or chips from fast food outlets)
- Potato chips (hot chips, french-fries, wedges, hash browns or fried potatoes)
- Sweet snacks (cakes, biscuits, doughnuts, muffins, pastries or muesli bars)
- Salty snacks (potato crisps or corn chips, crackers or pretzels)
- Sugar sweetened drinks (sugar sweetened soft drinks, energy or sports drinks, or cordial)
- Processed meats (sausages, sausage-rolls, bacon, ham, salami or other cold meats).

### 8.4.1 Fast food

We asked respondents how many times a week on average they ate fast food meals or snacks such as burgers, kebabs, meat pies, pizza, chicken or chicken nuggets from fast food outlets (**Table 51**)



- Females were significantly more likely to never eat fast food meals compared to males (41.5% versus 30.6%).
- Adults aged 16 to 44 years were significantly more likely to eat fast food once or twice a week compared to those aged 45 to 64 years and 65 years and over (43.7% compared with 23.9% and 10.6%).
- The proportion of adults never eating from fast food outlets increased significantly with age (16 to 44 years: 21.3%, 45 to 64 years: 39.6%, and 65 years and over: 70.1%).

Approximately one in three (35.4%) Western Australian adults reported eating fast food meals at least once per week in 2020

**Table 51: Meals from fast food outlets per week over time, 16 years & over, HWSS 2020**

	Never		Less than once a week		Once or twice a week		Three or more times a week	
	%	95% CI	%	95% CI	%	95% CI	%	95% CI
<b>16 to 44 yrs</b>								
Males	17.8	(10.5 – 25.1)	24.1	(15.9 – 32.3)	51.3	(41.3 – 61.3)	6.8*	(2.5 – 11.0)
Females	24.9	(17.6 – 32.2)	34.2	(25.4 – 43.0)	36.0	(26.9 – 45.0)	4.9*	(1.0 – 8.8)
Persons	21.3	(16.1 – 26.5)	29.1	(23.0 – 35.2)	43.7	(36.8 – 50.6)	5.9*	(3.0 – 8.7)
<b>45 to 64 yrs</b>								
Males	32.4	(28.2 – 36.5)	33.9	(29.6 – 38.2)	29.4	(25.1 – 33.6)	4.4*	(2.1 – 6.6)
Females	46.6	(42.6 – 50.6)	33.6	(29.6 – 37.7)	18.4	(15.2 – 21.7)	1.3*	(0.3 – 2.3)
Persons	39.6	(36.7 – 42.5)	33.8	(30.8 – 36.7)	23.9	(21.2 – 26.5)	2.8	(1.6 – 4.1)
<b>65 yrs &amp; over</b>								
Males	64.1	(61.2 – 66.9)	20.5	(18.1 – 22.9)	14.4	(12.3 – 16.5)	1.0*	(0.4 – 1.6)
Females	75.5	(73.4 – 77.6)	17.0	(15.2 – 18.8)	7.1	(5.8 – 8.4)	0.4	(0.1 – 0.8)
Persons	70.1	(68.3 – 71.8)	18.6	(17.2 – 20.1)	10.6	(9.3 – 11.8)	0.7	(1.6 – 4.1)
<b>Total</b>								
Males	30.6	(26.3 – 34.8)	26.5	(22.1 – 30.9)	37.9	(32.2 – 43.6)	5.0	(2.7 – 7.3)
Females	41.5	(37.2 – 45.8)	30.7	(26.1 – 35.2)	24.9	(20.1 – 29.7)	2.9*	(1.0 – 4.9)
Persons	36.1	(33.0 – 39.1)	28.6	(25.4 – 31.8)	31.4	(27.6 – 35.2)	4.0	(2.5 – 5.5)

\*Prevalence estimate has an RSE between 25%-50% and should be used with caution.

N/A Prevalence estimate has an RSE greater than 50% and is considered too unreliable for general use.

The standardised annual prevalence estimates for weekly fast food consumption for adults aged 16 years and over from 2009 to 2020 are shown in **Table 52**. Due to changes in the way the questions were asked, comparisons can only be made from 2009.

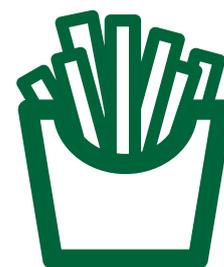
- The prevalence of adults aged 16 years and over never consuming meals from fast food outlets in 2020 is significantly lower than the estimates from 2012 to 2019.
- The prevalence of adults consuming fast food meals less than once a week in 2020 is significantly higher compared with estimates from 2015, and 2017-2019.
- The prevalence of adults consuming fast food meals once or twice a week and three or more times a week in 2020 is similar to the estimates in previous years.

**Table 52: Meals from fast food outlets per week over time, 16 years & over, HWSS 2009-2020**

	Never		Less than once a week		Once or twice a week		Three or more times a week	
	%	95% CI	%	95% CI	%	95% CI	%	95% CI
<b>2009</b>	37.6	(36.2 – 39.1)	28.7	(27.3 – 30.1)	30.0	(28.5 – 31.6)	3.6	(2.9 – 4.4)
<b>2010</b>	33.4	(31.8 – 34.9)	30.9	(29.3 – 32.5)	31.5	(29.8 – 33.2)	4.2	(3.3 – 5.2)
<b>2011</b>	36.1	(34.3 – 37.9)	28.8	(27.1 – 30.6)	31.3	(29.3 – 33.4)	3.7	(2.8 – 4.6)
<b>2012</b>	42.3	(40.2 – 44.5)	24.0	(22.0 – 25.9)	30.3	(28.0 – 32.6)	3.4	(2.4 – 4.3)
<b>2013</b>	40.2	(38.1 – 42.2)	26.0	(24.1 – 27.9)	30.3	(28.1 – 32.6)	3.5	(2.3 – 4.7)
<b>2014</b>	44.0	(41.9 – 46.1)	24.2	(22.3 – 26.1)	28.3	(26.1 – 30.4)	3.6	(2.5 – 4.7)
<b>2015</b>	43.8	(41.6 – 46.0)	22.7	(20.8 – 24.6)	29.8	(27.6 – 32.0)	3.7	(2.6 – 4.8)
<b>2016</b>	43.0	(40.3 – 45.6)	23.7	(21.5 – 25.9)	29.9	(27.1 – 32.6)	3.4	(2.2 – 4.7)
<b>2017</b>	42.4	(39.3 – 45.4)	21.9	(19.5 – 24.2)	32.3	(29.1 – 35.5)	3.4*	(1.6 – 4.6)
<b>2018</b>	45.4	(42.5 – 48.4)	19.9	(17.5 – 22.2)	31.1	(28.1 – 34.2)	3.6	(2.2 – 5.0)
<b>2019</b>	45.7	(42.5 – 48.8)	18.5	(16.0 – 21.0)	30.2	(26.9 – 33.4)	5.7	(3.8 – 7.6)
<b>2020</b>	34.5	(31.5 – 37.6)	29.0	(25.7 – 32.2)	32.2	(28.4 – 36.1)	4.3	(2.7 – 5.9)

### 8.4.2 Potato chips

We asked respondents how many times a week on average they ate hot chips, french-fries, wedges, hash browns or fried potatoes **Table 53**.



- One in four (26.0%) adults reported never eating potato chips.
- The proportion of adults never eating potato chips increased significantly with age (16 to 44 years: 19.7%, 45 to 64 years: 27.2%, and 65 years and over: 40.8%).
- Females aged 45 and over (45 to 64 years: 31.8%; 65 years and over: 46.9% years) were significantly more likely to report never eating potato chips when compared to males (45 to 64 years: 22.5%; 65 years and over: 34.1% years).

More than two in five (44.5%) Western Australian adults reported eating potato chips at least once week in 2020

**Table 53: Hot chips, french-fries, wedges, hash browns or fried potatoes eaten per week, 16 years & over, HWSS 2020**

	Never		Less than once a week		Once or twice a week		Three or more times a week	
	%	95% CI	%	95% CI	%	95% CI	%	95% CI
<b>16 to 44 yrs</b>								
Males	20.9	(12.7 – 29.2)	24.4	(15.9 – 33.0)	47.2	(37.2 – 57.3)	7.4*	(3.0 – 11.7)
Females	18.4	(12.1 – 24.7)	29.7	(21.3 – 38.2)	41.5	(32.4 – 50.6)	10.4*	(4.6 – 16.1)
Persons	19.7	(14.5 – 24.9)	27.1	(21.0 – 33.1)	44.4	(37.6 – 51.2)	8.8	(5.2 – 12.5)
<b>45 to 64 yrs</b>								
Males	22.5	(18.8 – 26.3)	33.8	(29.4 – 38.1)	37.9	(33.4 – 42.3)	5.8	(3.7 – 7.9)
Females	31.8	(28.1 – 35.5)	35.2	(31.4 – 39.0)	30.8	(26.9 – 34.7)	2.2*	(1.1 – 3.4)
Persons	27.2	(24.6 – 29.8)	34.5	(31.6 – 37.4)	34.3	(31.4 – 37.3)	4.0	(2.8 – 5.2)
<b>65 yrs &amp; over</b>								
Males	34.1	(31.3 – 36.8)	26.7	(24.1 – 29.3)	34.1	(31.3 – 37.0)	5.1	(3.8 – 6.4)
Females	46.9	(44.6 – 49.3)	28.8	(26.7 – 31.0)	22.5	(20.5 – 24.5)	1.8	(1.2 – 2.4)
Persons	40.8	(39.0 – 42.7)	27.8	(26.1 – 29.5)	28.0	(26.3 – 29.7)	3.4	(2.7 – 4.1)
<b>Total</b>								
Males	23.8	(19.4 – 28.2)	27.8	(23.1 – 32.4)	42.0	(36.6 – 47.4)	6.5	(4.2 – 8.8)
Females	28.1	(24.5 – 31.7)	31.2	(26.9 – 35.6)	34.5	(29.7 – 39.2)	6.2	(3.3 – 9.1)
Persons	26.0	(23.1 – 28.8)	29.5	(26.3 – 32.7)	38.2	(34.6 – 41.8)	6.3	(4.5 – 8.2)

### 8.4.3 Sweet snacks

We asked respondents how many times a week on average they ate sweet biscuits, cakes, doughnuts, muffins, pastries or muesli bars (Table 54).

- Approximately two in five (37.8%) adults reported eating sweet biscuits, cakes, doughnuts, muffins, pastries or muesli bars three or more times a week.
- Adults aged 65 years and over were significantly more likely to report eating sweet biscuits, cakes, doughnuts, muffins, pastries or muesli bars three or more times a week compared to the total population (46.4% versus 37.8%).



Two in three (65.5%) Western Australian adults reported eating sweet snacks at least once a week in 2020.

**Table 54: Sweet biscuits, cakes, doughnuts, muffins, pastries or muesli bars eaten per week, 16 years & over, HWSS 2020**

	Never		Less than once a week		Once or twice a week		Three or more times a week	
	%	95% CI	%	95% CI	%	95% CI	%	95% CI
<b>16 to 44 yrs</b>								
Males	27.0	(18.1 – 35.9)	10.8*	(4.0 – 17.7)	23.1	(15.2 – 31.1)	39.0	(29.1 – 49.0)
Females	18.1	(11.5 – 24.7)	13.0	(7.3 – 18.7)	31.9	(23.5 – 40.3)	36.9	(27.7 – 46.1)
Persons	22.6	(17.0 – 28.2)	11.9	(7.5 – 16.4)	27.5	(21.7 – 33.3)	38.0	(31.2 – 44.8)
<b>45 to 64 yrs</b>								
Males	21.1	(17.3 – 24.8)	13.2	(10.2 – 16.2)	33.7	(29.4 – 38.1)	32.0	(27.8 – 36.2)
Females	22.3	(18.8 – 25.7)	15.1	(12.0 – 18.1)	30.1	(26.5 – 33.8)	32.5	(28.8 – 36.3)
Persons	21.7	(19.1 – 24.2)	14.2	(12.0 – 16.3)	31.9	(29.1 – 34.7)	32.3	(29.4 – 35.1)
<b>65 yrs &amp; over</b>								
Males	22.0	(19.6 – 24.4)	10.2	(8.4 – 12.0)	21.8	(19.3 – 24.3)	45.9	(42.9 – 48.9)
Females	24.6	(22.5 – 26.6)	7.9	(6.6 – 9.1)	20.8	(18.9 – 22.7)	46.8	(44.5 – 49.2)
Persons	23.4	(21.8 – 24.9)	9.0	(7.9 – 10.1)	21.3	(19.7 – 22.8)	46.4	(44.5 – 48.3)
<b>Total</b>								
Males	24.3	(19.6 – 29.0)	11.5	(7.8 – 15.1)	26.2	(21.8 – 30.6)	38.1	(32.8 – 43.3)
Females	20.7	(17.2 – 24.2)	12.7	(9.7 – 15.6)	29.2	(24.9 – 33.5)	37.5	(32.8 – 42.2)
Persons	22.5	(19.5 – 25.4)	12.1	(9.7 – 14.4)	27.7	(24.6 – 30.8)	37.8	(34.2 – 41.3)

#### 8.4.4 Salty snacks

We asked respondents how many times a week on average they ate salty snacks such as potato crisps, corn chips, crackers, or pretzels (**Table 55**).

- One in seven (13.6%) adults reported eating salty snacks three or more times a week.
- Adults aged 16 to 44 years were significantly more likely to report eating salty snacks three or more times a week compared to those aged 45 to 64 years and 65 years and over (18.1% compared with 10.1% and 7.5%).



Almost half (48.1%) of Western Australian adults reported eating salty snacks at least once week in 2020.

**Table 55: Salty snacks eaten per week, 16 years & over, HWSS 2020**

	Never		Less than once a week		Once or twice a week		Three or more times a week	
	%	95% CI	%	95% CI	%	95% CI	%	95% CI
<b>16 to 44 yrs</b>								
Males	35.0	(25.1 – 44.9)	13.1*	(6.0 – 20.3)	33.9	(24.6 – 43.3)	17.9	(10.8 – 25.1)
Females	16.0	(9.6 – 22.5)	19.2	(12.0 – 26.4)	46.5	(37.4 – 55.6)	18.3	(10.7 – 25.9)
Persons	25.6	(19.5 – 31.8)	16.2	(11.1 – 21.2)	40.2	(33.5 – 46.8)	18.1	(12.9 – 23.3)
<b>45 to 64 yrs</b>								
Males	32.8	(28.5 – 37.1)	19.7	(16.1 – 23.2)	37.5	(33.0 – 41.9)	10.1	(7.3 – 12.9)
Females	31.4	(27.8 – 35.0)	23.6	(20.2 – 27.0)	34.8	(30.9 – 38.8)	10.2	(7.4 – 13.0)
Persons	32.1	(29.3 – 34.9)	21.6	(19.2 – 24.1)	36.1	(33.2 – 39.1)	10.1	(8.2 – 12.1)
<b>65 yrs &amp; over</b>								
Males	57.5	(54.6 – 60.5)	16.2	(14.0 – 18.4)	17.4	(15.1 – 19.6)	8.9	(7.1 – 10.6)
Females	63.1	(60.8 – 65.4)	15.2	(13.5 – 16.9)	15.4	(13.7 – 17.2)	6.3	(5.1 – 7.4)
Persons	60.5	(58.6 – 62.3)	15.7	(14.3 – 17.0)	16.3	(14.9 – 17.7)	7.5	(6.5 – 8.5)
<b>Total</b>								
Males	38.3	(33.1 – 43.6)	15.7	(11.9 – 19.5)	32.1	(27.1 – 37.1)	13.9	(10.1 – 17.6)
Females	30.0	(26.3 – 33.7)	19.8	(16.1 – 23.5)	36.8	(32.1 – 41.5)	13.4	(9.5 – 17.3)
Persons	34.1	(30.9 – 37.4)	17.8	(15.1 – 20.4)	34.5	(31.0 – 37.9)	13.6	(10.9 – 16.4)

### 8.4.5 Sugar-sweetened soft drinks and energy drinks

We asked respondents how many times a week on average they drank sugar-sweetened soft drinks, energy or sports drinks or cordial (**Table 56**).

- Approximately three in five (61.3%) adults reported never drinking soft drinks or energy drinks.
- Females were significantly more likely to never drink soft drinks or energy drinks compared to males (68.3% compared with 54.1%).
- The proportion of adults never drinking soft drinks or energy drinks increased significantly with age (16 to 44 years: 49.7%, 45 to 64 years: 69.5%, and 65 years and over: 78.7%).



Nearly one in three (29.1%) Western Australian adults reported drinking sugar-sweetened soft drinks or energy drinks at least once week in 2020.

**Table 56: Drinking sugar-sweetened soft drinks or energy drinks per week, 16 years & over, HWSS 2020**

	Never		Less than once a week		Once or twice a week		Three or more times a week	
	%	95% CI	%	95% CI	%	95% CI	%	95% CI
<b>16 to 44 yrs</b>								
Males	43.2	(33.3 – 53.2)	14.6*	(7.1 – 22.0)	16.9	(9.8 – 24.1)	25.3	(16.4 – 34.1)
Females	56.3	(47.0 – 65.5)	12.3*	(6.1 – 18.4)	20.3	(12.3 – 28.3)	11.1*	(5.4 – 16.9)
Persons	49.7	(42.9 – 56.5)	13.4	(8.6 – 18.3)	18.6	(13.2 – 24.0)	18.3	(12.9 – 23.7)
<b>45 to 64 yrs</b>								
Males	60.6	(56.0 – 65.1)	8.0	(5.7 – 10.4)	14.3	(10.9 – 17.7)	17.2	(13.6 – 20.8)
Females	78.4	(75.1 – 81.6)	5.6	(3.8 – 7.4)	9.0	(6.6 – 11.3)	7.1	(5.1 – 9.0)
Persons	69.5	(66.7 – 72.4)	6.8	(5.3 – 8.3)	11.6	(9.5 – 13.7)	12.1	(10.0 – 14.1)
<b>65 yrs &amp; over</b>								
Males	73.9	(71.3 – 76.5)	5.4	(4.0 – 6.8)	8.3	(6.7 – 9.9)	12.4	(10.5 – 14.3)
Females	83.0	(81.2 – 84.8)	3.7	(2.8 – 4.6)	6.0	(4.9 – 7.2)	7.3	(6.1 – 8.5)
Persons	78.7	(77.2 – 80.3)	4.5	(3.7 – 5.3)	7.1	(6.1 – 8.1)	9.7	(8.6 – 10.8)
<b>Total</b>								
Males	54.1	(48.6 – 59.5)	10.9	(6.9 – 14.9)	14.6	(10.7 – 18.4)	20.5	(15.8 – 25.2)
Females	68.3	(63.4 – 73.3)	8.5	(5.4 – 11.6)	14.0	(9.9 – 18.1)	9.1	(6.2 – 12.1)
Persons	61.3	(57.6 – 65.0)	9.7	(7.2 – 12.2)	14.3	(11.5 – 17.1)	14.8	(11.9 – 17.6)

### 8.4.6 Processed meats

We asked respondents how many times a week on average they ate processed meat products such as sausages, sausage-rolls, bacon, ham, salami or other cold meats (**Table 57**).



- Approximately one in five (23.5%) adults reported eating processed meats three or more times a week.
- Females were significantly more likely to report never eating processed meats compared with males (22.7% compared with 13.2%).
- The proportion of adults eating processed meats three or more times a week decreased significantly with age (16 to 44 years: 27.7%, 45 to 64 years: 21.5%, and 65 years and over: 15.7%).

Approximately two in three (65.6%) Western Australian adults reported eating processed meat at least once week in 2020

**Table 57: Processed meats eaten per week, 16 years & over, HWSS 2020**

	Never		Less than once a week		Once or twice a week		Three or more times a week	
	%	95% CI	%	95% CI	%	95% CI	%	95% CI
<b>16 to 44 yrs</b>								
Males	13.4*	(6.6 – 20.2)	11.9*	(5.0 – 18.7)	43.7	(33.6 – 53.8)	31.0	(21.9 – 40.2)
Females	20.9	(14.0 – 27.7)	16.0	(9.4 – 22.5)	38.9	(29.8 – 47.9)	24.3	(16.1 – 32.5)
Persons	17.1	(12.3 – 21.9)	13.9	(9.1 – 18.6)	41.3	(34.5 – 48.1)	27.7	(21.6 – 33.9)
<b>45 to 64 yrs</b>								
Males	11.2	(8.5 – 13.8)	14.8	(11.5 – 18.2)	46.5	(41.9 – 51.0)	27.5	(23.4 – 31.7)
Females	23.5	(20.0 – 27.0)	20.6	(17.3 – 23.9)	40.3	(36.3 – 44.2)	15.6	(12.6 – 18.7)
Persons	17.4	(15.1 – 19.6)	17.7	(15.4 – 20.1)	43.3	(40.3 – 46.3)	21.5	(18.9 – 24.1)
<b>65 yrs &amp; over</b>								
Males	16.2	(14.0 – 18.3)	16.8	(14.5 – 19.0)	47.1	(44.1 – 50.1)	20.0	(17.6 – 22.4)
Females	26.2	(24.2 – 28.3)	24.5	(22.5 – 26.5)	37.4	(35.1 – 39.7)	11.8	(10.3 – 13.4)
Persons	21.5	(20.0 – 23.0)	20.8	(19.3 – 22.3)	42.0	(40.1 – 43.9)	15.7	(14.3 – 17.1)
<b>Total</b>								
Males	13.2	(9.6 – 16.8)	13.7	(10.0 – 17.3)	45.2	(39.8 – 50.5)	28.0	(23.1 – 32.8)
Females	22.7	(19.2 – 26.3)	19.1	(15.7 – 22.5)	39.0	(34.4 – 43.7)	19.2	(15.0 – 23.4)
Persons	18.0	(15.5 – 20.5)	16.4	(13.9 – 18.9)	42.1	(38.5 – 45.6)	23.5	(20.3 – 26.7)

## 8.5 Physical activity and sedentary behaviour

### 8.5.1 Physical activity

Physical activity reduces the risk of cardiovascular disease, some cancers and type 2 diabetes, and also helps to improve musculoskeletal health, maintain body weight and reduce symptoms of depression.<sup>27</sup> We asked respondents to rate their own physical activity level (**Table 58**).

- Almost one in five (18.0%) Western Australian adults reported that they were very active.
- Males were significantly more likely to report being very active when compared to females (23.1% compared with 13.0%).



More than half (57.5%) of Western Australian adults undertook adequate physical activity to meet the national guidelines in 2020.

**Table 58: Self-reported level of physical activity, 16 years & over, HWSS 2020**

	Very active		Active		Moderately active		Not very active		Not at all active	
	%	95% CI	%	95% CI	%	95% CI	%	95% CI	%	95% CI
<b>16 to 44 yrs</b>										
Males	28.2	(19.0 – 37.4)	21.9	(13.4 – 30.4)	26.6	(17.8 – 35.4)	18.1	(10.4 – 25.8)	5.2*	(1.3 – 9.1)
Females	13.6	(7.9 – 19.2)	30.0	(21.1 – 38.8)	37.5	(28.6 – 46.4)	16.6	(10.4 – 22.7)	N/A	(N/A – N/A)
Persons	21.0	(15.4 – 26.5)	25.9	(19.7 – 32.1)	32.0	(25.7 – 38.4)	17.3	(12.4 – 22.3)	3.8	(1.4 – 6.2)
<b>45 to 64 yrs</b>										
Males	18.6	(15.0 – 22.1)	31.7	(27.4 – 35.9)	34.8	(30.4 – 39.2)	12.9	(9.8 – 15.9)	2.1*	(0.9 – 3.3)
Females	11.7	(9.2 – 14.2)	23.7	(20.2 – 27.1)	43.7	(39.7 – 47.7)	17.1	(13.9 – 20.3)	3.8	(2.1 – 5.5)
Persons	15.1	(12.9 – 17.3)	27.6	(24.9 – 30.4)	39.3	(36.3 – 42.3)	15.0	(12.8 – 17.2)	3.0	(1.9 – 4.0)
<b>65 yrs &amp; over</b>										
Males	16.2	(14.0 – 18.4)	29.6	(26.9 – 32.4)	36.3	(33.5 – 39.2)	12.8	(10.8 – 14.8)	5.1	(3.8 – 6.3)
Females	13.7	(12.1 – 15.3)	26.0	(24.0 – 28.1)	40.2	(37.9 – 42.5)	15.2	(13.6 – 16.9)	4.9	(3.9 – 5.8)
Persons	14.9	(13.5 – 16.2)	27.7	(26.0 – 29.4)	38.4	(36.6 – 40.2)	14.1	(12.8 – 15.3)	5.0	(4.2 – 5.7)
<b>Total</b>										
Males	23.1	(18.2 – 28.0)	26.3	(21.7 – 30.9)	30.9	(26.1 – 35.7)	15.5	(11.4 – 19.6)	4.2	(2.2 – 6.2)
Females	13.0	(10.1 – 15.9)	27.2	(22.7 – 31.8)	40.0	(35.4 – 44.6)	16.5	(13.3 – 19.7)	3.3	(1.8 – 4.8)
Persons	18.0	(15.1 – 20.9)	26.8	(23.6 – 30.0)	35.5	(32.1 – 38.8)	16.0	(13.4 – 18.6)	3.7	(2.5 – 5.0)

\* Prevalence estimate has an RSE between 25%-50% and should be used with caution. N/A Prevalence estimate has an RSE greater than 50% and is considered too unreliable for general use.

Respondents were also asked how they usually spend most of the day. Population estimates are shown in **Table 59**.

- Approximately half (49.0%) of Western Australian adults spent their day mostly sitting.
- Males were significantly more likely than females to spend most of their day in heavy labour or physically demanding work (17.0% compared with 3.2%).

**Table 59: How usually spend day, 16 years & over, HWSS 2020**

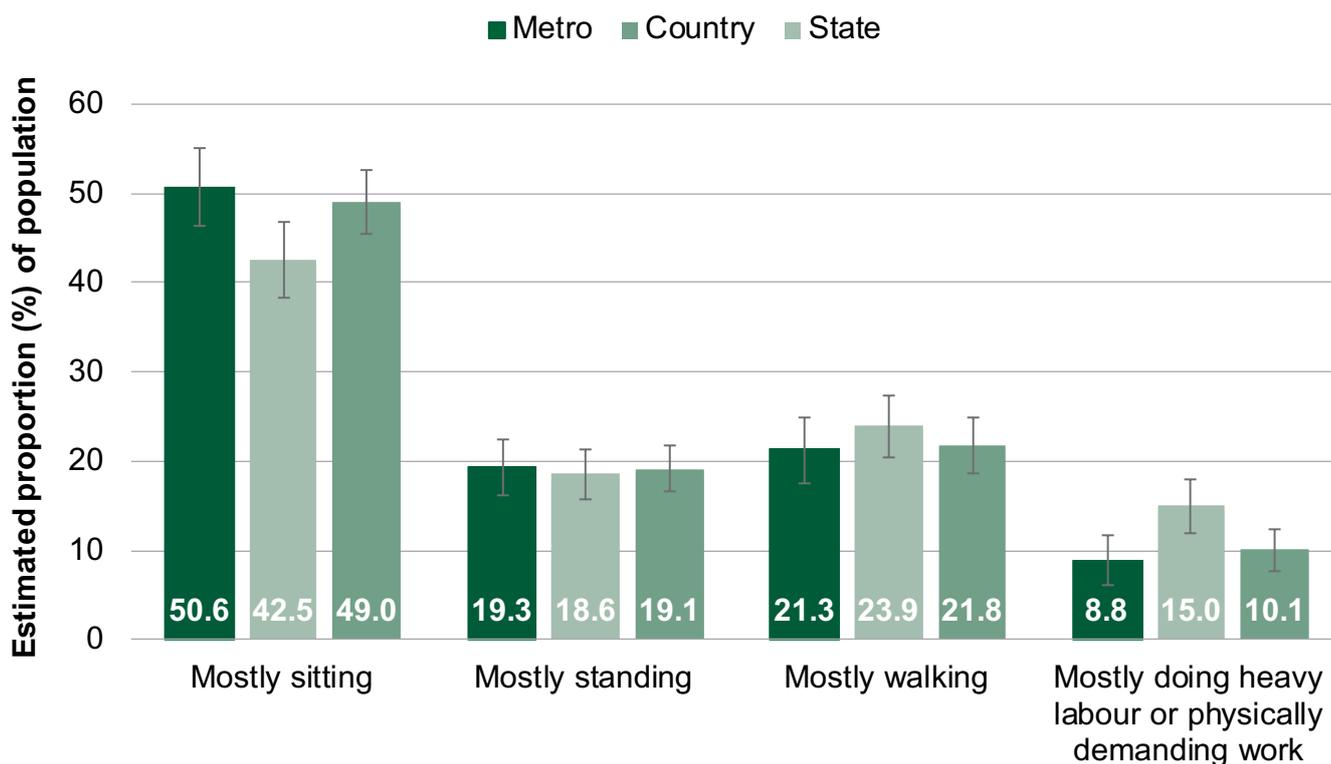
	Sitting		Standing		Walking		Heavy labour/ physically demanding work	
	%	95% CI	%	95% CI	%	95% CI	%	95% CI
<b>16 to 44 yrs</b>								
Males	50.5	(40.4 – 60.6)	12.4	(6.6 – 18.1)	17.1*	(8.5 – 25.7)	20.0	(12.0 – 28.0)
Females	50.3	(41.1 – 59.5)	21.7	(14.3 – 29.1)	24.7	(14.3 – 32.6)	3.3*	(1.0 – 5.5)
Persons	50.4	(43.6 – 57.2)	17.0	(12.3 – 21.7)	20.9	(15.1 – 26.7)	11.7	(7.4 – 16.1)
<b>45 to 64 yrs</b>								
Males	50.3	(45.7 – 54.9)	14.2	(11.1 – 17.2)	16.7	(13.3 – 20.1)	18.9	(15.2 – 22.5)
Females	42.8	(38.7 – 46.8)	29.6	(25.8 – 33.3)	23.6	(20.3 – 27.0)	4.0	(2.5 – 5.6)
Persons	46.5	(43.4 – 49.6)	21.9	(19.5 – 24.4)	20.2	(17.8 – 22.6)	11.4	(9.4 – 13.4)
<b>65 yrs &amp; over</b>								
Males	51.8	(48.8 – 54.8)	17.7	(15.4 – 20.0)	25.5	(22.9 – 28.1)	5.0	(3.8 – 6.2)
Females	47.2	(44.8 – 49.6)	22.9	(20.8 – 24.9)	28.1	(26.0 – 30.3)	1.8	(1.2 – 2.4)
Persons	49.4	(47.5 – 51.3)	20.4	(18.9 – 21.9)	26.9	(25.2 – 28.6)	3.3	(2.6 – 4.0)
<b>Total</b>								
Males	50.7	(45.3 – 56.1)	13.9	(10.7 – 17.0)	18.5	(13.9 – 23.0)	17.0	(12.7 – 21.3)
Females	47.4	(42.6 – 52.2)	24.4	(20.5 – 28.2)	25.1	(21.0 – 29.1)	3.2	(2.0 – 4.4)
Persons	49.0	(45.4 – 52.6)	19.1	(16.6 – 21.7)	21.8	(18.7 – 24.8)	10.1	(7.8 – 12.4)

\* Prevalence estimate has an RSE between 25%-50% and should be used with caution.

**Figure 10** shows the prevalence of how people usually spend their day, by geographic area of residence.

- Those living in metropolitan areas were significantly more likely to spend most of their day sitting compared with those living in country areas (50.6% compared with 42.5%).
- Those living in country areas were significantly more likely to spend most of their day doing heavy labour or physically demanding work compared with those living in metropolitan areas (15.0% compared with 8.8%).

**Figure 10: How usually spend day, 16 years & over, by geographic area of residence in WA, HWSS 2020**



In 2014, the Australian Department of Health released Australia’s Physical Activity and Sedentary Behaviour Guidelines, stating that adults aged 18 to 64 years should complete at least 75 to 150 minutes of vigorous physical activity or 150 to 300 minutes of moderate physical activity per week.<sup>28</sup>

With no new guideline explicitly defined in the 2014 Physical Activity and Sedentary Behaviour guidelines for adults aged 65 years and over, the 2005 recommendation of 30 minutes of moderate physical activity most and preferably all days of the week, is the most recent advice available. To avoid reporting against multiple guidelines, all persons aged 18 years and over will be defined as completing sufficient (or recommended) levels of physical activity if they complete at least 150 minutes of moderate physical activity in the last week. The questions used to estimate the amount of physical activity undertaken in a week are taken from the Active Australia Survey.<sup>29</sup>

**Table 60** presents the proportion of adults aged 18 years and over completing recommended levels of physical activity.

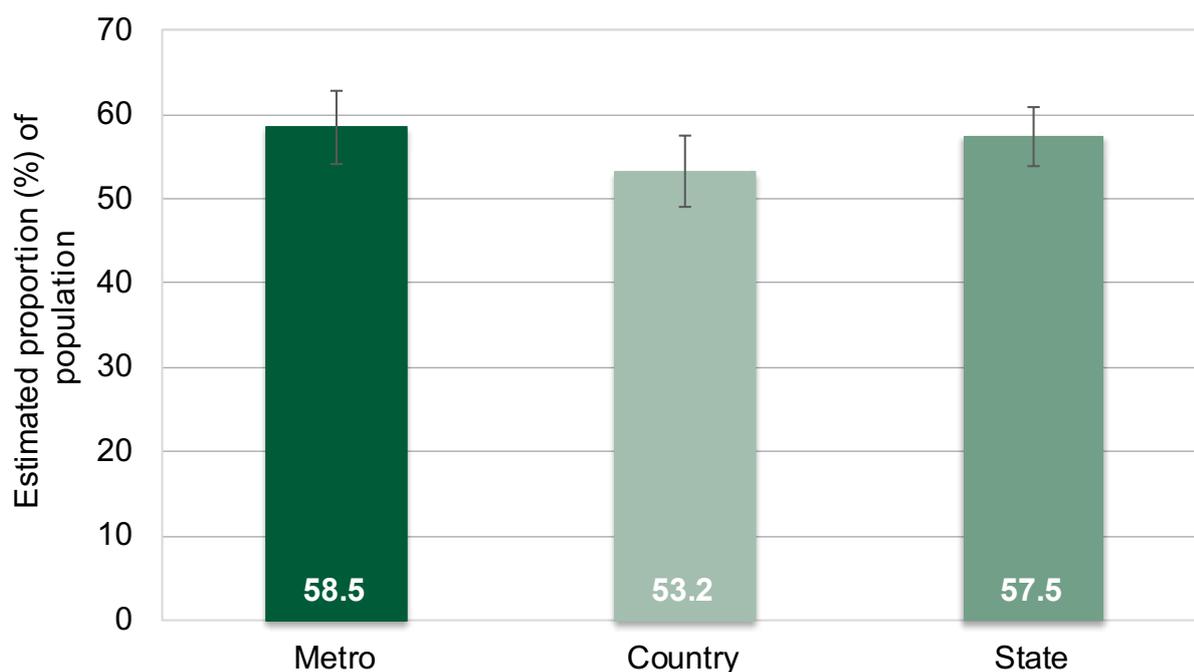
- Approximately three in five (57.5%) adults did at least 150 minutes of moderate physical activity per week.
- One in six (17.4%) adults did not engage in any leisure time physical activity.
- Adults aged 65 years older (24.7%) were significantly more likely to not engage in leisure time physical activity compared to other age groups (18 to 44 years: 14.4% and 45 to 64 years: 17.5%).
- Males were significantly more likely to not engage in leisure time physical activity per week compared with females (20.7% compared with 14.1%).

**Table 60: Physical activity level, based on the 2014 Australian Physical Activity and Sedentary Behaviour guidelines, 18 years & over, HWSS 2020**

	Does no leisure time physical activity per week		Does less than 150 mins physical activity per week		Does at least 150 mins physical activity per week	
	%	95% CI	%	95% CI	%	95% CI
<b>16 to 44 yrs</b>						
Males	21.9	(12.9 – 31.0)	26.7	(17.7 – 35.7)	51.4	(40.8 – 61.9)
Females	6.6*	(2.8 – 10.5)	26.9	(19.0 – 34.9)	66.4	(57.9 – 75.0)
Persons	14.4	(9.3 – 19.5)	26.8	(20.8 – 32.8)	58.8	(51.8 – 65.7)
<b>45 to 64 yrs</b>						
Males	17.4	(13.9 – 21.0)	21.3	(17.5 – 25.1)	61.2	(56.7 – 65.7)
Females	17.6	(14.5 – 20.7)	24.7	(21.1 – 28.3)	57.7	(53.7 – 61.7)
Persons	17.5	(15.2 – 19.9)	23.0	(20.4 – 25.7)	59.5	(56.4 – 62.5)
<b>65 yrs &amp; over</b>						
Males	23.0	(20.6 – 25.5)	22.6	(20.1 – 25.1)	54.4	(51.4 – 57.4)
Females	26.3	(24.3 – 28.3)	26.3	(24.3 – 28.4)	47.4	(45.0 – 49.8)
Persons	24.7	(23.2 – 26.3)	24.5	(22.9 – 26.2)	50.7	(48.8 – 52.6)
<b>Total</b>						
Males	20.7	(16.0 – 25.4)	24.2	(19.6 – 28.9)	55.1	(49.6 – 60.5)
Females	14.1	(11.8 – 16.4)	26.1	(22.1 – 30.1)	59.8	(55.4 – 64.3)
Persons	17.4	(14.7 – 20.0)	25.2	(22.1 – 28.2)	57.5	(53.9 – 61.0)

As shown in **Figure 11**, there was no significant difference in the proportion of adults aged 18 years and over who were sufficiently active for good health by geographic area of residence.

**Figure 11: Proportion of adults completing recommended levels of physical activity, 18 years & over, by geographic area of residence in WA, HWSS 2020**



The standardised annual estimates of the proportion of adults aged 18 years and over, completing the recommended 150 minutes or more of moderate intensity physical activity per week is shown in **Table 61**.

- The prevalence of females completing recommended levels of physical activity in 2020 is significantly higher than in 2007.
- The prevalence of males completing recommended levels of physical activity in 2020 is significantly lower than 2009-2016.
- The prevalence of all persons completing recommended levels of physical activity in 2020 is significantly lower than in 2010 and 2014-2015.

**Table 61: Proportion of adults completing recommended levels of physical activity over time, 18 years & over, HWSS 2007–2020**

	Males		Females		Persons	
	%	95% CI	%	95% CI	%	95% CI
2007	59.5	(56.1 – 62.8)	53.0	(50.4 – 55.6)	56.2	(54.1 – 58.4)
2008	61.4	(58.4 – 64.5)	55.6	(53.2 – 58.1)	58.6	(56.6 – 60.5)
2009	65.7	(63.5 – 68.0)	57.7	(55.7 – 59.7)	61.7	(60.2 – 63.2)
2010	66.0	(63.5 – 68.5)	61.0	(58.8 – 63.1)	63.5	(61.8 – 65.2)
2011	66.6	(63.7 – 69.5)	59.6	(57.2 – 62.1)	63.1	(61.2 – 65.0)
2012	68.4	(65.2 – 71.6)	58.3	(55.5 – 61.1)	63.4	(61.2 – 65.5)
2013	67.8	(64.4 – 71.2)	58.7	(56.1 – 61.3)	63.2	(61.1 – 65.4)
2014	67.7	(64.7 – 70.8)	60.6	(58.0 – 63.2)	64.1	(62.1 – 66.2)
2015	68.0	(64.8 – 71.2)	59.6	(56.8 – 62.5)	63.8	(61.7 – 66.0)
2016	67.7	(63.8 – 71.5)	59.5	(56.0 – 63.0)	63.6	(61.0 – 66.2)
2017	63.1	(58.5 – 67.6)	57.8	(53.5 – 62.0)	60.4	(57.3 – 63.6)
2018	62.1	(57.7 – 66.5)	56.0	(52.1 – 60.0)	59.1	(56.1 – 62.1)
2019	62.5	(57.9 – 67.1)	58.9	(54.7 – 63.2)	60.7	(57.5 – 63.8)
2020	55.0	(49.4 – 60.6)	60.2	(55.7 – 64.7)	57.6	(54.0 – 61.2)

The mean minutes spent in physical activity per week, for respondents who indicated some level of physical activity, are shown in **Table 62**.

- The mean minutes spent in physical activity for females in 2020 was significantly higher compared with 2007.
- The mean minutes spent in physical activity for males in 2020 was significantly lower compared with 2010, 2012-2013 and 2015-2016.
- The mean minutes spent in physical activity for all persons in 2020 did not differ significantly from previous years.

**Table 62: Mean time (a) spent in physical activity per week over time, 18 years & over, HWSS 2007–2020**

	Males		Females		Persons	
	Mean	95% CI	Mean	95% CI	Mean	95% CI
2007	345.2	(314.5 – 375.8)	252.4	(236.4 – 268.5)	298.8	(281.3 – 316.4)
2008	352.2	(328.9 – 375.5)	271.4	(256.6 – 286.3)	312.0	(298.0 – 326.0)
2009	387.7	(368.8 – 406.6)	292.1	(279.4 – 304.8)	340.0	(328.5 – 351.6)
2010	405.8	(381.8 – 429.8)	307.3	(292.7 – 321.8)	357.2	(342.9 – 371.5)
2011	379.7	(356.7 – 402.8)	299.7	(284.0 – 315.3)	339.4	(325.4 – 353.4)
2012	397.5	(370.8 – 424.3)	302.2	(282.7 – 321.7)	350.0	(333.4 – 366.6)
2013	396.8	(370.1 – 423.4)	304.5	(287.2 – 321.8)	350.7	(333.4 – 366.6)
2014	393.4	(363.6 – 423.2)	305.5	(287.3 – 323.7)	349.1	(331.5 – 366.7)
2015	415.0	(385.8 – 444.3)	303.4	(284.3 – 322.5)	359.4	(341.6 – 377.3)
2016	423.0	(388.6 – 457.3)	293.8	(274.2 – 313.5)	359.0	(338.4 – 379.6)
2017	377.2	(337.8 – 416.6)	305.2	(276.4 – 333.9)	341.4	(316.8 – 366.1)
2018	374.0	(335.4 – 412.7)	278.0	(255.3 – 300.7)	326.1	(303.1 – 349.0)
2019	371.5	(331.7 – 411.3)	300.6	(273.2 – 328.0)	335.9	(311.6 – 360.2)
2020	327.3	(285.0 – 369.5)	307.0	(276.1 – 337.9)	317.2	(291.1 – 343.3)

(a) Refers to the mean time spent in moderate physical activity per week, where vigorous activity has been doubled.

### 8.5.2 Sedentary recreational screen time

Sedentary leisure-time activity, such as television viewing, is strongly associated with both overweight and obesity.<sup>30</sup> **Table 63** shows how many hours per week people spend in screen-based sedentary leisure time activities such as watching TV or DVDs, or using a computer, smartphone or tablet device for the internet or to play games, excluding work time.



- More than two in five (44.4%) adults spent 21 hours or more per week in screen-based sedentary leisure time activities.
- Adults aged 65 years and over were significantly more likely than those aged 16 to 44 years and 45 to 64 years to spend 21 hours or more per week in screen-based sedentary leisure time activities (63.6% compared with 40.6% and 39.0%).

**Table 63: Time spent watching TV/DVDs or using a computer/smartphone /tablet device per week, 16 years & over, HWSS 2020**

	None		Less than 7hrs		7 to less than 14 hrs		14 to less than 21 hrs		21+ hrs	
	%	95% CI	%	95% CI	%	95% CI	%	95% CI	%	95% CI
<b>16 to 44 yrs</b>										
Males	N/A	(N/A – N/A)	8.7*	(2.5 – 14.9)	29.5	(20.3 – 38.7)	20.8	(12.8 – 28.7)	39.7	(29.6 – 49.7)
Females	N/A	(N/A – N/A)	11.2*	(4.0 – 18.5)	16.3	(10.1 – 22.4)	27.1	(19.6 – 34.7)	41.5	(32.3 – 50.8)
Persons	2.6*	(0.2 – 4.9)	10.0	(5.2 – 14.8)	22.9	(17.3 – 28.6)	23.9	(18.5 – 29.4)	40.6	(33.8 – 47.4)
<b>45 to 64 yrs</b>										
Males	N/A	(N/A – N/A)	6.3	(3.7 – 8.9)	21.4	(17.6 – 25.2)	33.5	(29.2 – 37.9)	38.2	(33.8 – 42.5)
Females	1.0*	(0.2 – 1.8)	5.6	(3.8 – 7.4)	17.8	(14.5 – 21.0)	35.8	(31.9 – 39.8)	39.8	(35.9 – 43.7)
Persons	0.8*	(0.3 – 1.3)	6.0	(4.4 – 7.6)	19.6	(17.0 – 22.1)	34.7	(31.7 – 37.6)	39.0	(36.0 – 41.9)
<b>65 yrs &amp; over</b>										
Males	1.3*	(0.7 – 2.0)	3.3	(2.3 – 4.4)	8.1	(6.5 – 9.7)	23.3	(20.8 – 25.8)	63.9	(61.1 – 66.7)
Females	0.9	(0.5 – 1.4)	2.3	(1.6 – 3.1)	8.5	(7.2 – 9.9)	24.8	(22.7 – 26.8)	63.4	(61.1 – 65.7)
Persons	1.1	(0.7 – 1.5)	2.8	(2.2 – 3.4)	8.3	(7.3 – 9.4)	24.1	(22.5 – 25.7)	63.6	(61.8 – 65.5)
<b>Total</b>										
Males	N/A	(N/A – N/A)	7.0	(3.8 – 10.3)	23.2	(18.3 – 28.0)	25.2	(20.9 – 29.6)	43.5	(38.2 – 48.8)
Females	2.4*	(0.4 – 4.4)	7.8	(4.1 – 11.5)	15.2	(12.0 – 18.4)	29.4	(25.4 – 33.4)	45.2	(40.5 – 50.0)
Persons	1.7*	(0.6 – 2.9)	7.4	(4.9 – 9.9)	19.2	(16.2 – 22.1)	27.3	(24.4 – 30.3)	44.4	(40.8 – 47.9)

\* Prevalence estimate has an RSE between 25%-50% and should be used with caution. N/A Prevalence estimate has an RSE greater than 50% and is considered too unreliable for general use.

## 8.6 Sleep

There is recognition of the importance of sleep to good health, with insufficient sleep linked to cardiovascular disease, diabetes, depression and injury.<sup>31</sup>

Sleep duration recommendations vary by age group. It is recommended that those aged 16 to 17 years sleep between 8 to 10 hours per night, those aged 18 to 64 years sleep 7 to 9 hours per night and adults aged 65 years and over sleep 7 to 8 hours per night.<sup>32</sup> Note, however, that sleep needs will differ from person to person and sleeping more or less than the recommended number of hours per night may still be appropriate.<sup>32</sup>



We asked respondents how many hours sleep they get on a usual night. **Table 64** shows the prevalence of the population getting the recommended number of hours sleep.

Almost one in three (30.1%) Western Australian adults reported sleeping less than the recommended number of hours on a usual night in 2020.

- Two-thirds (66.0%) of adults reported sleeping the recommended number of hours per night.
- Those aged 65 years and over were significantly less likely than respondents aged 16 to 44 years and 45 to 64 years to sleep the recommended number of hours per night (53.4% compared with 68.9% and 68.8%).

**Table 64: Prevalence of adults sleeping the recommended number of hours on a usual night, 16 years & over, HWSS 2020**

	Sleeps the recommended number of hours per night		Sleeps less than the recommended number of hours per night		Sleeps more than the recommended number of hours per night	
	%	95% CI	%	95% CI	%	95% CI
<b>16 to 44 yrs</b>						
Males	67.5	(57.7 – 77.2)	29.6	(20.1 – 39.2)	N/A	(N/A – N/A)
Females	70.1	(61.3 – 79.0)	29.3	(20.5 – 38.1)	N/A	(N/A – N/A)
Persons	68.8	(62.2 – 75.4)	29.5	(22.9 – 36.0)	N/A	(N/A – N/A)
<b>45 to 64 yrs</b>						
Males	70.3	(66.1 – 74.6)	28.5	(24.3 – 32.8)	1.2*	(0.4 – 2.0)
Females	67.5	(63.8 – 71.1)	31.3	(27.7 – 34.9)	1.3*	(0.5 – 2.0)
Persons	68.9	(66.1 – 71.7)	29.9	(27.1 – 32.7)	1.2	(0.7 – 1.8)
<b>65 yrs &amp; over</b>						
Males	55.0	(52.0 – 58.0)	29.4	(26.7 – 32.1)	15.6	(13.5 – 17.7)
Females	51.9	(49.5 – 54.2)	34.2	(32.0 – 36.4)	13.9	(12.3 – 15.6)
Persons	53.4	(51.5 – 55.2)	31.9	(30.2 – 33.7)	14.7	(13.4 – 16.0)
<b>Total</b>						
Males	66.1	(61.0 – 71.3)	29.3	(24.2 – 34.4)	4.6	(2.9 – 6.4)
Females	65.8	(61.3 – 70.3)	30.9	(26.3 – 35.4)	3.4	(2.7 – 4.0)
Persons	66.0	(62.5 – 69.4)	30.1	(26.7 – 33.5)	4.0	(3.0 – 4.9)

\* Prevalence estimate has an RSE between 25%-50% and should be used with caution.

The standardised annual prevalence estimates of the proportion of adults aged 16 years and over sleeping the recommended number of hours per night from 2009 to 2020 is shown in **Table 65**. Due to changes in the way the questions were asked, comparisons can only be made from 2009.

- The proportion of adults sleeping less than, more than and the recommended number of hours per night in 2020 was not significantly different from previous years.

**Table 65: Proportion of adults sleeping the recommended number of hours on a usual night over time, 16 years & over, HWSS 2009-2020**

	Sleeps the recommended number of hours per night		Sleeps less than the recommended number of hours per night		Sleeps more than the recommended number of hours per night	
	%	95% CI	%	95% CI	%	95% CI
<b>2009</b>	68.2	(66.8 – 69.6)	27.7	(26.3 – 29.0)	4.1	(3.5 – 4.7)
<b>2010</b>	67.7	(66.1 – 69.3)	28.5	(27.0 – 30.1)	3.7	(3.2 – 4.3)
<b>2011</b>	68.5	(66.7 – 70.2)	28.0	(26.3 – 29.7)	3.5	(2.9 – 4.1)
<b>2012</b>	67.9	(66.0 – 69.9)	28.2	(26.3 – 30.1)	3.9	(3.2 – 4.5)
<b>2013</b>	64.5	(62.4 – 66.6)	32.1	(30.0 – 34.1)	3.4	(2.8 – 4.1)
<b>2014</b>	66.4	(64.4 – 68.4)	29.9	(28.0 – 31.9)	3.7	(3.1 – 4.3)
<b>2015</b>	66.9	(64.8 – 69.0)	29.5	(27.4 – 31.5)	3.7	(3.0 – 4.3)
<b>2016</b>	66.2	(63.6 – 68.7)	30.0	(27.5 – 32.6)	3.8	(3.0 – 4.5)
<b>2017</b>	64.5	(61.4 – 67.6)	31.8	(28.8 – 34.9)	3.7	(2.7 – 4.7)
<b>2018</b>	66.3	(63.4 – 69.1)	29.8	(27.0 – 32.5)	4.0	(3.0 – 4.9)
<b>2019</b>	64.2	(61.1 – 67.3)	31.8	(28.8 – 34.9)	4.0	(3.0 – 5.0)
<b>2020</b>	66.7	(63.3 – 70.2)	29.7	(26.2 – 33.1)	3.6	(2.6 – 4.6)

## 8.7 Illicit drug use

In 2020, respondents were asked questions about their use of illicit drugs, and drugs and pharmaceuticals for non-medical purposes in the past 12 months. By non-medical purposes we mean the drugs were used to induce a drug experience or feeling, used with other drugs to enhance a drug experience, used for performance enhancement (e.g. athletic) or used for cosmetic purposes (e.g. body shaping).

The harms associated with illicit drug use and pharmaceuticals used for non-medical purposes impact (directly and/or indirectly) on all Australian communities, families and individuals. Health harms can include injury, death, overdose, hospitalisation, mental health issues, and road trauma, in addition to the social and economic harms<sup>24</sup>.

Methamphetamines and amphetamines are part of a broader category of stimulants that also includes cocaine and MDMA (ecstasy). Some of the harms that can arise from the use of stimulants include mental health issues, cognitive impairment, cardiovascular problems and toxicity.



About one in 14 (7.0%) Western Australian adults aged 16 years and over reported illicit drug use in 2020.

Cannabis is the most widely used of the illicit drugs in Australia and carries a significant burden of disease. The use of cannabis can result in various health impacts such as respiratory illness and cognitive defects. Cannabis dependence among young adults is correlated with and has been known to cause mental disorders such as psychosis.

Harms that can arise from illicit use of pharmaceutical drugs can include fatal and non-fatal overdose. Other harms include infection and blood vessel occlusion from routes of administration such as injecting drug use, memory lapses, coordination impairments and aggression (Department of Health, National Drug Strategy, 2017).

The HWSS collects information and reports on the use of the following drugs:

- cannabis
- MDMA (ecstasy)
- cocaine
- methamphetamines and amphetamines
- illicit use of pharmaceuticals (painkillers/analgesics, opioids, tranquillisers, sleeping pills, steroids, methadone and buprenorphine)
- heroin
- hallucinogens
- any other drug not listed above used illicitly or for non-medical purposes.

The prevalence of illicit drug use among adults aged 16 years and over is presented in **Table 66**. As these questions are being asked about illegal activity, it is expected that there is some level of under-reporting of illicit drug use.

- One in fourteen (7.0%) Western Australian adults reported the use of illicit drugs during the past 12 months.
- Cannabis was the most common illicit drug used (6.5%) followed by the illicit use of pharmaceuticals (1.6%).

**Table 66: Use of illicit drugs in the last 12 months for non-medical purposes, 16 years & over, HWSS 2020**

Drug type	Illicit drug use in the last 12 months	
	%	95% CI
Cannabis	6.5	(4.2 – 8.8)
Ecstasy	1.4*	(0.2 – 2.6)
Cocaine	0.8*	(0.1 – 1.4)
Methamphetamines or amphetamines	1.2*	(0.1 – 2.2)
Illicit use of pharmaceuticals <sup>(a)</sup>	1.6*	(0.5 – 2.8)
Any illicit drug use <sup>(b)</sup>	7.0	(4.7 – 9.4)

(a) Includes pain-killers/analgesics, opioids, tranquillisers, sleeping pills, steroids, methadone and buprenorphine used for non-medical purposes.

(b) Includes cannabis, ecstasy, cocaine, methamphetamines and amphetamines, pharmaceuticals, heroin, hallucinogens, and illicit use of any other drug not listed.

Physiological  
risk factors



# 9. Physiological risk factors

Biomedical factors such as high cholesterol, high blood pressure and excess body mass are major contributors to disease burden.<sup>13</sup> However, they can be effectively managed through a combination of clinical practice, medications, population-based interventions and lifestyle behaviours.<sup>33</sup> This section will focus on the following physiological risk factors:

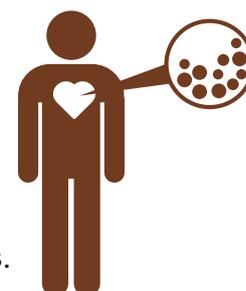
- cholesterol
- blood pressure
- body weight

## 9.1 Cholesterol

High cholesterol is a major risk factor for coronary heart disease and stroke.<sup>33</sup>

We asked respondents when they last had their cholesterol measured and whether they have had high cholesterol. **Table 67** shows the proportion of adults who have been told by a doctor that they have high cholesterol levels.

- The lifetime prevalence of high cholesterol increased significantly with age (16 to 44 years: 16.9%, 45 to 64 years: 33.6%, and 65 years and over: 44.4%).
- The point prevalence of high cholesterol also increased significantly with age (16 to 44 years: 6.0%, 45 to 64 years: 20.8%, and 65 years and over: 37.5%).



Approximately one in three (29.9%) Western Australian adults reported having been diagnosed with high cholesterol levels.

**Table 67: Prevalence of adults with diagnosed high cholesterol levels, 16 years & over, HWSS 2020**

	Lifetime (a)		Point (b)	
	%	95% CI	%	95% CI
<b>16 to 44 yrs</b>				
Males	21.0*	(10.3 – 31.8)	7.4*	(1.7 – 13.1)
Females	11.1*	(4.5 – 17.6)	4.2*	(0.6 – 7.9)
Persons	16.9	(9.9 – 23.9)	6.0*	(2.4 – 9.5)
<b>45 to 64 yrs</b>				
Males	35.7	(31.3 – 40.2)	23.6	(19.8 – 27.3)
Females	31.6	(27.7 – 35.4)	18.1	(15.3 – 20.8)
Persons	33.6	(30.7 – 36.6)	20.8	(18.4 – 23.1)
<b>65 yrs &amp; over</b>				
Males	43.8	(40.8 – 46.8)	38.0	(35.1 – 40.9)
Females	44.9	(42.5 – 47.2)	37.0	(34.7 – 39.3)
Persons	44.4	(42.5 – 46.3)	37.5	(35.7 – 39.3)
<b>Total</b>				
Males	31.3	(26.3 – 36.3)	19.9	(16.8 – 23.0)
Females	28.3	(25.2 – 31.5)	18.0	(16.0 – 20.1)
Persons	29.9	(26.8 – 32.9)	19.0	(17.1 – 20.9)

(a) People who reported having been told by a doctor that they have high cholesterol (ever).

(b) People who reported having been diagnosed by a doctor with high cholesterol and either still have high cholesterol or are taking medication for high cholesterol.

\* Prevalence estimate has an RSE between 25%-50% and should be used with caution

N/A Prevalence estimate has an RSE greater than 50% and is considered too unreliable for general use.

**Table 68** shows the proportion of adults by when their cholesterol was last tested.

- More than one in five (22.3%) Western Australian adults reported they had never tested their cholesterol levels.
- Never testing for cholesterol levels significantly decreased with age (16 to 44 years: 41.4%, 45 to 64 years: 4.4%, and 65 years and over: 0.9%).
- Females aged 16 to 44 years were significantly more likely to report never testing for cholesterol levels compared with males (51.1% versus 31.8%).

**Table 68: Prevalence of population by when cholesterol level was last tested, 16 years & over, HWSS 2020**

	Never		Within 6 months		6 months to a year		1 to 2 years		2 or more years ago		Unsure	
	%	95% CI	%	95% CI	%	95% CI	%	95% CI	%	95% CI	%	95% CI
<b>16 to 44 yrs</b>												
Males	31.8	(23.3 – 40.4)	27.1	(17.9 – 36.2)	15.4*	(6.9 – 23.9)	9.1*	(3.2 – 15.1)	6.8*	(1.6 – 12.1)	9.7*	(3.8 – 15.7)
Females	51.1	(42.0 – 60.2)	14.4	(8.5 – 20.3)	10.5	(5.4 – 15.6)	7.2*	(2.8 – 11.6)	4.4*	(1.7 – 7.1)	12.3	(6.7 – 18.0)
Persons	41.4	(34.7 – 48.1)	20.8	(15.2 – 26.4)	13.0	(7.9 – 18.0)	8.2	(4.5 – 11.9)	5.6*	(2.7 – 8.6)	11.0	(6.9 – 15.1)
<b>45 to 64 yrs</b>												
Males	5.0	(2.8 – 7.2)	47.2	(42.6 – 51.7)	24.4	(20.5 – 28.4)	9.6	(6.9 – 12.2)	8.8	(6.2 – 11.4)	5.1	(3.1 – 7.1)
Females	3.8	(2.1 – 5.4)	44.9	(40.9 – 48.9)	28.9	(25.1 – 32.7)	10.0	(7.7 – 12.3)	6.5	(4.6 – 8.3)	6.0	(4.1 – 7.9)
Persons	4.4	(3.0 – 5.8)	46.0	(43.0 – 49.0)	26.7	(23.9 – 29.4)	9.8	(8.0 – 11.5)	7.6	(6.0 – 9.2)	5.6	(4.2 – 6.9)
<b>65 yrs &amp; over</b>												
Males	0.7*	(0.2 – 1.2)	63.6	(60.8 – 66.5)	21.1	(18.7 – 23.6)	3.5	(2.5 – 4.6)	3.5	(2.5 – 4.6)	7.4	(5.9 – 9.0)
Females	1.1	(0.7 – 1.5)	57.7	(55.4 – 60.0)	22.1	(20.2 – 24.1)	5.8	(4.7 – 6.9)	3.2	(2.4 – 4.0)	10.1	(8.8 – 11.5)
Persons	0.9	(0.6 – 1.2)	60.5	(58.7 – 62.3)	21.7	(20.1 – 23.2)	4.7	(4.0 – 5.5)	3.3	(2.7 – 4.0)	8.9	(7.9 – 9.9)
<b>Total</b>												
Males	18.0	(13.6 – 22.3)	39.8	(34.8 – 44.9)	19.2	(14.7 – 23.7)	8.3	(5.1 – 11.5)	6.9	(4.0 – 9.7)	7.9	(4.7 – 11.0)
Females	26.6	(21.2 – 32.1)	32.3	(28.6 – 36.1)	18.5	(15.5 – 21.4)	7.8	(5.5 – 10.1)	4.8	(3.4 – 6.3)	9.9	(7.1 – 12.8)
Persons	22.3	(18.7 – 25.9)	36.0	(32.9 – 39.2)	18.8	(16.2 – 21.5)	8.0	(6.1 – 10.0)	5.8	(4.2 – 7.4)	8.9	(6.8 – 11.0)

\*Prevalence estimate has an RSE between 25%-50% and should be used with caution.  
 N/A Prevalence estimate has an RSE greater than 50% and is considered too unreliable for general use.

Cholesterol information has not always been asked of adults 16 to 24 years. Therefore, the standardised annual lifetime and point prevalence estimates of high cholesterol for adults aged 25 years and over from 2003 to 2020 are shown in **Table 69** and **Table 70**.

- For males, females and overall, the lifetime prevalence and the point prevalence of high cholesterol was not significantly different over time.

**Table 69: Lifetime (a) prevalence of population with high cholesterol over time, 25 years & over, HWSS 2003-2020**

	Males		Females		Persons	
	%	95% CI	%	95% CI	%	95% CI
<b>2003</b>	32.2	(29.5 – 34.9)	30.6	(28.3 – 32.9)	31.4	(29.6 – 33.2)
<b>2004</b>	32.8	(28.7 – 36.9)	31.9	(28.4 – 35.4)	32.3	(29.6 – 35.0)
<b>2005</b>	30.9	(28.2 – 33.6)	30.5	(28.2 – 32.8)	30.7	(28.9 – 32.5)
<b>2006</b>	29.8	(27.1 – 32.6)	30.3	(28.1 – 32.6)	30.1	(28.3 – 31.9)
<b>2007</b>	31.9	(28.6 – 35.3)	29.3	(26.8 – 31.7)	30.6	(28.6 – 32.7)
<b>2008</b>	29.5	(26.5 – 32.4)	27.3	(25.1 – 29.5)	28.4	(26.5 – 30.3)
<b>2009</b>	31.3	(28.9 – 33.7)	27.6	(25.7 – 29.4)	29.5	(28.0 – 31.0)
<b>2010</b>	32.6	(30.0 – 35.3)	31.3	(29.3 – 33.4)	32.0	(30.3 – 33.7)
<b>2011</b>	33.6	(30.7 – 36.5)	29.3	(27.1 – 31.4)	31.5	(29.6 – 33.3)
<b>2012</b>	30.2	(27.1 – 33.3)	26.1	(23.9 – 28.2)	28.1	(26.2 – 30.0)
<b>2013</b>	29.1	(26.0 – 32.2)	26.9	(24.8 – 29.0)	28.0	(26.1 – 29.9)
<b>2014</b>	30.4	(27.4 – 33.5)	27.8	(25.5 – 30.1)	29.1	(27.2 – 31.1)
<b>2015</b>	31.3	(28.3 – 34.3)	27.3	(25.1 – 29.6)	29.3	(27.4 – 31.1)
<b>2016</b>	26.6	(23.1 – 30.0)	24.1	(21.7 – 26.5)	25.4	(23.2 – 27.5)
<b>2017</b>	30.1	(25.9 – 34.2)	23.8	(20.9 – 26.6)	26.9	(24.4 – 29.4)
<b>2018</b>	24.9	(21.6 – 28.2)	25.4	(22.6 – 28.3)	25.2	(23.0 – 27.4)
<b>2019</b>	27.4	(23.7 – 31.1)	24.4	(21.7 – 27.1)	25.9	(23.6 – 28.2)
<b>2020</b>	32.5	(27.1 – 37.9)	28.5	(25.2 – 31.8)	30.6	(27.4 – 33.8)

(a) People who reported having been told by a doctor that they have high cholesterol (ever).

**Table 70: Point (b) prevalence of population with high cholesterol over time, 25 years & over, HWSS 2003-2020**

	Males		Females		Persons	
	%	95% CI	%	95% CI	%	95% CI
2003	19.8	(17.5 – 22.0)	19.2	(17.3 – 21.1)	19.5	(18.0 – 21.0)
2004	21.8	(18.1 – 25.4)	18.8	(16.0 – 21.5)	20.3	(18.0 – 22.6)
2005	16.3	(14.4 – 18.2)	14.0	(12.6 – 15.5)	15.2	(14.0 – 16.4)
2006	19.8	(17.5 – 22.1)	18.0	(16.1 – 19.8)	18.9	(17.4 – 20.4)
2007	20.3	(17.6 – 23.1)	19.8	(17.7 – 21.9)	20.1	(18.3 – 21.8)
2008	18.2	(16.0 – 20.4)	17.2	(15.5 – 19.0)	17.7	(16.3 – 19.2)
2009	20.9	(18.9 – 22.9)	18.5	(16.9 – 20.0)	19.7	(18.4 – 21.0)
2010	21.4	(19.2 – 23.7)	20.7	(18.9 – 22.4)	21.1	(19.6 – 22.5)
2011	22.9	(20.5 – 25.3)	18.5	(16.9 – 20.2)	20.7	(19.3 – 22.2)
2012	20.2	(17.7 – 22.8)	16.8	(15.2 – 18.5)	18.5	(17.0 – 20.1)
2013	19.8	(17.3 – 22.4)	18.4	(16.7 – 20.1)	19.1	(17.6 – 20.7)
2014	20.4	(17.8 – 22.9)	17.8	(16.1 – 19.4)	19.1	(17.6 – 20.6)
2015	20.9	(18.6 – 23.3)	17.1	(15.4 – 18.7)	19.0	(17.5 – 20.4)
2016	17.9	(15.2 – 20.6)	16.6	(14.6 – 18.5)	17.2	(15.6 – 18.9)
2017	18.8	(15.9 – 21.7)	15.8	(13.7 – 17.9)	17.3	(15.5 – 19.1)
2018	17.5	(14.9 – 20.1)	15.9	(14.0 – 17.9)	16.7	(15.1 – 18.3)
2019	18.4	(15.5 – 21.2)	16.3	(14.4 – 18.2)	17.3	(15.6 – 19.0)
2020	19.8	(16.3 – 23.3)	18.3	(16.0 – 20.5)	19.1	(16.9 – 21.2)

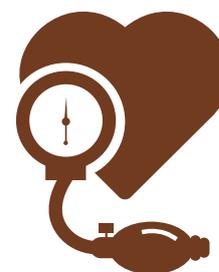
(b) People who reported having been diagnosed by a doctor with high cholesterol and either still have high cholesterol or are taking medication for high cholesterol.

## 9.2 Blood pressure

High blood pressure is a major risk factor for the development of coronary artery disease, stroke and renal failure.<sup>33</sup>

We asked respondents when they last had their blood pressure measured and if a doctor has ever told them that they have high blood pressure. Of those who have had their blood pressure measured, an estimate of the prevalence of people who have had high blood pressure as well as people who currently have high blood pressure or who are being treated for high blood pressure is shown in Table 71.

- The lifetime prevalence of high blood pressure increased significantly with age (16 to 44 years: 13.1%, 45 to 64 years: 30.3%, and 65 years and over: 51.8%).
- The point prevalence (i.e. has a current diagnosis) of high blood pressure also increased significantly with age (16 to 44 years: 9.7%, 45 to 64 years: 22.7%, and 65 years and over: 46.8%).



One in five (20.9%) Western Australian adults reported they currently have high blood pressure.

**Table 71: Prevalence of adults with high blood pressure, 16 years & over, HWSS 2020**

	Lifetime (a)		Point (b)	
	%	95% CI	%	95% CI
<b>16 to 44 yrs</b>				
Males	14.8*	(7.1 – 22.4)	12.6*	(5.2 – 19.9)
Females	11.3*	(4.8 – 17.9)	6.7*	(1.2 – 12.2)
Persons	13.1	(8.1 – 18.1)	9.7	(5.1 – 14.4)
<b>45 to 64 yrs</b>				
Males	30.9	(26.9 – 35.0)	23.4	(19.8 – 27.0)
Females	29.6	(26.0 – 33.2)	22.1	(18.9 – 25.3)
Persons	30.3	(27.6 – 33.0)	22.7	(20.3 – 25.1)
<b>65 yrs &amp; over</b>				
Males	51.4	(48.4 – 54.4)	47.0	(44.0 – 50.0)
Females	52.1	(49.8 – 54.5)	46.6	(44.2 – 48.9)
Persons	51.8	(49.9 – 53.7)	46.8	(44.9 – 48.7)
<b>Total</b>				
Males	26.4	(22.2 – 30.6)	22.2	(18.1 – 26.2)
Females	25.3	(21.8 – 28.9)	19.6	(16.5 – 22.6)
Persons	25.9	(23.1 – 28.6)	20.9	(18.3 – 23.4)

(a) People who reported having been told by a doctor that they have high blood pressure (ever).

(b) People who reported having been diagnosed by a doctor with high blood pressure and either still have high blood pressure or are taking medication for high blood pressure.

\* Prevalence estimate has an RSE between 25%-50% and should be used with caution.

**Table 72** shows the proportion of adults by when their blood pressure was last tested.

- Approximately three out of four (70.6%) Western Australian adults reported testing their blood pressure within the past six months.
- Testing for blood pressure within the last six months increased significantly with age (16 to 44 years: 60.4%, 45 to 64 years: 76.7%, and 65 years and over: 88.0%).

**Table 72: Prevalence of population by when blood pressure was last tested, 16 years & over, HWSS 2020**

	Never		Within 6 months		6 months to a year		1 to 2 years		2 or more years ago		Unsure	
	%	95% CI	%	95% CI	%	95% CI	%	95% CI	%	95% CI	%	95% CI
<b>16 to 44 yrs</b>												
Males	N/A	(N/A-N/A)	66.8	(58.1 – 75.6)	13.0	(7.1 – 19.0)	7.2*	(2.1 – 12.2)	4.8*	(1.5 – 8.1)	7.3*	(3.1 – 11.4)
Females	4.9*	(1.3 – 8.5)	53.9	(44.7 – 63.0)	18.8	(11.4 – 26.3)	10.2*	(4.5 – 15.9)	4.6*	(0.5 – 8.7)	7.6*	(2.9 – 12.2)
Persons	2.9*	(1.0 – 4.8)	60.4	(53.9 – 66.9)	15.9	(11.1 – 20.7)	8.7	(4.9 – 12.5)	4.7*	(2.1 – 7.3)	7.4	(4.3 – 10.5)
<b>45 to 64 yrs</b>												
Males	N/A	(N/A-N/A)	75.7	(71.8 – 79.7)	13.7	(10.6 – 16.8)	5.3	(3.2 – 7.4)	2.0*	(0.7 – 3.3)	2.7*	(1.2 – 4.2)
Females	N/A	(N/A-N/A)	77.7	(74.4 – 81.0)	15.3	(12.5 – 18.2)	3.9	(2.4 – 5.5)	1.0*	(0.5 – 1.5)	2.0*	(1.0 – 3.0)
Persons	N/A	(N/A-N/A)	76.7	(74.2 – 79.3)	14.5	(12.4 – 16.6)	4.6	(3.3 – 5.9)	1.5	(0.8 – 2.2)	2.3	(1.4 – 3.2)
<b>65 yrs &amp; over</b>												
Males	N/A	(N/A-N/A)	89.8	(88.0 – 91.5)	5.9	(4.5 – 7.2)	0.7*	(0.2 – 1.1)	0.8*	(0.3 – 1.3)	2.9	(1.9 – 3.9)
Females	N/A	(N/A-N/A)	86.3	(84.7 – 87.9)	7.0	(5.8 – 8.2)	0.8*	(0.4 – 1.2)	0.5*	(0.2 – 0.8)	5.3	(4.2 – 6.3)
Persons	N/A	(N/A-N/A)	88.0	(86.8 – 89.1)	6.5	(5.6 – 7.3)	0.7	(0.4 – 1.0)	0.6	(0.3 – 0.9)	4.1	(3.4 – 4.9)
<b>Total</b>												
Males	0.6*	(N/A-N/A)	73.7	(69.1 – 78.2)	11.9	(8.8 – 15.2)	5.4	(2.8 – 8.1)	3.2*	(1.5 – 5.0)	5.1	(2.9 – 7.2)
Females	2.5*	(N/A-N/A)	67.6	(62.8 – 72.5)	15.4	(11.6 – 19.2)	6.4	(3.5 – 9.3)	2.7*	(0.6 – 4.7)	5.4	(3.1 – 7.7)
Persons	1.6*	(N/A-N/A)	70.6	(67.3 – 74.0)	13.6	(11.2 – 16.2)	5.9	(4.0 – 7.9)	2.9	(1.6 – 4.3)	5.2	(3.6 – 6.8)

\*Prevalence estimate has an RSE between 25%-50% and should be used with caution.  
N/A Prevalence estimate has an RSE greater than 50% and is considered too unreliable for general use.

Blood pressure information has not always been asked of adults aged 16 to 24 years. Therefore, the standardised annual lifetime and point prevalence estimates of high blood pressure for adults aged 25 years and over from 2003 to 2020 are shown in **Table 73** and **Table 74**.

- The lifetime prevalence of high blood pressure was not significantly different in 2020 compared with 2003.
- For males and all persons, the point prevalence of high blood pressure was significantly higher in 2020 compared with 2003 (males: 24.4% compared with 16.2%, and for all persons: 22.8% compared with 17.5%).

**Table 73: Lifetime (a) prevalence of population with high blood pressure over time, 25 years & over, HWSS 2003-2020**

	Males		Females		Persons	
	%	95% CI	%	95% CI	%	95% CI
<b>2003</b>	24.7	(22.6 – 26.9)	29.7	(27.7 – 31.7)	27.2	(25.7 – 28.7)
<b>2004</b>	26.4	(23.0 – 29.8)	30.9	(27.8 – 34.0)	28.7	(26.4 – 31.0)
<b>2005</b>	26.2	(23.9 – 28.5)	29.1	(27.1 – 31.2)	27.7	(26.1 – 29.2)
<b>2006</b>	27.1	(24.6 – 29.6)	30.7	(28.7 – 32.7)	28.9	(27.3 – 30.5)
<b>2007</b>	28.4	(25.4 – 31.5)	30.2	(27.9 – 32.5)	29.3	(27.4 – 31.2)
<b>2008</b>	26.2	(23.4 – 28.9)	29.3	(27.2 – 31.5)	27.7	(26.0 – 29.5)
<b>2009</b>	27.0	(24.9 – 29.0)	28.8	(27.0 – 30.5)	27.9	(26.5 – 29.2)
<b>2010</b>	29.8	(27.3 – 32.2)	29.2	(27.3 – 31.1)	29.5	(27.9 – 31.0)
<b>2011</b>	26.7	(24.1 – 29.2)	27.6	(25.5 – 29.6)	27.1	(25.5 – 28.7)
<b>2012</b>	24.8	(22.0 – 27.7)	26.7	(24.6 – 28.9)	25.8	(24.0 – 27.6)
<b>2013</b>	26.4	(23.5 – 29.3)	24.6	(22.7 – 26.5)	25.5	(23.8 – 27.2)
<b>2014</b>	27.2	(24.3 – 30.0)	25.5	(23.5 – 27.4)	26.3	(24.6 – 28.0)
<b>2015</b>	25.0	(22.5 – 27.4)	26.3	(24.2 – 28.4)	25.6	(24.0 – 27.2)
<b>2016</b>	25.0	(22.0 – 28.1)	23.9	(21.5 – 26.3)	24.5	(22.5 – 26.4)
<b>2017</b>	26.3	(22.1 – 30.5)	25.2	(22.3 – 28.1)	25.8	(23.2 – 28.3)
<b>2018</b>	22.7	(19.5 – 25.8)	25.9	(23.0 – 28.8)	24.3	(22.1 – 26.4)
<b>2019</b>	27.0	(22.9 – 31.0)	22.0	(19.4 – 24.6)	24.5	(22.1 – 26.9)
<b>2020</b>	29.2	(24.3 – 34.1)	27.6	(23.7 – 31.5)	28.4	(25.3 – 31.5)

(a) People who reported having been told by a doctor that they have high blood pressure (ever).

**Table 74: Point (b) prevalence of population with high blood pressure over time, 25 years & over, HWSS 2003-2020**

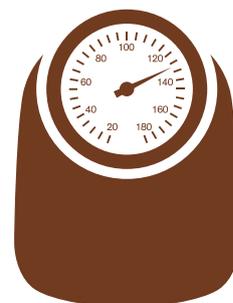
	Males		Females		Persons	
	%	95% CI	%	95% CI	%	95% CI
2003	16.2	(14.5 – 18.0)	18.8	(17.1 – 20.4)	17.5	(16.3 – 18.7)
2004	17.1	(14.3 – 19.9)	20.4	(17.8 – 23.0)	18.8	(16.8 – 20.7)
2005	17.6	(15.7 – 19.5)	17.8	(16.2 – 19.3)	17.7	(16.5 – 18.9)
2006	18.5	(16.5 – 20.6)	19.2	(17.5 – 20.8)	18.9	(17.6 – 20.2)
2007	18.5	(16.2 – 20.8)	19.4	(17.6 – 21.2)	19.0	(17.5 – 20.4)
2008	18.2	(16.0 – 20.3)	19.4	(17.7 – 21.0)	18.8	(17.4 – 20.1)
2009	19.9	(18.1 – 21.7)	19.3	(17.9 – 20.8)	19.6	(18.5 – 20.8)
2010	21.0	(19.0 – 23.0)	19.0	(17.5 – 20.5)	20.0	(18.8 – 21.3)
2011	18.3	(16.4 – 20.3)	19.2	(17.6 – 20.8)	18.7	(17.5 – 20.0)
2012	18.6	(16.4 – 20.7)	19.0	(17.3 – 20.7)	18.8	(17.4 – 20.1)
2013	19.2	(16.8 – 21.5)	17.1	(15.7 – 18.6)	18.2	(16.8 – 19.5)
2014	19.3	(17.1 – 21.5)	17.9	(16.4 – 19.4)	18.6	(17.3 – 19.9)
2015	18.9	(16.9 – 20.9)	18.4	(16.8 – 19.9)	18.6	(17.4 – 19.9)
2016	18.5	(16.1 – 21.0)	17.0	(15.2 – 18.8)	17.8	(16.3 – 19.3)
2017	18.0	(14.7 – 21.3)	18.2	(16.1 – 20.3)	18.1	(16.1 – 20.1)
2018	16.7	(14.3 – 19.0)	19.3	(17.0 – 21.5)	18.0	(16.3 – 19.6)
2019	19.1	(16.3 – 22.0)	16.9	(15.0 – 18.7)	18.0	(16.3 – 19.7)
2020	24.4	(19.8 – 29.0)	21.1	(17.8 – 24.5)	22.8	(19.9 – 25.6)

(b) People who reported having been diagnosed by a doctor with high blood pressure and either still have high blood pressure or are taking medication for high blood pressure.

### 9.3 Body weight

Overweight and obesity in adults is associated with cardiovascular disease, diabetes, some cancers, osteoarthritis, dementia and a range of other conditions.<sup>34</sup>

We asked respondents how tall they were and how much they weighed. A Body Mass Index (BMI) was derived from these figures by dividing weight in kilograms by height in metres squared after adjustment for errors in the self-reported height and weight.<sup>35</sup> Each respondent's BMI was then classified as not overweight or obese (BMI<25), overweight (25≤BMI<30) or obese (BMI≥30).<sup>36</sup> Prevalence estimates for these BMI categories are shown in **Table 75**.



One in three (33.8%) Western Australian adults were obese in 2020

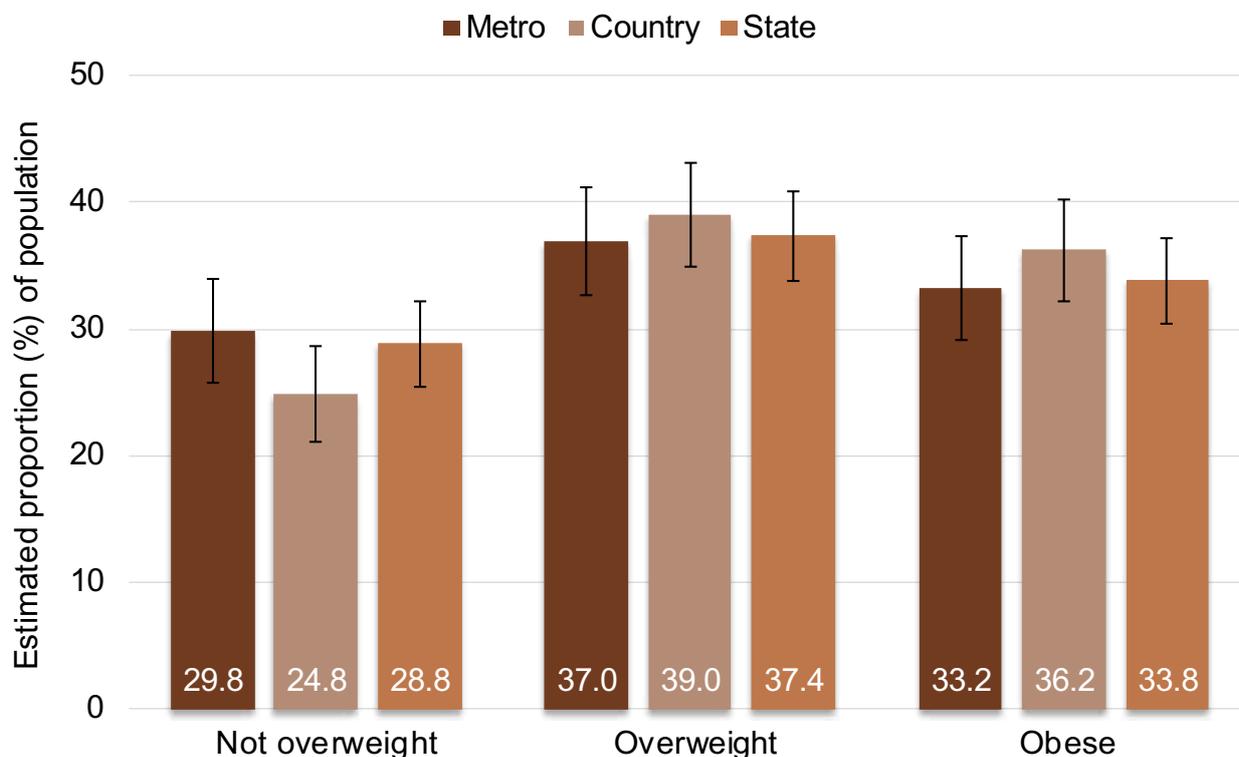
- Based on self-reported height and weight measurements, more than two-thirds (71.2%) of adults were classified as overweight or obese with one-third (33.8%) of adults classified as obese.
- The prevalence of obesity was significantly higher for persons aged 45 to 64 years compared with all adults (41.7% compared with 33.8%).

There was a significantly greater prevalence of obesity in the country population (36.2%) compared to the metropolitan population (33.2%) when comparing by geographic area of residence (**Figure 12**).

**Table 75: Prevalence by BMI categories, 16 years & over, HWSS 2020**

	Not overweight or obese		Overweight		Obese	
	%	95% CI	%	95% CI	%	95% CI
<b>16 to 44 yrs</b>						
Males	31.6	(22.3 – 40.8)	36.7	(26.6 – 46.7)	31.8	(22.2 – 41.4)
Females	42.9	(33.4 – 52.4)	30.9	(21.6 – 40.2)	26.2	(17.9 – 34.5)
Persons	37.0	(30.3 – 43.7)	33.9	(27.0 – 40.8)	29.1	(22.7 – 35.5)
<b>45 to 64 yrs</b>						
Males	14.1	(11.0 – 17.2)	47.2	(42.6 – 51.8)	38.7	(34.3 – 43.2)
Females	22.3	(19.0 – 25.7)	32.9	(29.0 – 36.8)	44.8	(40.6 – 48.9)
Persons	18.2	(15.9 – 20.5)	40.1	(37.0 – 43.1)	41.7	(38.7 – 44.8)
<b>65 yrs &amp; over</b>						
Males	21.5	(19.1 – 24.0)	47.8	(44.8 – 50.9)	30.6	(27.8 – 33.4)
Females	29.0	(26.8 – 31.2)	36.2	(33.9 – 38.5)	34.8	(32.4 – 37.1)
Persons	25.4	(23.8 – 27.1)	41.8	(39.9 – 43.7)	32.8	(31.0 – 34.6)
<b>Total</b>						
Males	24.2	(19.4 – 29.0)	42.0	(36.7 – 47.3)	33.8	(28.7 – 38.8)
Females	33.5	(28.8 – 38.3)	32.6	(28.0 – 37.2)	33.9	(29.6 – 38.2)
Persons	28.8	(25.4 – 32.2)	37.4	(33.8 – 40.9)	33.8	(30.5 – 37.2)

**Figure 12: Proportion of adults by BMI category, 16 years and over, by geographic area of residence in WA, HWSS 2020**



**Table 76, Table 77 and Table 78** show the prevalence from 2002 to 2020 for three BMI categories; not overweight or obese, overweight, and obese respectively.

- The prevalence of obesity was significantly higher in 2020 when compared with estimates from 2002-2006 and 2008 for males; 2002 to 2011 for females; and 2002-2011 and 2013-2015 for all persons.

**Table 76: Prevalence of not overweight or obese adults over time, 16 years & over, HWSS 2002-2020**

	Males		Females		Persons	
	%	95% CI	%	95% CI	%	95% CI
<b>2002</b>	31.8	(29.3 – 34.2)	45.4	(43.1 – 47.7)	38.5	(36.8 – 40.2)
<b>2003</b>	32.1	(29.8 – 34.3)	44.8	(42.7 – 46.9)	38.3	(36.8 – 39.9)
<b>2004</b>	28.7	(25.4 – 32.0)	42.2	(39.0 – 45.4)	35.3	(32.9 – 37.6)
<b>2005</b>	28.2	(25.8 – 30.7)	44.5	(42.2 – 46.8)	36.2	(34.4 – 37.9)
<b>2006</b>	28.7	(25.7 – 31.7)	42.4	(40.0 – 44.9)	35.5	(33.5 – 37.4)
<b>2007</b>	27.6	(24.4 – 30.7)	43.0	(40.3 – 45.6)	35.2	(33.1 – 37.3)
<b>2008</b>	30.2	(27.1 – 33.3)	43.0	(40.5 – 45.6)	36.4	(34.4 – 38.5)
<b>2009</b>	26.2	(24.0 – 28.4)	40.8	(38.7 – 42.9)	33.4	(31.8 – 34.9)
<b>2010</b>	26.2	(23.7 – 28.7)	41.5	(39.1 – 43.9)	33.7	(31.9 – 35.4)
<b>2011</b>	26.3	(23.4 – 29.2)	41.3	(38.7 – 44.0)	33.6	(31.6 – 35.6)
<b>2012</b>	29.4	(25.8 – 33.0)	38.4	(35.5 – 41.3)	33.8	(31.5 – 36.1)
<b>2013</b>	26.3	(22.8 – 29.7)	41.0	(38.2 – 43.8)	33.5	(31.2 – 35.7)
<b>2014</b>	28.0	(24.5 – 31.5)	39.2	(36.3 – 42.1)	33.5	(31.2 – 35.7)
<b>2015</b>	27.3	(23.8 – 30.8)	38.7	(35.6 – 41.8)	32.8	(30.5 – 35.2)
<b>2016</b>	26.9	(22.9 – 31.0)	42.0	(38.2 – 45.8)	34.3	(31.5 – 37.2)
<b>2017</b>	23.4	(19.6 – 27.2)	38.7	(34.2 – 43.2)	31.0	(27.9 – 34.1)
<b>2018</b>	25.2	(21.0 – 29.5)	35.1	(31.2 – 39.0)	30.0	(27.1 – 32.9)
<b>2019</b>	24.6	(19.9 – 29.3)	32.9	(28.5 – 37.3)	28.7	(25.4 – 31.9)
<b>2020</b>	24.8	(19.8 – 29.8)	34.0	(29.2 – 38.8)	29.3	(25.8 – 32.8)

**Table 77: Prevalence of overweight adults over time, 16 years & over, HWSS 2002-2020**

	Males		Females		Persons	
	%	95% CI	%	95% CI	%	95% CI
<b>2002</b>	47.8	(45.1 – 50.4)	32.5	(30.4 – 34.6)	40.2	(38.5 – 41.9)
<b>2003</b>	46.8	(44.4 – 49.2)	33.1	(31.2 – 35.1)	40.1	(38.5 – 41.7)
<b>2004</b>	49.5	(45.8 – 53.2)	33.9	(30.9 – 36.8)	41.8	(39.4 – 44.3)
<b>2005</b>	48.9	(46.2 – 51.5)	29.7	(27.6 – 31.7)	39.5	(37.8 – 41.2)
<b>2006</b>	47.4	(44.3 – 50.4)	33.3	(31.0 – 35.5)	40.4	(38.5 – 42.3)
<b>2007</b>	45.4	(41.9 – 48.8)	31.9	(29.4 – 34.3)	38.7	(36.5 – 40.8)
<b>2008</b>	44.2	(41.1 – 47.3)	31.7	(29.5 – 34.0)	38.1	(36.2 – 40.1)
<b>2009</b>	46.9	(44.5 – 49.4)	32.7	(30.8 – 34.6)	39.9	(38.3 – 41.5)
<b>2010</b>	46.9	(44.2 – 49.6)	32.3	(30.2 – 34.4)	39.7	(38.0 – 41.5)
<b>2011</b>	47.3	(44.2 – 50.5)	32.9	(30.5 – 35.2)	40.3	(38.3 – 42.3)
<b>2012</b>	43.5	(39.9 – 47.0)	32.2	(29.6 – 34.8)	38.0	(35.7 – 40.2)
<b>2013</b>	45.5	(42.0 – 49.1)	31.5	(29.1 – 33.9)	38.7	(36.5 – 40.9)
<b>2014</b>	44.2	(40.7 – 47.6)	33.3	(30.7 – 35.9)	38.9	(36.7 – 41.0)
<b>2015</b>	45.5	(42.1 – 49.0)	34.4	(31.5 – 37.2)	40.1	(37.8 – 42.4)
<b>2016</b>	43.4	(39.1 – 47.6)	30.8	(27.7 – 33.9)	37.2	(34.5 – 39.9)
<b>2017</b>	44.4	(39.5 – 49.2)	29.4	(25.8 – 32.9)	36.9	(33.8 – 40.1)
<b>2018</b>	42.6	(38.0 – 47.1)	33.3	(29.5 – 37.1)	38.1	(35.1 – 41.1)
<b>2019</b>	44.4	(39.5 – 49.3)	36.0	(31.7 – 40.3)	40.3	(37.0 – 43.6)
<b>2020</b>	41.5	(36.1 – 46.9)	32.5	(27.8 – 37.1)	37.1	(33.5 – 40.7)

**Table 78: Prevalence of obese adults over time, 16 years & over, HWSS 2002-2020**

	Males		Females		Persons	
	%	95% CI	%	95% CI	%	95% CI
2002	20.5	(18.4 – 22.5)	22.1	(20.2 – 24.0)	21.3	(19.9 – 22.7)
2003	21.1	(19.2 – 23.0)	22.1	(20.4 – 23.8)	21.6	(20.3 – 22.9)
2004	21.8	(18.8 – 24.9)	24.0	(21.2 – 26.7)	22.9	(20.8 – 24.9)
2005	22.9	(20.7 – 25.0)	25.9	(23.9 – 27.8)	24.3	(22.9 – 25.8)
2006	23.9	(21.5 – 26.4)	24.3	(22.4 – 26.2)	24.1	(22.6 – 25.7)
2007	27.1	(24.1 – 30.1)	25.2	(23.0 – 27.4)	26.1	(24.3 – 28.0)
2008	25.6	(23.0 – 28.3)	25.3	(23.2 – 27.3)	25.4	(23.8 – 27.1)
2009	26.9	(24.8 – 29.0)	26.5	(24.7 – 28.2)	26.7	(25.3 – 28.1)
2010	26.9	(24.5 – 29.3)	26.2	(24.3 – 28.1)	26.6	(25.0 – 28.1)
2011	26.4	(23.8 – 28.9)	25.8	(23.8 – 27.9)	26.1	(24.5 – 27.7)
2012	27.1	(24.1 – 30.2)	29.4	(26.9 – 32.0)	28.3	(26.3 – 30.2)
2013	28.2	(25.2 – 31.2)	27.5	(25.3 – 29.7)	27.9	(26.0 – 29.7)
2014	27.9	(24.9 – 30.8)	27.5	(25.2 – 29.8)	27.7	(25.8 – 29.6)
2015	27.1	(24.3 – 30.0)	26.9	(24.7 – 29.2)	27.0	(25.2 – 28.9)
2016	29.7	(25.8 – 33.6)	27.1	(24.4 – 29.9)	28.4	(26.1 – 30.8)
2017	32.2	(27.8 – 36.6)	31.9	(27.9 – 35.9)	32.1	(29.1 – 35.1)
2018	32.2	(28.0 – 36.4)	31.6	(27.9 – 35.2)	31.9	(29.1 – 34.7)
2019	31.0	(26.5 – 35.6)	31.1	(27.4 – 34.8)	31.1	(28.1 – 34.0)
2020	33.7	(28.5 – 38.8)	33.5	(29.2 – 37.8)	33.6	(30.2 – 37.0)

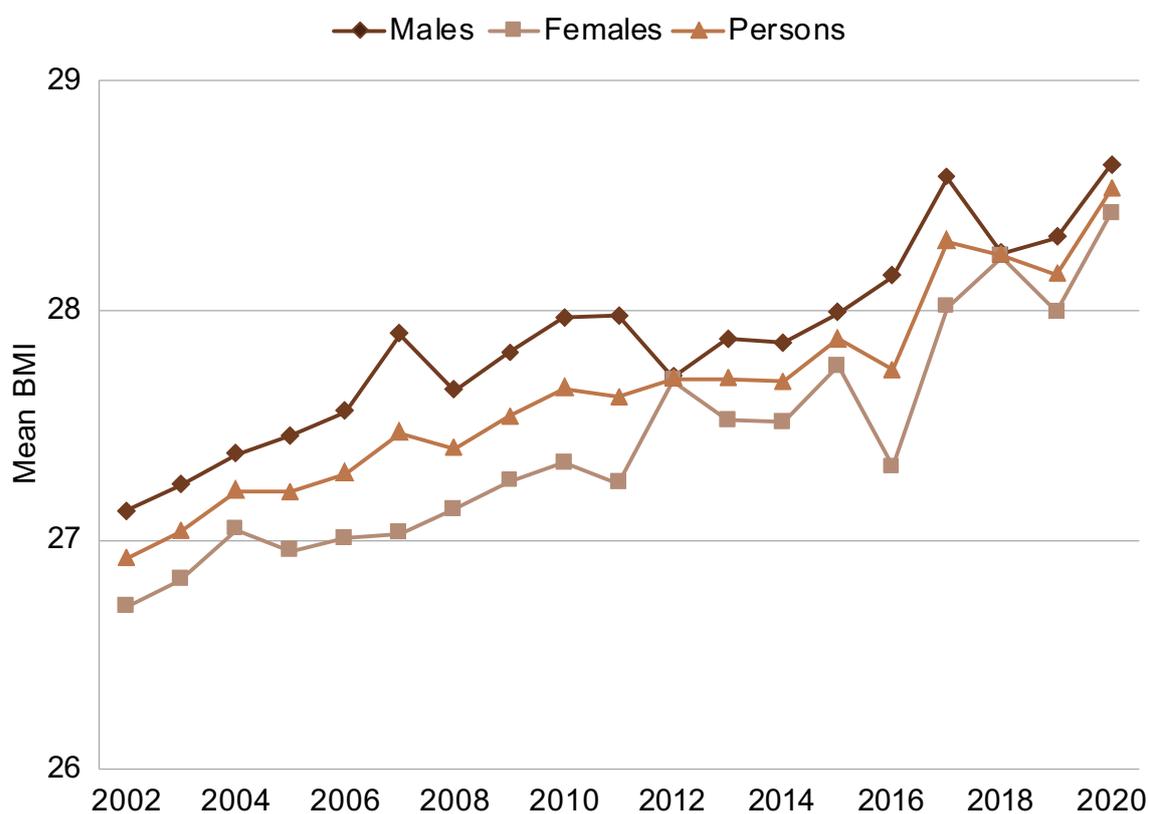
The standardised annual mean BMI estimates for adults aged 16 years and over from 2002 to 2020 are shown in **Table 79** and **Figure 13**.

- The overall trend for the standardised mean BMI has been increasing steadily over time.
- For males, the mean BMI in 2020 was significantly higher compared with that in 2002-2006.
- For females, the mean BMI in 2020 was significantly higher compared with that in 2002-2011, 2014 and 2016.
- For all persons, the mean BMI in 2020 was significantly higher compared with that in 2002-2014 and 2016.

**Table 79: Mean BMI over time, 16 years & over, HWSS 2002-2020**

	Males		Females		Persons	
	mean	95% CI	mean	95% CI	mean	95% CI
2002	27.1	(26.9 – 27.4)	26.7	(26.4 – 27.0)	26.9	(26.7 – 27.1)
2003	27.2	(27.0 – 27.5)	26.8	(26.6 – 27.1)	27.0	(26.9 – 27.2)
2004	27.4	(27.1 – 27.7)	27.0	(26.7 – 27.4)	27.2	(27.0 – 27.5)
2005	27.5	(27.2 – 27.7)	27.0	(26.7 – 27.2)	27.2	(27.0 – 27.4)
2006	27.6	(27.3 – 27.8)	27.0	(26.7 – 27.3)	27.3	(27.1 – 27.5)
2007	27.9	(27.5 – 28.3)	27.0	(26.7 – 27.3)	27.5	(27.2 – 27.7)
2008	27.7	(27.3 – 28.0)	27.1	(26.8 – 27.4)	27.4	(27.2 – 27.6)
2009	27.8	(27.6 – 28.0)	27.3	(27.0 – 27.5)	27.5	(27.4 – 27.7)
2010	28.0	(27.7 – 28.2)	27.3	(27.1 – 27.6)	27.7	(27.5 – 27.9)
2011	28.0	(27.7 – 28.3)	27.2	(27.0 – 27.5)	27.6	(27.4 – 27.8)
2012	27.7	(27.4 – 28.0)	27.7	(27.3 – 28.0)	27.7	(27.5 – 27.9)
2013	27.9	(27.5 – 28.2)	27.5	(27.2 – 27.9)	27.7	(27.5 – 27.9)
2014	27.9	(27.5 – 28.2)	27.5	(27.2 – 27.8)	27.7	(27.5 – 27.9)
2015	28.0	(27.6 – 28.3)	27.8	(27.4 – 28.1)	27.9	(27.6 – 28.1)
2016	28.2	(27.7 – 28.6)	27.3	(26.9 – 27.7)	27.7	(27.4 – 28.0)
2017	28.6	(28.1 – 29.1)	28.0	(27.4 – 28.7)	28.3	(27.9 – 28.7)
2018	28.2	(27.8 – 28.7)	28.2	(27.7 – 28.8)	28.2	(27.9 – 28.6)
2019	28.3	(27.8 – 28.9)	28.0	(27.5 – 28.4)	28.2	(27.8 – 28.5)
2020	28.6	(28.0 – 29.3)	28.4	(27.8 – 29.0)	28.5	(28.1 – 29.0)

**Figure 13: Mean BMI over time, 16 years & over, HWSS 2002-2020**



We asked respondents about their perceptions of their own weight (**Table 80**). Perceptions of weight have been reported against BMI based weight categories derived from corrected self-reported height and weight.<sup>35</sup> Of those people with a BMI that classified them as overweight, half (50.1%) perceived their weight to be normal.

- Of those people with a BMI that classified them as obese, almost three out of four (70.7%) perceived themselves to be overweight and approximately one in eight (13.6%) perceived themselves as a normal weight.

Respondents were then asked what they were trying to do about their weight (**Table 81**). Intentions to change weight have been reported against BMI calculations based on corrected self-reported height and weight.

- Almost half (42.3%) of the people with a BMI that classified them as overweight had intentions to lose weight, while this increased to around two-thirds (64.2%) among people with a BMI that classified them as obese.

**Table 80: Prevalence of self-perception of body weight, by BMI classification, 16 years & over, HWSS 2020**

Body mass index classification	Self-perception of body weight							
	Underweight		Normal weight		Overweight		Very overweight	
	%	95% CI	%	95% CI	%	95% CI	%	95% CI
Underweight	44.5*	(12.8 – 76.2)	47.0*	(16.8 – 77.2)	N/A	(N/A–N/A)	N/A	(N/A–N/A)
Normal weight	10.4	(6.4 – 14.4)	84.2	(79.4 – 89.1)	5.4*	(2.4 – 8.4)	N/A	(N/A–N/A)
Overweight	0.9	(0.4 – 1.5)	50.1	(44.1 – 56.1)	48.5	(42.6 – 54.5)	0.5	(0.0 – 0.9)
Obese	N/A	(N/A–N/A)	13.6	(9.2 – 18.0)	70.7	(65.0 – 76.3)	15.7	(11.1 – 20.3)

\* Prevalence estimate has an RSE between 25%-50% and should be used with caution.

N/A Prevalence estimate has an RSE greater than 50% and is considered too unreliable for general use.

**Table 81: Prevalence of intentions to change weight, by BMI classification, 16 years & over, HWSS 2020**

Body mass index classification	Intentions around weight							
	Lose weight		Gain weight		Stay the same weight		I am not trying to do anything about my weight	
	%	95% CI	%	95% CI	%	95% CI	%	95% CI
Underweight	N/A	(N/A–N/A)	48.8*	(17.6 – 80.1)	25.7*	(0.6 – 50.9)	13.6*	(3.0 – 24.1)
Normal weight	17.8	(11.8 – 23.9)	9.0	(5.3 – 12.7)	28.1	(22.2 – 34.0)	45.1	(37.7 – 52.4)
Overweight	42.3	(36.4 – 48.1)	3.3*	(0.2 – 6.4)	19.5	(15.6 – 23.5)	34.9	(28.8 – 41.0)
Obese	64.2	(58.3 – 70.0)	N/A	(N/A–N/A)	11.4	(6.8 – 15.9)	24.2	(19.2 – 29.2)

\* Prevalence estimate has an RSE between 25%-50% and should be used with caution.

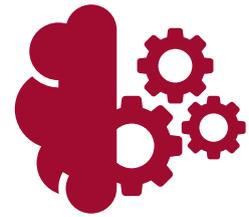
N/A Prevalence estimate has an RSE greater than 50% and is considered too unreliable for general use.

# Mental Health



# 10. Mental health

Mental health refers to the capacity to interact with people and the environment, and the ability to negotiate the social interactions and challenges of life without experiencing undue emotional or behavioural incapacity.<sup>37</sup> Mental health is also referred to as psychosocial health as it involves aspects of both social and psychological behaviour. This section will focus on the following psychosocial risk factors:



- psychological distress
- major life events
- feeling a lack of control
- suicidal ideation
- social support

## 10.1 Psychological distress

Psychological distress can be determined in ways other than having been diagnosed or treated for a mental health condition. The Kessler Psychological Distress Scale-10 (K10) is a standardised instrument consisting of 10 questions that measure psychological distress by asking about levels of anxiety and depressive symptoms experienced in the past four weeks. Each item on the K10 is scored and then summed, resulting in a range of possible scores from 10 to 50, which have then been categorised into low, moderate, high and very high levels of psychological distress<sup>38, 39</sup>.



Low psychological distress is regarded as not requiring any intervention, while moderate and high levels require self-help and very high levels require professional help<sup>39</sup>. **Table 82** shows psychological distress by age group.

One in ten (9.7%) Western Australian adults reported high or very high levels of psychological distress in 2020.

- High or very high levels of psychological distress were reported by 9.7% percent of the adults.
- Low levels of psychological distress significantly increased with age (16 to 44 years: 67.1%; 45 to 64 years: 79.1% and 65 years and over: 86.5%).

**Table 82: Psychological distress as measured by Kessler Psychological Distress Scale-10, 16 years & over, HWSS 2020**

	Low		Moderate		High		Very high	
	%	95% CI	%	95% CI	%	95% CI	%	95% CI
<b>16 to 44 yrs</b>								
Males	72.0	(63.5 – 80.5)	19.4	(11.8 – 27.0)	5.4*	(1.7 – 9.0)	3.2*	(0.2 – 6.2)
Females	62.0	(52.7 – 71.2)	18.9	(11.2 – 26.6)	13.8*	(6.6 – 21.0)	5.3*	(1.4 – 9.3)
Persons	67.1	(60.6 – 73.5)	19.2	(13.8 – 24.6)	9.5	(5.4 – 13.6)	4.2*	(1.8 – 6.7)
<b>45 to 64 yrs</b>								
Males	83.0	(79.6 – 86.4)	11.8	(9.0 – 14.6)	2.8*	(1.4 – 4.1)	2.4*	(0.7 – 4.1)
Females	75.3	(71.8 – 78.8)	16.8	(13.7 – 20.0)	6.3	(4.5 – 8.0)	1.6*	(0.8 – 2.5)
Persons	79.1	(76.7 – 81.6)	14.3	(12.2 – 16.5)	4.5	(3.4 – 5.7)	2.0	(1.1 – 3.0)
<b>65 yrs &amp; over</b>								
Males	88.3	(86.4 – 90.2)	9.0	(7.4 – 10.7)	2.1	(1.2 – 3.0)	0.6*	(0.1 – 1.1)
Females	84.8	(83.2 – 86.5)	10.6	(9.2 – 12.0)	3.7	(2.8 – 4.6)	0.8*	(0.4 – 1.2)
Persons	86.5	(85.2 – 87.7)	9.9	(8.8 – 10.9)	2.9	(2.3 – 3.6)	0.7	(0.4 – 1.0)
<b>Total</b>								
Males	78.3	(73.9 – 82.8)	15.2	(11.2 – 19.2)	4.0	(2.1 – 5.9)	2.5*	(0.9 – 4.1)
Females	70.6	(65.7 – 75.5)	16.6	(12.7 – 20.6)	9.5	(5.8 – 13.1)	3.3*	(1.3 – 5.3)
Persons	74.4	(71.1 – 77.8)	15.9	(13.1 – 18.7)	6.8	(4.6 – 8.9)	2.9	(1.6 – 4.2)

\* Prevalence estimate has an RSE between 25%-50% and should be used with caution.

N/A Prevalence estimate has an RSE greater than 50% and is considered too unreliable for general use.

The standardised annual prevalence estimates of high or very high levels of psychological distress for adults aged 16 years and over are shown in Table 83.

- The prevalence of high and very high psychological distress in 2020 is similar to estimates from 2002 to 2020 for males, females and all persons.

**Table 83: Prevalence of high and very high psychological distress as measured by the Kessler Psychological Distress Scale-10, 16 years & over, HWSS 2002-2020**

	Males		Females		Persons	
	%	95% CI	%	95% CI	%	95% CI
2002	7.5	(6.2 – 8.9)	10.2	(8.9 – 11.6)	8.9	(7.9 – 9.8)
2003	8.3	(7.0 – 9.6)	10.5	(9.3 – 11.7)	9.4	(8.5 – 10.3)
2004	8.1	(6.3 – 10.0)	10.3	(8.4 – 12.2)	9.2	(7.9 – 10.5)
2005	6.6	(5.4 – 7.8)	9.4	(8.1 – 10.6)	8.0	(7.1 – 8.9)
2006	7.4	(5.9 – 9.0)	11.5	(9.8 – 13.1)	9.5	(8.3 – 10.6)
2007	6.3	(4.5 – 8.1)	7.7	(6.4 – 8.9)	7.0	(5.9 – 8.1)
2008	6.9	(5.6 – 8.3)	11.9	(10.3 – 13.5)	9.4	(8.3 – 10.5)
2009	6.8	(5.6 – 8.0)	9.4	(8.2 – 10.5)	8.1	(7.3 – 8.9)
2010	7.6	(6.0 – 9.1)	9.8	(8.4 – 11.2)	8.7	(7.6 – 9.7)
2011	6.9	(5.3 – 8.6)	9.7	(8.1 – 11.3)	8.3	(7.2 – 9.4)
2012	5.8	(4.4 – 7.2)	9.0	(7.3 – 10.8)	7.4	(6.3 – 8.5)
2013	6.4	(4.5 – 8.2)	9.9	(8.2 – 11.7)	8.2	(6.9 – 9.4)
2014	5.8	(4.2 – 7.4)	7.8	(6.2 – 9.3)	6.8	(5.7 – 7.9)
2015	8.5	(6.1 – 10.9)	9.2	(7.3 – 11.1)	8.8	(7.3 – 10.4)
2016	7.7	(5.7 – 9.8)	12.4	(9.6 – 15.3)	10.1	(8.3 – 11.9)
2017	7.2	(5.1 – 9.3)	10.1	(6.9 – 13.4)	8.7	(6.7 – 10.6)
2018	8.4	(5.5 – 11.3)	10.5	(7.7 – 13.3)	9.4	(7.4 – 11.5)
2019	7.6	(4.5 – 10.8)	7.4	(5.1 – 9.7)	7.5	(5.6 – 9.5)
2020	6.7	(4.1 – 9.2)	12.9	(8.9 – 16.8)	9.8	(7.4 – 12.2)

## 10.2 Major life events

Major life events can have strong influences on a person’s subjective well-being.<sup>40</sup> We asked respondents whether they had been personally affected by major life events in the past 12 months, shown in **Table 84**.

- The most common major life event was the death of someone close (24.0%).
- Those aged 16 to 44 years were significantly more likely than those aged 45 to 64 years and those aged 65 years and over to have experienced a relationship breakdown (9.9% compared with 4.2% and 2.4% respectively).
- Those aged 16 to 44 years and 45 to 64 years were significantly more likely than those aged 65 years and over to have experienced financial hardship (13.4% and 10.1% compared with 3.2%).
- People aged 16 to 44 years were significantly more likely to have moved house in the past 12 months, followed by those aged 45 to 64 years, with those aged 65 years and older least likely to report moving house (15.5%, 5.6% and 2.2% respectively).



The most common major life event reported by Western Australian adults in 2020 was the death of someone close (24.0%), followed by other major events (10.9%) and financial hardship (10.5%).

**Table 84: Prevalence by major life events experienced, 16 years & over, HWSS 2020**

	Moved house		Robbed or burgled		Death of someone close		Relationship breakdown		Serious injury	
	%	95% CI	%	95% CI	%	95% CI	%	95% CI	%	95% CI
<b>16 to 44 yrs</b>										
Males	13.8*	(7.0 – 20.6)	3.6*	(0.1 – 7.2)	24.5	(15.8 – 33.1)	6.5*	(1.9 – 11.1)	6.9*	(2.4 – 11.3)
Females	17.3	(10.1 – 24.5)	4.7*	(1.5 – 7.9)	21.1	(13.8 – 28.5)	13.4*	(6.6 – 20.3)	2.1*	(0.5 – 3.6)
Persons	15.5	(10.6 – 20.5)	4.2*	(1.8 – 6.6)	22.8	(17.1 – 28.5)	9.9	(5.8 – 14.1)	4.5*	(2.1 – 6.9)
<b>45 to 64 yrs</b>										
Males	6.2	(3.5 – 8.8)	4.6	(2.7 – 6.5)	24.2	(20.4 – 28.0)	3.8	(2.0 – 5.7)	4.3	(2.7 – 5.9)
Females	5.1	(3.3 – 6.9)	3.8*	(1.8 – 5.9)	25.5	(22.1 – 29.0)	4.5	(2.8 – 6.1)	5.2	(3.5 – 6.9)
Persons	5.6	(4.0 – 7.2)	4.2*	(2.8 – 5.6)	24.9	(22.3 – 27.5)	4.2	(2.9 – 5.4)	4.7	(3.5 – 5.9)
<b>65 yrs &amp; over</b>										
Males	2.5	(1.5 – 3.5)	2.7	(1.8 – 3.6)	24.4	(21.9 – 26.9)	2.1	(1.3 – 3.0)	3.7	(2.5 – 4.9)
Females	2.0	(1.4 – 2.6)	2.6	(1.8 – 3.3)	26.8	(24.7 – 28.8)	2.5	(1.8 – 3.3)	4.8	(3.8 – 5.8)
Persons	2.2	(1.7 – 2.8)	2.6	(2.1 – 3.2)	25.7	(24.0 – 27.3)	2.4	(1.8 – 2.9)	4.3	(3.5 – 5.1)
<b>Total</b>										
Males	9.4	(5.8 – 13.0)	2.7	(1.9 – 5.7)	24.4	(19.8 – 29.0)	4.9*	(2.5 – 7.3)	5.5	(3.2 – 7.8)
Females	10.5	(6.8 – 14.2)	2.6	(2.3 – 5.7)	23.6	(19.8 – 27.4)	8.5	(5.1 – 12.0)	3.6	(2.6 – 4.5)
Persons	10.0	(7.4 – 12.5)	2.6	(2.6 – 5.2)	24.0	(21.0 – 27.0)	6.7	(4.6 – 8.9)	4.5	(3.3 – 5.8)

\* Prevalence estimate has an RSE between 25%-50% and should be used with caution.

N/A Prevalence estimate has an RSE greater than 50% and is considered too unreliable for general use

**Table 84 continued: Prevalence by major life events experienced, 16 years & over, HWSS 2020**

	Financial hardship		Loss of driver's licence		Seriously ill		Other major event	
	%	95% CI	%	95% CI	%	95% CI	%	95% CI
<b>16 to 44 yrs</b>								
Males	11.0*	(5.3 – 16.7)	N/A	(N/A–N/A)	3.5*	(0.9 – 6.1)	11.6*	(4.6 – 18.5)
Females	15.9	(9.2 – 22.6)	N/A	(N/A–N/A)	8.2*	(3.6 – 12.8)	14.0	(7.8 – 20.2)
Persons	13.4	(9.0 – 17.8)	N/A	(N/A–N/A)	5.8	(3.2 – 8.5)	12.8	(8.1 – 17.4)
<b>45 to 64 yrs</b>								
Males	9.2	(6.5 – 11.9)	N/A	(N/A–N/A)	7.2	(5.0 – 9.3)	8.9	(6.2 – 11.5)
Females	11.0	(8.3 – 13.6)	1.0*	(0.4 – 1.6)	10.5	(8.0 – 12.9)	13.2	(10.5 – 15.9)
Persons	10.1	(8.2 – 12.0)	0.7*	(0.3 – 1.0)	8.8	(7.2 – 10.5)	11.0	(9.1 – 12.9)
<b>65 yrs &amp; over</b>								
Males	3.0	(2.0 – 3.9)	0.8*	(0.3 – 1.4)	10.1	(8.4 – 11.9)	4.9	(3.6 – 6.1)
Females	3.3	(2.5 – 4.2)	1.8	(1.2 – 2.4)	9.5	(8.2 – 10.9)	6.1	(5.0 – 7.3)
Persons	3.2	(2.5 – 3.8)	1.3	(0.9 – 1.7)	9.8	(8.7 – 10.9)	5.5	(4.7 – 6.4)
<b>Total</b>								
Males	9.0	(6.0 – 12.0)	0.7*	(0.0 – 1.4)	5.8	(4.3 – 7.4)	9.5	(5.9 – 13.2)
Females	11.9	(8.5 – 15.3)	1.2*	(0.4 – 1.9)	9.2	(6.7 – 11.6)	12.2	(9.0 – 15.4)
Persons	10.5	(8.2 – 12.8)	1.0*	(0.4 – 1.5)	7.5	(6.1 – 9.0)	10.9	(8.5 – 13.3)

Prevalence estimate has an RSE between 25%-50% and should be used with caution. N/A Prevalence estimate has an RSE greater than 50% and is considered too unreliable for general use

### 10.3 Lack of control

Perceptions of control relate to an individual's belief as to whether outcomes are determined by external events outside their control or by their own actions.<sup>41</sup> Feelings of a lack of control have been found to have an adverse effect on health and to increase the risk of mortality.<sup>42</sup> It has also been revealed that higher self-control is related to better self-reported general health, higher emotional wellbeing, higher vegetable and fruit intake, lower consumption of alcohol and cigarettes, as well as a lower BMI.<sup>43</sup>



We asked respondents to rate how often during the past four weeks they felt a lack of control over their life in general, their personal life and their health. **Table 85** shows self-reported lack of control over life in general.

One in twenty (5.5%) Western Australian adults reported often or always feeling a lack of control over their life in general.

- One in twenty (5.5%) Western Australian adults reported often or always feeling a lack of control over life in general during the past four weeks.
- Adults aged 65 and over were significantly more likely to report never feeling a lack of control over life in general during the past four weeks compared to adults aged 16 to 44 years and 45 to 64 years (71.5% compared with 54.5% and 62.9%).

**Table 85: Lack of control over life in general during past four weeks, 16 years & over, HWSS 2020**

	Never		Rarely		Sometimes		Often		Always	
	%	95% CI	%	95% CI	%	95% CI	%	95% CI	%	95% CI
<b>16 to 44 yrs</b>										
Males	62.5	(52.9 – 72.1)	21.0	(12.6 – 29.4)	8.2*	(3.6 – 12.8)	5.1*	(0.5 – 9.6)	3.2*	(0.1 – 6.2)
Females	46.3	(37.3 – 55.4)	30.4	(21.4 – 39.5)	17.2	(10.0 – 24.3)	3.8*	(0.4 – 7.2)	2.3*	(0.1 – 4.5)
Persons	54.5	(47.7 – 61.3)	25.7	(19.4 – 31.9)	12.7	(8.3 – 17.0)	4.4*	(1.6 – 7.3)	2.7*	(0.8 – 4.6)
<b>45 to 64 yrs</b>										
Males	67.9	(63.7 – 72.2)	15.5	(12.4 – 18.6)	12.8	(9.7 – 16.0)	2.1*	(0.8 – 3.4)	1.7*	(0.1 – 3.2)
Females	57.9	(53.9 – 61.9)	20.8	(17.5 – 24.2)	16.5	(13.4 – 19.5)	3.3	(2.1 – 4.5)	1.5*	(0.7 – 2.3)
Persons	62.9	(59.9 – 65.8)	18.2	(15.9 – 20.5)	14.7	(12.5 – 16.9)	2.7	(1.8 – 3.6)	1.6*	(0.7 – 2.5)
<b>65 yrs &amp; over</b>										
Males	75.8	(73.3 – 78.4)	14.7	(12.6 – 16.8)	7.6	(6.1 – 9.2)	1.2*	(0.6 – 1.8)	0.6*	(0.2 – 1.1)
Females	67.7	(65.5 – 69.9)	15.9	(14.2 – 17.6)	12.8	(11.2 – 14.5)	2.8	(2.0 – 3.7)	0.7*	(0.3 – 1.1)
Persons	71.5	(69.8 – 73.2)	15.3	(14.0 – 16.7)	10.4	(9.3 – 11.5)	2.1	(1.5 – 2.6)	0.7	(0.4 – 1.0)
<b>Total</b>										
Males	66.5	(61.4 – 71.7)	18.2	(13.8 – 22.6)	9.6	(7.0 – 12.1)	3.5*	(1.1 – 5.8)	2.3*	(0.6 – 3.9)
Females	54.1	(49.3 – 58.9)	24.6	(19.9 – 29.3)	16.1	(12.4 – 19.8)	3.4*	(1.7 – 5.2)	1.7*	(0.6 – 2.9)
Persons	60.3	(56.7 – 63.9)	21.4	(18.2 – 24.7)	12.9	(10.6 – 15.1)	3.4523	(2.0 – 4.9)	2.0*	(1.0 – 3.0)

\* Prevalence estimate has an RSE between 25%-50% and should be used with caution.  
 N/A Prevalence estimate has an RSE greater than 50% and is considered too unreliable for general use.

**Table 86** shows how often people reported feeling a lack of control over their personal life in the past four weeks.

- Almost one in twenty-five (3.4%) adults reported often or always feeling a lack of control over their personal life during the past four weeks.

Adults aged 65 and over were significantly more likely to report never feeling a lack of control over their personal life during the past four weeks compared to adults aged 16 to 44 years and 45 to 64 years (78.0% compared with 58.8% and 68.5%).

**Table 86: Lack of control over personal life during past four weeks, 16 years & over, HWSS 2020**

	Never		Rarely		Sometimes		Often		Always	
	%	95% CI	%	95% CI	%	95% CI	%	95% CI	%	95% CI
<b>16 to 44 yrs</b>										
Males	68.4	(59.4 – 77.5)	20.1	(12.2 – 28.0)	6.9*	(2.2 – 11.6)	N/A	(N/A–N/A)	3.6*	(0.5 – 6.8)
Females	48.9	(39.6 – 58.1)	31.0	(22.4 – 39.6)	16.2838	(8.8 – 23.7)	N/A	(N/A–N/A)	N/A	(N/A–N/A)
Persons	58.8	(52.1 – 65.5)	25.5	(19.6 – 31.4)	11.5323	(7.1 – 16.0)	1.5*	(0.3 – 2.7)	2.7*	(0.9 – 4.5)
<b>45 to 64 yrs</b>										
Males	73.4	(69.4 – 77.4)	15.4	(12.3 – 18.6)	8.243	(5.7 – 10.8)	1.9*	(0.3 – 3.4)	1.1*	(0.3 – 2.0)
Females	63.7	(59.8 – 67.6)	18.7	(15.5 – 21.8)	13.7122	(10.7 – 16.7)	3.0	(1.8 – 4.2)	1.0*	(0.3 – 1.6)
Persons	68.5	(65.7 – 71.3)	17.0	(14.8 – 19.3)	10.9908	(9.0 – 13.0)	2.4	(1.5 – 3.4)	1.0*	(0.5 – 1.6)
<b>65 yrs &amp; over</b>										
Males	80.1	(77.7 – 82.5)	11.5	(9.6 – 13.3)	7.0685	(5.5 – 8.6)	1.0*	(0.4 – 1.5)	0.4*	(0.1 – 0.8)
Females	76.2	(74.2 – 78.2)	13.1	(11.5 – 14.7)	9.014	(7.6 – 10.4)	1.4	(0.8 – 1.9)	0.3*	(0.1 – 0.5)
Persons	78.0	(76.5 – 79.6)	12.3	(11.1 – 13.6)	8.0943	(7.1 – 9.1)	1.2	(0.8 – 1.6)	0.3*	(0.2 – 0.5)
<b>Total</b>										
Males	72.0	(67.2 – 76.8)	17.1	(12.9 – 21.3)	7.0685	(4.8 – 9.9)	1.2*	(0.4 – 2.0)	2.3*	(0.7 – 3.9)
Females	58.8	(54.0 – 63.7)	23.7	(19.2 – 28.1)	9.014	(10.2 – 17.9)	2.3*	(1.1 – 3.4)	1.2*	(0.3 – 2.1)
Persons	65.4	(61.9 – 68.9)	20.4	(17.3 – 23.5)	8.0943	(8.4 – 13.1)	1.7	(1.0 – 2.4)	1.7*	(0.8 – 2.7)

\* Prevalence estimate has an RSE between 25%-50% and should be used with caution.  
 N/A Prevalence estimate has an RSE greater than 50% and is considered too unreliable for general use.

**Table 87** shows how often people reported feeling a lack of control over their health in the past four weeks.

- Almost one in fifteen (6.3%) adults reported often or always feeling a lack of control over their health during the past four weeks.
- Adults aged 65 and over were significantly more likely to report never feeling a lack of control over their health during the past four weeks compared to adults aged 16 to 44 years and 45 to 64 years (70.9% compared with 60.0% and 64.0%).

**Table 87: Lack of control over health during past four weeks, 16 years & over, HWSS 2020**

	Never		Rarely		Sometimes		Often		Always	
	%	95% CI	%	95% CI	%	95% CI	%	95% CI	%	95% CI
<b>16 to 44 yrs</b>										
Males	66.3	(56.8 – 75.8)	13.2	(6.8 – 19.7)	13.4*	(6.2 – 20.6)	4.6*	(0.5 – 8.8)	N/A	(N/A–N/A)
Females	53.7	(44.4 – 62.9)	16.9*	(8.5 – 25.2)	20.8	(13.6 – 28.0)	3.8*	(0.7 – 6.8)	4.9*	(0.3 – 9.6)
Persons	60.0	(53.3 – 66.8)	15.0	(9.7 – 20.3)	17.1	(12.0 – 22.1)	4.2*	(1.6 – 6.8)	3.7*	(0.9 – 6.4)
<b>45 to 64 yrs</b>										
Males	69.4	(65.3 – 73.5)	14.4	(11.3 – 17.6)	12.0	(9.1 – 14.9)	2.8	(1.6 – 4.0)	1.4*	(0.5 – 2.3)
Females	58.7	(54.7 – 62.7)	16.0	(13.1 – 18.9)	19.5	(16.1 – 22.9)	3.8	(2.3 – 5.2)	2.0*	(0.9 – 3.2)
Persons	64.0	(61.1 – 66.9)	15.2	(13.1 – 17.3)	15.8	(13.5 – 18.0)	3.3	(2.3 – 4.2)	1.7	(1.0 – 2.5)
<b>65 yrs &amp; over</b>										
Males	72.0	(69.3 – 74.6)	14.7	(12.6 – 16.8)	9.6	(7.9 – 11.3)	1.8	(1.0 – 2.6)	2.0	(1.1 – 2.8)
Females	70.0	(67.8 – 72.1)	12.7	(11.2 – 14.3)	13.1	(11.5 – 14.7)	2.9	(2.1 – 3.7)	1.3	(0.8 – 1.8)
Persons	70.9	(69.2 – 72.6)	13.7	(12.4 – 15.0)	11.4	(10.2 – 12.6)	2.4	(1.8 – 2.9)	1.6	(1.1 – 2.1)
<b>Total</b>										
Males	68.3	(63.2 – 73.3)	13.9	(10.4 – 17.3)	12.3	(8.5 – 16.1)	3.5*	(1.4 – 5.7)	2.0*	(0.6 – 3.5)
Females	58.4	(53.5 – 63.3)	15.8	(11.6 – 20.0)	18.9	(15.2 – 22.6)	3.6	(2.0 – 5.2)	3.3*	(1.0 – 5.7)
Persons	63.3	(59.7 – 66.9)	14.8	(12.1 – 17.6)	15.6	(13.0 – 18.3)	3.6	(2.2 – 4.9)	2.7	(1.3 – 4.1)

\* Prevalence estimate has an RSE between 25%-50% and should be used with caution. N/A Prevalence estimate has an RSE greater than 50% and is considered too unreliable for general use.

**Table 88** shows the prevalence of adults who reported often or always feeling a lack of control.

- Adults aged 65 years and over were significantly less likely than those aged 16 to 44 years to report often or always feeling a lack of control over life in general (2.7% compared with 7.2%).
- Adults aged 65 years and over were also significantly less likely than those aged 16 to 44 years and 45 to 64 years to report often or always feeling a lack of control over their personal life (1.5% compared with 4.2% and 3.5%).

**Table 88: Often or always perceive a lack of control, 16 years & over, HWSS 2020**

	General		Personal		Health	
	%	95% CI	%	95% CI	%	95% CI
<b>16 to 44 yrs</b>						
Males	8.2*	(2.9 – 13.6)	4.5*	(1.1 – 7.9)	7.1*	(2.1 – 12.0)
Females	6.1*	(2.0 – 10.1)	3.9*	(1.1 – 6.6)	8.7*	(3.2 – 14.1)
Persons	7.2	(3.8 – 10.5)	4.2*	(2.0 – 6.4)	7.9	(4.2 – 11.5)
<b>45 to 64 yrs</b>						
Males	3.8*	(1.8 – 5.8)	3.0*	(1.3 – 4.7)	4.2	(2.7 – 5.7)
Females	4.8	(3.3 – 6.3)	3.9	(2.6 – 5.3)	5.8	(4.0 – 7.6)
Persons	4.3	(3.1 – 5.5)	3.5	(2.4 – 4.6)	5.0	(3.8 – 6.2)
<b>65 yrs &amp; over</b>						
Males	1.8	(1.1 – 2.6)	1.4	(0.7 – 2.0)	3.7	(2.6 – 4.9)
Females	3.6	(2.7 – 4.5)	1.7	(1.0 – 2.3)	4.2	(3.3 – 5.2)
Persons	2.7	(2.1 – 3.3)	1.5	(1.1 – 2.0)	4.0	(3.2 – 4.7)
<b>Total</b>						
Males	5.7*	(2.9 – 8.5)	3.5*	(1.7 – 5.3)	5.6	(3.0 – 8.2)
Females	5.2	(3.1 – 7.2)	3.5	(2.0 – 4.9)	6.9	(4.1 – 9.7)
Persons	5.4	(3.7 – 7.2)	3.5	(2.3 – 4.6)	6.2	(4.3 – 8.1)

\* Prevalence estimate has an RSE between 25%-50% and should be used with caution.

## 10.4 Suicidal ideation

Mental health issues are associated with higher rates of death from many causes, including suicide.<sup>44</sup> We asked respondents whether or not they had suicidal thoughts in the past 12 months and if friends or family had attempted suicide in the past 12 months.



**Table 89** shows the prevalence of adults who had suicidal thoughts over the past 12 months and **Table 90** shows the prevalence of adults who had a friend or family member attempt suicide over the past 12 months.

- Adults aged 16 to 44 years were significantly more likely to report having thought about ending their own life in the past 12 months compared with those aged 65 years and over (7.9% compared with 2.2%).
- The proportion of adults who reported that friend(s) had tried to end their own life in the past 12 months was significantly higher for adults aged 16 to 44 years and 45 to 64 years compared with adults aged 65 years and over (10.4% and 5.2% compared with 2.3%).
- The proportion of adults who reported that family had tried to end their own life in the past 12 months was also significantly higher for adults aged 16 to 44 years and 45 to 64 years compared with adults aged 65 years and over (5.7% and 4.4% compared with 1.8%).

One in twenty (5.6%) Western Australian adults reported having seriously thought about ending their own life over the past 12 months.

**Table 89: Suicide thoughts over past 12 months, 16 years & over, HWSS 2020**

	Seriously thought about ending own life	
	%	95% CI
<b>16 to 44 yrs</b>		
Males	9.2*	(3.6 – 14.7)
Females	6.6*	(2.2 – 11.0)
Persons	7.9	(4.3 – 11.4)
<b>45 to 64 yrs</b>		
Males	4.1*	(2.0 – 6.2)
Females	3.6	(2.3 – 4.9)
Persons	3.8	(2.6 – 5.1)
<b>65 yrs &amp; over</b>		
Males	2.8	(1.8 – 3.7)
Females	1.7	(1.1 – 2.3)
Persons	2.2	(1.6 – 2.7)
<b>Total</b>		
Males	6.5	(3.5 – 9.4)
Females	4.7	(2.5 – 6.9)
Persons	5.6	(3.7 – 7.4)

\* Prevalence estimate has an RSE between 25%-50% and should be used with caution.

**Table 90: Friends/family suicide attempts over past 12 months, 16 years & over, HWSS 2020**

	Friend(s) attempted		Family attempted	
	%	95% CI	%	95% CI
<b>16 to 44 yrs</b>				
Males	7.9	(3.5 – 12.4)	5.2*	(1.2 – 9.2)
Females	13.0	(6.9 – 19.1)	6.3*	(2.1 – 10.6)
Persons	10.4	(6.6 – 14.3)	5.7*	(2.8 – 8.6)
<b>45 to 64 yrs</b>				
Males	4.1	(2.6 – 5.6)	2.6*	(1.5 – 3.8)
Females	6.1	(4.0 – 8.2)	6.2	(4.3 – 8.0)
Persons	5.2	(3.9 – 6.5)	4.4	(3.3 – 5.5)
<b>65 yrs &amp; over</b>				
Males	2.3	(1.4 – 3.1)	1.5	(0.8 – 2.2)
Females	2.3	(1.6 – 3.0)	2.1	(1.4 – 2.7)
Persons	2.3	(1.7 – 2.8)	1.8	(1.3 – 2.3)
<b>Total</b>				
Males	5.7	(3.4 – 8.1)	3.7*	(1.7 – 5.8)
Females	8.8	(5.7 – 11.9)	5.4	(3.3 – 7.6)
Persons	7.3	(5.3 – 9.2)	4.6	(3.1 – 6.1)

\* Prevalence estimate has an RSE between 25%-50% and should be used with caution.

## 10.5 Social support

Social support relates to the resources available within communities and is believed to have a positive influence on health status.<sup>45,46</sup> As a surrogate measure of social support, we asked respondents how many groups/associations they belong to, including church, social groups, political and professional groups, shown in **Table 91**.



- Almost half (45.4%) of adults reported belonging to no groups or associations of any kind.
- Adults aged 16 to 44 years and 45 to 64 years were significantly more likely to report belonging to no groups or associations of any kind, compared with adults aged 65 years and over (47.6% and 46.5% compared with 37.7%).

Approximately one in four Western Australian adults reported belonging to at least one group or association (church, social groups, political and/or professional in 2020).

**Table 91: Number of groups/associations belonging to, 16 years & over, HWSS 2020**

	None		One		Two		Three		Four or more	
	%	95% CI	%	95% CI	%	95% CI	%	95% CI	%	95% CI
<b>16 to 44 yrs</b>										
Males	42.8	(32.9 – 52.7)	22.4	(13.7 – 31.0)	23.5	(14.2 – 32.8)	5.6*	(1.4 – 9.8)	5.7*	(2.2 – 9.2)
Females	52.4	(43.3 – 61.6)	22.5	(15.4 – 29.7)	8.8*	(4.2 – 13.4)	12.0	(6.4 – 17.6)	4.2*	(1.0 – 7.3)
Persons	47.6	(40.7 – 54.4)	22.4	(16.8 – 28.1)	16.2	(10.8 – 21.7)	8.8	(5.3 – 12.3)	5.0	(2.6 – 7.3)
<b>45 to 64 yrs</b>										
Males	47.5	(42.9 – 52.1)	25.5	(21.6 – 29.4)	13.1	(10.1 – 16.1)	8.0	(5.5 – 10.4)	5.9	(4.0 – 7.9)
Females	45.4	(41.4 – 49.5)	23.1	(19.8 – 26.4)	16.8	(13.8 – 19.8)	9.3	(6.9 – 11.8)	5.4	(3.7 – 7.0)
Persons	46.5	(43.4 – 49.5)	24.3	(21.7 – 26.9)	15.0	(12.8 – 17.1)	8.6	(6.9 – 10.4)	5.6	(4.4 – 6.9)
<b>65 yrs &amp; over</b>										
Males	40.1	(37.2 – 43.0)	27.6	(24.9 – 30.2)	16.8	(14.5 – 19.0)	8.8	(7.1 – 10.4)	6.8	(5.3 – 8.2)
Females	35.5	(33.3 – 37.7)	28.5	(26.4 – 30.7)	17.0	(15.2 – 18.8)	9.1	(7.8 – 10.4)	9.9	(8.4 – 11.3)
Persons	37.7	(35.9 – 39.5)	28.1	(26.4 – 29.8)	16.9	(15.5 – 18.3)	8.9	(7.9 – 10.0)	8.4	(7.4 – 9.4)
<b>Total</b>										
Males	43.8	(38.5 – 49.1)	24.3	(19.7 – 28.9)	19.1	(14.1 – 24.0)	6.9	(4.6 – 9.2)	6.0	(4.0 – 7.9)
Females	46.9	(42.1 – 51.7)	23.9	(20.2 – 27.6)	12.9	(10.4 – 15.4)	10.6	(7.7 – 13.5)	5.7	(4.0 – 7.3)
Persons	45.4	(41.8 – 49.0)	24.1	(21.1 – 27.0)	16.0	(13.1 – 18.8)	8.8	(6.9 – 10.6)	5.8	(4.5 – 7.1)

Prevalence estimate has an RSE between 25%-50% and should be used with caution

# Health service utilisation



# 11. Health service utilisation

## 11.1 Health services

Health services are the way in which health care is provided to patients and the general population and consist of many different forms, including GP, hospital, dental, mental and alternative health services. We asked respondents whether they had used a number of common health services within the past 12 months, shown in **Table 92**.

- While approximately nine out of ten (92.9%) adults used primary health services (e.g. visited a GP) within the past 12 months, about one out of eight (13.4%) reported having used mental health services during this period.
- Persons aged 65 years and over were significantly more likely than those aged 16 to 44 years and 45 to 64 years to use primary and allied services but significantly less likely than these younger age groups to use mental health or alternative health services.
- Western Australian adults were significantly more likely to use allied health services with increasing age group (16 to 44 years: 44.8%, 45 to 64 years: 62.6%, 65 years and over: 71.5%).
- Western Australian adults were significantly less likely to use mental services with increasing age group (16 to 44 years: 21.5%, 45 to 64 years: 6.5%, 65 years and over: 2.9%).

Approximately nine out of ten (92.9%) Western Australian adults used primary health services within the past 12 months, but only one out of eight (13.4%) reported having used mental health services

**Table 93** presents the mean number of visits to health services in the past 12 months.

- The most commonly used health service at a population level was primary health care services, with a mean of 4.8 visits in the past 12 months, followed by allied health services with 3.3 visits.
- Persons aged 65 years and over had a significantly higher mean number of visits for primary health services compared to adults aged 45 to 64 years (5.7 visits compared to 4.2 visits).

**Table 94** presents the mean number of visits to health services amongst those who used the type of service at least once in the past 12 months.

- The most commonly used health service at a population level among adults who used the type of service at least once in the past 12 months was mental health services (7.9 visits) followed by allied health care services (5.9 visits).

**Table 92: Health service utilisation in the past 12 months, 16 years & over, HWSS 2020**

	Primary (a)		Hospital based (b)		Allied (c)		Dental		Mental (d)		Alternative (e)	
	%	95% CI	%	95% CI	%	95% CI	%	95% CI	%	95% CI	%	95% CI
<b>16 to 44 yrs</b>												
Males	90.4	(85.4–95.4)	24.6	(16.5–32.8)	41.5	(31.9–51.1)	46.1	(36.2–56.0)	17.6	(9.5–25.6)	8.0*	(2.7–13.3)
Females	93.4	(89.4–97.4)	30.2	(21.5–38.9)	48.1	(39.0–57.2)	59.3	(50.0–68.6)	25.6	(17.0–34.1)	10.0*	(4.9–15.2)
Persons	91.9	(88.7–95.1)	27.4	(21.4–33.4)	44.8	(38.1–51.5)	52.7	(45.8–59.5)	21.5	(15.6–27.4)	9.0	(5.3–12.7)
<b>45 to 64 yrs</b>												
Males	89.8	(87.1–92.5)	29.6	(25.5–33.8)	55.1	(50.6–59.7)	57.3	(52.9–61.8)	4.2	(2.6–5.8)	4.3	(2.5–6.0)
Females	94.8	(93.1–96.5)	29.4	(25.6–33.1)	70.0	(66.3–73.6)	65.6	(61.7–69.5)	8.8	(6.5–11.1)	12.7	(10.0–15.4)
Persons	92.3	(90.7–93.9)	29.5	(26.7–32.3)	62.6	(59.6–65.6)	61.5	(58.5–64.4)	6.5	(5.1–7.9)	8.5	(6.9–10.2)
<b>65 yrs &amp; over</b>												
Males	97.6	(96.7–98.4)	33.1	(30.3–36.0)	66.8	(64.0–69.6)	59.7	(56.8–62.6)	3.2	(2.1–4.3)	2.9	(2.0–3.9)
Females	96.3	(95.4–97.2)	34.2	(32.0–36.4)	75.8	(73.8–77.8)	61.6	(59.3–63.8)	2.7	(2.0–3.4)	5.7	(4.6–6.8)
Persons	96.9	(96.3–97.5)	33.7	(31.9–35.5)	71.5	(69.8–73.2)	60.7	(58.9–62.5)	2.9	(2.3–3.5)	4.4	(3.7–5.1)
<b>Total</b>												
Males	91.5	(88.8–94.2)	27.7	(23.3–32.1)	50.2	(44.8–55.6)	52.0	(46.6–57.4)	10.8	(6.6–15.1)	5.9	(3.2–8.7)
Females	94.4	(92.3–96.5)	30.7	(26.3–35.2)	60.3	(55.4–65.2)	61.7	(56.9–66.5)	15.9	(11.4–20.3)	10.0	(7.3–12.7)
Persons	92.9	(91.3–94.6)	29.2	(26.1–32.4)	55.3	(51.6–59.0)	56.9	(53.3–60.5)	13.4	(10.3–16.5)	8.0	(6.1–9.9)

(a) e.g. medical specialist, general practitioner, community health centre, community or district nurses. (b) e.g. overnight stay, accident and emergency department or outpatients  
(c) e.g. optician, physiotherapist, chiropractor, podiatrist, dietician, nutritionist, occupational therapist, diabetes/other health educator.  
(d) e.g. psychiatrist, psychologist or counsellor. (e) e.g. acupuncturist, naturopath, homeopath or any other alternative health service.  
\* Mean estimate has an RSE between 25%–50% and should be used with caution.

**Table 93: Mean visits to health services in the past 12 months, 16 years & over, HWSS 2020**

	Primary (a)		Hospital based (b)		Allied (c)		Dental		Mental (d)		Alternative (e)	
	mean	95% CI	mean	95% CI	mean	95% CI	mean	95% CI	mean	95% CI	mean	95% CI
<b>16 to 44 yrs</b>												
Males	3.9	(3.2 – 4.5)	0.6	(0.3 – 0.8)	3.2	(1.7 – 4.8)	0.8	(0.6 – 1.0)	1.4*	(0.5 – 2.2)	0.2*	(0.1 – 0.4)
Females	5.8	(4.0 – 7.7)	0.5	(0.3 – 0.7)	2.9	(2.1 – 3.8)	1.0	(0.8 – 1.2)	2.2*	(1.0 – 3.5)	0.3*	(0.1 – 0.5)
Persons	4.8	(3.9 – 5.8)	0.5	(0.4 – 0.7)	3.1	(2.2 – 4.0)	0.9	(0.7 – 1.0)	1.8*	(1.1 – 2.5)	0.3	(0.2 – 0.4)
<b>45 to 64 yrs</b>												
Males	3.9	(3.5 – 4.3)	0.5	(0.4 – 0.6)	2.5	(2.0 – 2.9)	1.0	(0.9 – 1.1)	0.2*	(0.1 – 0.3)	0.1	(0.1 – 0.2)
Females	4.6	(4.2 – 4.9)	0.6	(0.5 – 0.8)	4.4	(3.7 – 5.1)	1.2	(1.1 – 1.3)	0.6*	(0.3 – 1.0)	0.7	(0.5 – 1.0)
Persons	4.2	(4.0 – 4.5)	0.6	(0.5 – 0.7)	3.4	(3.0 – 3.8)	1.1	(1.0 – 1.2)	0.4	(0.2 – 0.6)	0.4	(0.3 – 0.6)
<b>65 yrs &amp; over</b>												
Males	5.9	(5.5 – 6.2)	0.8	(0.5 – 1.1)	3.1	(2.7 – 3.4)	1.1	(1.0 – 1.2)	0.1	(0.1 – 0.2)	0.1*	(0.1 – 0.2)
Females	5.5	(5.2 – 5.8)	0.6	(0.5 – 0.6)	3.9	(3.6 – 4.1)	1.1	(1.1 – 1.2)	0.2	(0.1 – 0.2)	0.3	(0.2 – 0.4)
Persons	5.7	(5.5 – 5.9)	0.7	(0.6 – 0.8)	3.5	(3.3 – 3.7)	1.1	(1.1 – 1.2)	0.2	(0.1 – 0.2)	0.2	(0.2 – 0.3)
<b>Total</b>												
Males	4.2	(3.9 – 4.6)	0.6	(0.4 – 0.7)	3.0	(2.1 – 3.8)	0.9	(0.8 – 1.0)	0.8*	(0.3 – 1.2)	0.2	(0.1 – 0.3)
Females	5.4*	(4.5 – 6.3)	0.6	(0.5 – 0.7)	3.6	(3.1 – 4.0)	1.1	(1.0 – 1.2)	1.3	(0.7 – 2.0)	0.4*	(0.3 – 0.6)
Persons	4.8*	(4.3 – 5.3)	0.6	(0.5 – 0.7)	3.3	(2.8 – 3.7)	1.0	(0.9 – 1.1)	1.1	(0.7 – 1.4)	0.3	(0.2 – 0.4)

(a) e.g. medical specialist, general practitioner, community health centre, community or district nurses. (b) e.g. overnight stay, emergency department or outpatients.  
(c) e.g. optician, physiotherapist, chiropractor, podiatrist, dietitian, nutritionist, occupational therapist, diabetes/other health educator. (d) e.g. psychiatrist, psychologist or counsellor.  
(e) e.g. acupuncturist, naturopath, homeopath or any other alternative health service. \* Mean estimate has an RSE between 25%-50% and should be used with caution.

**Table 94: Mean visits to health services in the past 12 months of those who attended the service, 16 years & over, HWSS 2020**

	Primary (a)		Hospital based (b)		Allied (c)		Dental		Mental (d)		Alternative (e)	
	mean	95% CI	mean	95% CI	mean	95% CI	mean	95% CI	mean	95% CI	mean	95% CI
<b>16 to 44 yrs</b>												
Males	4.3	(3.6 – 5.0)	2.3	(1.5 – 3.1)	7.8	(4.4 – 11.3)	1.7	(1.5 – 2.0)	7.7*	(3.4 – 12.1)	2.8*	(1.3 – 4.3)
Females	6.3	(4.3 – 8.2)	1.8	(1.3 – 2.3)	6.1	(4.7 – 7.5)	1.6	(1.4 – 1.8)	8.8	(5.5 – 12.1)	3.3	(2.4 – 4.3)
Persons	5.3	(4.2 – 6.3)	2.0	(1.5 – 2.5)	6.9	(5.1 – 8.7)	1.7	(1.5 – 1.9)	8.4	(5.7 – 11.0)	3.1	(2.3 – 3.9)
<b>45 to 64 yrs</b>												
Males	4.4	(3.9 – 4.8)	1.7	(1.4 – 1.9)	4.4	(3.7 – 5.2)	1.7	(1.5 – 1.8)	4.5	(3.3 – 5.7)	3.1	(2.1 – 4.1)
Females	4.8	(4.4 – 5.2)	2.2	(1.7 – 2.6)	6.3	(5.4 – 7.2)	1.9	(1.7 – 2.0)	7.1	(4.2 – 10.0)	5.6	(4.0 – 7.1)
Persons	4.6	(4.3 – 4.9)	1.9	(1.7 – 2.2)	5.5	(4.9 – 6.1)	1.8	(1.7 – 1.9)	6.3	(4.2 – 8.4)	4.9	(3.7 – 6.2)
<b>65 yrs &amp; over</b>												
Males	6.0	(5.6 – 6.4)	2.4*	(1.7 – 3.1)	4.6	(4.1 – 5.0)	1.8	(1.7 – 1.9)	4.3	(3.0 – 5.6)	5.1	(2.8 – 7.4)
Females	5.8	(5.4 – 6.1)	1.7	(1.6 – 1.9)	5.1	(4.8 – 5.4)	1.8	(1.7 – 1.9)	6.2	(4.0 – 8.4)	5.5	(4.4 – 6.6)
Persons	5.9	(5.6 – 6.1)	2.0	(1.7 – 2.4)	4.9	(4.6 – 5.1)	1.8	(1.8 – 1.9)	5.2	(3.9 – 6.5)	5.4	(4.3 – 6.4)
<b>Total</b>												
Males	4.6	(4.2 – 5.0)	2.1	(1.7 – 2.5)	5.9	(4.4 – 7.4)	1.7	(1.6 – 1.9)	7.2	(3.7 – 10.7)	3.1	(2.0 – 4.2)
Females	5.7	(4.7 – 6.7)	1.9	(1.6 – 2.2)	5.9	(5.3 – 6.6)	1.7	(1.6 – 1.9)	8.4	(5.7 – 11.1)	4.4	(3.6 – 5.3)
Persons	5.2	(4.6 – 5.7)	2.0	(1.7 – 2.2)	5.9	(5.2 – 6.7)	1.7	(1.7 – 1.8)	7.9	(5.7 – 10.1)	3.9	(3.2 – 4.6)

(a) e.g. medical specialist, general practitioner, community health centre, community or district nurses. (b) e.g. overnight stay, emergency department or outpatients.

(c) e.g. optician, physiotherapist, chiropractor, podiatrist, dietician, nutritionist, occupational therapist, diabetes/other health educator.

(d) e.g. psychiatrist, psychologist or counsellor. (e) e.g. acupuncturist, naturopath, homeopath or any other alternative health service.

\* Mean estimate has an RSE between 25%-50% and should be used with caution.

## 11.2 Flu vaccinations

Annual flu vaccinations are recommended for adults aged 65 years and over and are available free of charge.<sup>47</sup> Respondents aged 65 years and over were asked if they had received the flu vaccination since the first of March 2020 (**Table 95**).



- Since March 2020, it is estimated that 48.9% of adults in WA had received a flu vaccination.
- The prevalence of being vaccinated increased significantly with age (16 to 44 years: 36.6%, 45 to 64 years: 50.0%, and 65 years and over: 78.8%).
- Females were significantly more likely to have received a flu vaccination compared to males (55.1% vs. 41.8%).

Approximately half (48.9%) of Western Australian adults had received a flu vaccination in 2020.

**Table 95: Prevalence of flu vaccinations received, 16 years & over, HWSS 2020**

	%	Vaccination received 95% CI
<b>16 to 44 yrs</b>		
Males	23.1	(12.5 – 33.8)
Females	47.2	(35.1 – 59.3)
Persons	36.6	(27.9 – 45.4)
<b>45 to 64 yrs</b>		
Males	46.7	(40.9 – 52.6)
Females	53.3	(48.0 – 58.5)
Persons	50.0	(46.1 – 53.9)
<b>65 yrs &amp; over</b>		
Males	78.1	(75.0 – 81.2)
Females	79.5	(77.0 – 81.9)
Persons	78.8	(76.9 – 80.8)
<b>Total</b>		
Males	41.8	(35.0 – 48.6)
Females	55.1	(50.0 – 60.2)
Persons	48.9	(46.9 – 50.8)

**Table 96** shows the prevalence of flu vaccination received for adults aged 16 years and older from the years 2011 to 2020.

The prevalence of flu vaccinations received by adults was significantly higher in 2020 compared to previous years.

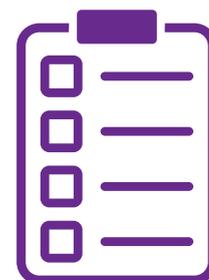
**Table 96: Prevalence of flu vaccinations received over time, 16 years & over, HWSS 2011-2020**

	Males		Females		Persons	
	%	95% CI	%	95% CI	%	95% CI
<b>2011</b>	18.8	(15.7 – 21.8)	24.8	(22.0 – 27.7)	21.8	(19.8 – 23.9)
<b>2012</b>	21.5	(18.1 – 24.9)	23.0	(20.0 – 26.0)	22.3	(20.0 – 24.5)
<b>2013</b>	25.5	(21.2 – 29.8)	26.8	(23.7 – 30.0)	26.2	(23.5 – 28.8)
<b>2014</b>	24.9	(21.2 – 28.5)	26.6	(23.7 – 29.6)	25.7	(23.4 – 28.1)
<b>2015</b>	21.9	(18.4 – 25.5)	25.9	(22.7 – 29.0)	23.9	(21.5 – 26.2)
<b>2016</b>	18.5	(14.8 – 22.3)	25.5	(21.9 – 33.8)	22.0	(19.4 – 24.6)
<b>2017</b>	27.8	(22.8 – 32.9)	29.5	(25.3 – 33.8)	28.7	(25.4 – 32.0)
<b>2018</b>	22.7	(18.1 – 27.4)	29.4	(24.8 – 34.1)	26.1	(22.8 – 29.4)
<b>2019</b>	25.0	(19.9 – 30.0)	31.0	(26.1 – 36.0)	28.1	(24.6 – 31.7)
<b>2020</b>	39.6	(33.5 – 45.7)	53.7	(47.3 – 60.2)	47.1	(42.5 – 51.7)

# Social characteristics



## 12. Social characteristics



In Australia, private health insurance operates in conjunction with the publicly-funded universal healthcare cover, Medicare. Private health insurance can be purchased by individuals to contribute to the cost of private patient hospital care as well as ancillary medical services such as dental care, optical, chiropractic and physiotherapy treatments. We asked respondents about their health insurance status. Population estimates for 2020 are shown in **Table 97** and the standardised annual prevalence estimates over time are shown in **Table 98**.

Almost one out of four adults in 2020 (26.2%) reported not having any kind of private health insurance.

- Approximately, three out of five adults (62.1%) reported having both hospital and ancillary private health insurance.
- The prevalence of adults aged 16 years and over without any form of private health insurance was significantly lower in 2020 (26.4%) compared to that in 2008 (34.9%) and 2009 (33.2%).
- The prevalence of adults with ancillary private health insurance only was significantly higher in 2020 when compared to 2008-2010.
- The prevalence of adults with both hospital and ancillary private health insurance in 2020 did not differ significantly from the prevalence in 2008.

**Table 97: Private health insurance status, 16 years & over, HWSS 2020**

	None		Hospital only		Ancillary only		Hospital and ancillary	
	%	95% CI	%	95% CI	%	95% CI	%	95% CI
<b>16 to 44 yrs</b>								
Males	32.3	( 22.5 - 42.1 )	7.7*	( 1.1 - 14.4 )	4.4*	( 0.4 - 8.5 )	55.5	( 45.1 - 65.9 )
Females	25.8	( 17.4 - 34.3 )	4.4*	( 0.8 - 8.1 )	11.9*	( 4.2 - 19.6 )	57.8	( 48.1 - 67.5 )
Persons	29.1	( 22.6 - 35.6 )	6.1*	( 2.3 - 9.9 )	8.2*	( 3.7 - 12.6 )	56.6	( 49.5 - 63.8 )
<b>45 to 64 yrs</b>								
Males	25.0	( 21.0 - 29.1 )	2.0*	( 0.8 - 3.2 )	7.4	( 4.7 - 10.2 )	65.5	( 61.1 - 70.0 )
Females	19.7	( 16.4 - 22.9 )	1.3*	( 0.6 - 1.9 )	8.5	( 6.1 - 10.9 )	70.5	( 66.8 - 74.3 )
Persons	22.3	( 19.7 - 24.9 )	1.6	( 1.0 - 2.3 )	8.0	( 6.2 - 9.8 )	68.1	( 65.1 - 71.0 )
<b>65 yrs &amp; over</b>								
Males	24.3	( 21.8 - 26.9 )	2.5	( 1.6 - 3.5 )	4.5	( 3.2 - 5.8 )	68.6	( 65.8 - 71.3 )
Females	26.4	( 24.4 - 28.4 )	3.0	( 2.2 - 3.8 )	6.7	( 5.5 - 7.9 )	63.9	( 61.6 - 66.1 )
Persons	25.4	( 23.8 - 27.0 )	2.8	( 2.2 - 3.4 )	5.7	( 4.8 - 6.6 )	66.1	( 64.3 - 67.8 )
<b>Total</b>								
Males	28.5	( 23.5 - 33.5 )	4.9*	( 1.6 - 8.3 )	5.4	( 3.2 - 7.6 )	61.2	( 55.7 - 66.6 )
Females	24.0	( 19.8 - 28.2 )	3.1*	( 1.4 - 4.9 )	9.8	( 6.0 - 13.6 )	63.1	( 58.2 - 68.0 )
Persons	26.2	( 22.9 - 29.5 )	4.0	( 2.1 - 5.9 )	7.6	( 5.4 - 9.8 )	62.1	( 58.5 - 65.8 )

\* Prevalence estimate has an RSE between 25%-50% and should be used with caution.

N/A Prevalence estimate has an RSE greater than 50% and is considered too unreliable for general use.

**Table 98: Private health insurance status over time, 16 years & over, HWSS 2008-2020**

	None		Hospital only		Ancillary only		Both hospital and ancillary	
	%	95% CI	%	95% CI	%	95% CI	%	95% CI
<b>2008</b>	34.9	(33.0 – 36.8)	3.0	(2.4 – 3.6)	4.4	(3.6 – 5.1)	57.8	(55.8 – 59.7)
<b>2009</b>	33.2	(31.7 – 34.7)	2.7	(2.1 – 3.2)	4.1	(3.4 – 4.7)	60.1	(58.6 – 61.7)
<b>2010</b>	30.9	(29.2 – 32.5)	2.7	(2.1 – 3.3)	4.3	(3.6 – 4.9)	62.1	(60.4 – 63.9)
<b>2011</b>	28.1	(26.4 – 29.9)	2.9	(2.3 – 3.6)	5.5	(4.6 – 6.4)	63.4	(61.5 – 65.4)
<b>2012</b>	29.1	(27.0 – 31.1)	3.1	(2.1 – 4.1)	5.0	(4.2 – 5.9)	62.8	(60.6 – 65.0)
<b>2013</b>	26.7	(24.7 – 28.7)	2.9	(2.1 – 3.6)	5.2	(4.3 – 6.2)	65.2	(63.0 – 67.3)
<b>2014</b>	26.8	(24.8 – 28.9)	2.1	(1.5 – 2.7)	5.5	(4.6 – 6.4)	65.6	(63.4 – 67.7)
<b>2015</b>	22.7	(20.9 – 24.6)	2.0	(1.3 – 2.7)	6.5	(5.3 – 7.6)	68.8	(66.7 – 70.9)
<b>2016</b>	25.7	(23.3 – 28.2)	3.0	(1.8 – 4.3)	5.1	(3.9 – 6.2)	66.2	(63.5 – 68.9)
<b>2017</b>	23.6	(20.9 – 26.4)	2.3	(1.3 – 3.3)	5.8	(4.4 – 7.2)	68.3	(65.3 – 71.3)
<b>2018</b>	27.3	(24.4 – 30.2)	2.5	(1.5 – 3.5)	5.4	(4.2 – 6.7)	64.8	(61.8 – 67.8)
<b>2019</b>	26.4	(23.3 – 29.4)	2.3	(1.4 – 3.3)	5.4	(3.8 – 7.1)	65.9	(62.6 – 69.1)
<b>2020</b>	26.4	(23.0 – 29.7)	4.0	(2.1 – 5.9)	7.5	(5.3 – 9.7)	62.1	(58.4 – 65.8)

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