



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

# Health and wellbeing of adults in Western Australia 2021

Epidemiology Directorate

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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 2021, 10,346 adults aged 16 years and over completed either a computer assisted telephone interview or an online survey between January and December, with an average participation rate of approximately 90 per cent. The sample was randomly selected and then weighted to reflect the Western Australian adult population.

This report describes the findings from the 2021 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 half (53.4%) of adults self-reported their health status as excellent or very good.

### Chronic health conditions:

- One in eight (12.9%) adults and one-third (33.1%) of those aged 65 years and older have been diagnosed with skin cancer.
- More than one in four (27.4%) adults have suffered an injury in the past 12 months that required treatment from a health professional, with one-fourth (25.8%) of those injuries being due to falls.
- Approximately one in four (24.6%) adults have been diagnosed with a mental health condition in the past 12 months.

### Lifestyle and physiological risk factors:

- One in ten (9.9%) adults were current smokers.
- More than one in seven (15.3%) adults and almost one in four (23.5%) of those aged 16 to 44 years had ever tried an e-cigarette.
- More than one in three (34.8%) 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 to 21.6%). Males were also more than twice as likely as females to report drinking at levels considered high risk for short-term alcohol-related harm (15.3% compared to 7.3%).

- One in ten (10.3%) adults aged 16 years and over reported using illicit drugs.
- More than two in five (41.1%) adults met the recommended minimum daily intake of fruit while only one in twelve (8.0%) adults met the recommended minimum daily intake of vegetables.
- More than one in three (36.1%) adults reported eating fast food meals at least once a week and more than one in four (27.2%) adults reported drinking sugar-sweetened soft drinks or energy drinks at least once week.
- More than three in five (65.4%) adults engaged in at least 150 minutes of moderate physical activity per week.
- Approximately one in three (35.5%) adults spent more than 21 hours per week watching TV/DVDs or using a computer/smartphone/tablet device.
- One in three (31.3%) adults reported sleeping less than the recommended number of hours on a usual night.
- More than one in three (36.3%) adults were obese and almost two in five (38.0%) adults were overweight.

#### **Psychosocial:**

- Almost one in five (18.6%) adults experienced high or very high levels of psychological distress.
- One in twelve (8.2%) adults had seriously thought about ending their own life in the past 12 months.
- More than two in five (43.6%) adults did not belong to any groups or associations.

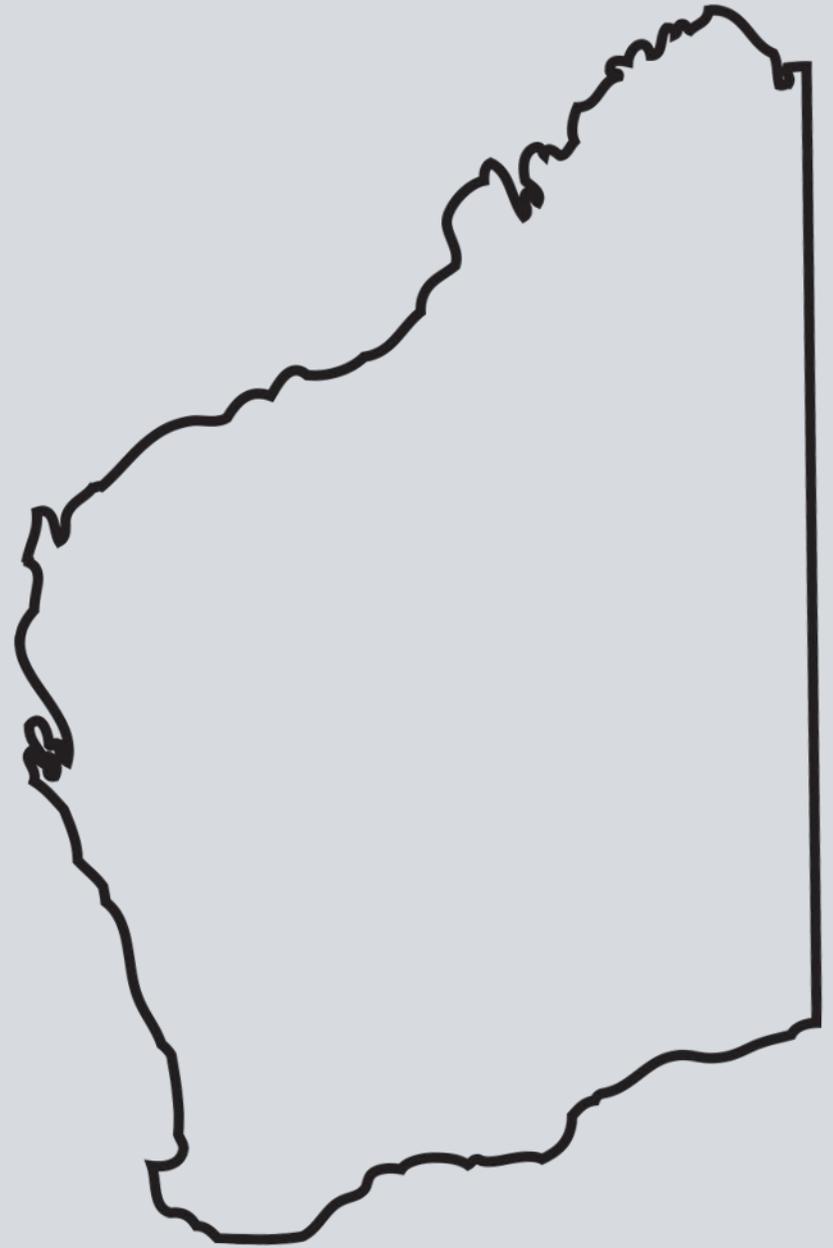
#### **Health service utilisation:**

- Nine out of ten (90.2%) adults used primary health services within the past 12 months, but only about one in seven (15.1%) used mental health services.
- More than two in five (44.5%) adults had received a flu vaccination.

#### **Social characteristics:**

- Three in five (61.9%) adults reported having both hospital and ancillary private health insurance.

# **INTRODUCTION AND METHODOLOGY**



# 1. Introduction and methodology

## 1.1 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, where thousands of people throughout Western Australia (WA) are interviewed each year. As at December 2021 over 121,000 interviews have been conducted with WA adults. This report presents the information on the health and wellbeing of 10,346 adults aged 16 years and over during 2021.

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 health status 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/internet access.

The HWSS has been approved by the WA Department of Health's Human Research Ethics Committee (EC00422).

## 1.2 Trends from 2002 onwards

The HWSS data collected up to December in 2021 marks 20 years of continuous data collection for the HWSS since the system began in 2002. This is an important milestone in the system, as it allows the observation of changes in health status, risk factors and behaviours over a 20-year period. Previously, in each report of the health and wellbeing of Western Australians aged 16 years and over, trend data have also been supplied along with the annual prevalence estimates. Starting in 2022, trend data will no longer be included in the annual reports, due to the large amount of information that would need to be added. Trend data remain an important feature of the HWSS and will be made publicly available as an online resource in early 2023. Updates on the availability of the trend data can be accessed through the Epidemiology Directorate website:

[https://ww2.health.wa.gov.au/Articles/A\\_E/About-the-Epidemiology-branch](https://ww2.health.wa.gov.au/Articles/A_E/About-the-Epidemiology-branch)

## 1.3 Methodology

### 1.3.1 Sampling and mode of administration

Two sample frames and modes were used for contacting respondents in 2021. An extract from the WA Electoral Roll was obtained through the WA Health Data Linkage System and used to contact a sample of potential respondents by letter each month. Respondents were invited to respond to the survey online with a link and unique key over a 35-day period, or via Computer Assisted Telephone Interview (CATI) by calling into the data collection agency. Non-respondents were followed up with a reminder letter after two weeks.

Additionally, an extract from Sensis Consumer Database was linked with the WA Electoral Roll by the WA Health Data Linkage System in order to append phone numbers. The linked extract was used to contact a sample of potential respondents by letter each month. Respondents were invited to respond to the survey online with a link and unique key during a 10-day period, after which non-respondents were followed up via telephone call (CATI).

All data were collected from January to December 2021 by the Edith Cowan University Survey Research Centre, an ISO accredited social research agency.

### 1.3.2 Weighting and analysis of data

Surveys such as the HWSS are designed to provide information at a population level, e.g., to inform what proportion of the population have a particular characteristic. However, most surveys will only collect information from a sample of the target population. These raw data are then weighted to represent the population from which it was drawn, with each person given a weight which can be thought of as the number of people they represent.

In 2021 the HWSS data have been weighted to adjust the proportions of certain demographic characteristics of the respondents so that they match the corresponding proportions in the total WA population aged 16 years and over, based on the Australian Bureau of Statistics 2016 Census usual place of residence. This weighting method is known as raked weighting, (also raking, iterative proportional fitting, or rim weighting) and allows the derivation of precise weights, by adjusting for non-response bias and respondent biases better than weights produced by design and post-stratification weighting methods<sup>1</sup>. Weights were calculated using the RAKE module in SPSS and were trimmed at an upper limit. The 2021 data were raked using the estimated resident population for 2020 and for the 2016 Census proportions listed below.<sup>2</sup>

Characteristic	Categories
Sex	<ul style="list-style-type: none"><li>• Female</li><li>• Male</li></ul>
Age	<ul style="list-style-type: none"><li>• 16-24, 25-34, 35-44, 45-54, 55-64, 65-74, 75+ years</li></ul>
Location	<ul style="list-style-type: none"><li>• Metro</li><li>• Kimberley and Pilbara</li><li>• Rest of State</li></ul>
Country of Birth	<ul style="list-style-type: none"><li>• Born in Australia</li><li>• Born in other country</li></ul>
Marital Status	<ul style="list-style-type: none"><li>• Married or living with partner</li><li>• Other (widowed, divorced, separated, never married)</li></ul>
Employment Status	<ul style="list-style-type: none"><li>• Employed (full time, part time)</li><li>• Not Employed (unemployed, retired, home duties, student, unable to work)</li></ul>
Education Status	<ul style="list-style-type: none"><li>• Bachelor's degree or higher</li><li>• Other (none to some high school, trade, certificate, diploma)</li></ul>

<sup>1</sup> Dal Grande et al. 2015. Health estimates using survey raked-weighting techniques in an Australian population health surveillance system. *American Journal of Epidemiology*. 182(6):544-556.

<sup>2</sup> Dwelling status and household composition were not included in the raking process due to the sparsity of data across rural and remote areas of Western Australia that created extremely large weights for only a few respondents.

Data were then analysed in SAS. This raked weighting method differs from the design and post-stratification weighting method previously reported for HWSS estimates and so direct comparisons with previous HWSS reports using post stratification weights (2002-2020) are not recommended.

### 1.3.3 Mode differences

Another advantage of the raked weighting method is the ability to reduce mode effect between online and CATI respondents. By adjusting each respondent's weight either upward or downward based on demographic characteristics, the entire sample is adjusted so that the difference in prevalence estimates between online and CATI respondents is diminished. However, for certain sensitive topics such as smoking status, alcohol consumption, illicit drug use and psychological distress, the mode effect is accentuated.

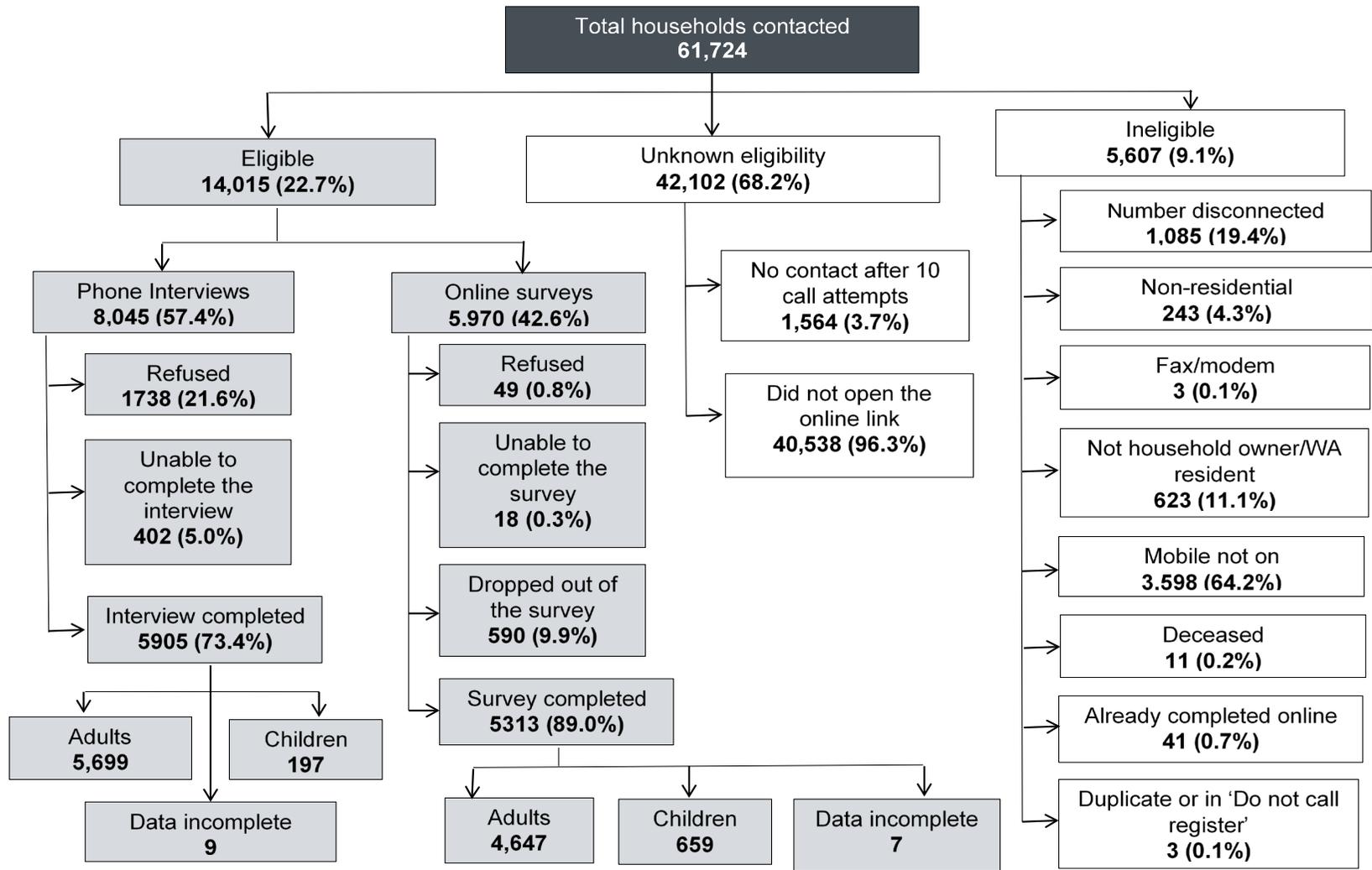
We have not made any adjustment for mode effects on sensitive variables. Applying corrections to correct for mode differences would also impact on characteristics with no mode effect. Additionally, specific adjustments for mode for individual topics would add considerable burden due to the statistical processing, analysis and interpretation of the data required. Historical HWSS data will be adjusted for the introduction of online mode in order to maintain the continuity of the data collection and avoid a break in trend series.

### 1.3.4 COVID Module

During 2020 and 2021, 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 located at: <https://ww2.health.wa.gov.au/Reports-and-publications/COVID19-in-WA-bulletins>

### 1.3.5 Survey response

A total of 61,724 households were contacted of which 22.7% were eligible, 9.1% were ineligible and 68.2% had unknown eligibility. Of 14,015 eligible households, 11,218 interviews and online surveys were conducted resulting in an overall participation rate of 80.0%. The full breakdown of the response rates for the CATI and online surveys is presented in **Figure 1**. The data presented in this report are for 10,346 Western Australian adults aged 16 years and over.



**Figure 1: Flowchart of response rates to the HWSS survey, 2021**

## **1.4 How estimates are reported**

### **1.4.1 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, which is a measure of the number of new cases of a condition or characteristic. 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.

### **1.4.2 Confidence intervals**

Survey results are estimates of 'true' population values and will always contain some error because they are based on samples and not the entire population. Therefore, each table presents both a prevalence figure 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 the more caution that should be applied with 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 (4 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.

## **1.5 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 and Wellbeing Survey team, Epidemiology Directorate, WA Department of Health at [DOH.HWSS@health.wa.gov.au](mailto:DOH.HWSS@health.wa.gov.au).

# DEMOGRAPHICS



## 2. Demographics

In 2021, a total of 10,346 Western Australians aged 16 years and over participated in the HWSS. The demographic and socioeconomic characteristics of the adults who participated in the 2021 HWSS data 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.



From the weighted prevalence estimates shown in **Table 1 and Table 2**:

- There were slightly more females (52.7%) than males (47.3%)
- More than half (57.5%) were born in Australia
- Half (50.2%) were married
- The majority were living in metropolitan areas (76.9%)
- Most of them were employed for wages, salary or payment in kind (50.7%)
- 61.9% possessed private health insurance with both hospital and ancillary cover

**Table 1: Demographic characteristics, 16 years & over, HWSS 2021**

	Unweighted sample (n)*	Weighted survey sample (%)
<b>Sample Frame</b>		
WA Electoral Roll linked with Sensis Consumer Database	6,380	44.7
WA Electoral Roll	3,966	55.3
<b>Data Collection Mode</b>		
CATI	5,699	37.3
Online	4,647	62.7
<b>Age Groups</b>		
16 to 24 years	275	10.6
25 to 44 years	1,195	34.2
45 to 64 years	2,997	34.9
65 years & over	5,879	20.3
<b>Gender</b>		
Females	6,033	52.7
Males	4,313	47.3
<b>Australian Born</b>		
Yes	6,964	57.5
No	3,382	42.5
<b>Marital Status</b>		
Married	6,129	50.2
De facto	863	13.0
Widowed	1,047	3.9
Divorced	1,073	7.9
Separated	313	3.0
Never married	906	21.9
<b>Region of Residence</b>		
Metro	5,396	76.9
Rural	4,252	18.8
Remote	698	4.2
<b>Health Region</b>		
East Metro	1,708	26.6
Goldfields	531	2.8
Great Southern	709	2.6
Kimberley	302	1.4
Midwest	593	2.6
North Metro	1,898	25.9
Pilbara	396	2.9
South Metro	1,790	24.4
South West	1,653	7.8
Wheatbelt	766	3.1

\* Numbers may not add up to total sample due to refusal and “don’t know” responses.

**Table 2: Socioeconomic characteristics, 16 years & over, HWSS 2021**

	Unweighted Sample (n)*	Weighted survey sample (%)
<b>ARIA+</b>		
Highly Accessible	1,953	10.6
Accessible	5,171	74.0
Moderately Accessible	1,959	8.7
Remote	905	4.9
Very Remote	358	1.7
<b>Current Place of Living</b>		
Rented from government or public authority	399	3.5
Rented privately	1,087	15.3
Being paid off by you/your partner	2,151	34.8
Fully owned/outright owner	6,155	38.8
Other	531	7.5
<b>Current Living Arrangement</b>		
Living with parent(s)	352	12.6
Living with other family members	614	6.7
Living with friends	105	1.8
Living with a partner and children	1,457	24.9
Living with a partner but no children	5,092	34.0
Living alone	2,368	17.0
Living in a retirement village	191	0.8
Other living arrangement	158	2.4
<b>Household Income</b>		
Under \$20,000	761	6.8
\$20,000 to \$40,000	2,409	15.1
\$40,000 to \$60,000	1,292	11.7
\$60,000 to \$80,000	842	9.8
\$80,000 to \$100,000	643	9.6
\$100,000 to \$120,000	534	8.5
\$120,000 to \$140,000	438	7.8
\$140,000 to \$160,000	393	7.3
More than \$160,000	1,275	23.3
<b>Household Spending</b>		
Spend more money than earn/get	432	5.2
Have just enough money to get by	1,216	12.9
Spend left over money	356	3.4
Save a bit every now and then	2,707	25.4
Save some regularly	3,751	39.9
Save a lot	1,112	13.2

\* Numbers may not add up to total sample due to refusal and “don’t know” responses.

**Table 2: Socioeconomic characteristics, 16 years & over, HWSS 2021**

	Unweighted Sample (n)*	Weighted survey sample (%)
<b>Highest Level of Education (a)</b>		
Less than Year 10	626	3.0
Year 10 or Year 11	1,684	11.2
Year 12	976	15.1
TAFE/Trade qualification	4,442	47.8
Tertiary degree or equivalent	2,574	23.0
<b>Employment Status</b>		
Self employed	939	8.9
Employed for wages, salary or payment in kind	3,255	50.7
Unemployed for less than one year	88	2.0
Unemployed for more than one year	98	2.3
Engaged in home duties	200	3.5
Retired	5,286	21.8
Unable to work	229	3.9
A student	128	5.3
Other	116	1.7
<b>Working Away (fly-in fly-out) (b)</b>		
Yes	230	8.8
No	3,221	91.2
<b>Shift Worker (b)</b>		
Yes	389	13.9
No	2,831	86.1
<b>Receiving a Government Pension</b>		
Yes	4,325	22.9
No	5,952	77.1
<b>Possess a Government Health Care Card</b>		
Yes	5,239	35.6
No	4,984	64.4
<b>Possess Private Health Insurance</b>		
Yes - Hospital only	349	4.9
- Ancillary only	802	8.7
- Both hospital and ancillary	6,514	61.9
No	2,539	24.5

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

\* Numbers may not add up to total sample due to refusal and “don’t know” responses

# GENERAL HEALTH



### 3. General health

This section focuses on self-reported health status and disability.

**53.4%** of Western Australian adults reported their current health status as 'excellent' or 'very good'



**18.5%** of Western Australian adults were in a family where at least one person had a disability



**55.1%** of Western Australians with a disability in the family reported that the disability had a 'fairly big', 'big' or 'very big' impact on the family



### 3.1 Self-reported health status

We asked respondents several questions regarding their general health, including their current health status.

- The prevalence of adults who reported their current health status as ‘excellent’ decreased significantly with age (16 to 44 years: 19.5%, 45 to 64 years: 14.7% and 65 years and over: 11.7%) (**Table 3**).
- There were no significant gender differences in self-reported health status.

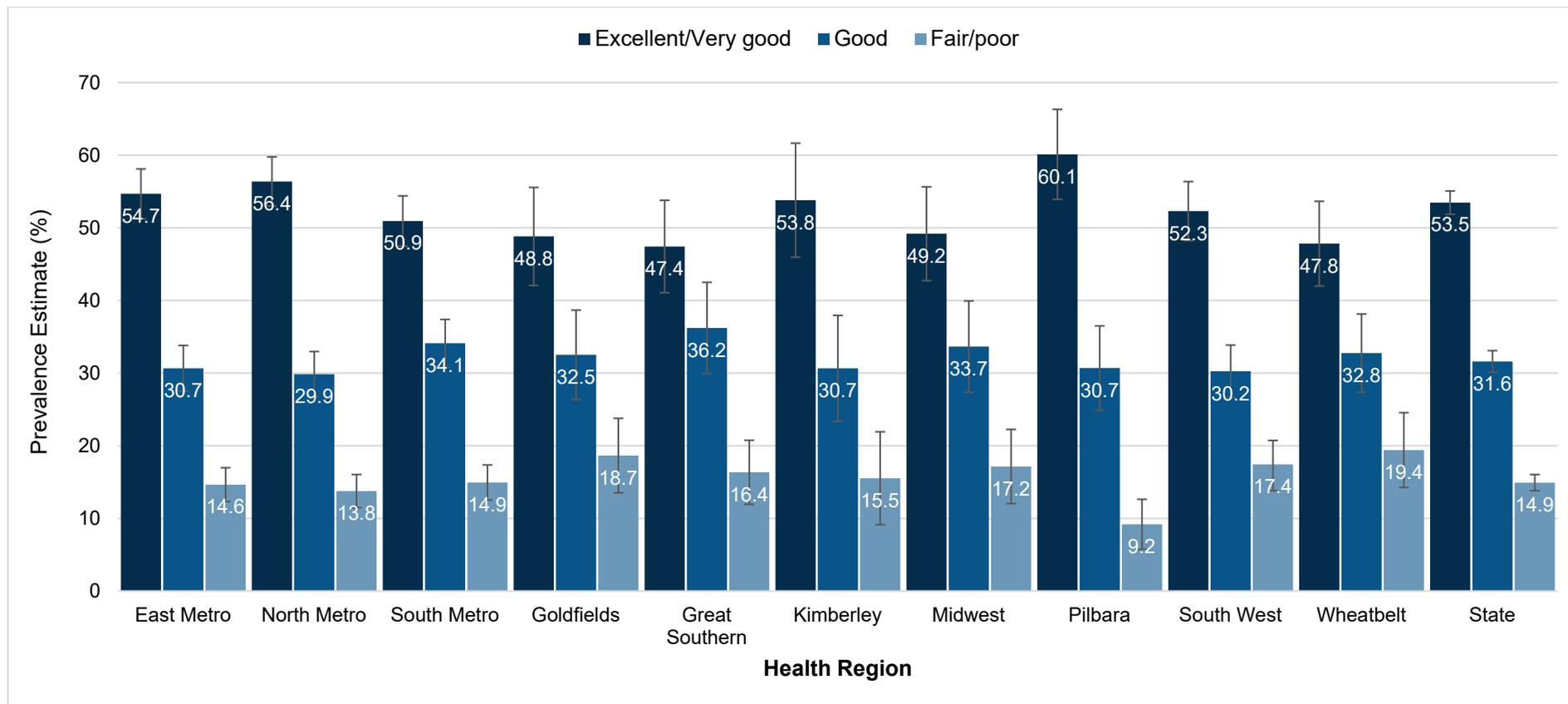
**Table 3: Self-reported health status, 16 years & over, HWSS 2021**

	Excellent		Very Good		Good		Fair		Poor	
	%	95% CI	%	95% CI	%	95% CI	%	95% CI	%	95% CI
<b>16 to 44 years</b>										
Females	17.3	(14.3—20.3)	39.3	(35.5—43.1)	31.1	(27.5—34.7)	10.1	(7.7—12.6)	2.1 *	(1.0—3.3)
Males	21.9	(18.2—25.5)	38.8	(34.5—43.1)	28.8	(24.8—32.7)	8.4	(6.0—10.9)	2.1 *	(0.9—3.4)
Persons	19.5	(17.1—21.8)	39.1	(36.2—41.9)	30.0	(27.3—32.7)	9.3	(7.6—11.1)	2.1	(1.3—3.0)
<b>45 to 64 years</b>										
Females	16.7	(14.3—19.1)	37.9	(34.7—41.1)	30.5	(27.5—33.6)	10.0	(8.1—12.0)	4.8	(3.4—6.3)
Males	12.4	(9.8—15.0)	38.1	(34.2—41.9)	32.4	(28.7—36.0)	13.9	(11.0—16.8)	3.3	(2.1—4.5)
Persons	14.7	(13.0—16.5)	38.0	(35.5—40.4)	31.4	(29.0—33.7)	11.8	(10.1—13.5)	4.1	(3.2—5.1)
<b>65+ years</b>										
Females	13.0	(11.5—14.5)	32.7	(30.7—34.8)	34.2	(32.1—36.3)	15.1	(13.5—16.7)	5.0	(4.0—5.9)
Males	10.4	(8.9—11.9)	31.1	(28.8—33.4)	36.9	(34.5—39.3)	16.0	(14.2—17.9)	5.6	(4.4—6.8)
Persons	11.7	(10.6—12.7)	31.9	(30.4—33.4)	35.6	(34.0—37.2)	15.6	(14.4—16.8)	5.3	(4.5—6.0)
<b>Total</b>										
Females	16.3	(14.7—17.9)	37.6	(35.5—39.6)	31.5	(29.5—33.5)	11.0	(9.7—12.4)	3.6	(2.9—4.4)
Males	16.2	(14.3—18.1)	36.9	(34.5—39.2)	31.7	(29.5—34.0)	11.9	(10.4—13.5)	3.3	(2.5—4.0)
Persons	16.2	(15.0—17.5)	37.2	(35.7—38.8)	31.6	(30.1—33.1)	11.5	(10.4—12.5)	3.5	(2.9—4.0)

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

Self-reported health status was categorised into three categories: i) excellent/very good, ii) good and iii) fair/poor. The prevalence for these categories was estimated for the WA health regions and compared to the state prevalence.

- The prevalence of adults who rated their health as ‘fair/poor’ was significantly lower in the Pilbara health region compared to the state prevalence (9.2% compared to 14.9%) (**Figure 2**).

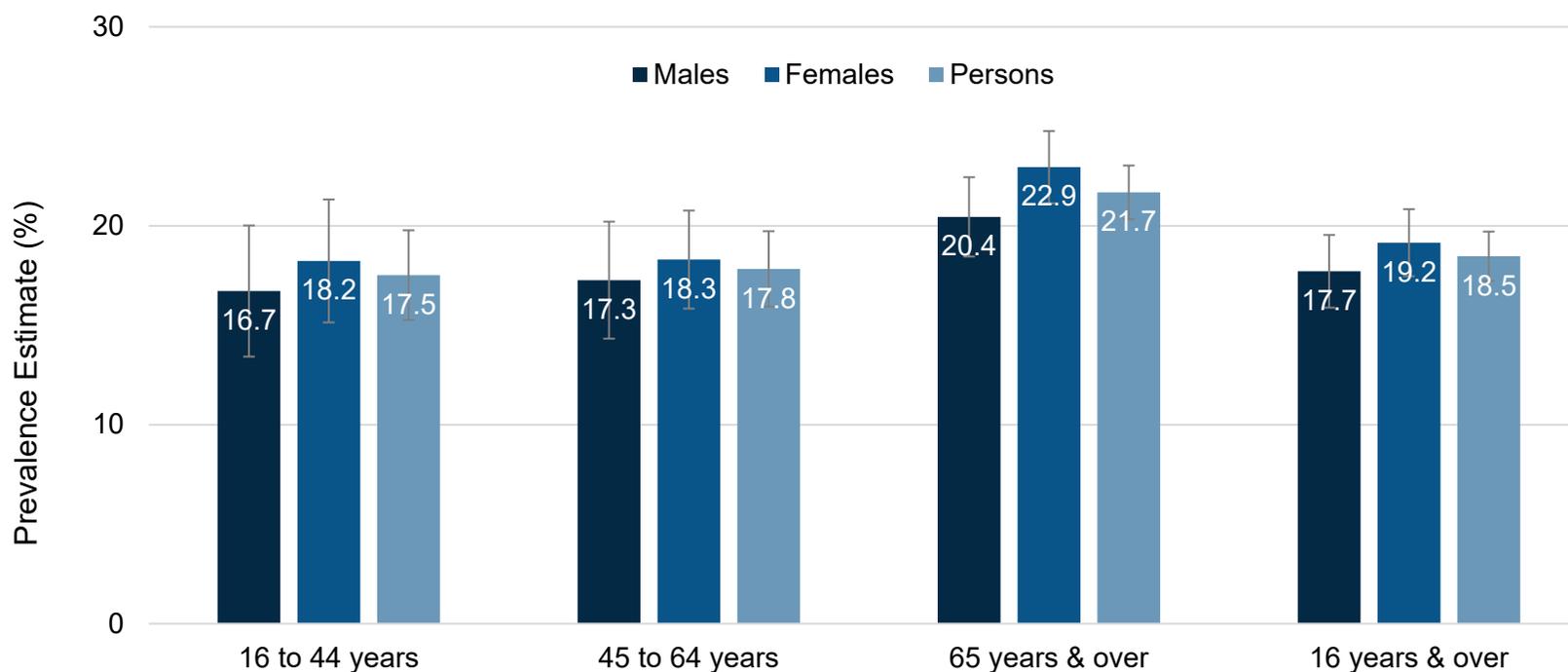


**Figure 2: Prevalence of self-reported health status by health regions in WA, 16 years & over, HWSS 2021**

### 3.2 Disability

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.

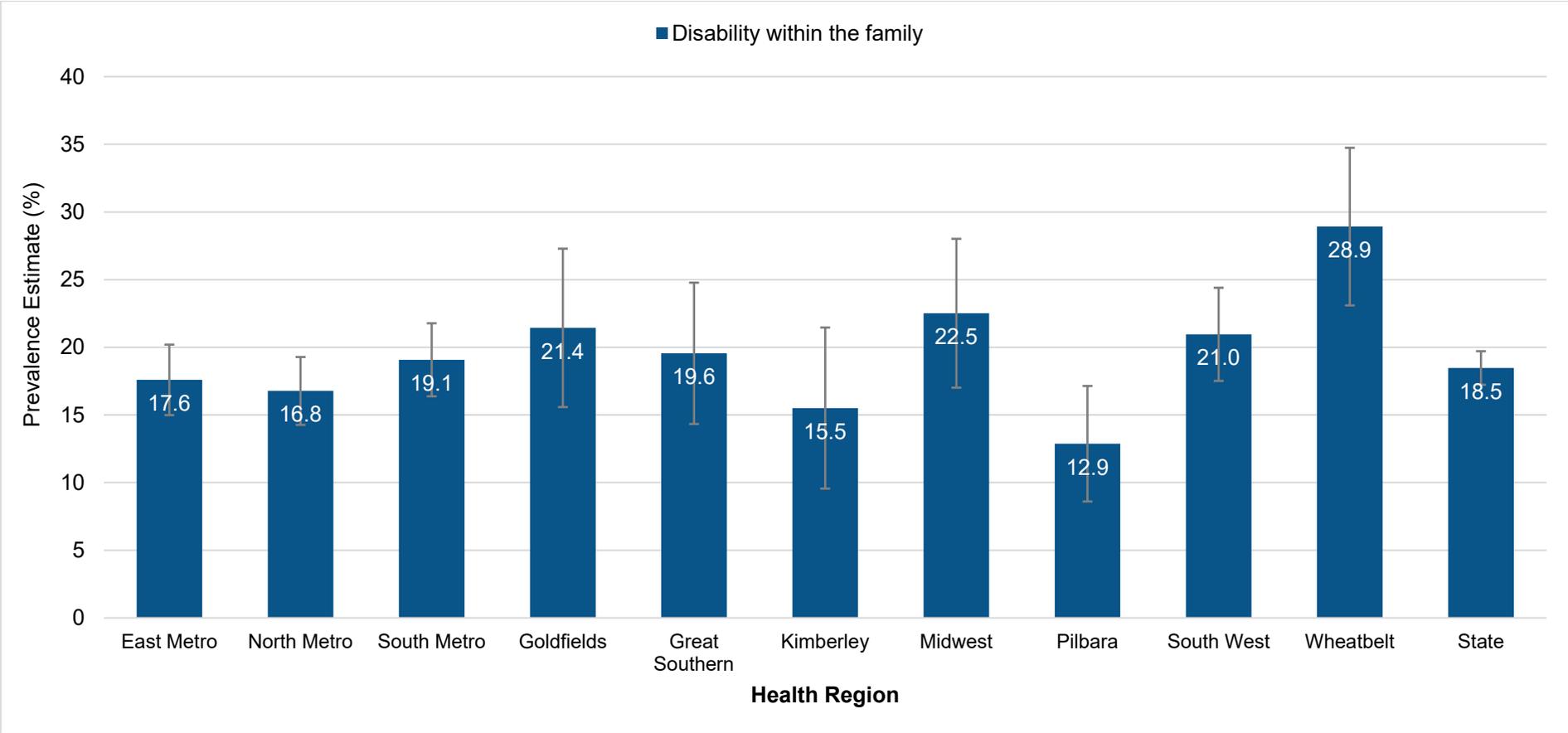
- The prevalence of disability, long-term illness or pain was significantly higher in adults aged 65 years and over (21.7%) compared to those aged 16-44 years (17.5%) and 45-64 years (17.8%) (**Figure 3**).
- The prevalence of disability did not vary significantly by gender.



**Figure 3: 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 2021**

The prevalence of disability within the family was estimated for the WA health regions and compared to the state prevalence.

- The prevalence of disability within the family was significantly higher in the Wheatbelt health region (28.9%) and significantly lower in the Pilbara health region (12.9%) compared to the state prevalence (18.5%) (Figure 4).



**Figure 4: Prevalence of disability, long-term illness or pain within the family that puts pressure on them personally or on their family by health regions in WA, 16 years & over, HWSS 2021**

- Of those with a family member with some form of disability, 29.3% reported that this had a 'big impact' or 'very big impact' on themselves or their family (**Table 4**).

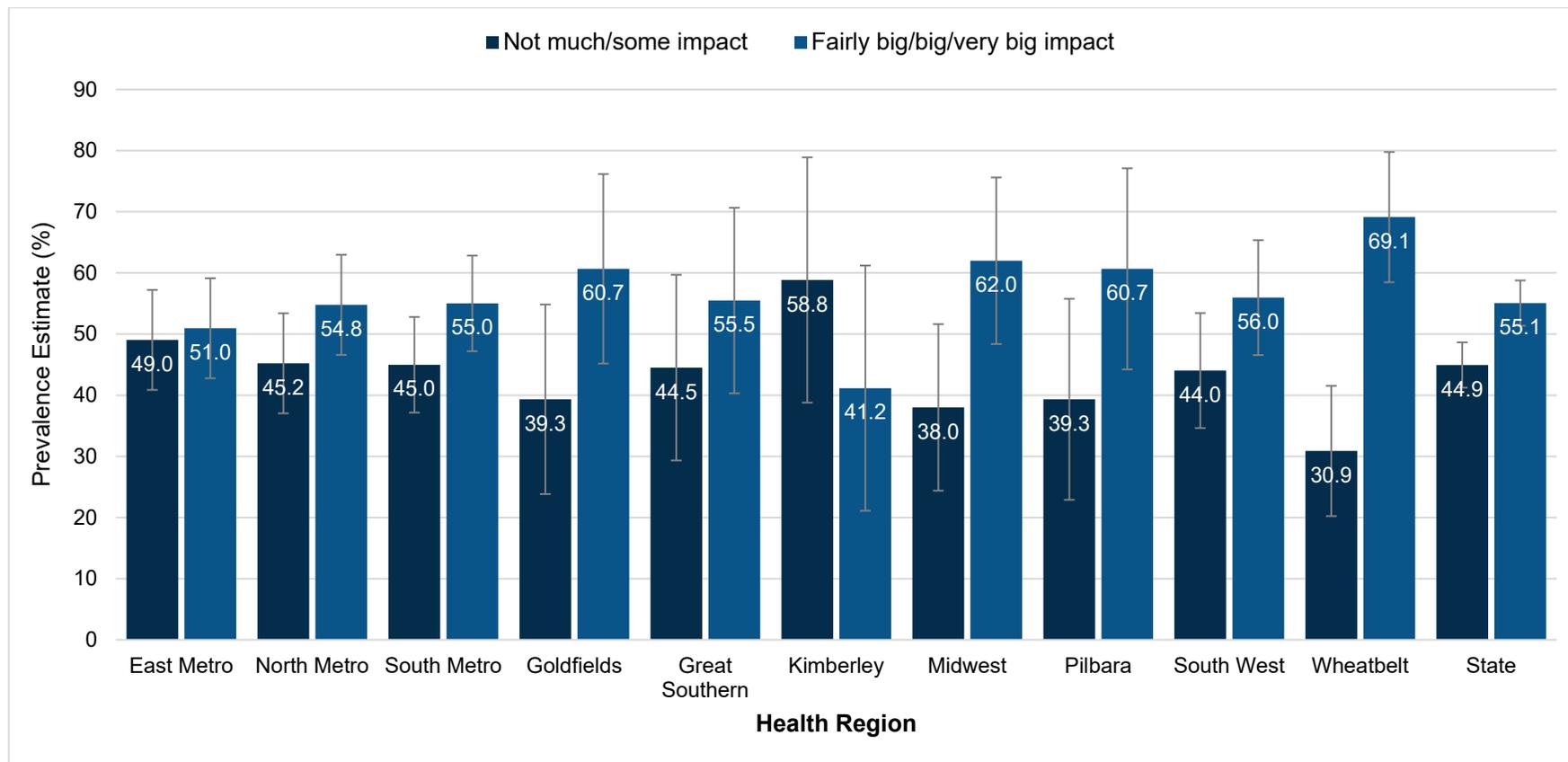
**Table 4: Rating of the impact of disability on the respondents themselves and their family, 16 years & over, HWSS 2021**

	Not much of an impact		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 years</b>										
Females	7.7 *	(2.5—12.8)	38.1	(28.9—47.2)	33.3	(24.3—42.2)	9.3 *	(4.2—14.4)	11.7 *	(5.5—17.9)
Males	22.5	(13.3—31.7)	36.0	(25.7—46.4)	21.6	(12.9—30.2)	7.7 *	(1.8—13.6)	12.3 *	(5.1—19.4)
Persons	14.3	(9.2—19.5)	37.2	(30.3—44.0)	28.0	(21.7—34.4)	8.6	(4.7—12.4)	12.0	(7.3—16.6)
<b>45 to 64 years</b>										
Females	9.5	(5.4—13.6)	25.2	(19.0—31.5)	24.4	(17.8—31.1)	18.4	(12.7—24.1)	22.5	(16.3—28.6)
Males	15.2	(8.5—21.9)	25.0	(17.1—32.9)	23.3	(15.0—31.6)	21.2	(13.2—29.2)	15.2	(9.0—21.4)
Persons	12.0	(8.2—15.7)	25.2	(20.2—30.1)	23.9	(18.7—29.1)	19.6	(14.9—24.4)	19.3	(14.9—23.7)
<b>65+ years</b>										
Females	16.2	(12.9—19.4)	27.3	(23.2—31.4)	24.6	(20.8—28.4)	17.8	(14.4—21.1)	14.1	(11.1—17.2)
Males	16.1	(12.1—20.0)	29.0	(24.0—33.9)	24.6	(19.9—29.4)	18.7	(14.3—23.0)	11.7	(8.2—15.1)
Persons	16.1	(13.6—18.7)	28.1	(24.9—31.3)	24.6	(21.6—27.6)	18.2	(15.5—20.9)	13.0	(10.6—15.3)
<b>Total</b>										
Females	10.2	(7.5—13.0)	31.2	(26.6—35.8)	28.3	(23.7—32.8)	14.3	(11.3—17.4)	16.0	(12.5—19.5)
Males	18.5	(13.9—23.1)	30.7	(25.4—36.0)	22.9	(18.2—27.6)	14.9	(11.0—18.7)	13.1	(9.3—16.8)
Persons	14.0	(11.4—16.6)	31.0	(27.5—34.5)	25.8	(22.5—29.1)	14.6	(12.1—17.0)	14.7	(12.1—17.2)

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

The rating of the impact of disability was grouped into two: i) not much/some impact and ii) fairly big/big/very big impact. The prevalence for these groups was estimated for the WA health regions and compared to the state prevalence.

- The prevalence of adults who reported that the disability had not much/some impact or fairly big/big/very big impact was not significantly different in the health regions compared to the state (**Figure 5**).



**Figure 5: Rating of the impact of disability on the respondents themselves and their family by health regions in WA, 16 years & over, HWSS 2021**

# CHRONIC HEALTH CONDITIONS



## 4. 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. This section will focus on the following eight chronic conditions:

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

22.2 %

Western Australian adults were diagnosed with arthritis and

6.6 %

were diagnosed with osteoporosis



7.6 %

Western Australian adults were diagnosed with heart disease and

2.3%

were diagnosed with stroke



12.9 %

Western Australian adults were diagnosed with skin cancer and

7.3 %

were diagnosed with other cancers



8.8% Western Australian adults were diagnosed with diabetes



27.4% Western Australian adults reported an injury



10.3% Western Australian adults reported currently having asthma



3.4% Western Australian adults reported currently having other chronic respiratory conditions



24.6% Western Australian adults were diagnosed with a mental health condition in the past 12 months



## 4.1 Arthritis and osteoporosis

We asked respondents whether a doctor had ever told them they had arthritis or osteoporosis.

- The prevalence of arthritis and osteoporosis increased significantly with age (arthritis - 16 to 44 years: 5.6%, 45 to 64 years: 27.1%, and 65 years and over: 50.7%; osteoporosis - 16 to 44 years: 0.7%, 45 to 64 years: 7.2%, and 65 years and over: 19.0%) **(Table 5)**.
- Females were significantly more likely than males to report having been diagnosed with arthritis (25.4% vs 18.6%) and osteoporosis (9.8% vs 3.1%).

**Table 5: Prevalence of arthritis and osteoporosis, 16 years & over, HWSS 2021**

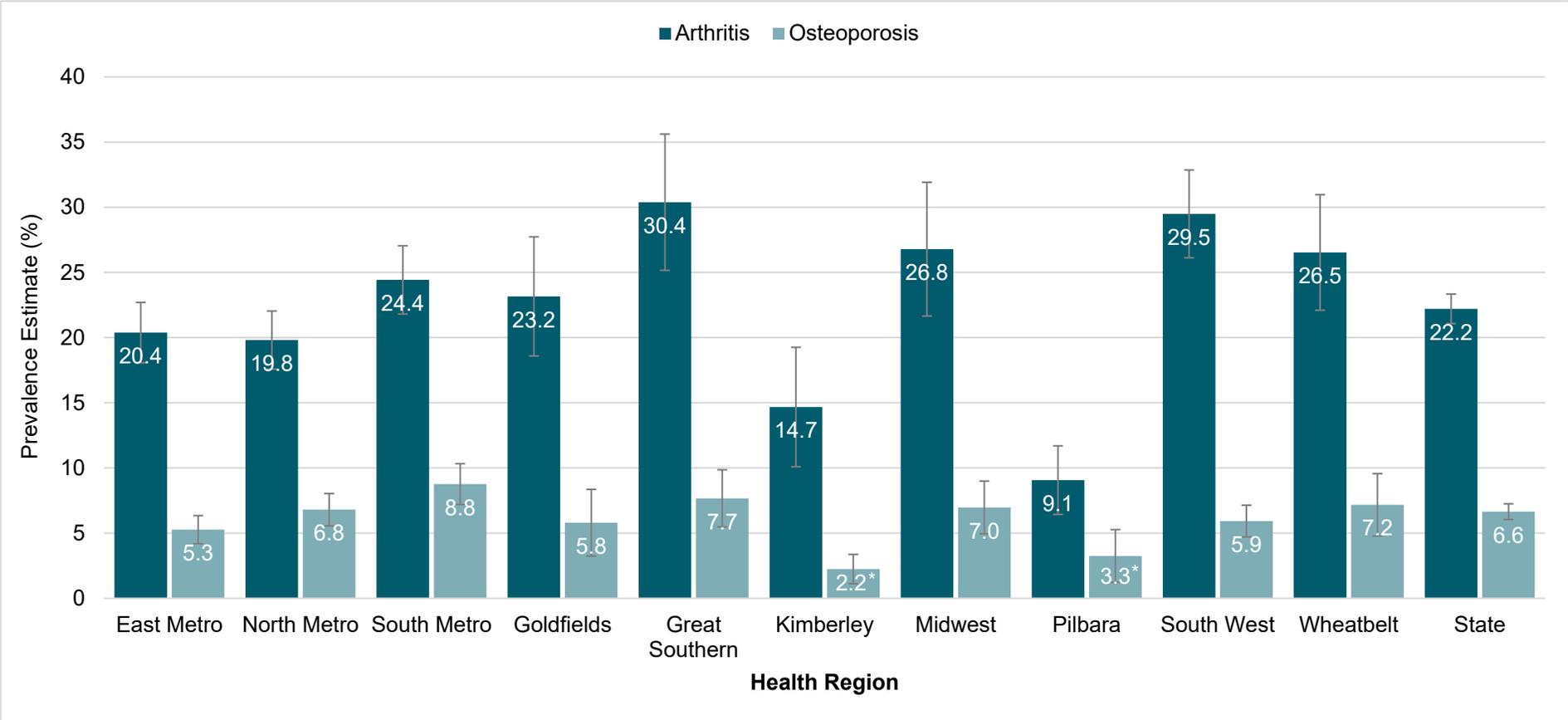
	Arthritis		Osteoporosis	
	%	95% CI	%	95% CI
<b>16 to 44 years</b>				
Females	5.5	(3.7—7.2)	1.0 *	(0.1—1.8)
Males	5.7	(3.6—7.7)	N/A	(N/A—N/A)
Persons	5.6	(4.2—6.9)	0.7 *	(0.2—1.3)
<b>45 to 64 years</b>				
Females	32.6	(29.6—35.7)	10.9	(8.7—13.1)
Males	20.6	(17.6—23.6)	2.8	(1.7—4.0)
Persons	27.1	(24.9—29.3)	7.2	(5.8—8.5)
<b>65+ years</b>				
Females	59.5	(57.3—61.7)	29.2	(27.2—31.2)
Males	42.1	(39.7—44.6)	9.2	(7.8—10.6)
Persons	50.7	(49.0—52.3)	19.0	(17.8—20.3)
<b>Total</b>				
Females	25.4	(23.8—27.1)	9.8	(8.8—10.8)
Males	18.6	(17.0—20.2)	3.1	(2.6—3.7)
Persons	22.2	(21.1—23.3)	6.6	(6.0—7.2)

\* 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 prevalence of arthritis and osteoporosis was estimated for the WA health regions and compared to the state prevalence.

- The prevalence of arthritis was significantly lower in the Kimberley (14.7%) and Pilbara (9.1%) health regions, and significantly higher in the Great Southern (30.4%) and South West (29.5%) health regions compared to the state prevalence (22.2%) (**Figure 6**).
- The prevalence of osteoporosis was significantly lower in the Kimberley (2.2%) and Pilbara (3.3%) health regions compared to the state prevalence (6.6%).



**Figure 6: Prevalence of arthritis and osteoporosis by health regions in WA, 16 years & over, HWSS 2021**

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

## 4.2 Heart disease and stroke

We asked respondents whether a doctor had ever told them they had heart disease or stroke.

- The prevalence of heart disease and stroke increased significantly with age (heart disease - 16 to 44 years: 1.0%, 45 to 64 years: 6.8%, and 65 years and over: 24.2%; stroke - 45 to 64 years: 1.7%, and 65 years and over: 6.4%) (**Table 6**).
- Males were significantly more likely than females to report being diagnosed with a heart disease (9.8% vs 5.7%).
- The prevalence of stroke did not vary significantly by gender.

**Table 6: Prevalence of heart disease and stroke, 16 years & over, HWSS 2021**

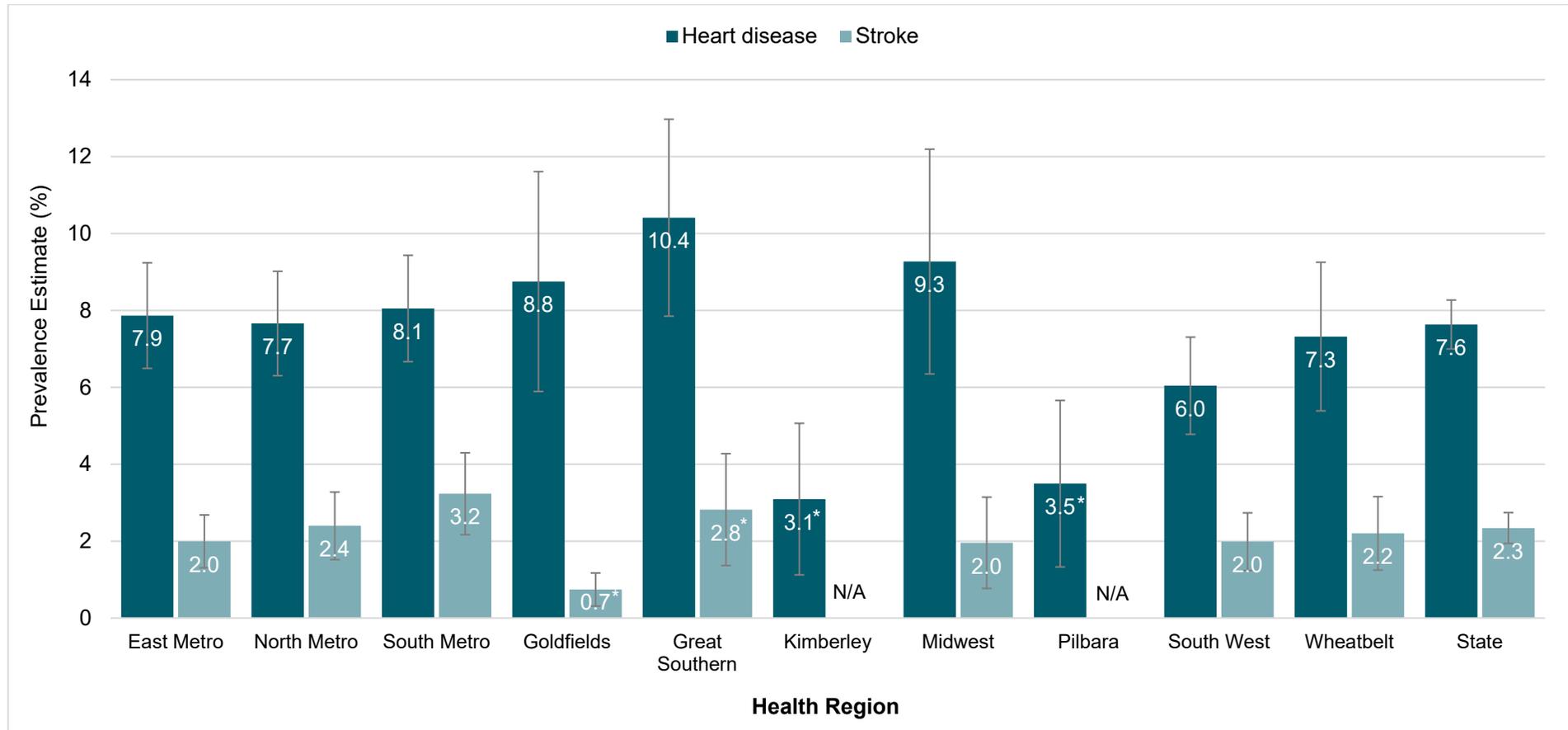
	Heart Disease		Stroke	
	%	95% CI	%	95% CI
<b>16 to 44 years</b>				
Females	1.4 *	(0.4—2.4)	1.4 *	(0.4—2.5)
Males	N/A	(N/A—N/A)	N/A	(N/A—N/A)
Persons	1.0 *	(0.3—1.6)	1.0 *	(0.4—1.6)
<b>45 to 64 years</b>				
Females	5.3	(3.9—6.8)	2.1 *	(1.0—3.2)
Males	8.5	(6.2—10.7)	1.1 *	(0.5—1.8)
Persons	6.8	(5.5—8.0)	1.7	(1.0—2.4)
<b>65+ years</b>				
Females	16.7	(15.0—18.3)	5.8	(4.7—6.8)
Males	31.4	(29.1—33.7)	7.1	(5.8—8.4)
Persons	24.2	(22.7—25.6)	6.4	(5.6—7.3)
<b>Total</b>				
Females	5.7	(4.9—6.5)	2.5	(1.9—3.1)
Males	9.8	(8.8—10.8)	2.2	(1.7—2.6)
Persons	7.6	(7.0—8.3)	2.3	(1.9—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.

The prevalence of heart disease and stroke was estimated for the WA health regions and compared to the state prevalence.

- The prevalence of heart disease was significantly lower in the Kimberley (3.1%) and Pilbara (3.5%) health regions compared to the state prevalence (7.6%) (**Figure 7**).
- The prevalence of stroke was significantly lower in the Goldfields health region (0.7%) compared to the state prevalence (2.3%).



**Figure 7: Prevalence of heart disease and stroke by health regions in WA, 16 years & over, HWSS 2021**

\* 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.

### 4.3 Cancer and skin cancer

We asked respondents whether a doctor had ever told them they had skin cancer or another type of cancer.

- Overall, the prevalence of skin cancer was significantly higher than other cancers (12.1% vs 7.3%) (**Table 7**).
- The prevalence of cancer increased significantly with age (skin cancer - 16 to 44 years: 2.4%, 45 to 64 years: 14.8%, and 65 years and over: 33.1%; other cancer - 16 to 44 years: 1.2%, 45 to 64 years: 8.1%, and 65 years and over: 19.4%).
- The prevalence of other cancers was significantly lower in males aged 45 to 64 years compared to females in the same age group (5.5% compared to 10.3%).

**Table 7: Prevalence of skin cancer and other cancer, 16 years & over, HWSS 2021**

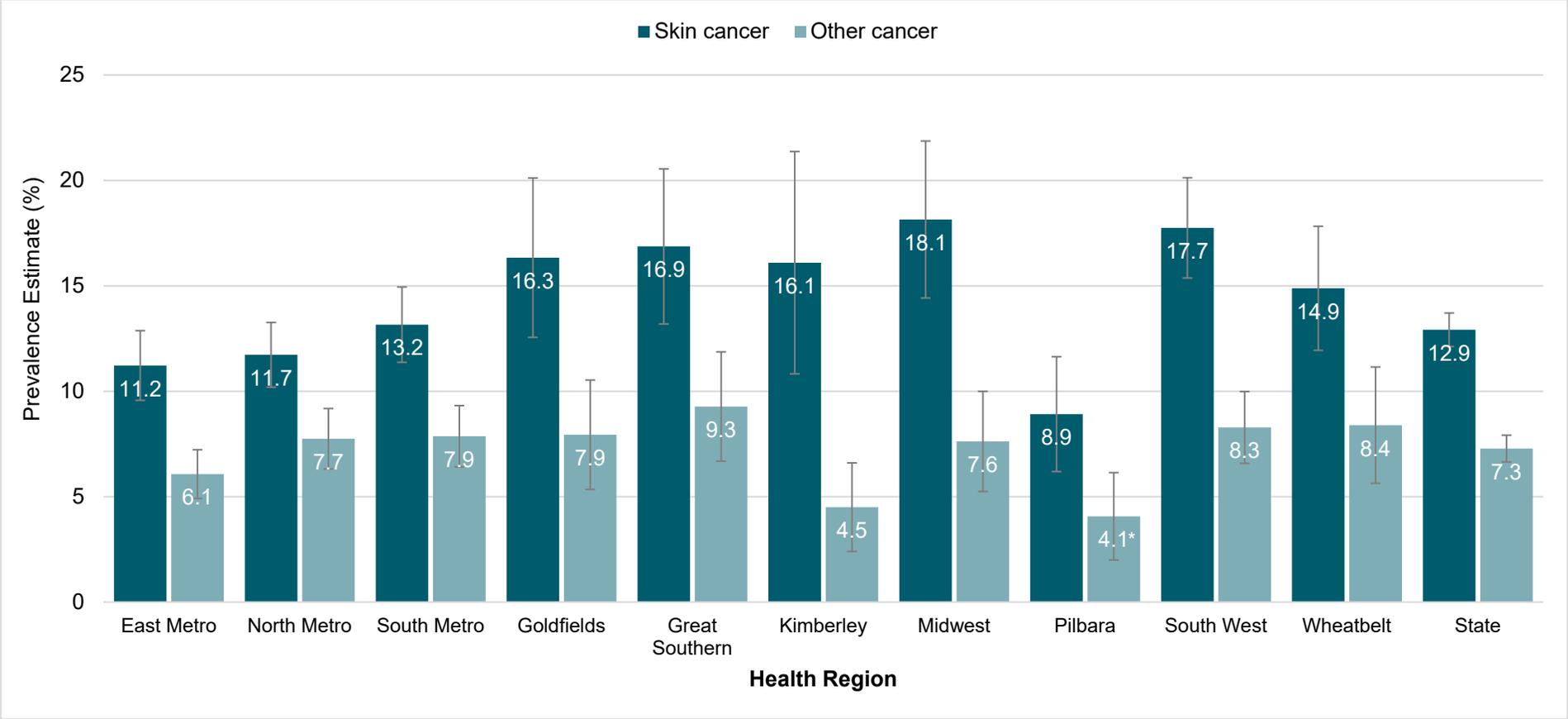
	Skin cancer		Other cancer	
	%	95% CI	%	95% CI
<b>16 to 44 years</b>				
Females	2.9	(1.7—4.1)	1.7 *	(0.8—2.6)
Males	1.9 *	(0.8—3.0)	N/A	(N/A—N/A)
Persons	2.4	(1.6—3.2)	1.2	(0.6—1.7)
<b>45 to 64 years</b>				
Females	15.5	(13.3—17.7)	10.3	(8.3—12.4)
Males	14.0	(11.7—16.3)	5.5	(3.7—7.3)
Persons	14.8	(13.2—16.4)	8.1	(6.8—9.5)
<b>65+ years</b>				
Females	28.3	(26.3—30.2)	17.8	(16.2—19.5)
Males	37.8	(35.4—40.1)	20.9	(18.9—22.9)
Persons	33.1	(31.5—34.6)	19.4	(18.1—20.7)
<b>Total</b>				
Females	12.2	(11.1—13.3)	7.9	(6.9—8.8)
Males	13.7	(12.5—14.9)	6.6	(5.8—7.5)
Persons	12.9	(12.1—13.7)	7.3	(6.6—7.9)

\* 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.

The prevalence of skin cancer and other cancers was estimated for the WA health regions and compared to the state prevalence.

- The prevalence of skin cancer was significantly higher in the Midwest (18.1%) and South West (17.7%) health regions, and significantly lower in the Pilbara health region (8.9%) compared to the state prevalence (12.9%) (**Figure 8**).
- The prevalence of other cancers was significantly lower in the Kimberley (4.5%) and Pilbara (4.1%) health regions compared to the state prevalence (7.3%).



**Figure 8: Prevalence of skin cancer and other cancer by health regions in WA, 16 years & over, HWSS 2021**

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

## 4.4 Diabetes

We asked respondents whether a doctor had ever told them they had diabetes and what type of diabetes they had.

- The prevalence of diabetes increased significantly with age (all diabetes - 16 to 44 years: 3.5%, 45 to 64 years: 9.9%, and 65 years and over: 18.5%; type 2 diabetes - 16 to 44 years: 0.9%, 45 to 64 years: 7.7%, and 65 years and over: 17.3%) (Table 8).
- There prevalence of type 2 diabetes was significantly lower in females compared to males (4.9% compared to 8.5%).

**Table 8: Prevalence of diabetes and type 2 diabetes, 16 years & over, HWSS 2021**

	All diabetes (a)		Type 2 diabetes (b)	
	%	95% CI	%	95% CI
<b>16 to 44 years</b>				
Females	4.9	(3.2—6.6)	0.9 *	(0.1—1.7)
Males	2.0 *	(0.7—3.2)	0.9 *	(0.2—1.6)
Persons	3.5	(2.5—4.6)	0.9 *	(0.4—1.5)
<b>45 to 64 years</b>				
Females	9.0	(7.1—10.9)	6.1	(4.6—7.6)
Males	11.0	(8.4—13.6)	9.6	(7.2—12.0)
Persons	9.9	(8.4—11.5)	7.7	(6.3—9.1)
<b>65+ years</b>				
Females	13.4	(11.9—14.8)	12.2	(10.8—13.6)
Males	23.6	(21.4—25.8)	22.2	(20.0—24.3)
Persons	18.5	(17.2—19.9)	17.3	(16.0—18.6)
<b>Total</b>				
Females	8.0	(6.9—9.1)	4.9	(4.2—5.7)
Males	9.7	(8.5—10.9)	8.5	(7.4—9.5)
Persons	8.8	(8.0—9.6)	6.6	(6.0—7.2)

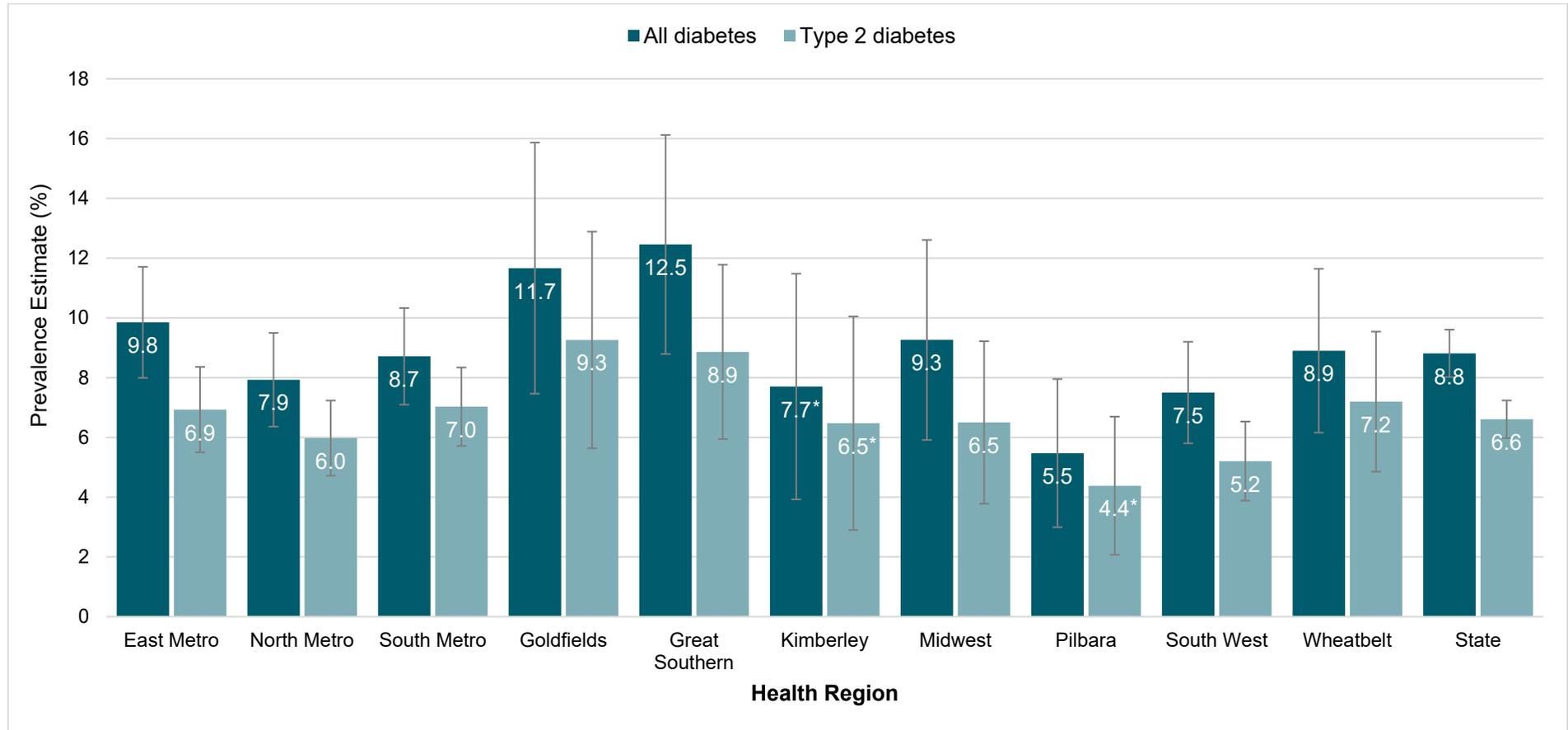
(a) Includes type 1 (insulin dependent, juvenile onset), type 2, gestational, other and unknown diabetes.

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

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

The prevalence of all diabetes and type 2 diabetes was estimated for the WA health regions and compared to the state prevalence.

- The prevalence of all diabetes was significantly lower in the Pilbara health region compared to the state prevalence (5.5% vs. 8.8%) (**Figure 9**).
- The prevalence of type 2 diabetes was not significantly different in the health regions compared to the state.



**Figure 9: Prevalence of all diabetes and type 2 diabetes by health regions in WA, 16 years & over, HWSS 2021**

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

## 4.5 Injury

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.

- The prevalence injury was significantly lower in adults aged 65 years and over (20.4%) compared to those aged 16 to 44 years (30.4%) and 45 to 64 years (27.8%) (**Table 9**).
- Of those who sustained an injury, adults aged 65 years and over were more likely than younger age groups to indicate that this was due to a fall (43.7% compared to 21.3% in adults aged 16 to 44 years and 24.1% in adults aged 45 to 64 years).
- The prevalence of injury due to falls (all respondents) was significantly lower in males aged 65 years and over compared to females in the same age group (7.4% compared to 10.3%).

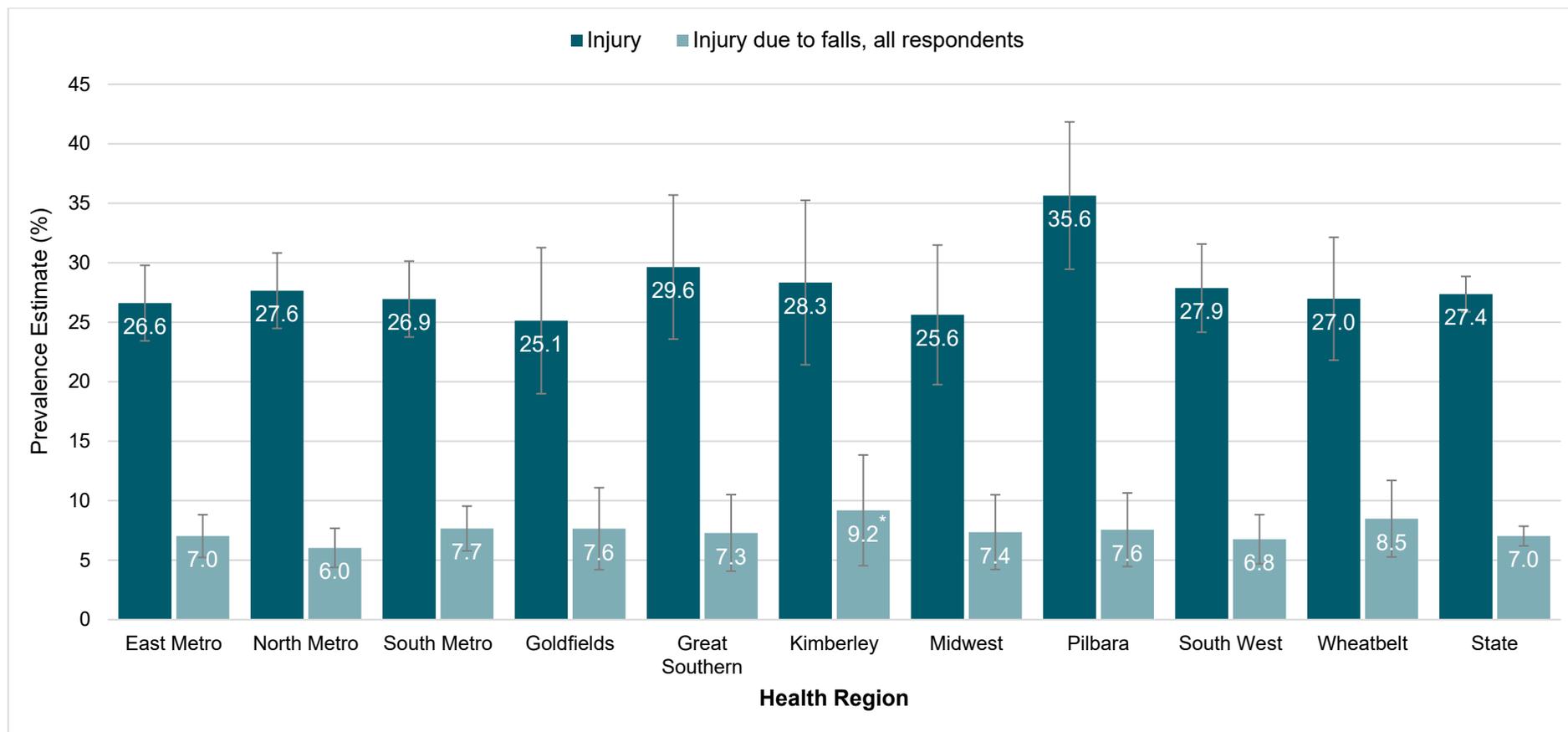
**Table 9: Prevalence of injuries and falls in the past 12 months, 16 years & over, HWSS 2021**

	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 years</b>						
Females	29.0	(25.4—32.7)	20.7	(14.7—26.6)	6.0	(4.1—7.8)
Males	31.8	(27.6—36.0)	22.0	(15.3—28.7)	7.0	(4.6—9.3)
Persons	30.4	(27.6—33.1)	21.3	(16.8—25.8)	6.4	(5.0—7.9)
<b>45 to 64 years</b>						
Females	28.2	(25.3—31.2)	28.5	(22.6—34.4)	8.0	(6.1—9.9)
Males	27.2	(23.7—30.8)	18.5	(12.2—24.8)	5.0	(3.2—6.8)
Persons	27.8	(25.5—30.1)	24.1	(19.8—28.5)	6.7	(5.3—8.0)
<b>65+ years</b>						
Females	20.0	(18.2—21.7)	51.8	(46.9—56.7)	10.3	(9.0—11.6)
Males	20.8	(18.8—22.8)	36.0	(30.7—41.3)	7.4	(6.1—8.7)
Persons	20.4	(19.0—21.7)	43.7	(40.0—47.4)	8.9	(7.9—9.8)
<b>Total</b>						
Females	27.0	(25.0—28.9)	28.3	(24.5—32.0)	7.6	(6.5—8.7)
Males	27.8	(25.6—30.1)	23.2	(19.1—27.3)	6.4	(5.2—7.7)
Persons	27.4	(25.9—28.8)	25.8	(23.1—28.6)	7.0	(6.2—7.9)

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

The prevalence of injuries in the past 12 months and injuries due to falls in all respondents was estimated for the WA health regions and compared to the state prevalence.

- The prevalence of injuries in the past 12 months was significantly higher in the Pilbara health region (35.6%) compared to the state prevalence (27.4%) (**Figure 10**).
- The prevalence of injuries due to falls was not significantly different in the health regions compared to the state.



**Figure 10: Prevalence of injuries and falls in the past 12 months by health regions in WA, 16 years & over, HWSS 2021**

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

## 4.6 Asthma

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 prevalence of lifetime asthma was significantly higher in adults aged 16 to 44 years (22.7%) compared to those aged 45 to 64 years (14.7%) and 65 years and over (13.6%) (**Table 10**).
- The prevalence of both lifetime and current asthma was significantly higher in females compared to males (lifetime asthma - 19.9% compared to 16.1% and current asthma - 12.1% compared to 8.3%).
- Of those who had ever been diagnosed with asthma, 21.0% reported they had an action plan on what to do if their asthma worsens.

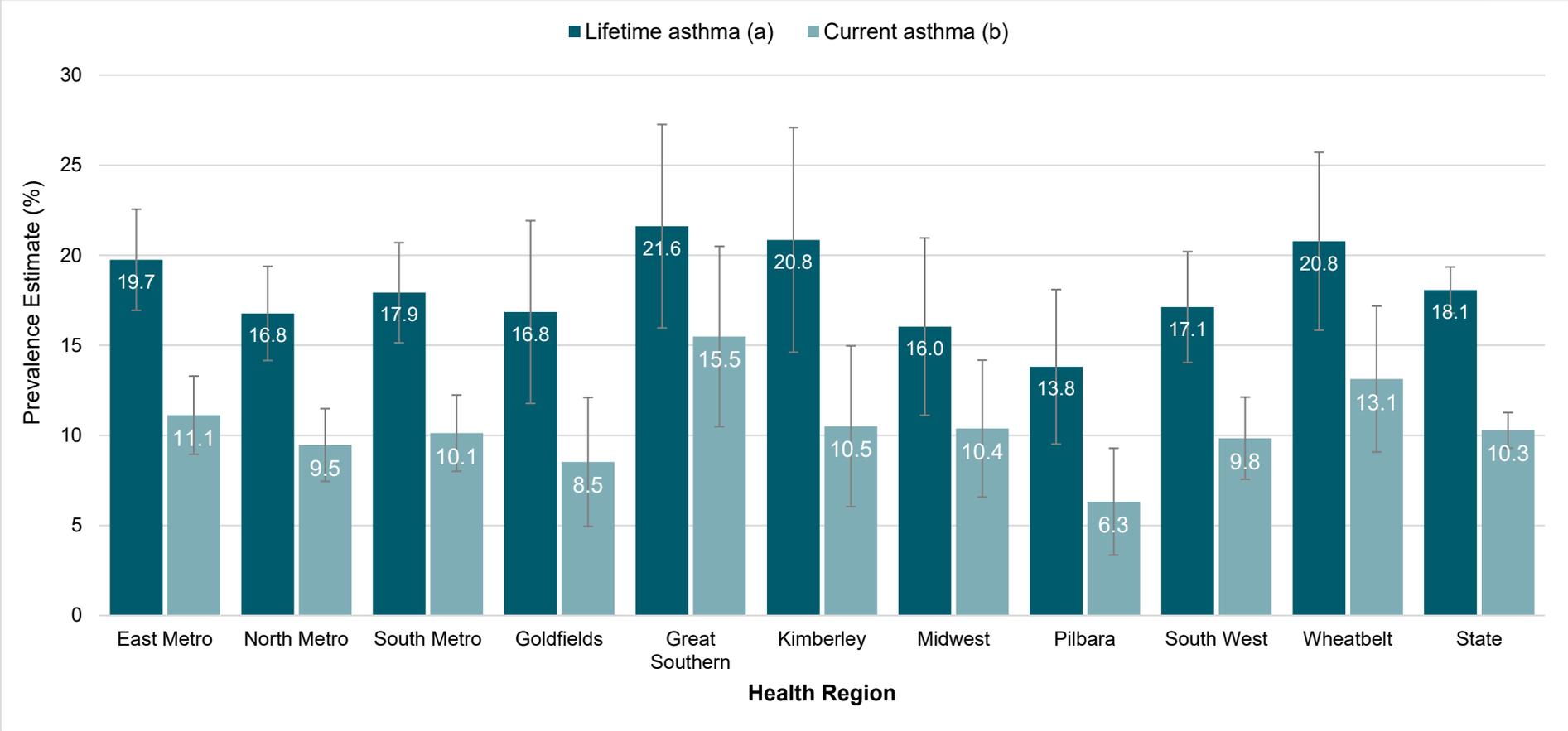
**Table 10: Prevalence of asthma and asthma action plan, 16 years & over, HWSS 2021**

	Lifetime asthma (a)		Current asthma (b)		Action Plan (c)	
	%	95% CI	%	95% CI	%	95% CI
<b>16 to 44 years</b>						
Females	24.0	(20.7—27.4)	12.7	(10.1—15.3)	19.0	(12.8—25.2)
Males	21.3	(17.7—24.9)	9.7	(7.1—12.4)	13.1	(6.7—19.4)
Persons	22.7	(20.3—25.2)	11.3	(9.4—13.1)	16.4	(11.9—20.8)
<b>45 to 64 years</b>						
Females	16.4	(14.1—18.8)	11.4	(9.4—13.4)	33.8	(26.5—41.2)
Males	12.7	(10.2—15.3)	7.2	(5.4—9.1)	17.6	(9.4—25.8)
Persons	14.7	(13.0—16.5)	9.5	(8.1—10.9)	27.5	(21.9—33.1)
<b>65+ years</b>						
Females	16.6	(14.9—18.3)	12.0	(10.5—13.4)	29.8	(24.7—34.9)
Males	10.6	(9.1—12.1)	7.0	(5.7—8.3)	20.4	(14.2—26.5)
Persons	13.6	(12.4—14.7)	9.4	(8.5—10.4)	26.1	(22.1—30.0)
<b>Total</b>						
Females	19.9	(18.1—21.6)	12.1	(10.7—13.5)	25.1	(21.0—29.3)
Males	16.1	(14.2—17.9)	8.3	(6.9—9.6)	15.3	(10.9—19.8)
Persons	18.1	(16.8—19.4)	10.3	(9.3—11.3)	21.0	(18.0—24.1)

(a) People who reported they had been told by a doctor 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.

The prevalence of lifetime asthma and current asthma was estimated for the WA health regions and compared to the state prevalence.

- The prevalence of current asthma was significantly lower in the Pilbara health region (6.3%) compared to the state prevalence (10.3%) (**Figure 11**).
- The prevalence of lifetime asthma was not significantly different in the health regions compared to the state.



**Figure 11: Prevalence of lifetime asthma and current asthma by health regions in WA, 16 years & over, HWSS 2021**

(a) People who reported they had been told by a doctor that they have asthma (ever). (b) People who reported they have had symptoms of, or treatment for, asthma in the last 12 months.

We asked respondents with asthma how often their asthma had interfered with daily activities in the last 4 weeks.

- Of those adults who had ever been diagnosed with asthma, 75.0% reported that their asthma had not interfered with their daily activities in the last 4 weeks (**Table 11**).
- Females were significantly more likely than males to report that their asthma interfered with their daily activities some of the time (25.7% compared to 14.9%).

**Table 11: Prevalence of asthma interfering with daily activities in the last 4 weeks, 16 years & over, HWSS 2021**

	All or most of the time		Some of the time		None of the time	
	%	95% CI	%	95% CI	%	95% CI
<b>16 to 44 years</b>						
Females	4.3 *	(0.6—8.0)	23.4	(16.6—30.3)	72.3	(64.9—79.6)
Males	N/A	(N/A—N/A)	15.1	(8.1—22.0)	83.1	(75.9—90.4)
Persons	3.2 *	(0.8—5.6)	19.7	(14.8—24.7)	77.1	(71.8—82.3)
<b>45 to 64 years</b>						
Females	5.2 *	(2.4—8.0)	31.3	(23.7—38.8)	63.6	(55.9—71.3)
Males	3.6 *	(0.7—6.6)	14.2	(7.8—20.5)	82.2	(75.3—89.1)
Persons	4.6	(2.5—6.6)	24.5	(19.0—29.9)	71.0	(65.3—76.6)
<b>65+ years</b>						
Females	4.9 *	(2.2—7.7)	23.2	(18.6—27.7)	71.9	(67.0—76.8)
Males	5.1 *	(1.6—8.6)	15.3	(9.9—20.6)	79.6	(73.5—85.7)
Persons	5.0	(2.9—7.2)	20.1	(16.6—23.6)	74.9	(71.0—78.7)
<b>Total</b>						
Females	4.7	(2.4—6.9)	25.7	(21.3—30.2)	69.6	(64.9—74.3)
Males	2.8 *	(1.0—4.6)	14.9	(10.4—19.4)	82.4	(77.6—87.1)
Persons	3.9	(2.4—5.4)	21.2	(17.9—24.4)	75.0	(71.6—78.4)

\* 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.

## 4.7 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, and whether they still had the respiratory problem.

- The lifetime and point prevalence of a respiratory condition other than asthma increased significantly with age (lifetime - 16 to 44 years: 1.4%, 45 to 64 years: 5.7%, 65 years and over: 11.3%; point - 16 to 44 years: 0.4%, 45 to 64 years: 3.7%, 65 years and over: 9.4%) (Table 12).
- The prevalence of a respiratory condition other than asthma did not vary significantly by gender.

**Table 12: Prevalence of respiratory conditions other than asthma, 16 years & over, HWSS 2021**

	Lifetime (a)		Point (b)	
	%	95% CI	%	95% CI
<b>16 to 44 years</b>				
Females	1.6 *	(0.6—2.6)	N/A	(N/A—N/A)
Males	1.2 *	(0.2—2.1)	N/A	(N/A—N/A)
Persons	1.4	(0.7—2.1)	0.4 *	(0.1—0.7)
<b>45 to 64 years</b>				
Females	5.7	(4.2—7.3)	3.3	(2.3—4.4)
Males	5.6	(3.8—7.4)	4.1	(2.6—5.7)
Persons	5.7	(4.5—6.8)	3.7	(2.8—4.6)
<b>65+ years</b>				
Females	11.0	(9.6—12.3)	9.2	(7.9—10.5)
Males	11.7	(10.0—13.3)	9.6	(8.1—11.1)
Persons	11.3	(10.3—12.4)	9.4	(8.4—10.4)
<b>Total</b>				
Females	4.8	(4.1—5.6)	3.1	(2.6—3.7)
Males	4.9	(4.1—5.8)	3.6	(2.9—4.2)
Persons	4.9	(4.3—5.5)	3.4	(2.9—3.8)

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

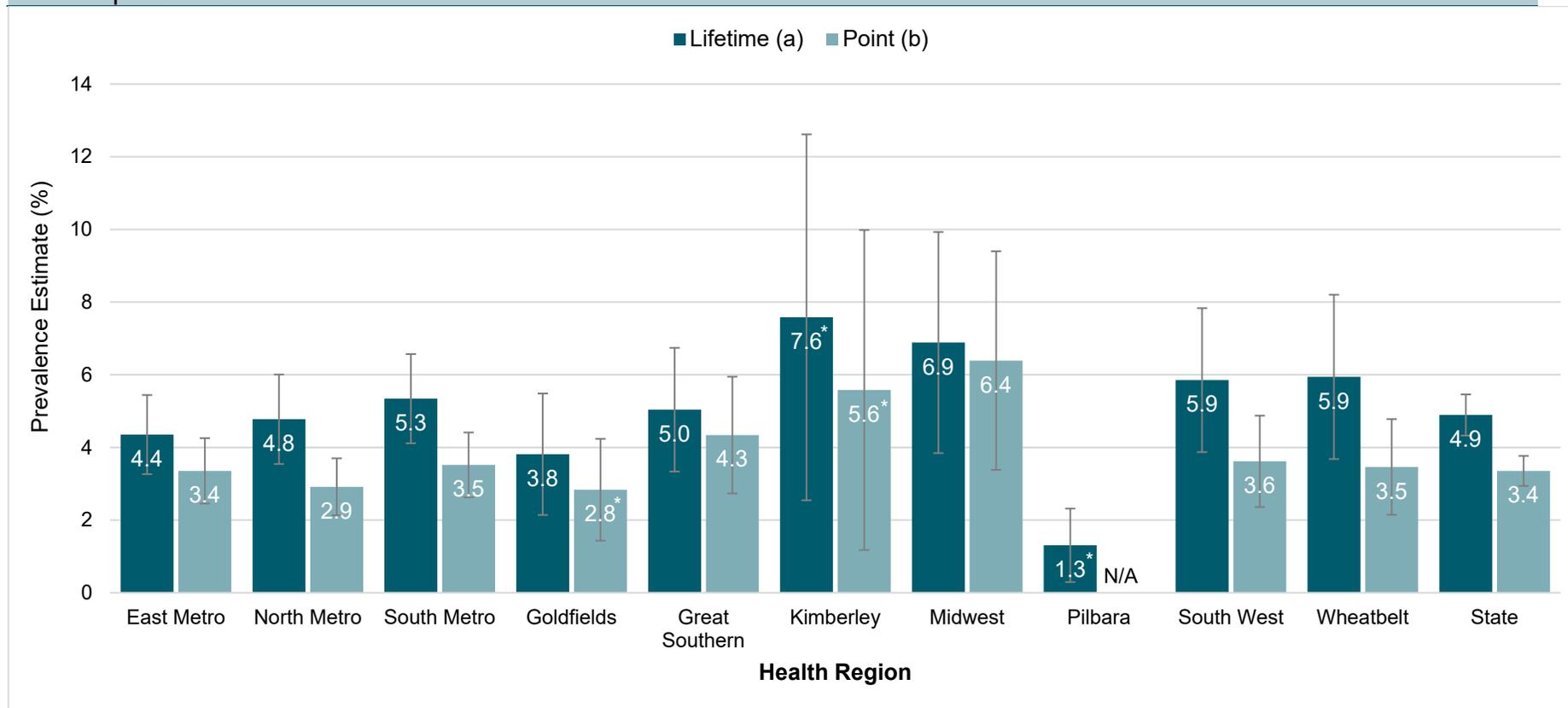
(b) People who reported they had a respiratory condition other than asthma that lasted 6 months or more that is still present.

\* 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.

The lifetime and point prevalence of respiratory conditions other than asthma was estimated for the WA health regions and compared to the state prevalence.

- The lifetime prevalence of respiratory conditions other than asthma was significantly lower in the Pilbara health region (1.3%) compared to the state prevalence (4.9%) (**Figure 12**).
- The point prevalence of respiratory conditions other than asthma was not significantly different in the health regions compared to the state.



**Figure 12: Prevalence of respiratory conditions other than asthma by health regions in WA, 16 years & over, HWSS 2021**

(a) People who reported they were told by a doctor that they have a respiratory condition other than asthma that lasted 6 months or more (b) People who reported they had a respiratory condition other than asthma that lasted 6 months or more and 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.

## 4.8 Mental health

We asked respondents if a doctor had diagnosed them with a mental health condition during the past 12 months.

- The prevalence of anxiety, depression, stress-related and other mental health conditions within the past 12 months was significantly lower in adults aged 65 years and over compared to the younger age groups (**Table 13**).
- The prevalence of anxiety, depression and stress-related conditions was significantly higher in females compared to males.

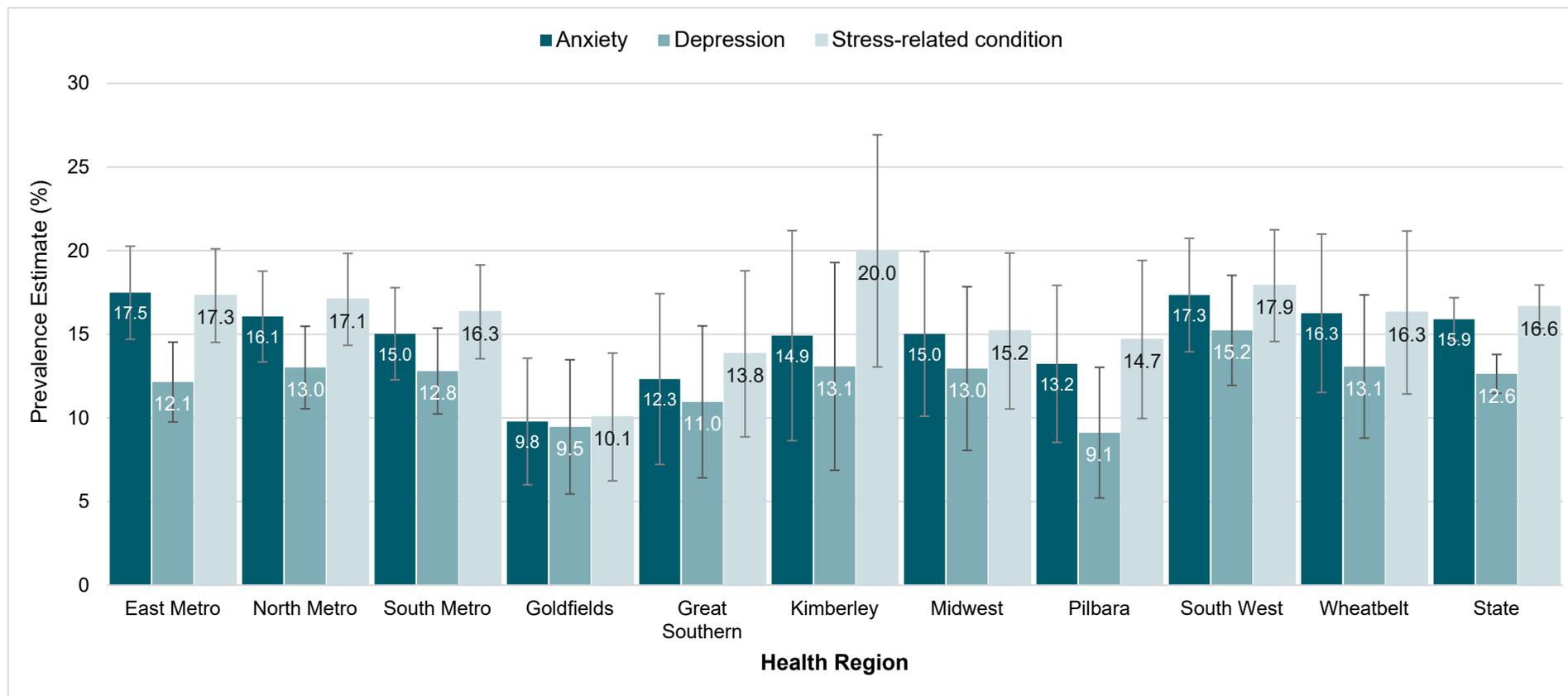
**Table 13: Prevalence of mental health conditions, 16 years & over, HWSS 2021**

	Anxiety		Depression		Stress-related condition		Other mental health condition	
	%	95% CI	%	95% CI	%	95% CI	%	95% CI
<b>16 to 44 years</b>								
Females	26.9	(23.4—30.5)	18.0	(14.9—21.1)	26.4	(22.9—30.0)	9.9	(7.4—12.3)
Males	16.0	(12.6—19.3)	12.8	(9.7—15.8)	17.4	(13.9—20.9)	8.1	(5.6—10.6)
Persons	21.7	(19.3—24.2)	15.5	(13.3—17.7)	22.2	(19.7—24.7)	9.0	(7.3—10.8)
<b>45 to 64 years</b>								
Females	16.1	(13.7—18.5)	13.7	(11.4—16.0)	19.0	(16.5—21.6)	5.5	(3.9—7.1)
Males	11.7	(9.1—14.4)	11.0	(8.5—13.5)	11.0	(8.5—13.6)	5.1	(3.3—7.0)
Persons	14.1	(12.3—15.9)	12.5	(10.8—14.1)	15.4	(13.6—17.2)	5.3	(4.1—6.5)
<b>65+ years</b>								
Females	8.1	(6.8—9.3)	7.3	(6.2—8.4)	8.9	(7.6—10.2)	1.5	(1.0—2.0)
Males	4.7	(3.6—5.8)	6.1	(4.8—7.4)	5.2	(4.0—6.4)	1.0	(0.6—1.4)
Persons	6.4	(5.5—7.2)	6.7	(5.8—7.6)	7.0	(6.2—7.9)	1.2	(0.9—1.6)
<b>Total</b>								
Females	19.4	(17.5—21.2)	14.4	(12.7—16.0)	20.3	(18.5—22.2)	6.7	(5.4—7.9)
Males	12.1	(10.3—13.8)	10.7	(9.1—12.3)	12.6	(10.8—14.4)	5.5	(4.2—6.8)
Persons	15.9	(14.6—17.2)	12.6	(11.5—13.8)	16.6	(15.3—17.9)	6.1	(5.2—7.0)

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

The prevalence of anxiety, depression and stress-related conditions was estimated for the WA health regions and compared to the state prevalence.

- The prevalence of anxiety and stress-related conditions was significantly lower in the Goldfields health region (anxiety - 9.8% and stress-related conditions - 10.1%) when compared to the state prevalence (anxiety - 15.9 % and stress-related conditions - 16.6%) (**Figure 13**).
- The prevalence of depression was not significantly different in the health regions compared to the state.



**Figure 13: Prevalence of anxiety, depression and stress-related conditions by health regions in WA, 16 years & over, HWSS 2021**

We asked respondents if they were currently receiving treatment for a mental health condition.

- The prevalence of any mental health condition decreased significantly with age (16 to 44 years - 31.6%; 45 to 64 years - 22.4% and 65 years and over - 13.1%) (**Table 14**).
- The prevalence of receiving treatment for a mental health condition also decreased significantly with age (16 to 44 years - 17.5%; 45 to 64 years - 13.2% and 65 years and over - 7.3%).
- The prevalence of any mental health condition was significantly higher in females compared to males (29.1% vs 19.6%)
- The prevalence of receiving treatment for a mental health condition was also significantly higher in females compared to males (16.5% vs 11.1%).

**Table 14: Current mental health status, 16 years & over, HWSS 2021**

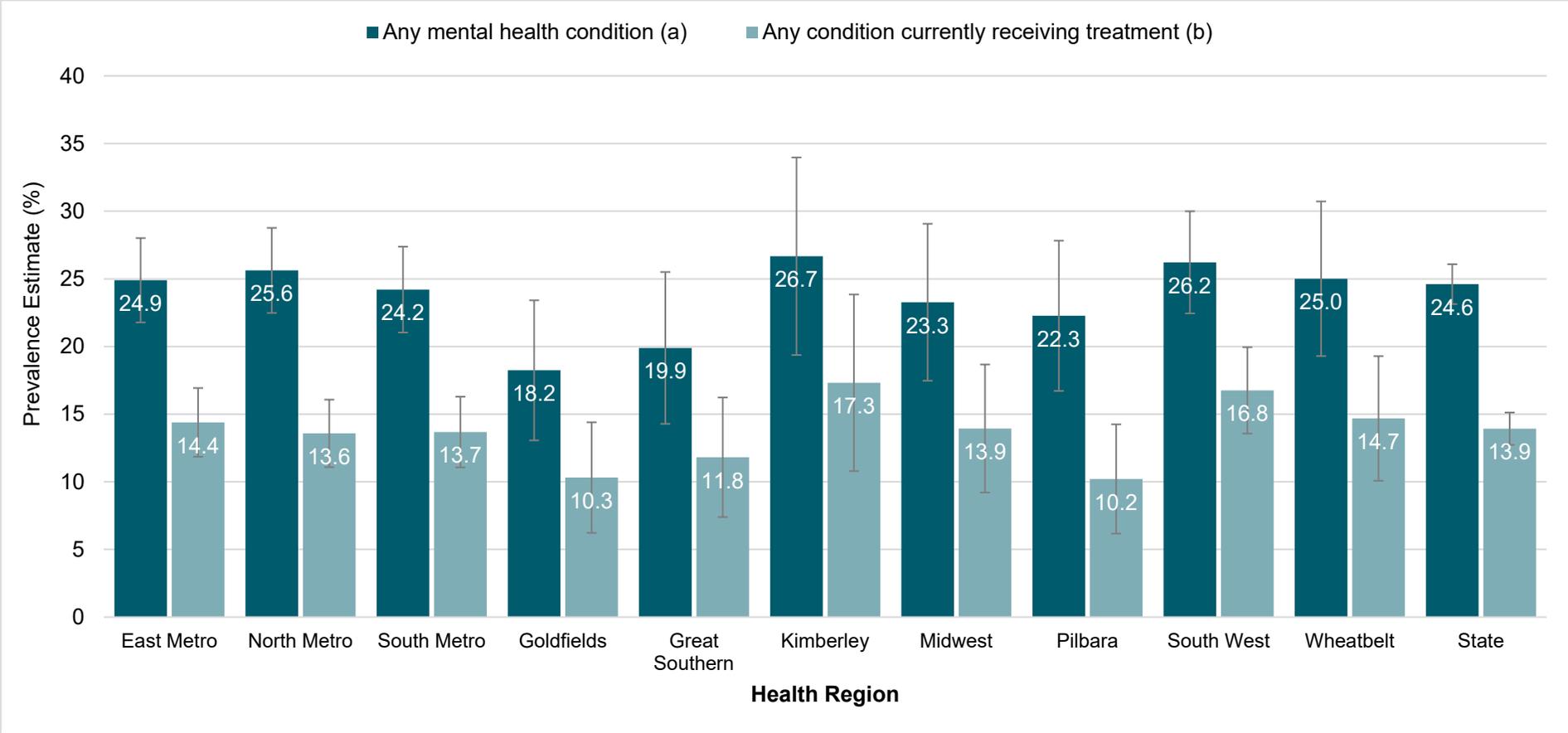
	Any mental health condition (a)		Any condition currently receiving treatment (b)	
	%	95% CI	%	95% CI
<b>16 to 44 years</b>				
Females	37.2	(33.4—41.0)	20.6	(17.4—23.7)
Males	25.4	(21.4—29.3)	14.1	(10.9—17.3)
Persons	31.6	(28.9—34.4)	17.5	(15.3—19.8)
<b>45 to 64 years</b>				
Females	26.0	(23.2—28.9)	15.3	(12.9—17.7)
Males	18.0	(14.9—21.2)	10.8	(8.2—13.3)
Persons	22.4	(20.3—24.5)	13.2	(11.5—15.0)
<b>65+ years</b>				
Females	16.0	(14.4—17.6)	9.3	(8.1—10.6)
Males	10.3	(8.7—11.9)	5.3	(4.2—6.5)
Persons	13.1	(12.0—14.3)	7.3	(6.5—8.2)
<b>Total</b>				
Females	29.1	(27.1—31.2)	16.5	(14.8—18.2)
Males	19.6	(17.5—21.7)	11.1	(9.4—12.7)
Persons	24.6	(23.1—26.1)	13.9	(12.7—15.1)

(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.

The prevalence of current mental health status (i.e., any mental health condition and currently receiving treatment for a mental health condition) was estimated for the WA health regions and compared to the state prevalence.

- The prevalence of any mental health condition and currently receiving treatment for a mental health condition was not significantly different in the health regions compared to the state prevalence (**Figure 14**).



**Figure 14: Prevalence of current mental health status by health regions in WA, 16 years & over, HWSS 2021**

(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.

**LIFESTYLE  
BEHAVIOURS**



## 5. Lifestyle behaviours

Lifestyle behaviours can 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. This section will focus on the following lifestyle behaviours:

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

9.9%

Western Australian  
adults are current  
smokers



15.3%

Western Australian  
adults had ever tried  
an e-cigarette



10.3%

Western Australian  
adults reported  
illicit drug use



**29.9%** Western  
Australian adults drink at levels  
considered to be high risk for  
long-term harm



**11.0%** Western  
Australian adults drink at levels  
considered to be high risk for  
short-term harm

**9.5%** Western  
Australian adults eat five  
or more serves of  
vegetables daily

**41.1%** Western  
Australian adults met  
recommended minimum  
daily intake for fruit



**8.0%** Western  
Australian adults met  
recommended minimum  
daily intake for vegetables

46.4%

Western Australian adults consumed full fat/whole milk



4.5%

Western Australian adults could not afford to buy food when they ran out in the past 12 months



12.4% Western Australian adults aged 65 years and over reported their teeth or dentures affected the type of food they were able to eat



36.1%

Western Australian adults eat fast food meals at least once a week



45.3%

Western Australian adults eat potato chips at least once a week



65.4%

Western Australian adults eat sweet snacks at least once a week



44.8%

Western Australian adults eat salty snacks at least once a week



27.2%

Western Australian adults drink sugar sweetened soft-drinks or energy drinks at least once a week



59.3%

Western Australian adults eat processed meats at least once a week



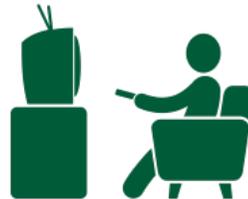
**13.5%** Western  
Australian adults are very  
active



**65.4%** Western  
Australian adults complete at  
least 150 minutes of moderate  
physical activity per week



**55.1%** Western  
Australian adults  
usually spend most of  
their day sitting



**35.5%** Western  
Australian adults spend 21  
hours or more per week on  
screen-based activity



**31.3%** Western  
Australian adults sleep less than  
the recommended number of  
hours on a usual night



## 5.1 Smoking

### 5.1.1 Tobacco smoking

We asked respondents about their smoking status (including cigarettes, cigars and pipes).

- Adults aged 45 to 64 years were significantly more likely to report smoking daily compared to those aged 18 to 44 years and 65 years and over (10.3% compared to 6.2% and 3.8%) (**Table 15**).
- Males were significantly more likely to report smoking daily compared to females (8.6% compared to 5.8%).
- Females were significantly more likely to report never smoking compared to males (56.0% compared to 45.4%).

**Table 15: Current smoking status, 18 years & over, HWSS 2021**

	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 years</b>										
Females	5.6	(3.8—7.4)	3.3	(1.8—4.9)	11	(8.6—13.5)	14.5	(11.8—17.2)	65.6	(61.9—69.3)
Males	6.9	(4.6—9.2)	5.4	(3.3—7.5)	14.6	(11.4—17.7)	17.4	(14.0—20.7)	55.8	(51.3—60.2)
Persons	6.2	(4.8—7.6)	4.3	(3.1—5.6)	12.7	(10.7—14.7)	15.8	(13.7—18.0)	60.9	(58.0—63.8)
<b>45 to 64 years</b>										
Females	7.3	(5.7—9.0)	1.4	(0.8—2.0)	37.4	(34.3—40.5)	6.4	(4.8—7.9)	47.5	(44.2—50.8)
Males	13.9	(11.1—16.6)	2.6	(1.3—3.9)	36.1	(32.3—39.9)	8.0	(5.9—10.0)	39.5	(35.6—43.3)
Persons	10.3	(8.8—11.9)	1.9	(1.3—2.6)	36.8	(34.4—39.2)	7.1	(5.9—8.4)	43.8	(41.3—46.4)
<b>65+ years</b>										
Females	3.7	(2.8—4.5)	0.7 *	(0.3—1.1)	38.2	(36.1—40.4)	7.0	(6.0—8.1)	50.4	(48.1—52.6)
Males	3.9	(3.0—4.9)	1.1	(0.5—1.6)	55.3	(52.8—57.8)	6.0	(4.8—7.1)	33.7	(31.4—36.1)
Persons	3.8	(3.1—4.5)	0.9	(0.6—1.2)	46.9	(45.2—48.6)	6.5	(5.7—7.3)	41.9	(40.3—43.5)
<b>Total</b>										
Females	5.8	(4.8—6.9)	2.1	(1.4—2.8)	25.9	(24.2—27.6)	10.1	(8.7—11.4)	56.0	(53.9—58.1)
Males	8.6	(7.2—10.0)	3.5	(2.5—4.5)	30.9	(28.8—33.0)	11.7	(10.0—13.3)	45.4	(42.9—47.8)
Persons	7.2	(6.3—8.0)	2.8	(2.2—3.4)	28.3	(26.9—29.6)	10.8	(9.8—11.9)	51.0	(49.4—52.6)

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

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>3</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

- Adults aged 65 years and over were significantly less likely to be current smokers compared to those aged 18 to 44 years and 45 to 64 years (4.7% compared to 10.5% and 12.3%) (**Table 16**).
- Adults aged 18 to 44 years were significantly more likely to have never smoked or never smoked regularly compared to those aged 45 to 64 years and 65 years and over (73.7 % compared to 49.9% and 47.9%).
- The prevalence of being an ex-smoker increased significantly with age (18 to 44 years - 15.8%, 45 to 64 years - 37.9% and 65 years and over - 47.4%).
- Males were significantly more likely to be current smokers compared to females (12.1% compared to 8.0%).
- Females were significantly more likely to have never smoked or never smoked regularly compared to males (64.7% compared to 54.7%).

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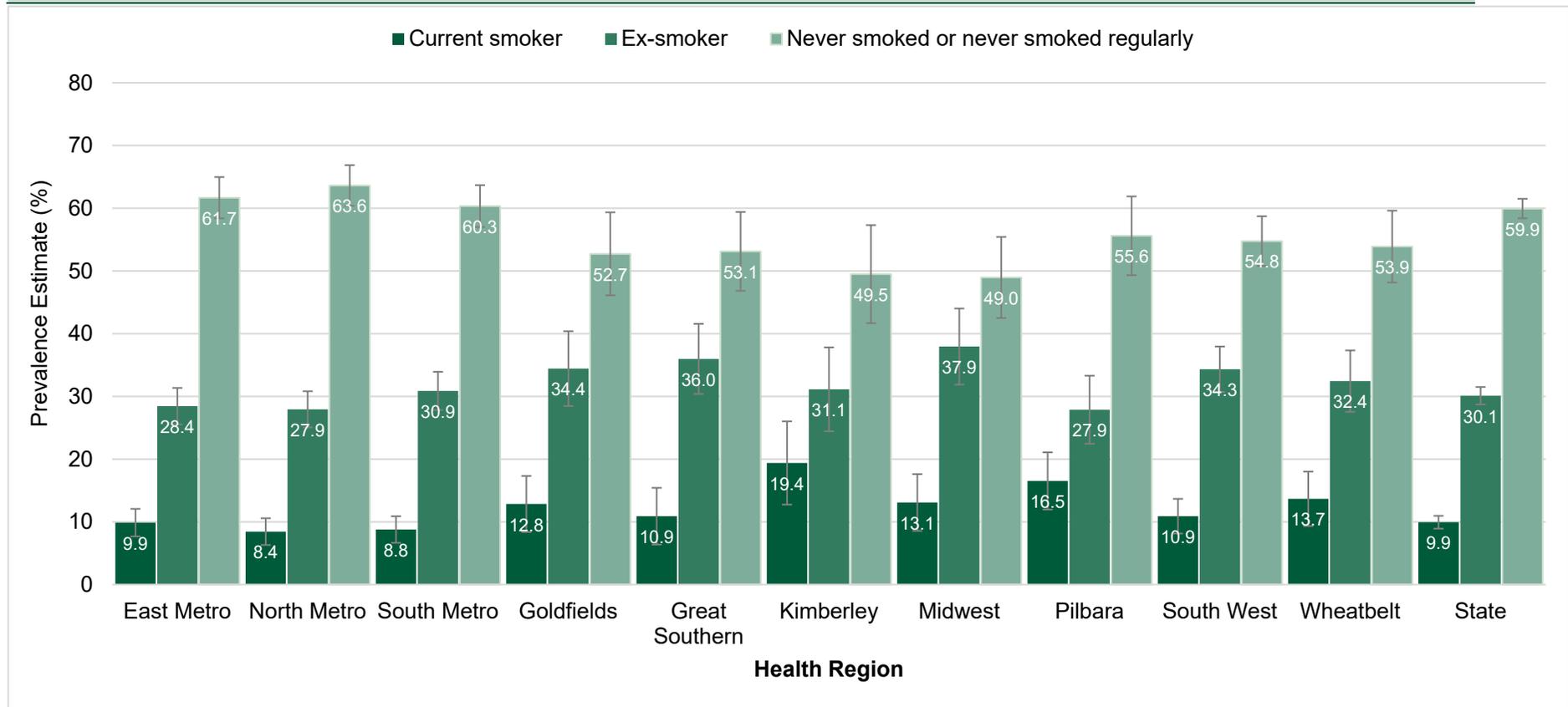
<sup>3</sup> Australian Institute of Health and Welfare, 2015, National Health Data Dictionary: version 16.2, National Health Data Dictionary series. Cat. no. HWI 131., AIHW, Canberra. Available from: <https://www.aihw.gov.au/getmedia/95a1c4b5-01ab-4524-9ea2-fd45df130a8e/18488-dictionary-v16-2.pdf.aspx?inline=true>.

**Table 16: Lifetime smoking status, 18 years & over, HWSS 2021**

	Current smoker		Ex-smoker		Never smoked or never smoked regularly	
	%	95% CI	%	95% CI	%	95% CI
<b>18 to 44 years</b>						
Females	8.9	(6.6—11.2)	13.9	(11.2—16.6)	77.2	(73.9—80.5)
Males	12.3	(9.3—15.3)	17.9	(14.5—21.4)	69.7	(65.6—73.9)
Persons	10.5	(8.7—12.4)	15.8	(13.6—18.0)	73.7	(71.0—76.3)
<b>45 to 64 years</b>						
Females	8.7	(7.0—10.5)	37.7	(34.6—40.8)	53.6	(50.4—56.8)
Males	16.5	(13.5—19.4)	38.1	(34.3—41.9)	45.4	(41.5—49.4)
Persons	12.3	(10.6—13.9)	37.9	(35.4—40.3)	49.9	(47.3—52.4)
<b>65+ years</b>						
Females	4.4	(3.4—5.3)	38.5	(36.4—40.7)	57.1	(54.9—59.3)
Males	5.0	(3.9—6.1)	56.0	(53.5—58.4)	39.0	(36.6—41.4)
Persons	4.7	(4.0—5.4)	47.4	(45.7—49.0)	47.9	(46.3—49.6)
<b>Total</b>						
Females	8.0	(6.8—9.2)	27.3	(25.6—29.1)	64.7	(62.7—66.7)
Males	12.1	(10.5—13.8)	33.2	(31.0—35.3)	54.7	(52.3—57.1)
Persons	9.9	(8.9—11.0)	30.1	(28.7—31.5)	59.9	(58.4—61.5)

The prevalence of lifetime smoking status was estimated for the WA health regions and compared to the state prevalence.

- The prevalence of current smokers was significantly higher in the Kimberley (19.4%) and Pilbara (16.5%) health regions compared to the state prevalence (9.9%) (**Figure 15**).
- The prevalence of adults who never smoked or never smoked regularly was significantly lower in the Kimberley (49.5%) and Midwest (49.0%) health regions compared to the state prevalence (59.9%).
- There prevalence of ex-smokers was significantly higher in the Midwest health region compared to the state prevalence (37.9% compared to 30.1%).



**Figure 15: Prevalence of lifetime smoking status by health regions in WA, 18 years & over, HWSS 2021**

We asked respondents if their home was smoke free or if people occasionally or frequently smoke in their home.

- The majority (96.2%) of Western Australian adults live in a smoke free home (**Table 17**).
- Females aged 45 to 64 years were more likely to live in a smoke free home compared to males of the same age group (97.6% compared to 94.9%).

**Table 17: Smoking in the home, 18 years & over, HWSS 2021**

	Never smoke in the home	
	%	95% CI
<b>18 to 44 years</b>		
Females	95.8	(94.1—97.4)
Males	94.2	(92.1—96.4)
Persons	95.0	(93.7—96.4)
<b>45 to 64 years</b>		
Females	97.6	(96.7—98.5)
Males	94.9	(93.2—96.6)
Persons	96.4	(95.5—97.3)
<b>65+ years</b>		
Females	98.2	(97.6—98.8)
Males	98.1	(97.5—98.8)
Persons	98.2	(97.7—98.6)
<b>Total</b>		
Females	96.9	(96.1—97.7)
Males	95.3	(94.2—96.5)
Persons	96.2	(95.5—96.8)

## 5.1.2 E-cigarette smoking

We asked respondents if they had ever tried an electronic cigarette or e-cigarette including electronic-shisha, electronic-hookah, personal vaporisers and vape pens.

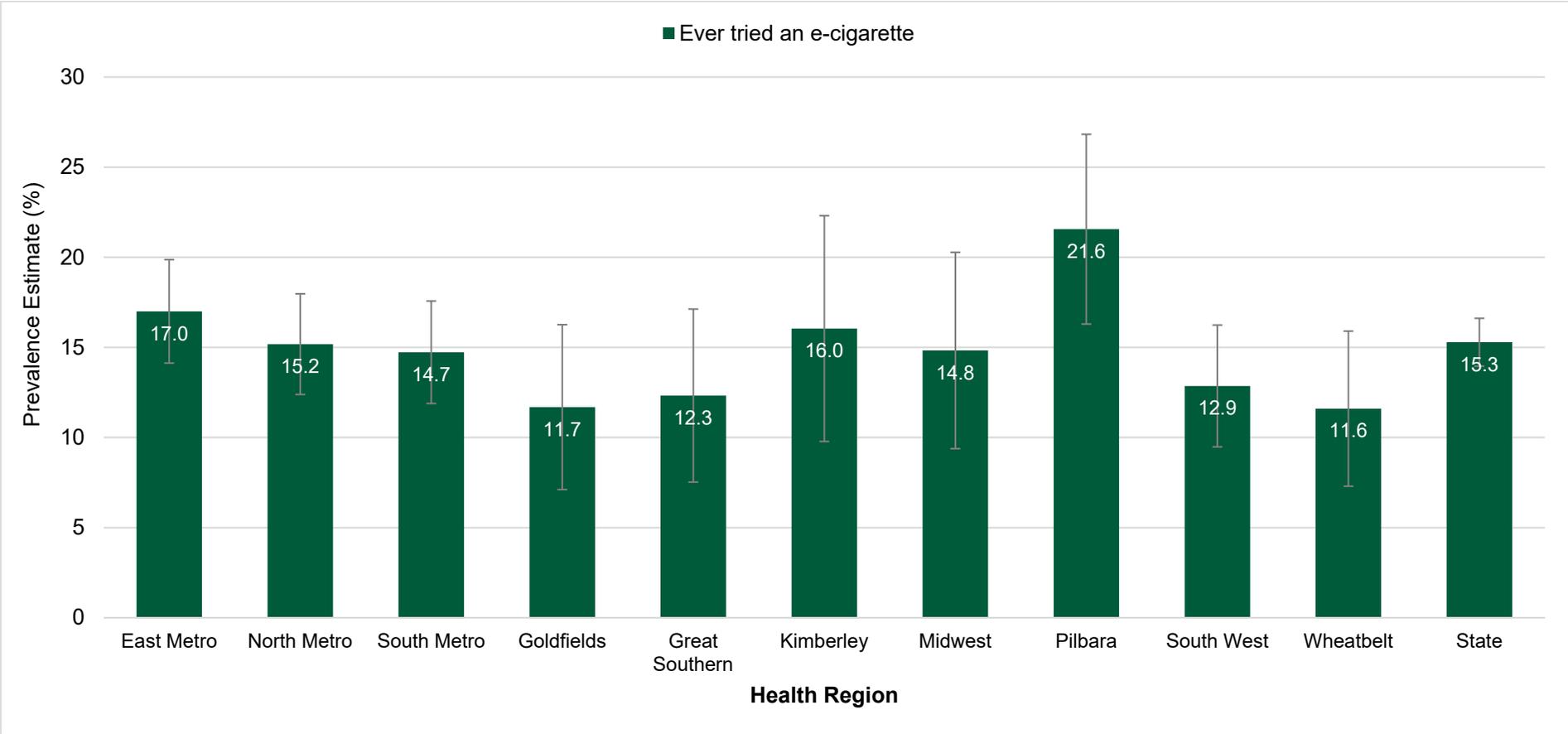
- The prevalence of adults ever trying e-cigarettes decreased significantly with age (18 to 44 years - 23.5%; 45 to 64 years - 12.6% and 65 and over - 2.6%) (**Table 18**).
- Males were significantly more likely to have ever tried an e-cigarette compared to females (17.8% compared to 13.0%).

**Table 18: Prevalence of adults who have (ever) tried an e-cigarette, 18 years & over, HWSS, 2021**

	Ever tried an e-cigarette		Never tried an e-cigarette	
	%	95% CI	%	95% CI
<b>18 to 44 years</b>				
Females	20.3	(17.0—23.6)	79.7	(76.4—83.0)
Males	27.0	(23.0—31.1)	73.0	(68.9—77.0)
Persons	23.5	(20.9—26.0)	76.5	(74.0—79.1)
<b>45 to 64 years</b>				
Females	9.9	(7.9—11.9)	90.1	(88.1—92.1)
Males	15.8	(12.7—18.8)	84.2	(81.2—87.3)
Persons	12.6	(10.8—14.4)	87.4	(85.6—89.2)
<b>65+ years</b>				
Females	2.3	(1.6—2.9)	97.7	(97.1—98.4)
Males	2.9	(2.0—3.7)	97.1	(96.3—98.0)
Persons	2.6	(2.0—3.1)	97.4	(96.9—98.0)
<b>Total</b>				
Females	13.0	(11.3—14.6)	87.0	(85.4—88.7)
Males	17.8	(15.7—20.0)	82.2	(80.0—84.3)
Persons	15.3	(14.0—16.6)	84.7	(83.4—86.0)

The prevalence of adults who ever tried an e-cigarette was estimated for the WA health regions and compared to the state prevalence.

- The prevalence of adults who ever tried an e-cigarette was not significantly different in the health regions compared to the state (**Figure 16**).



**Figure 16: Prevalence of adults who ever tried an e-cigarette by health regions in WA, 18 years & over, HWSS 2021**

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.

- Of those adults who had ever tried e-cigarettes, almost half (47.0%) had used an e-cigarette in the past 12 months (**Table 19**).
- There were no significant differences in the use of e-cigarettes in the past 12 months by gender or age groups among adults who had ever tried an e-cigarette.

**Table 19:** 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, 2021

	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 years</b>				
Females	46.3	(37.1—55.5)	53.7	(44.5—62.9)
Males	54.3	(45.5—63.1)	45.7	(36.9—54.5)
Persons	50.7	(44.3—57.0)	49.3	(43.0—55.7)
<b>45 to 64 years</b>				
Females	41.5	(30.9—52.2)	58.5	(47.8—69.1)
Males	38.3	(28.0—48.5)	61.7	(51.5—72.0)
Persons	39.7	(32.2—47.1)	60.3	(52.9—67.8)
<b>65+ years</b>				
Females	39.0	(24.0—54.0)	61.0	(46.0—76.0)
Males	38.4	(23.3—53.5)	61.6	(46.5—76.7)
Persons	38.7	(27.9—49.4)	61.3	(50.6—72.1)
<b>Total</b>				
Females	44.7	(37.7—51.7)	55.3	(48.3—62.3)
Males	48.9	(42.2—55.6)	51.1	(44.4—57.8)
Persons	47.0	(42.2—51.9)	53.0	(48.1—57.8)

The prevalence of current e-cigarette use among current smokers was determined.

- Almost one in five (18.5%) current smokers reported currently using e-cigarettes (**Table 20**).
- The prevalence of currently using e-cigarettes among current smokers did not vary by gender.

**Table 20: Prevalence of current e-cigarette use among current smokers, 18 years & over, HWSS 2021**

Sex	Current e-cigarette use among current smokers		No current e-cigarette use among current smokers	
	%	95% CI	%	95% CI
<b>Total</b>				
Females	16.2	(10.0—22.3)	83.8	(77.7—90.0)
Males	20.2	(13.9—26.5)	79.8	(73.5—86.1)
Persons	18.5	(14.0—23.0)	81.5	(77.0—86.0)

## 5.2 Alcohol

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 National Health and Medical Research Council (NHMRC) 2009 guidelines,<sup>4</sup> where any drinking by people aged less than 18 years is regarded as risky.

- Males were significantly more likely than females to report drinking at levels considered high risk for long-term alcohol related harm (39.1% compared to 21.6%) (**Table 21**).
- Males were also significantly more likely than females to report drinking at levels considered high risk for short-term alcohol related harm (15.3% compared to 7.3%) (**Table 22**).
- For both long-term and short-term harm alcohol related harm, the prevalence of high-risk alcohol consumption was significantly lower for adults aged 65 years and over when compared to the younger age groups (long term: 65 years and over-16.3% compared to 16 to 44 years -34.8% and 45 to 64 years -31.4%; short term: 65 years and over-3.5% compared to 16 to 44 years -14.7% and 45 to 64 years -10.7%).

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.

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<sup>4</sup> National Health and Medical Research Council, 2009, Australian guidelines to reduce health risks from drinking alcohol, NHMRC, Canberra.

**Table 21: Risk of long-term alcohol related harm, 16 years & over, HWSS 2021**

	Doesn't drink/ drinking level undetermined		Low risk (a)		High risk (b)	
	%	95% CI	%	95% CI	%	95% CI
<b>16 to 44 years</b>						
Females	38.7	(34.9—42.6)	35.1	(31.4—38.8)	26.2	(22.8—29.6)
Males	27.6	(23.5—31.6)	27.9	(24.0—31.8)	44.5	(40.1—48.9)
Persons	33.5	(30.7—36.3)	31.7	(29.0—34.4)	34.8	(32.0—37.6)
<b>45 to 64 years</b>						
Females	35.8	(32.6—38.9)	41.2	(38.1—44.4)	23.0	(20.2—25.8)
Males	22.7	(19.3—26.0)	35.8	(32.0—39.7)	41.5	(37.6—45.3)
Persons	29.8	(27.5—32.1)	38.8	(36.3—41.2)	31.4	(29.1—33.8)
<b>65+ years</b>						
Females	44.9	(42.7—47.1)	47.1	(44.9—49.3)	8.0	(6.8—9.2)
Males	29.2	(26.9—31.5)	46.3	(43.8—48.8)	24.5	(22.3—26.6)
Persons	37.0	(35.4—38.6)	46.7	(45.0—48.3)	16.3	(15.1—17.6)
<b>Total</b>						
Females	38.8	(36.7—41.0)	39.6	(37.5—41.6)	21.6	(19.8—23.4)
Males	26.3	(24.1—28.5)	34.6	(32.3—36.8)	39.1	(36.7—41.5)
Persons	32.9	(31.4—34.4)	37.2	(35.7—38.7)	29.9	(28.4—31.4)

(a) Drinks two or less standard drinks per day. (b) Drinks more than two standard drinks per day.

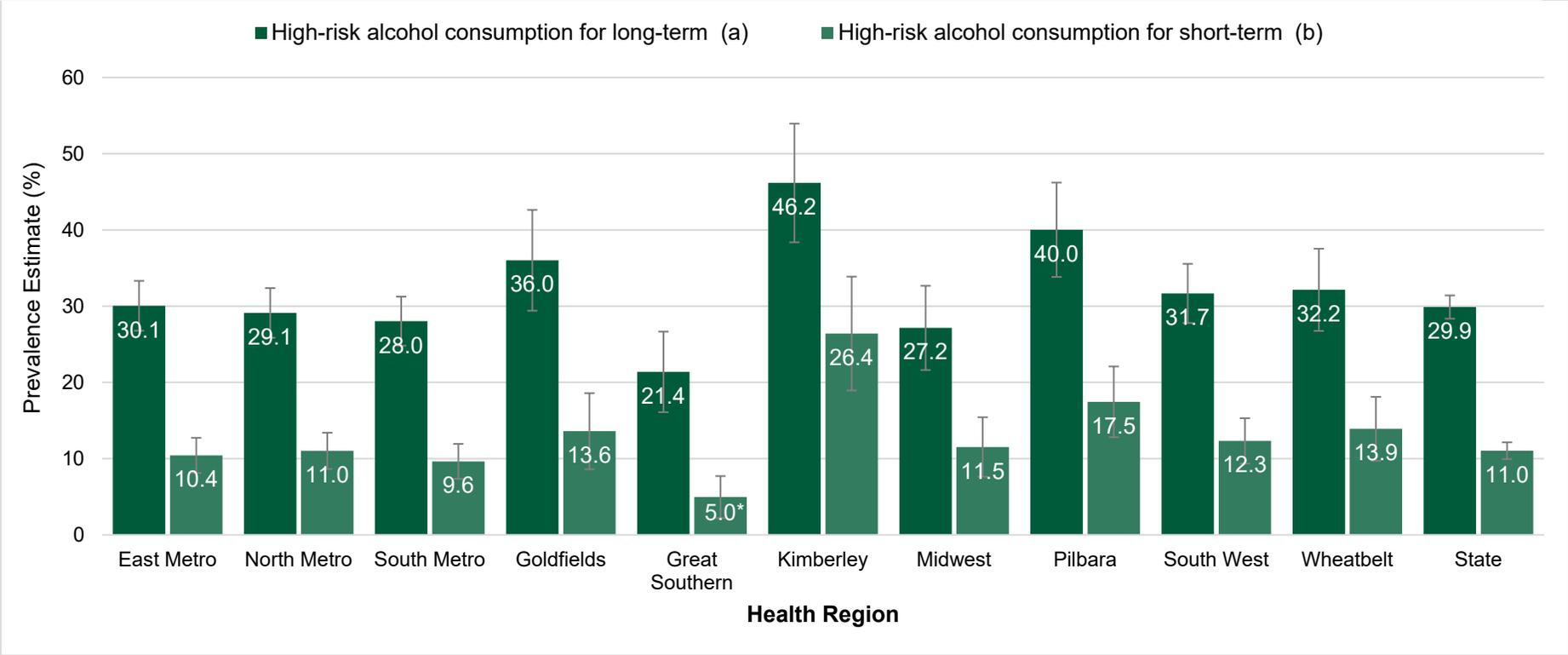
**Table 22: Risk of short-term alcohol related harm, 16 years & over, HWSS 2021**

	Doesn't drink/ drinking level undetermined		Low risk (a)		High risk (b)	
	%	95% CI	%	95% CI	%	95% CI
<b>16 to 44 years</b>						
Females	38.7	(34.9—42.6)	50.2	(46.3—54.1)	11.1	(8.6—13.5)
Males	27.6	(23.5—31.6)	53.6	(49.2—58.0)	18.8	(15.4—22.2)
Persons	33.5	(30.7—36.3)	51.8	(48.9—54.8)	14.7	(12.6—16.8)
<b>45 to 64 years</b>						
Females	35.8	(32.6—38.9)	58.4	(55.1—61.6)	5.8	(4.2—7.5)
Males	22.7	(19.3—26.0)	60.8	(56.9—64.6)	16.5	(13.7—19.3)
Persons	29.8	(27.5—32.1)	59.5	(57.0—62.0)	10.7	(9.1—12.3)
<b>65+ years</b>						
Females	44.9	(42.7—47.1)	54.1	(51.9—56.3)	1.0	(0.6—1.3)
Males	29.2	(26.9—31.5)	64.8	(62.4—67.2)	6.0	(4.8—7.1)
Persons	37.0	(35.4—38.6)	59.5	(57.9—61.2)	3.5	(2.9—4.1)
<b>Total</b>						
Females	38.8	(36.7—41.0)	53.9	(51.7—56.1)	7.3	(6.0—8.5)
Males	26.3	(24.1—28.5)	58.5	(56.0—60.9)	15.3	(13.4—17.1)
Persons	32.9	(31.4—34.4)	56.1	(54.4—57.7)	11.0	(9.9—12.1)

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

The prevalence of high-risk alcohol consumption for long-term and short-term harm was estimated for the WA health regions and compared to the state prevalence.

- The prevalence of high-risk alcohol consumption for long-term harm was significantly higher in the Kimberley (46.2%) and Pilbara (40.0%) health regions, and significantly lower in the Great Southern health region (21.4%) compared to the state prevalence (29.9%) (**Figure 17**).
- The prevalence of high-risk alcohol consumption for short-term harm was also significantly higher in the Kimberley (26.4%) and Pilbara (17.5%) health regions, and significantly lower in the Great Southern health region (5.0%) compared to the state prevalence (11.0%).



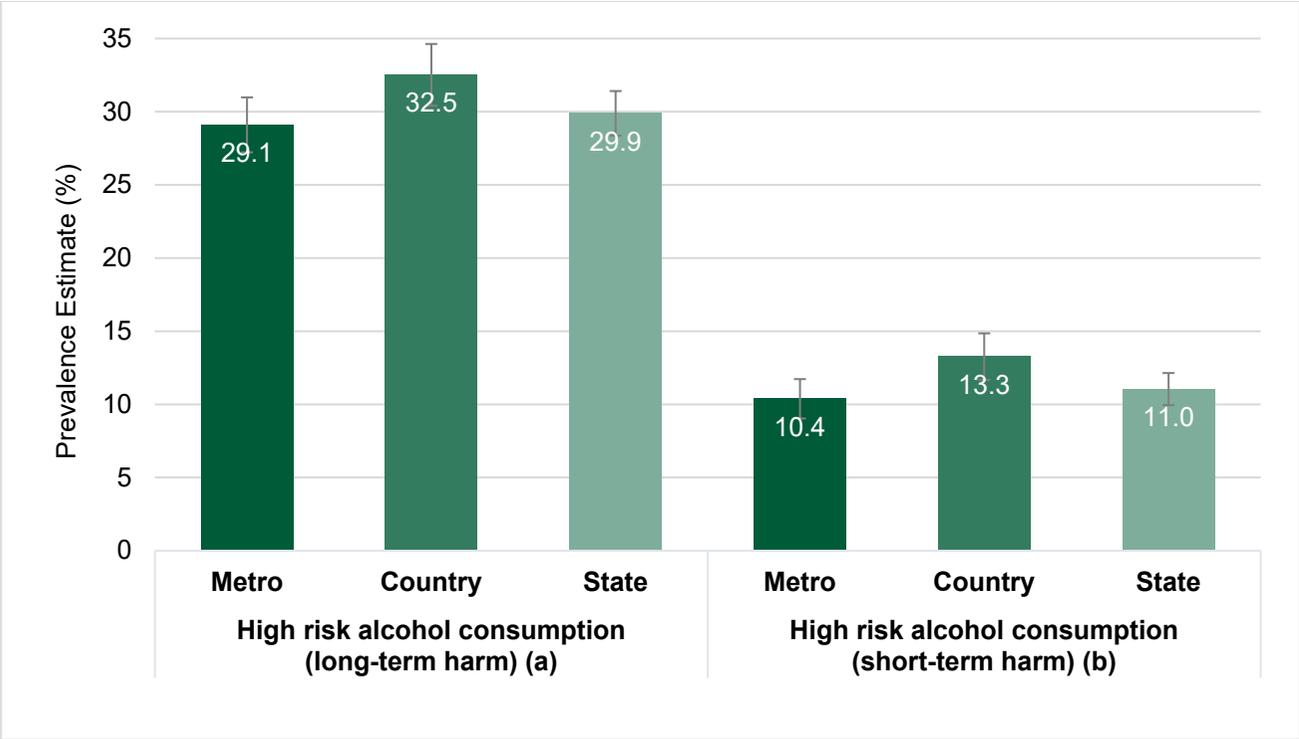
**Figure 17: Prevalence of high-risk alcohol consumption for long-term and short-term harm by health regions in WA, 16 years & over, HWSS 2021**

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

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

The prevalence of high-risk alcohol consumption for long-term and short-term harm by geographic area of residence was determined.

- The prevalence of high-risk alcohol consumption was no different in the country areas compared to the metropolitan area (Figure 18).



**Figure 18: Prevalence of high-risk alcohol consumption for long-term and short-term harm, 16 years & over, by geographic area of residence in WA, HWSS 2021**

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

## 5.3 Nutrition

### 5.3.1 Fruit and Vegetables

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. The current Australian Dietary Guidelines<sup>5</sup> developed in 2013 by the National Health and Medical Research Council (NHMRC) are presented in **Table 23**.

**Table 23: 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
16-18 years	2	5	5.5	5	5
19-50 years	2	5	6	5	6
51-70 years	2	5	5.5	5	5
70 + years	2	5	5	5	5

<sup>5</sup> National Health and Medical Research Council, 2013, Australian dietary guidelines, NHMRC, Canberra, ACT. Available from: <https://www.nhmrc.gov.au/guidelines-publications/n55>.

- Adults aged 65 years and over (50.1%) were significantly more likely to consume two or more serves of fruit daily compared to those age 16 to 44 years (37.3%) and 45 to 64 years (40.9%) (**Table 24**).
- Females aged 65 years and over were significantly more likely to consume two or more serves of fruit daily compared to males in the same age group (53.1% compared to 47.2%).

**Table 24: Serves of fruit consumed daily, 16 years & over, HWSS 2021**

	Doesn'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 years</b>								
Females	5.7	(3.9—7.4)	18.1	(15.0—21.2)	38.9	(35.1—42.7)	37.3	(33.5—41.1)
Males	5.9	(3.8—7.9)	20.3	(16.7—23.8)	36.6	(32.4—40.9)	37.2	(32.9—41.5)
Persons	5.7	(4.4—7.1)	19.1	(16.8—21.5)	37.8	(35.0—40.7)	37.3	(34.4—40.1)
<b>45 to 64 years</b>								
Females	8.8	(6.8—10.8)	12.4	(10.2—14.6)	35.0	(31.9—38.1)	43.8	(40.6—47.0)
Males	6.5	(4.7—8.4)	18.8	(15.6—22.0)	37.3	(33.4—41.1)	37.4	(33.6—41.2)
Persons	7.8	(6.4—9.2)	15.3	(13.4—17.2)	36.0	(33.6—38.5)	40.9	(38.4—43.3)
<b>65+ years</b>								
Females	4.7	(3.8—5.6)	8.5	(7.2—9.8)	33.7	(31.5—35.8)	53.1	(50.9—55.3)
Males	4.5	(3.4—5.5)	11.9	(10.2—13.5)	36.5	(34.1—38.9)	47.2	(44.7—49.7)
Persons	4.6	(3.9—5.2)	10.2	(9.2—11.2)	35.1	(33.5—36.7)	50.1	(48.5—51.8)
<b>Total</b>								
Females	6.6	(5.5—7.7)	14.2	(12.6—15.9)	36.5	(34.4—38.6)	42.7	(40.5—44.8)
Males	5.8	(4.7—6.9)	18.0	(16.0—19.9)	36.8	(34.5—39.2)	39.4	(37.1—41.8)
Persons	6.2	(5.4—7.0)	16.0	(14.7—17.3)	36.6	(35.1—38.2)	41.1	(39.6—42.7)

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

- Females were significantly more likely to consume five or more serves of vegetables daily compared to males (10.8% compared to 8.0%) (**Table 25**).
- There were no significant differences in the number of serves of vegetables consumed daily between the different age groups.

**Table 25: Serves of vegetables consumed daily, 16 years & over, HWSS 2021**

	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 years</b>										
Females	1.4 *	(0.4—2.5)	5.6	(3.7—7.4)	49.8	(45.9—53.7)	32.8	(29.2—36.4)	10.4	(8.1—12.8)
Males	1.0 *	(0.1—1.9)	7.7	(5.3—10.1)	55.0	(50.6—59.4)	26.9	(23.1—30.8)	9.3	(6.7—11.9)
Persons	1.2 *	(0.5—1.9)	6.6	(5.1—8.1)	52.3	(49.4—55.2)	30.0	(27.4—32.7)	9.9	(8.1—11.6)
<b>45 to 64 years</b>										
Females	0.5 *	(0.0—0.9)	4.5	(3.1—5.9)	47.9	(44.6—51.1)	35.3	(32.2—38.4)	11.8	(9.9—13.8)
Males	1.2 *	(0.2—2.2)	6.9	(4.7—9.2)	58.0	(54.1—61.9)	26.8	(23.3—30.3)	7.1	(5.1—9.1)
Persons	0.8 *	(0.3—1.3)	5.6	(4.4—6.9)	52.5	(50.0—55.0)	31.4	(29.1—33.7)	9.7	(8.3—11.1)
<b>65+ years</b>										
Females	0.8 *	(0.4—1.3)	4.4	(3.4—5.4)	48.8	(46.6—51.1)	36.4	(34.3—38.5)	9.5	(8.3—10.8)
Males	1.0	(0.6—1.5)	5.9	(4.6—7.1)	55.2	(52.7—57.7)	31.0	(28.7—33.3)	6.9	(5.7—8.1)
Persons	0.9	(0.6—1.3)	5.1	(4.3—5.9)	52.1	(50.4—53.7)	33.7	(32.1—35.2)	8.2	(7.3—9.1)
<b>Total</b>										
Females	1.0 *	(0.5—1.5)	5.0	(4.0—6.0)	48.9	(46.8—51.1)	34.4	(32.3—36.4)	10.8	(9.5—12.1)
Males	1.1 *	(0.5—1.6)	7.1	(5.7—8.4)	56.1	(53.6—58.5)	27.8	(25.6—29.9)	8.0	(6.7—9.4)
Persons	1.0	(0.6—1.4)	6.0	(5.1—6.8)	52.3	(50.7—53.9)	31.2	(29.8—32.7)	9.5	(8.5—10.4)

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

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) was estimated.

- Adults aged 65 years and over (50.1%) were significantly more likely to meet fruit consumption guidelines compared to those aged 16 to 44 years (37.3%) and those aged 45 to 64 years (40.9%) (**Table 26**).
- Females were significantly more likely to meet vegetables consumption guidelines compared to males (10.8% compared to 4.9%).

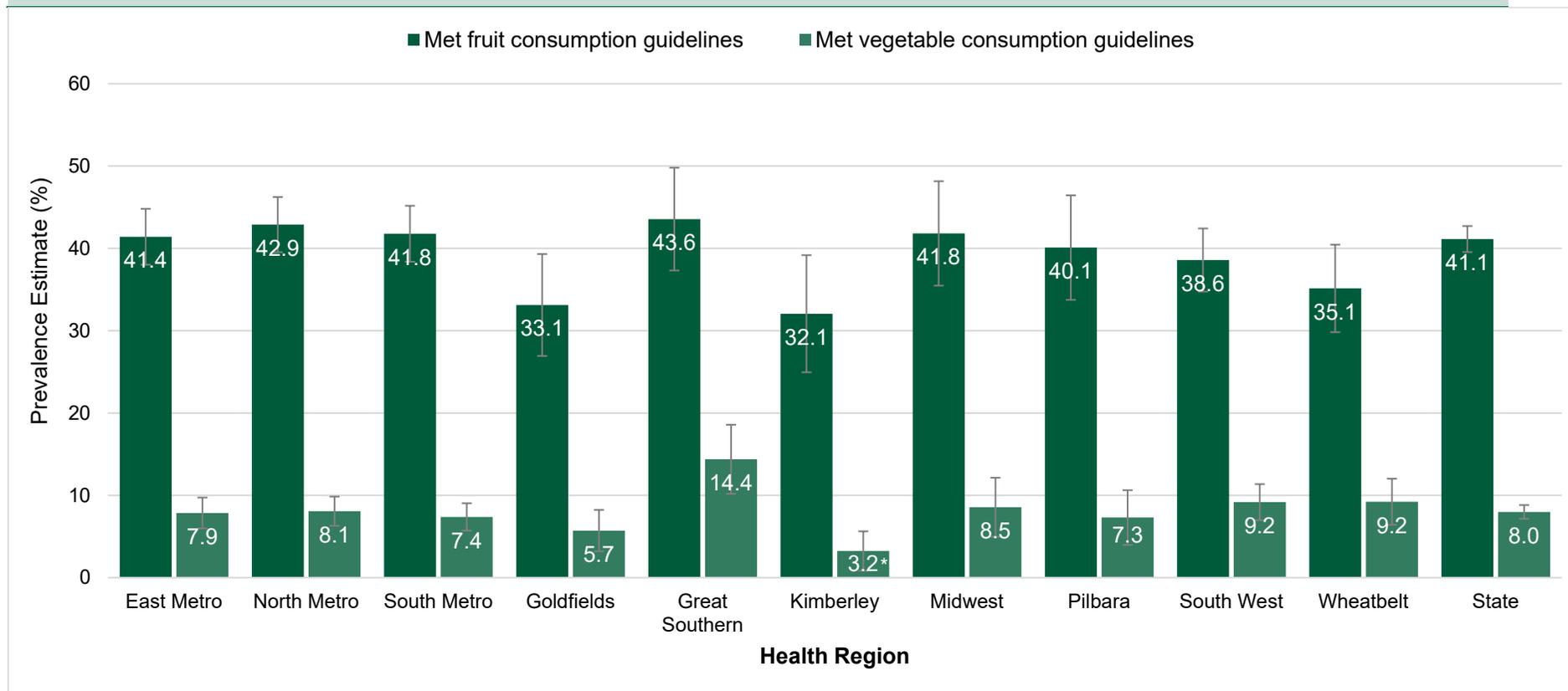
**Table 26: Prevalence of meeting fruit and vegetable consumption guidelines, 16 years & over, HWSS 2021**

	Met fruit consumption guidelines		Met vegetable consumption guidelines	
	%	95% CI	%	95% CI
<b>16 to 44 years</b>				
Females	37.3	(33.5—41.1)	10.4	(8.1—12.8)
Males	37.2	(32.9—41.5)	4.1	(2.2—5.9)
Persons	37.3	(34.4—40.1)	7.4	(5.9—9.0)
<b>45 to 64 years</b>				
Females	43.8	(40.6—47.0)	11.8	(9.9—13.8)
Males	37.4	(33.6—41.2)	4.7	(3.3—6.1)
Persons	40.9	(38.4—43.3)	8.6	(7.3—9.8)
<b>65+ years</b>				
Females	53.1	(50.9—55.3)	9.5	(8.3—10.8)
Males	47.2	(44.7—49.7)	6.9	(5.7—8.1)
Persons	50.1	(48.5—51.8)	8.2	(7.3—9.1)
<b>Total</b>				
Females	42.7	(40.5—44.8)	10.8	(9.5—12.1)
Males	39.4	(37.1—41.8)	4.9	(3.9—5.9)
Persons	41.1	(39.6—42.7)	8.0	(7.1—8.8)

Note: See Table 23 for definitions of meeting the fruit and vegetable consumption guidelines based on age

The prevalence of meeting fruit and vegetable consumption guidelines was estimated for the WA health regions and compared to the state prevalence.

- The prevalence of meeting fruit consumption guidelines was significantly lower in the Goldfields (33.1%) and Kimberley (32.1%) health regions compared to the state prevalence (41.1%) (**Figure 19**).
- The prevalence of meeting vegetable consumption guidelines was significantly higher in the Great Southern health region (14.4%), and significantly lower in the Kimberley health region (3.2%) compared to the state prevalence (8.0%).



**Figure 19: Prevalence of meeting fruit and vegetable consumption guidelines by health regions in WA, 16 years & over, HWSS 2021**

*Note: See Table 23 for definitions of meeting the fruit and vegetable consumption guidelines based on age*

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

### 5.3.2 Milk

We asked respondents what type of milk they usually consume.

- Adults aged 16 to 44 years were significantly more likely to consume full fat or whole milk and other types of milk compared to those aged 65 years and over (full fat or whole milk - 50.4% compared to 44.0%; other types of milk - 9.7% compared to 4.5%) (**Table 27**).
- Males were significantly more likely to consume full fat or whole milk compared to females (51.7% compared to 41.7%).
- Females were significantly more likely to consume other types of milk compared to males (10.2% compared to 5.0%).

**Table 27: Type of milk consumed, 16 years & over, HWSS 2021**

	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 years</b>								
Females	46.5	(42.6—50.4)	29.3	(25.8—32.9)	13.3	(10.6—16.0)	10.8	(8.3—13.3)
Males	54.7	(50.3—59.1)	29.2	(25.2—33.2)	5.7	(3.6—7.7)	10.4	(7.7—13.2)
Persons	50.4	(47.5—53.3)	29.3	(26.6—31.9)	9.7	(8.0—11.4)	10.6	(8.8—12.5)
<b>45 to 64 years</b>								
Females	37.9	(34.8—41.1)	41.3	(38.2—44.5)	8.8	(7.0—10.6)	11.9	(9.7—14.1)
Males	48.6	(44.7—52.5)	35.3	(31.5—39.2)	5.2	(3.4—6.9)	10.9	(8.3—13.4)
Persons	42.8	(40.3—45.3)	38.6	(36.1—41.1)	7.2	(5.9—8.4)	11.4	(9.8—13.1)
<b>65+ years</b>								
Females	37.5	(35.4—39.7)	47.9	(45.7—50.1)	5.7	(4.7—6.8)	8.8	(7.6—10.1)
Males	50.3	(47.8—52.8)	38.7	(36.2—41.1)	3.3	(2.4—4.2)	7.7	(6.3—9.1)
Persons	44.0	(42.4—45.7)	43.2	(41.6—44.9)	4.5	(3.8—5.2)	8.3	(7.3—9.2)
<b>Total</b>								
Females	41.7	(39.6—43.9)	37.2	(35.1—39.2)	10.2	(8.8—11.6)	10.8	(9.4—12.2)
Males	51.7	(49.3—54.1)	33.3	(31.0—35.6)	5.0	(3.9—6.1)	10.0	(8.5—11.5)
Persons	46.4	(44.8—48.1)	35.4	(33.8—36.9)	7.8	(6.9—8.7)	10.4	(9.4—11.5)

### 5.3.3 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.

- Adults aged 16 to 44 years (6.4%) were significantly more likely to have experienced running out of food in the last 12 months with the inability to afford more compared to those aged 45 to 64 years (3.7%) and 65 years and over (1.7%) (Table 28).

**Table 28: Ran out of food and could not afford to buy more, 16 years & over, HWSS 2021**

	Yes		No	
	%	95% CI	%	95% CI
<b>16 to 44 years</b>				
Females	8.0	(5.8—10.3)	92.0	(89.7—94.2)
Males	4.5	(2.6—6.5)	95.5	(93.5—97.4)
Persons	6.4	(4.9—7.9)	93.6	(92.1—95.1)
<b>45 to 64 years</b>				
Females	4.1	(2.7—5.5)	95.9	(94.5—97.3)
Males	3.3	(1.8—4.8)	96.7	(95.2—98.2)
Persons	3.7	(2.7—4.8)	96.3	(95.2—97.3)
<b>65+ years</b>				
Females	1.8	(1.2—2.5)	98.2	(97.5—98.8)
Males	1.5	(0.8—2.2)	98.5	(97.8—99.2)
Persons	1.7	(1.2—2.1)	98.3	(97.9—98.8)
<b>Total</b>				
Females	5.4	(4.3—6.6)	94.6	(93.4—95.7)
Males	3.5	(2.5—4.5)	96.5	(95.5—97.5)
Persons	4.5	(3.7—5.3)	95.5	(94.7—96.3)

### 5.3.4 Older adult dentition

We asked respondents aged 65 years and over whether their teeth or dentures affected the type of food they were able to eat.

- There were no significant differences between males and females in adults who reported their teeth and dentures affected the type of food they were able to eat (**Table 29**).

**Table 29: Teeth or dentures affect food eaten, 65 years & over, HWSS 2021**

Sex	Yes		No	
	%	95% CI	%	95% CI
Females	13.0	11.5 -14.5	87.0	85.5 – 88.5
Males	11.9	10.3 – 13.4	88.1	86.6 – 89.7
Persons	12.4	11.3 – 13.5	87.6	86.5 – 88.7

## 5.4 Discretionary foods

### 5.4.1 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.

- The prevalence of adults who reported eating fast food once or twice a week and three or more times a week decreased significantly with age (once or twice a week: 16 to 44 years - 40.8%, 45 to 64 years - 24.8% and 65 years and over - 10.4%; three or more times a week: 16 to 44 years - 12.2%, 45 to 64 years - 4.0% and 65 years and over - 1.1%) (**Table 30**).
- Females were significantly more likely to never eat fast food meals compared to males (38.8% vs 32.5%).
- Males were significantly more likely to eat fast food three or more times a week compared to females (9.1% vs 5.3%).

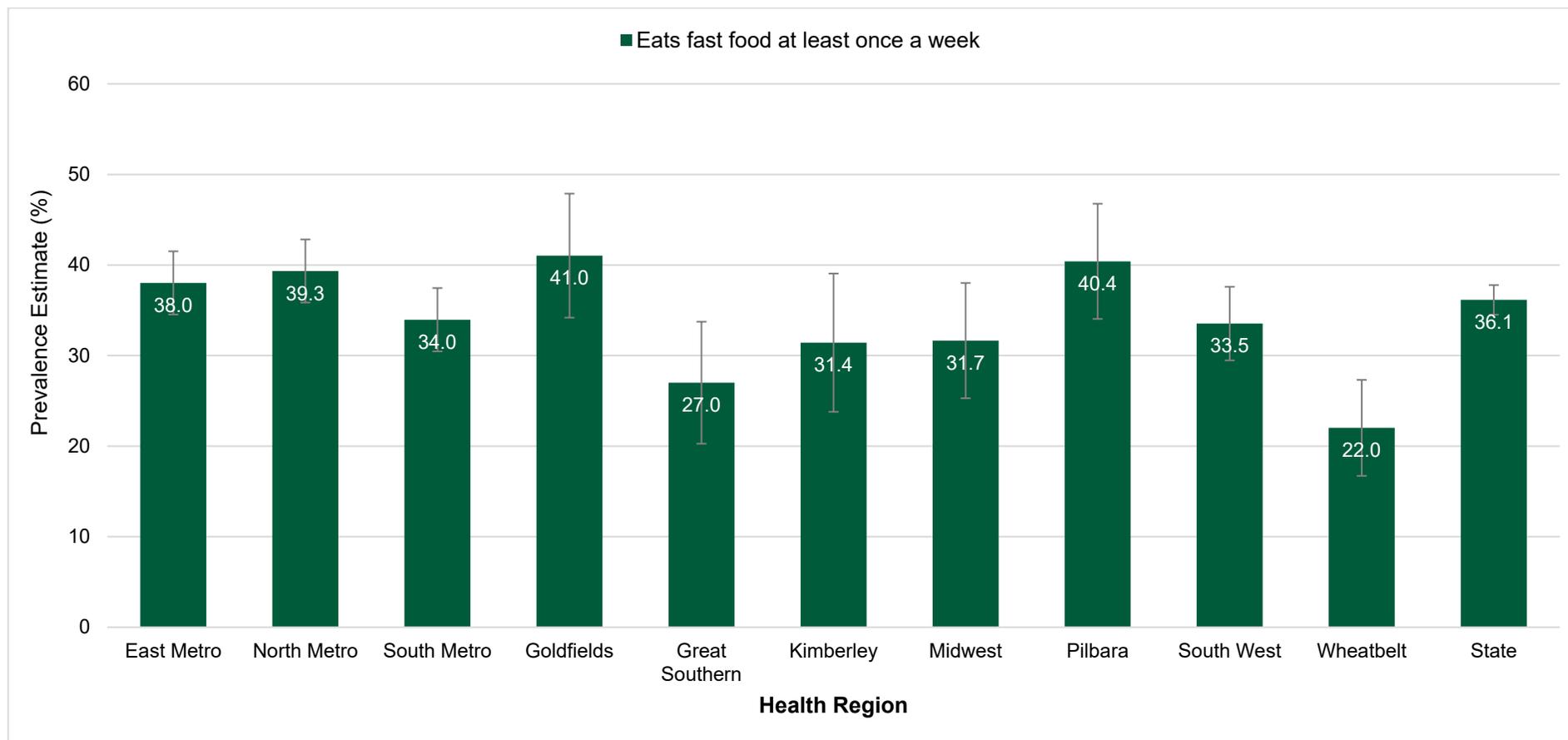
**Table 30: Meals from fast food outlets per week, 16 years & over, HWSS 2021**

	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 years</b>								
Females	20.0	(16.9—23.2)	30.4	(26.8—33.9)	39.9	(36.1—43.8)	9.7	(7.3—12.1)
Males	17.2	(13.9—20.6)	25.9	(22.0—29.7)	41.8	(37.5—46.2)	15	(11.9—18.2)
Persons	18.7	(16.4—21.0)	28.3	(25.6—30.9)	40.8	(38.0—43.7)	12.2	(10.2—14.2)
<b>45 to 64 years</b>								
Females	45.0	(41.8—48.2)	31.5	(28.5—34.5)	21.2	(18.4—24.0)	2.3	(1.3—3.3)
Males	35.3	(31.5—39.0)	29.5	(25.9—33.0)	29.1	(25.6—32.7)	6.1	(3.9—8.3)
Persons	40.6	(38.1—43.0)	30.6	(28.3—32.9)	24.8	(22.6—27.1)	4.0	(2.9—5.2)
<b>65+ years</b>								
Females	71.4	(69.4—73.4)	20.5	(18.7—22.3)	7.6	(6.4—8.7)	0.5 *	(0.2—0.8)
Males	59.5	(57.1—61.9)	25.7	(23.5—27.9)	13.2	(11.6—14.8)	1.6	(1.0—2.2)
Persons	65.4	(63.8—67.0)	23.1	(21.7—24.6)	10.4	(9.4—11.4)	1.1	(0.7—1.4)
<b>Total</b>								
Females	38.8	(36.8—40.8)	28.9	(27.0—30.9)	27.0	(25.0—29.1)	5.3	(4.1—6.4)
Males	32.5	(30.4—34.6)	27.0	(24.9—29.2)	31.3	(29.0—33.7)	9.1	(7.5—10.7)
Persons	35.8	(34.3—37.3)	28.0	(26.6—29.5)	29.1	(27.5—30.6)	7.1	(6.1—8.1)

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

The prevalence of eating meals from fast food outlets at least once a week was estimated for the WA health regions and compared to the state prevalence.

- The prevalence of adults who reported eating meals from fast food outlets at least once a week was significantly lower in the Great Southern (27.0%) and Wheatbelt (22.0%) health regions compared to the state prevalence (36.1%) (**Figure 20**).



**Figure 20: Prevalence of eating meals from fast food outlets at least once a week by health regions in WA, 16 years & over, HWSS 2021**

## 5.4.2 Potato chips

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

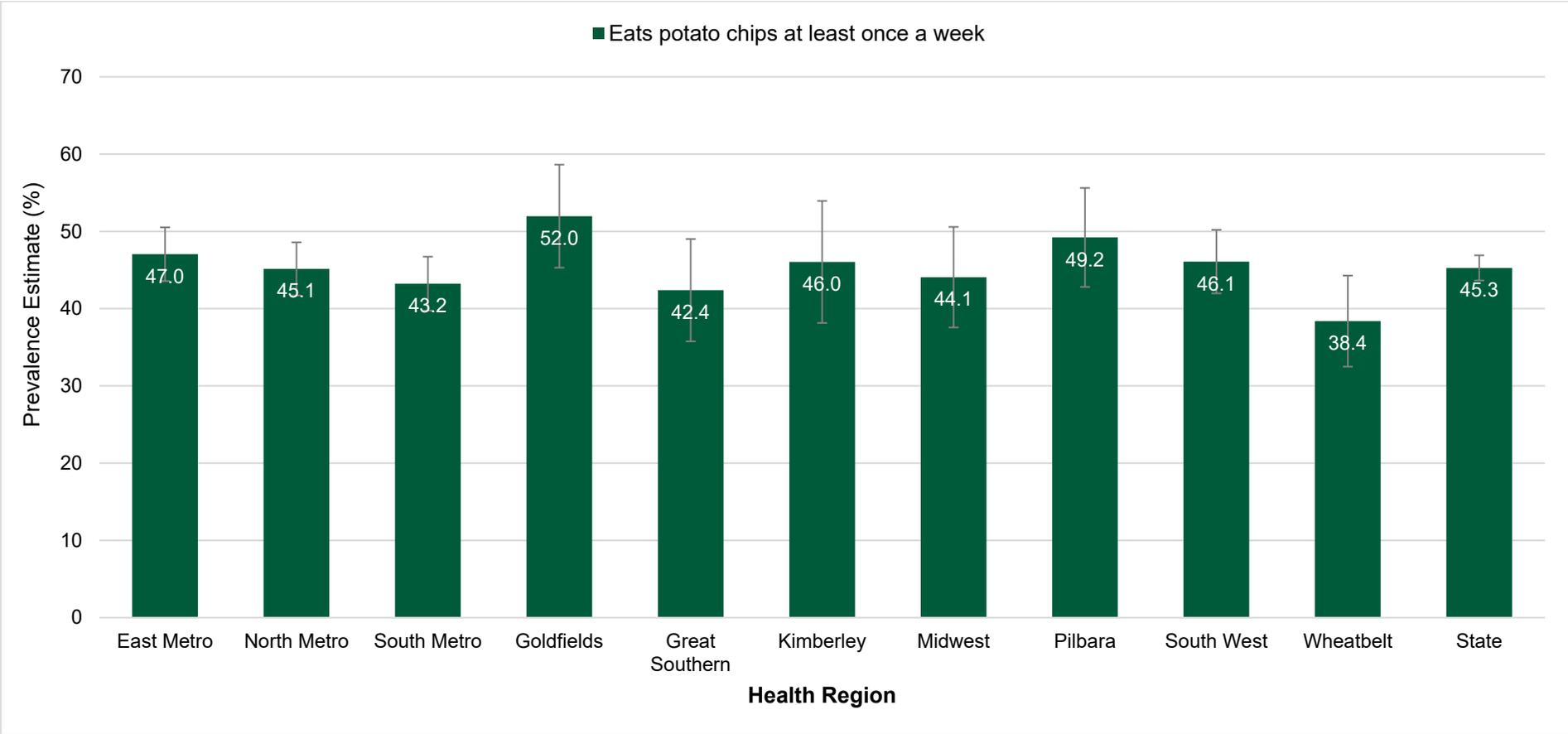
- Adults aged 16 to 44 years were significantly more likely to eat potato chips once or twice a week and three or more times a week compared to those aged 45 to 64 years and 65 years and over (44.5% compared to 33.2% and 29.7%; and 12.3% compared to 4.3% and 3.6%, respectively) (**Table 31**).
- Males were significantly more likely to eat potato chips once or twice a week compared to females (42.5% compared to 33.1%).

**Table 31: Hot chips, french-fries, wedges, hash browns or fried potatoes eaten per week, 16 years & over, HWSS 2021**

	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 years</b>								
Females	14.0	(11.3—16.7)	33.3	(29.6—36.9)	41.4	(37.5—45.2)	11.3	(8.8—13.9)
Males	16.7	(13.3—20.1)	22.0	(18.3—25.6)	48.0	(43.6—52.4)	13.3	(10.3—16.3)
Persons	15.3	(13.2—17.4)	27.9	(25.3—30.5)	44.5	(41.6—47.4)	12.3	(10.3—14.2)
<b>45 to 64 years</b>								
Females	33.9	(30.8—37.0)	36.5	(33.3—39.6)	26.6	(23.7—29.5)	3.0	(1.9—4.2)
Males	26.0	(22.5—29.5)	27.1	(23.7—30.5)	41.1	(37.2—45.0)	5.8	(3.8—7.7)
Persons	30.3	(28.0—32.6)	32.2	(29.9—34.5)	33.2	(30.8—35.6)	4.3	(3.2—5.3)
<b>65+ years</b>								
Females	42.8	(40.6—45.0)	29.1	(27.1—31.2)	25.9	(23.9—27.8)	2.2	(1.5—2.9)
Males	35.7	(33.3—38.1)	25.9	(23.8—28.1)	33.4	(31.0—35.7)	5.0	(3.9—6.1)
Persons	39.2	(37.6—40.8)	27.5	(26.0—29.0)	29.7	(28.1—31.2)	3.6	(3.0—4.3)
<b>Total</b>								
Females	26.6	(24.9—28.4)	33.6	(31.6—35.7)	33.1	(31.0—35.2)	6.6	(5.4—7.9)
Males	24.0	(22.0—26.0)	24.5	(22.5—26.6)	42.5	(40.1—45.0)	9.0	(7.5—10.5)
Persons	25.4	(24.0—26.7)	29.3	(27.9—30.8)	37.6	(36.0—39.2)	7.7	(6.8—8.7)

The prevalence of eating potato chips at least once a week was estimated for the WA health regions and compared to the state prevalence.

- The prevalence of adults who reported eating potato chips at least once a week was not significantly different in the health regions compared to the state prevalence (**Figure 21**).



**Figure 21: Prevalence of eating potato chips at least once a week by health regions in WA, 16 years & over, HWSS 2021**

### 5.4.3 Sweet snacks

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

- 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 those aged 16 to 44 years and 45 to 64 years (47.7% compared to 36.2% and 30.7%) (**Table 32**).

**Table 32: Sweet biscuits, cakes, doughnuts, muffins, pastries or muesli bars eaten per week, 16 years & over, HWSS 2021**

	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 years</b>								
Females	17.3	(14.3—20.2)	13.4	(10.8—16.0)	34.1	(30.4—37.8)	35.3	(31.5—39.0)
Males	20.2	(16.6—23.8)	12.9	(10.1—15.8)	29.6	(25.5—33.6)	37.3	(33.0—41.6)
Persons	18.7	(16.4—21.0)	13.2	(11.2—15.1)	32.0	(29.2—34.7)	36.2	(33.4—39.0)
<b>45 to 64 years</b>								
Females	25.9	(23.0—28.7)	14.9	(12.5—17.3)	28.0	(25.1—31.0)	31.2	(28.1—34.2)
Males	26.4	(22.9—29.9)	14.1	(11.3—16.9)	29.5	(25.9—33.2)	30.0	(26.5—33.6)
Persons	26.1	(23.9—28.3)	14.5	(12.7—16.4)	28.7	(26.4—31.0)	30.7	(28.3—33.0)
<b>65+ years</b>								
Females	22.9	(21.1—24.8)	8.6	(7.3—9.9)	21.6	(19.8—23.4)	46.8	(44.6—49.0)
Males	22.0	(20.0—24.1)	7.4	(6.1—8.6)	22.0	(20.0—24.1)	48.5	(46.1—51.0)
Persons	22.5	(21.1—23.9)	8.0	(7.1—8.9)	21.8	(20.5—23.2)	47.7	(46.0—49.4)
<b>Total</b>								
Females	21.4	(19.7—23.2)	13.0	(11.6—14.5)	29.6	(27.6—31.6)	36.0	(33.9—38.0)
Males	22.7	(20.6—24.7)	12.1	(10.5—13.7)	27.9	(25.7—30.1)	37.3	(35.0—39.6)
Persons	22.0	(20.7—23.4)	12.6	(11.5—13.7)	28.8	(27.3—30.3)	36.6	(35.0—38.1)

The prevalence of eating sweet snacks at least once a week was estimated for the WA health regions and compared to the state prevalence.

- The prevalence of adults who reported eating sweet snacks at least once a week was significantly lower in the Kimberley (51.7%) and Midwest (57.0%) health regions compared to the state prevalence (65.4%) (Figure 22).

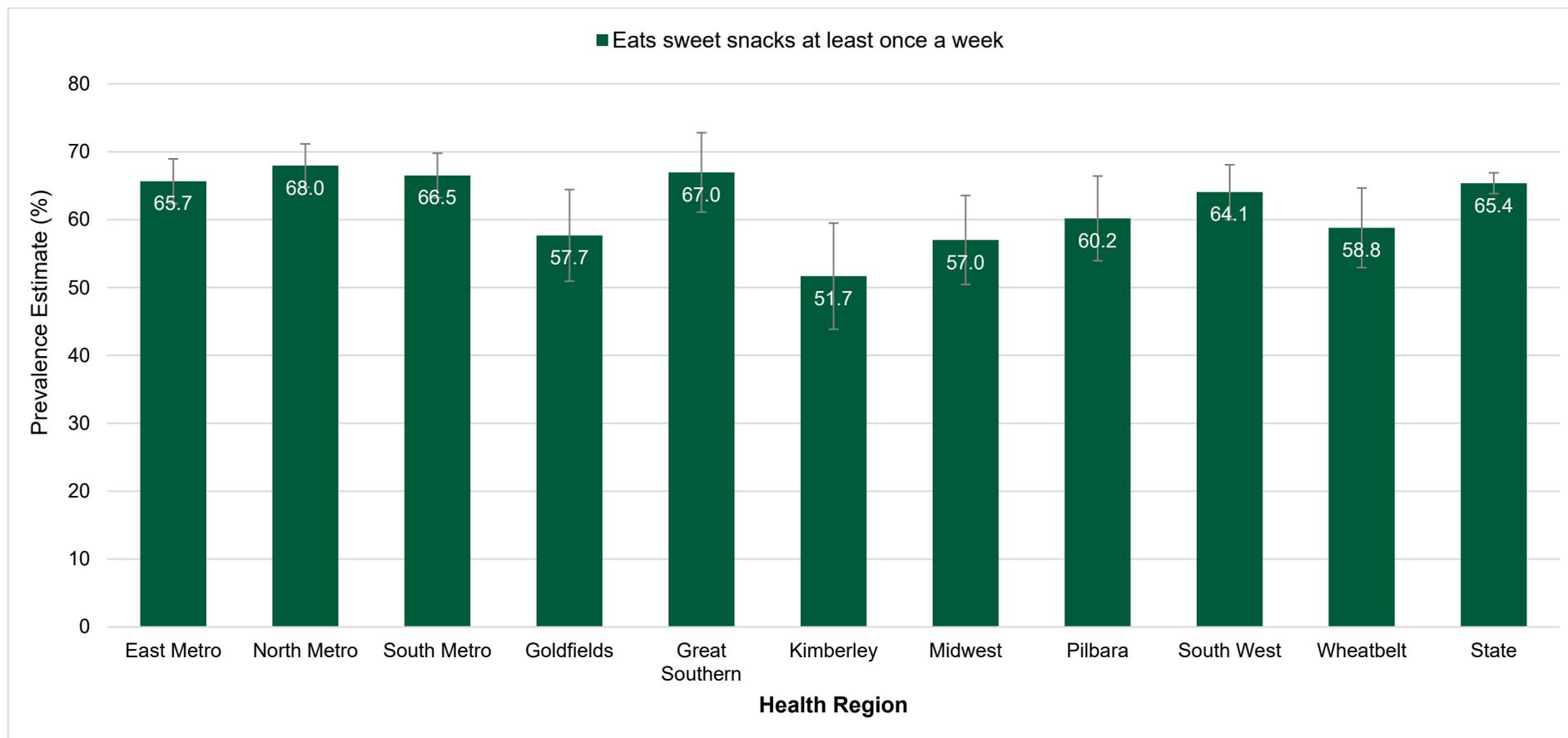


Figure 22: Prevalence of eating sweet snacks at least once a week by health regions in WA, 16 years & over, HWSS 2021

### 5.4.4 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.

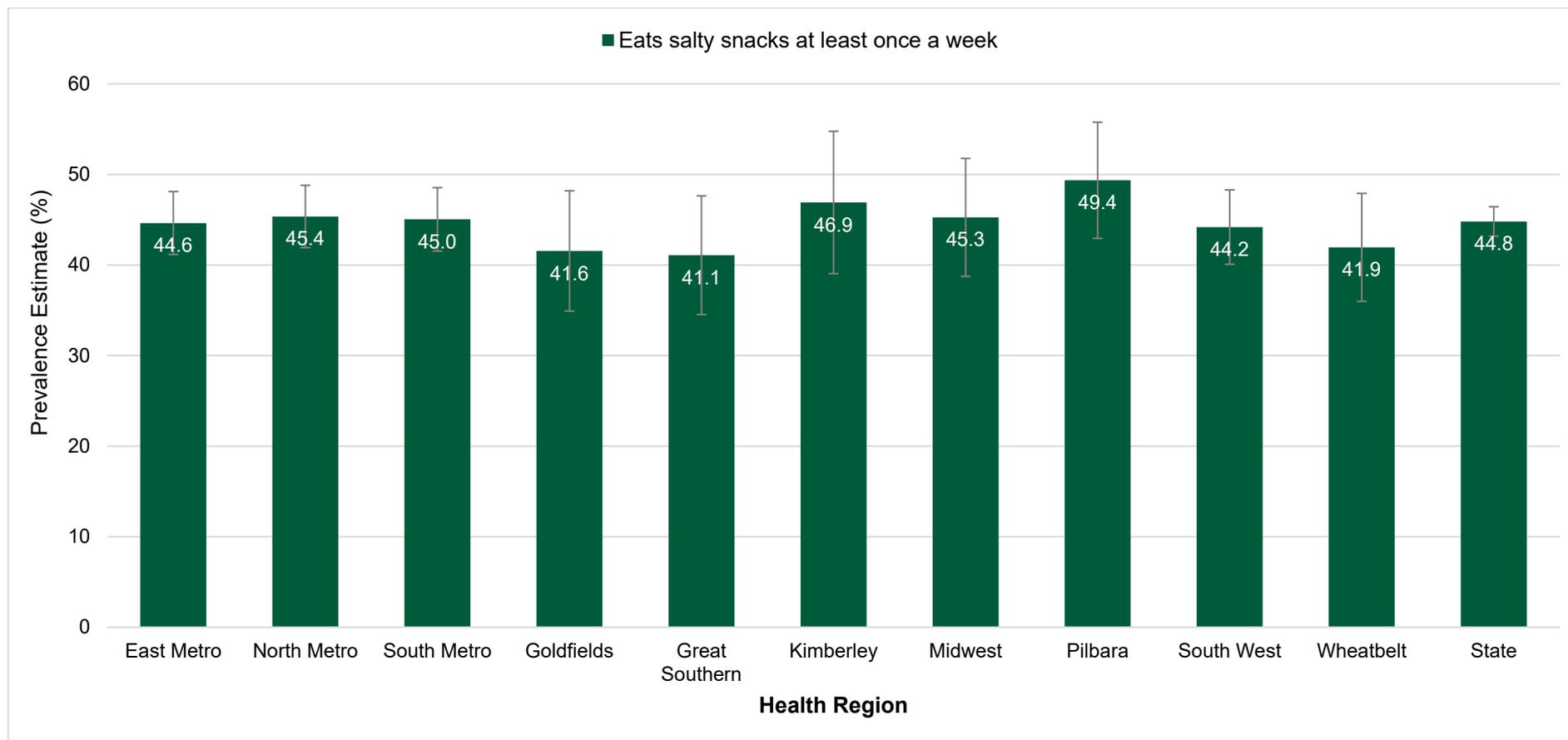
- The prevalence of adults who reported eating salty snacks once or twice a week and three or more times a week decreased significantly with age (once or twice a week: 16 to 44 years - 36.9%, 45 to 64 years - 31.2% and 65 years and over - 18.0%; three or more times a week: 16 to 44 years - 18.3%, 45 to 64 years - 11.1% and 65 years and over - 8.1%) (Table 33).

**Table 33: Salty snacks eaten per week, 16 years & over, HWSS 2021**

	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 years</b>								
Females	24.6	(21.2—27.9)	18.8	(15.8—21.7)	38.7	(34.9—42.5)	18.0	(14.9—21.0)
Males	22.5	(18.8—26.2)	23.8	(20.0—27.6)	34.9	(30.7—39.1)	18.8	(15.3—22.2)
Persons	23.6	(21.1—26.1)	21.1	(18.8—23.5)	36.9	(34.1—39.8)	18.3	(16.1—20.6)
<b>45 to 64 years</b>								
Females	38.1	(34.9—41.3)	22.5	(19.9—25.2)	29.6	(26.6—32.5)	9.8	(7.8—11.8)
Males	34.8	(31.0—38.6)	19.5	(16.4—22.6)	33.0	(29.3—36.8)	12.6	(10.0—15.3)
Persons	36.6	(34.1—39.0)	21.2	(19.1—23.2)	31.2	(28.8—33.5)	11.1	(9.5—12.7)
<b>65+ years</b>								
Females	61.5	(59.4—63.7)	15.5	(13.8—17.1)	16.1	(14.4—17.7)	7.0	(5.8—8.1)
Males	54.5	(52.0—56.9)	16.4	(14.6—18.3)	19.8	(17.8—21.9)	9.3	(7.8—10.7)
Persons	57.9	(56.3—59.6)	16.0	(14.7—17.2)	18.0	(16.7—19.3)	8.1	(7.2—9.0)
<b>Total</b>								
Females	36.4	(34.4—38.4)	19.5	(17.8—21.2)	31.1	(29.1—33.2)	12.9	(11.3—14.5)
Males	33.6	(31.4—35.8)	20.8	(18.7—22.8)	31.0	(28.7—33.3)	14.7	(12.8—16.5)
Persons	35.1	(33.6—36.6)	20.1	(18.8—21.4)	31.1	(29.5—32.6)	13.7	(12.5—14.9)

The prevalence of eating salty snacks at least once a week was estimated for the WA health regions and compared to the state prevalence.

- The prevalence of adults who reported eating salty snacks at least once a week was not significantly different in the health regions compared to the state prevalence (**Figure 23**).



**Figure 23: Prevalence of eating salty snacks at least once a week by health regions in WA, 16 years & over, HWSS 2021**

### 5.4.5 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.

- The prevalence of adults never drinking soft drinks or energy drinks increased significantly with age (16 to 44 years: 49.8%, 45 to 64 years: 70.5%, and 65 years and over: 81.2%) (**Table 34**).
- Females were significantly more likely to never drink soft drinks or energy drinks compared to males (69.1% compared to 57.1%).

**Table 34: Drinking sugar-sweetened soft drinks or energy drinks per week, 16 years & over, HWSS 2021**

	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 years</b>								
Females	56.1	(52.2—60.0)	12.1	(9.6—14.6)	15.7	(12.8—18.6)	16.1	(13.2—19.1)
Males	42.9	(38.5—47.2)	14.6	(11.4—17.8)	19.5	(16.0—23.0)	23.1	(19.3—26.8)
Persons	49.8	(46.9—52.8)	13.3	(11.3—15.3)	17.5	(15.2—19.7)	19.4	(17.0—21.7)
<b>45 to 64 years</b>								
Females	77.4	(74.7—80.1)	6.5	(4.9—8.2)	9.2	(7.2—11.2)	6.9	(5.4—8.3)
Males	62.3	(58.4—66.1)	9.0	(6.8—11.3)	12.8	(10.2—15.5)	15.8	(12.9—18.8)
Persons	70.5	(68.2—72.8)	7.7	(6.3—9.1)	10.9	(9.2—12.5)	11.0	(9.4—12.5)
<b>65+ years</b>								
Females	84.2	(82.5—85.8)	3.3	(2.5—4.1)	5.6	(4.5—6.6)	7.0	(5.9—8.1)
Males	78.3	(76.3—80.2)	4.0	(3.0—5.0)	6.7	(5.5—7.8)	11.1	(9.6—12.6)
Persons	81.2	(79.9—82.5)	3.7	(3.0—4.3)	6.1	(5.4—6.9)	9.1	(8.1—10.0)
<b>Total</b>								
Females	69.1	(67.0—71.2)	8.4	(7.1—9.7)	11.4	(9.9—12.9)	11.1	(9.6—12.5)
Males	57.1	(54.6—59.5)	10.4	(8.8—12.1)	14.5	(12.6—16.3)	18.0	(16.1—20.0)
Persons	63.4	(61.8—65.0)	9.4	(8.3—10.4)	12.9	(11.7—14.0)	14.4	(13.1—15.6)

The prevalence of drinking sugar-sweetened soft drinks or energy drinks at least once a week was estimated for the WA health regions and compared to the state prevalence.

- The prevalence of adults who reported drinking sugar-sweetened soft drinks or energy drinks at least once a week was significantly higher in the Goldfields (36.5%) and Pilbara (36.7%) health regions compared to the state prevalence (27.2%) (Figure 24).

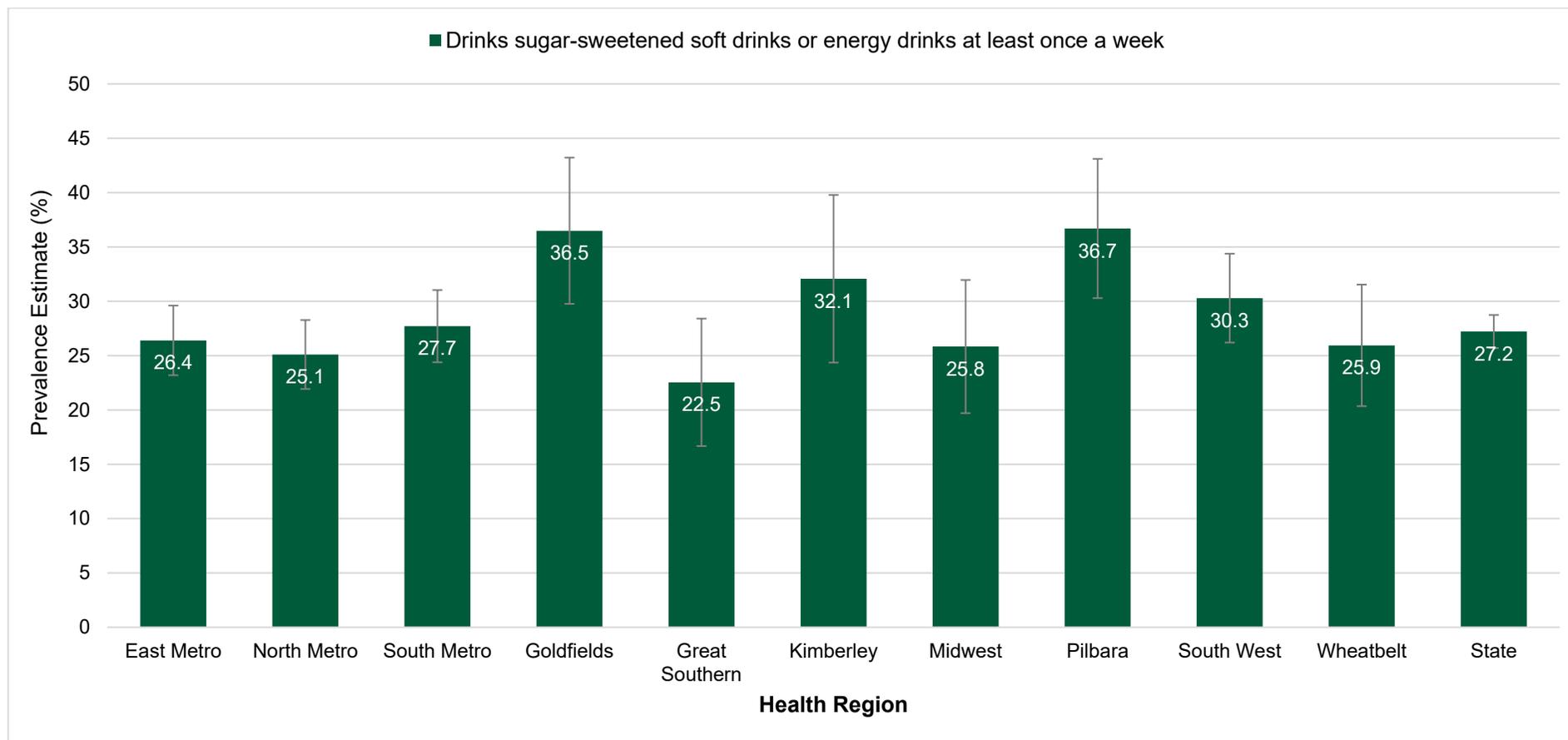


Figure 24: Prevalence of drinking sugar-sweetened soft drinks or energy drinks at least once a week by health regions in WA, 16 years & over, HWSS 2021

## 5.4.6 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.

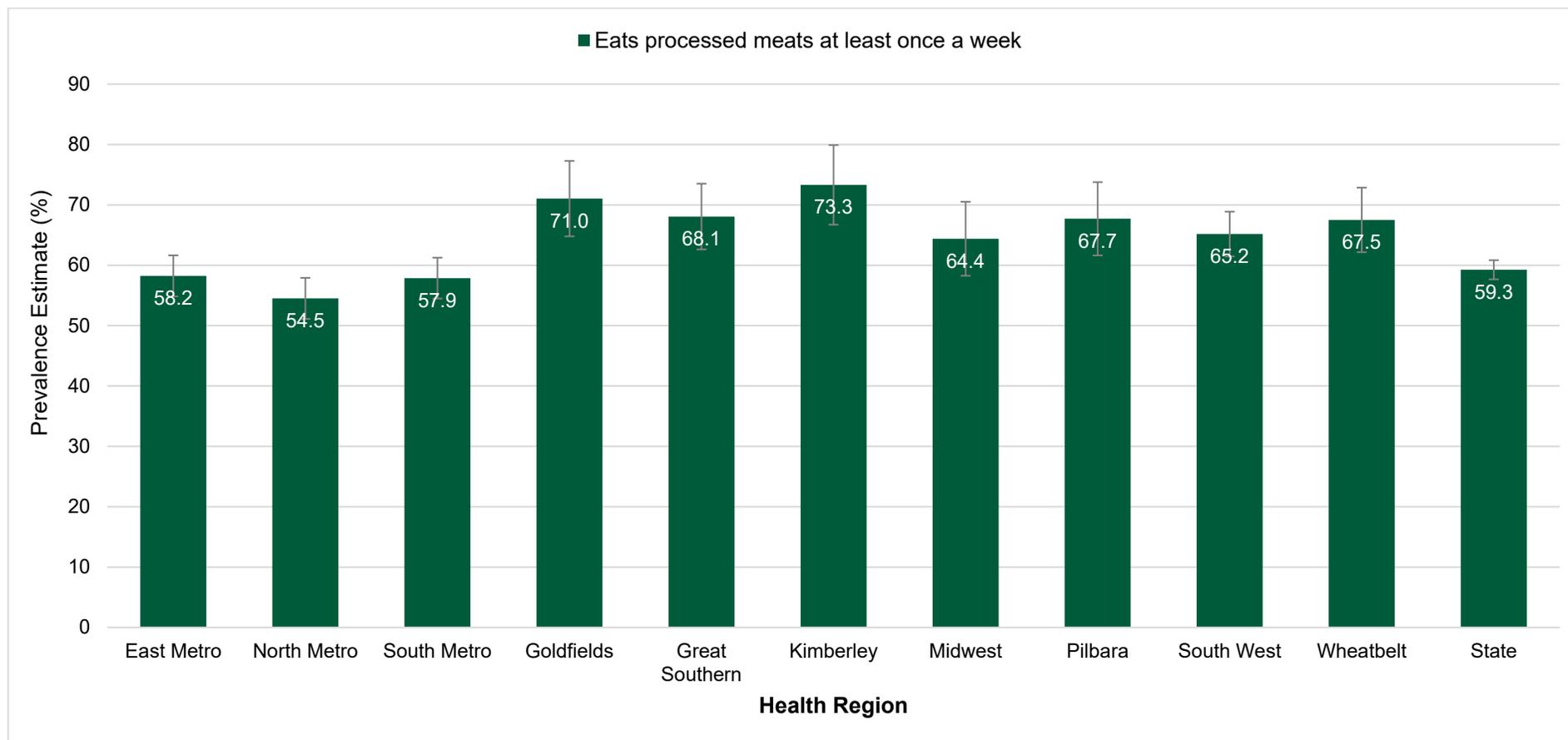
- The prevalence of adults eating processed meats three or more times a week decreased significantly with age (16 to 44 years: 28.3%, 45 to 64 years: 21.1%, and 65 years and over: 16.5%) (**Table 35**).
- Females were significantly more likely to report never eating processed meats compared to males (27.9% compared to 18.0%).

**Table 35: Processed meats eaten per week, 16 years & over, HWSS 2021**

	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 years</b>								
Females	25.2	(21.8—28.6)	16.5	(13.5—19.4)	34.2	(30.5—37.9)	24.1	(20.8—27.4)
Males	17.4	(14.0—20.8)	14.3	(11.2—17.5)	35.2	(31.0—39.4)	33.0	(28.9—37.2)
Persons	21.5	(19.1—24.0)	15.5	(13.3—17.6)	34.7	(31.9—37.5)	28.3	(25.7—30.9)
<b>45 to 64 years</b>								
Females	28.6	(25.5—31.7)	20.5	(17.9—23.0)	36.0	(32.9—39.1)	15.0	(12.7—17.3)
Males	17.3	(14.2—20.5)	16.9	(13.9—19.9)	37.4	(33.7—41.2)	28.3	(24.8—31.9)
Persons	23.5	(21.2—25.7)	18.8	(16.9—20.8)	36.6	(34.2—39.0)	21.1	(19.0—23.1)
<b>65+ years</b>								
Females	32.8	(30.7—34.9)	21.3	(19.5—23.1)	33.6	(31.6—35.7)	12.3	(10.8—13.7)
Males	20.2	(18.1—22.3)	18.6	(16.7—20.5)	40.6	(38.1—43.0)	20.6	(18.6—22.6)
Persons	26.4	(24.9—27.9)	19.9	(18.6—21.2)	37.2	(35.5—38.8)	16.5	(15.3—17.7)
<b>Total</b>								
Females	27.9	(25.9—29.8)	18.8	(17.2—20.5)	34.8	(32.7—36.8)	18.6	(16.8—20.3)
Males	18.0	(16.1—19.9)	16.1	(14.3—17.9)	37.1	(34.8—39.5)	28.8	(26.5—31.0)
Persons	23.2	(21.8—24.6)	17.5	(16.3—18.8)	35.9	(34.3—37.4)	23.4	(22.0—24.8)

The prevalence of eating processed meats at least once a week was estimated for the WA health regions and compared to the state prevalence.

- The prevalence of adults who reported eating processed meats at least once a week was significantly higher in the Goldfields (71.0%), Great Southern (68.1%), Kimberley (73.3%), Pilbara (67.7%), South West (65.2%) and Wheatbelt (67.5%) health regions compared to the state prevalence (59.3%) (**Figure 25**).



**Figure 25: Prevalence of eating processed meats at least once a week by health regions in WA, 16 years & over, HWSS 2021**

## 5.5 Physical activity and sedentary behaviour

### 5.5.1 Physical activity

We asked respondents to rate their own physical activity level.

- Adults aged 16 to 44 years were significantly more likely to report being 'not very active' compared to those aged 65 years and over (23.1% compared to 18.2%) (**Table 36**).
- Males were significantly more likely to report being 'very active' compared to females (16.7% compared with 10.5%).

**Table 36: Self-reported level of physical activity, 16 years & over, HWSS 2021**

	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 years</b>										
Females	11.5	(9.0—14.0)	20.6	(17.4—23.8)	39.4	(35.6—43.2)	24.3	(20.9—27.6)	4.2	(2.6—5.9)
Males	19.2	(15.7—22.7)	23.1	(19.4—26.8)	32.4	(28.3—36.6)	21.8	(18.1—25.5)	3.5	(1.8—5.1)
Persons	15.1	(13.0—17.3)	21.8	(19.4—24.2)	36.1	(33.3—38.9)	23.1	(20.6—25.6)	3.9	(2.7—5.1)
<b>45 to 64 years</b>										
Females	9.2	(7.3—11.1)	23.4	(20.7—26.2)	39.8	(36.6—42.9)	22.1	(19.4—24.8)	5.6	(3.9—7.2)
Males	15.6	(12.6—18.7)	26.1	(22.7—29.5)	37.0	(33.2—40.8)	18.3	(15.2—21.4)	3.0	(1.8—4.3)
Persons	12.1	(10.4—13.9)	24.6	(22.5—26.8)	38.5	(36.1—40.9)	20.3	(18.3—22.4)	4.4	(3.3—5.5)
<b>65+ years</b>										
Females	10.8	(9.5—12.2)	23.6	(21.7—25.4)	41.4	(39.2—43.6)	18.9	(17.1—20.6)	5.3	(4.4—6.3)
Males	13.4	(11.6—15.1)	27.6	(25.4—29.8)	37.7	(35.3—40.1)	17.5	(15.6—19.4)	3.9	(3.0—4.9)
Persons	12.1	(11.0—13.2)	25.6	(24.1—27.1)	39.5	(37.9—41.1)	18.2	(16.9—19.4)	4.6	(3.9—5.3)
<b>Total</b>										
Females	10.5	(9.2—11.9)	22.2	(20.4—24.0)	39.9	(37.8—42.0)	22.4	(20.6—24.3)	4.9	(3.9—5.9)
Males	16.7	(14.8—18.6)	25.1	(23.0—27.1)	35.1	(32.8—37.4)	19.7	(17.7—21.7)	3.4	(2.5—4.3)
Persons	13.5	(12.3—14.6)	23.6	(22.2—24.9)	37.6	(36.1—39.2)	21.1	(19.8—22.5)	4.2	(3.5—4.9)

We asked respondents how they usually spend most of the day.

- Adults aged 16 to 44 years were significantly more likely to spend most of their day sitting compared to those aged 65 years and over (57.5% compared to 50.6%) (**Table 37**).
- Adults aged 65 years and over were significantly less likely to report spending most of their day in heavy labour or physically demanding work compared to those age 16 to 44 years and 45 to 64 years (4.3% compared to 10.6% and 10.7%).
- Males were significantly more likely than females to spend most of their day in heavy labour or physically demanding work (14.9% compared to 4.4%).

**Table 37: How usually spend day, 16 years & over, HWSS 2021**

	Sitting		Standing		Walking		Heavy labour/physically demanding work	
	%	95% CI	%	95% CI	%	95% CI	%	95% CI
<b>16 to 44 years</b>								
Females	58.0	(54.1—61.9)	21.2	(17.9—24.4)	15.8	(13.0—18.6)	5.0	(3.3—6.8)
Males	57.0	(52.6—61.4)	15.9	(12.7—19.1)	10.3	(7.6—13.0)	16.8	(13.5—20.1)
Persons	57.5	(54.6—60.5)	18.7	(16.4—21.0)	13.2	(11.2—15.1)	10.6	(8.8—12.5)
<b>45 to 64 years</b>								
Females	55.1	(51.8—58.4)	17.8	(15.3—20.3)	22.8	(20.0—25.6)	4.2	(3.1—5.3)
Males	53.7	(49.7—57.7)	13.8	(11.1—16.5)	14.1	(11.5—16.7)	18.4	(15.1—21.8)
Persons	54.5	(51.9—57.0)	16.0	(14.2—17.8)	18.9	(16.9—20.8)	10.7	(9.0—12.4)
<b>65+ years</b>								
Females	48.5	(46.2—50.7)	20.0	(18.3—21.8)	28.1	(26.1—30.2)	3.4	(2.6—4.2)
Males	52.7	(50.1—55.2)	17.0	(15.1—18.9)	25.1	(22.9—27.4)	5.2	(4.1—6.3)
Persons	50.6	(48.9—52.3)	18.5	(17.2—19.8)	26.6	(25.1—28.1)	4.3	(3.6—5.0)
<b>Total</b>								
Females	55.2	(53.0—57.3)	19.8	(18.0—21.5)	20.6	(18.9—22.3)	4.4	(3.5—5.3)
Males	55.0	(52.5—57.4)	15.4	(13.7—17.2)	14.7	(13.2—16.3)	14.9	(13.0—16.8)
Persons	55.1	(53.4—56.7)	17.7	(16.5—19.0)	17.8	(16.7—19.0)	9.4	(8.3—10.4)

Figure 26 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 to those living in country areas (57.4% compared to 47.4%).
- Those living in country areas were significantly more likely to spend most of their day doing heavy labour or physically demanding work compared to those living in metropolitan areas (12.2% compared to 8.5%).

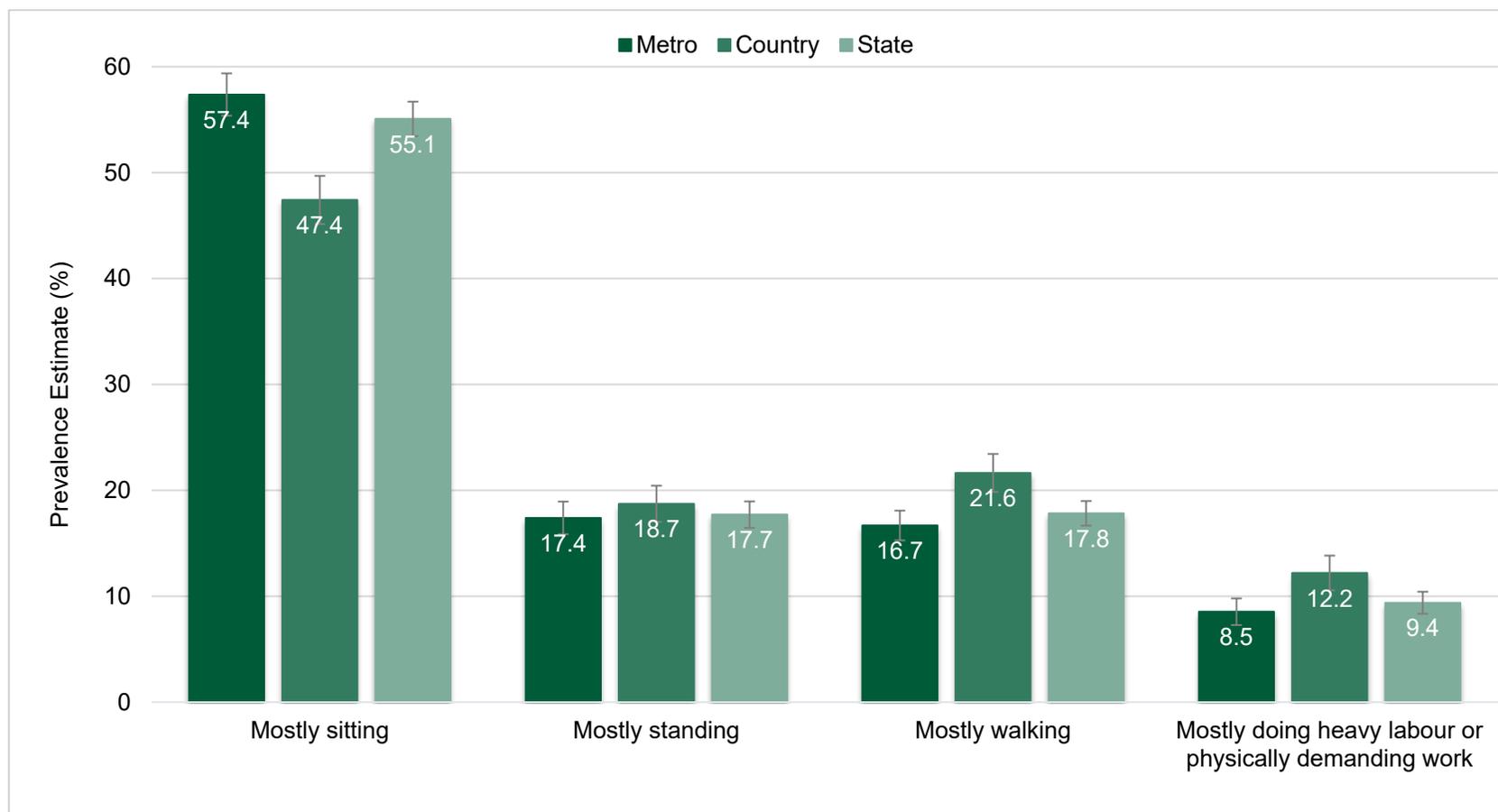


Figure 26: How usually spend day, 16 years & over, by geographic area of residence in WA, HWSS 2021

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>6</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>7</sup>

- The prevalence of adults who reported engaging in at least 150 minutes of physical activity per week decreased significantly with age (18 to 44 years - 70.3%, 45 to 64 years - 64.8% and 65 years older - 55.9%) (**Table 38**).
- Males were significantly more likely to engage in at least 150 minutes of physical activity per week compared to females (68.5% compared to 62.5%).

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<sup>6</sup> Australian Government Department of Health, 2014, Australia's physical activity and sedentary behaviour guidelines: adults, Department of Health, Canberra.

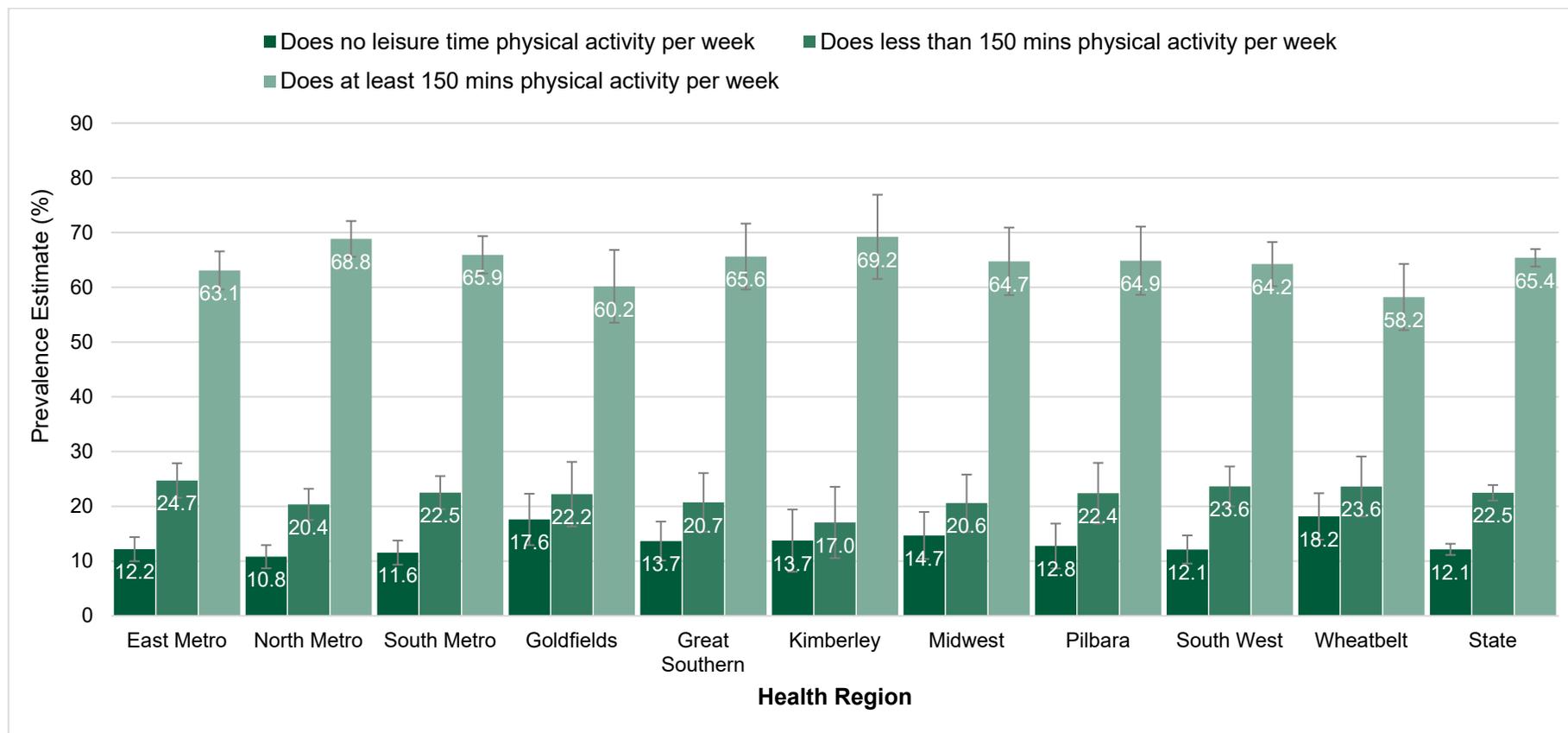
<sup>7</sup> Australian Institute of Health and Welfare, 2003, The Active Australia Survey, a guide and manual for implementation, analysis and reporting, cat. no. CVD 22, AIHW, Canberra. Available from: <http://www.aihw.gov.au/publication-detail/?id=6442467449>.

**Table 38: Physical activity level, based on the 2014 Australian Physical Activity and Sedentary Behaviour guidelines, 18 years & over, HWSS 2021**

	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 years</b>						
Females	8.2	(5.8—10.5)	24.1	(20.5—27.7)	67.7	(63.8—71.7)
Males	8.7	(6.1—11.3)	18.2	(14.6—21.8)	73.1	(69.0—77.2)
Persons	8.4	(6.7—10.2)	21.2	(18.7—23.8)	70.3	(67.5—73.2)
<b>45 to 64 years</b>						
Females	14.0	(11.5—16.4)	23.6	(20.6—26.7)	62.4	(59.0—65.8)
Males	10.4	(8.1—12.7)	21.9	(18.5—25.4)	67.6	(63.8—71.5)
Persons	12.3	(10.6—14.0)	22.9	(20.6—25.1)	64.8	(62.3—67.4)
<b>65+ years</b>						
Females	22.5	(20.7—24.4)	26.2	(24.2—28.2)	51.3	(49.0—53.6)
Males	16.8	(14.9—18.7)	22.8	(20.6—25.0)	60.4	(57.9—62.9)
Persons	19.6	(18.3—21.0)	24.5	(23.0—26.0)	55.9	(54.2—57.6)
<b>Total</b>						
Females	13.1	(11.7—14.6)	24.3	(22.4—26.3)	62.5	(60.3—64.7)
Males	11.1	(9.6—12.5)	20.5	(18.4—22.5)	68.5	(66.2—70.8)
Persons	12.1	(11.1—13.2)	22.5	(21.1—23.9)	65.4	(63.8—67.0)

The prevalence of physical activity levels based on the 2014 Australian Physical Activity and Sedentary Behaviour guidelines was estimated for the WA health regions and compared to the state prevalence.

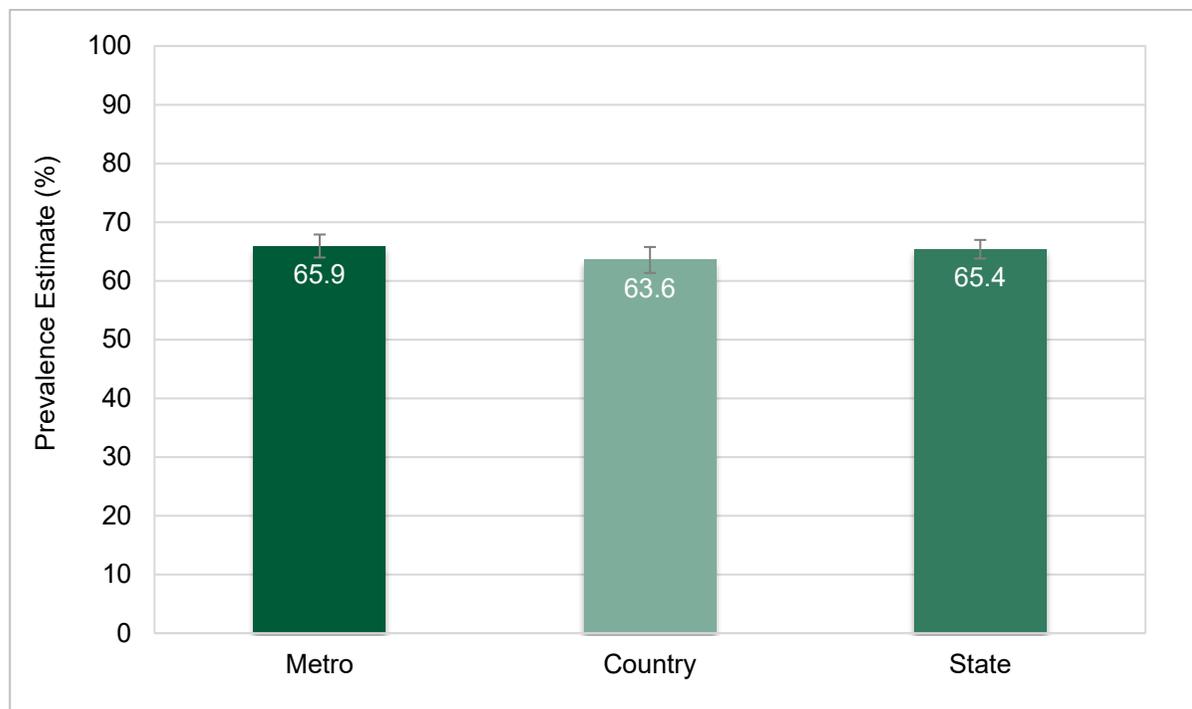
- The prevalence of adults who reported not engaging in any leisure time physical activity was significantly higher in the Wheatbelt health region (18.2%) compared to the state prevalence (12.1%) (**Figure 27**).



**Figure 27: Physical activity levels based on the 2014 Australian Physical Activity and Sedentary Behaviour guidelines by health regions in WA, 18 years & over, HWSS 2021**

**Figure 28** shows the prevalence of adults completing recommended levels of physical activity.

- The prevalence of adults who engaged in recommended levels of physical activity was not significantly different by geographic area of residence.



**Figure 28: Proportion of adults completing recommended levels of physical activity, 18 years & over, by geographic area of residence in WA, HWSS 2021**

## 5.5.2 Sedentary recreational screen time

We asked respondents how many hours per week they spend in screen-based sedentary leisure time activities such as watching TV or DVDs, using a computer, smartphone or tablet device for the internet or to play games, excluding work time.

- The prevalence of adults who reported spending 21 hours or more per week in screen-based sedentary leisure time activities increased significantly with age (16 to 44 years - 27.1%, 45 to 64 years - 33.8% and 65 years and over - 57.4%) (**Table 39**).

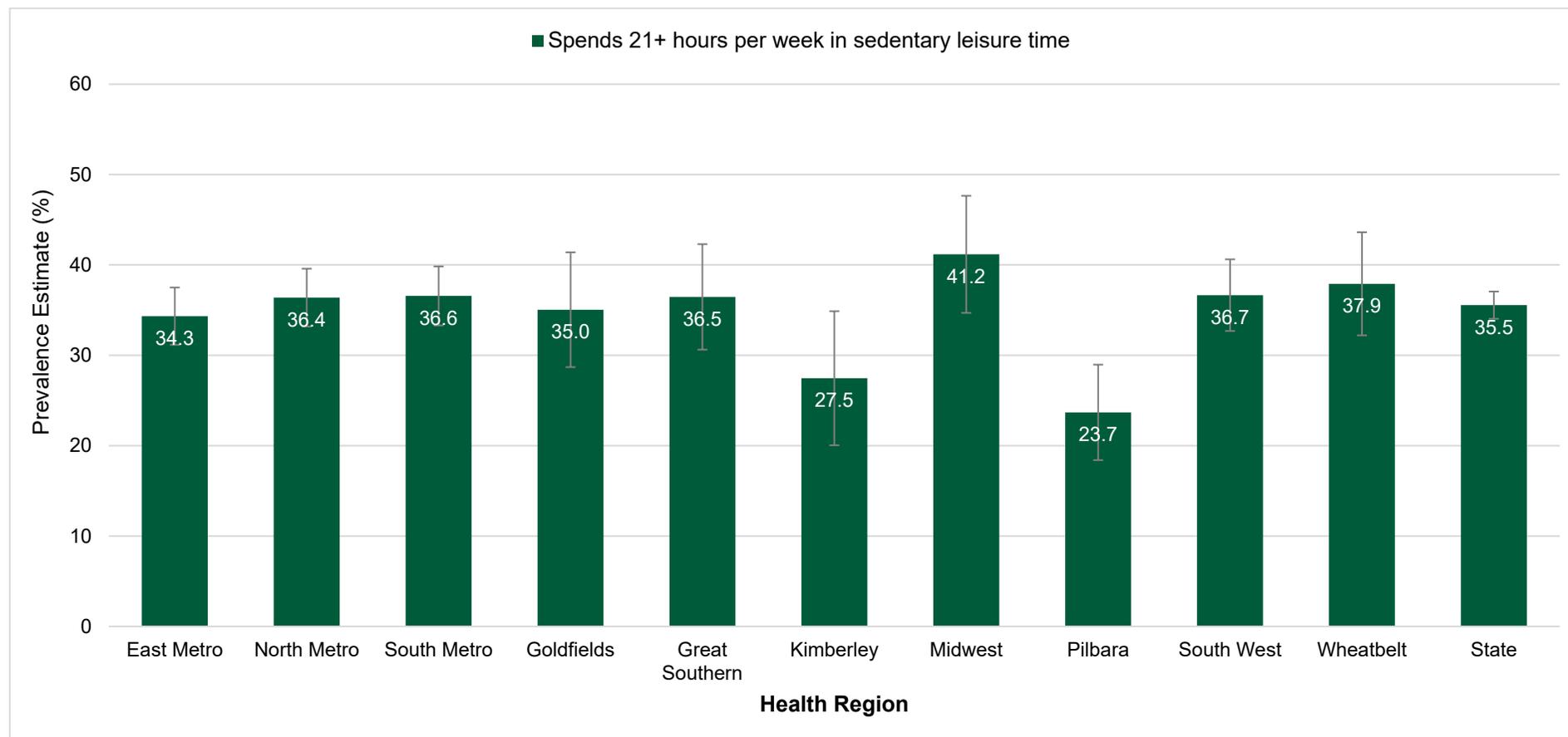
**Table 39: Time spent watching TV/DVDs or using a computer/smartphone /tablet device per week, 16 years & over, HWSS 2021**

	None		Less than 7hrs		7 to less than 14hrs		14 to less than 21hrs		21+ hrs	
	%	95% CI	%	95% CI	%	95% CI	%	95% CI	%	95% CI
<b>16 to 44 years</b>										
Females	1.0 *	(0.1—1.9)	28.5	(25.0—32.1)	22.2	(19.0—25.4)	23.6	(20.3—27.0)	24.6	(21.2—28.0)
Males	1.6 *	(0.5—2.7)	22.1	(18.4—25.7)	21.1	(17.5—24.7)	25.3	(21.5—29.2)	29.9	(25.8—34.0)
Persons	1.3 *	(0.6—2.0)	25.5	(22.9—28.0)	21.7	(19.3—24.1)	24.4	(21.9—27.0)	27.1	(24.4—29.7)
<b>45 to 64 years</b>										
Females	1.9 *	(0.9—2.9)	19.9	(17.2—22.6)	18.2	(15.7—20.7)	25.1	(22.4—27.9)	34.9	(31.8—38.0)
Males	1.3 *	(0.4—2.1)	21.3	(17.9—24.7)	21.1	(18.0—24.3)	23.7	(20.4—27.0)	32.6	(28.9—36.3)
Persons	1.6	(0.9—2.3)	20.5	(18.4—22.7)	19.6	(17.6—21.5)	24.5	(22.4—26.6)	33.8	(31.4—36.2)
<b>65+ years</b>										
Females	0.9	(0.5—1.3)	12.6	(11.1—14.1)	9.1	(7.9—10.4)	19.2	(17.5—21.0)	58.1	(55.9—60.3)
Males	0.7 *	(0.3—1.1)	12.2	(10.5—13.8)	11	(9.5—12.6)	19.3	(17.4—21.2)	56.8	(54.4—59.3)
Persons	0.8	(0.5—1.1)	12.4	(11.3—13.5)	10.1	(9.1—11.1)	19.3	(18.0—20.6)	57.4	(55.8—59.1)
<b>Total</b>										
Females	1.3	(0.8—1.8)	22.4	(20.5—24.3)	18.3	(16.6—20.1)	23.4	(21.5—25.2)	34.6	(32.6—36.6)
Males	1.3	(0.7—1.9)	19.7	(17.6—21.7)	18.9	(17.0—20.9)	23.5	(21.4—25.6)	36.6	(34.3—38.9)
Persons	1.3	(0.9—1.7)	21.1	(19.7—22.5)	18.6	(17.3—19.9)	23.4	(22.0—24.8)	35.5	(34.0—37.1)

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

The prevalence of adults who spend 21 hours or more per week in screen-based sedentary leisure time activities was estimated for the WA health regions and compared to the state prevalence.

- The prevalence of adults who spend 21 hours or more per week in screen-based sedentary leisure time activities was significantly lower in the Pilbara health region (23.7%) compared to the state prevalence (35.5%) (**Figure 29**).



**Figure 29: Prevalence of adults who spend 21 hours or more per week in screen-based sedentary leisure time activities by health regions in WA, 16 years & over, HWSS 2021**

## 5.6 Sleep

We asked respondents how many hours sleep they get on a usual night.

- The prevalence of adults who reported sleeping the recommended number of hours on a usual night decreased significantly with age (16 to 44 years: 69.5%, 45 to 64 years: 63.0% and 65 years and over: 53.1%) (**Table 40**).
- Females aged 65 years and over were less likely to sleep the recommended number of hours on a usual night compared to males in the same age group (50.7% compared to 55.5%).

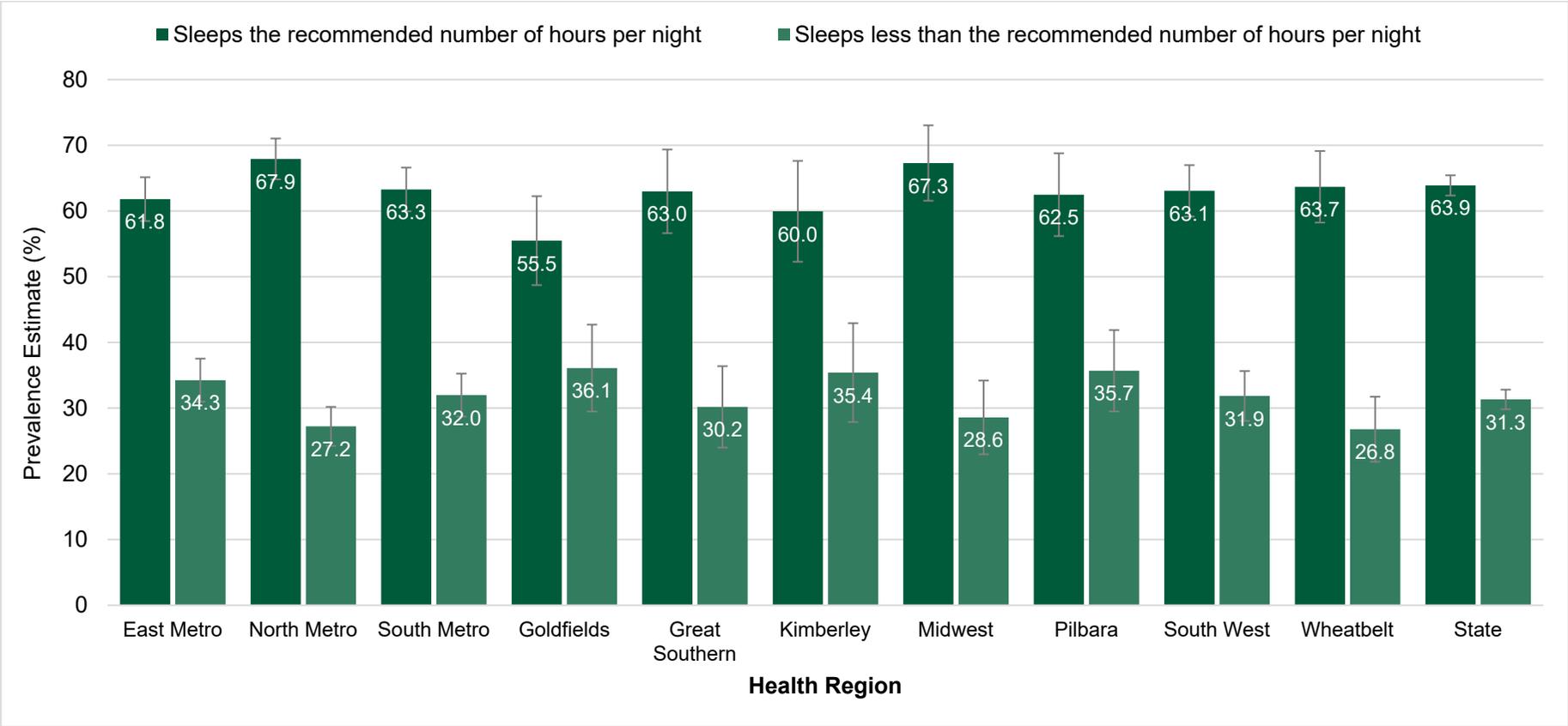
**Table 40: Prevalence of adults sleeping the recommended number of hours on a usual night, 16 years & over, HWSS 2021**

Sex	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 years</b>						
Females	68.3	(64.7—72.0)	28.7	(25.1—32.3)	3.0	(1.5—4.4)
Males	70.8	(66.8—74.8)	26.5	(22.6—30.4)	2.7 *	(1.3—4.2)
Persons	69.5	(66.8—72.2)	27.6	(25.0—30.3)	2.9	(1.8—3.9)
<b>45 to 64 years</b>						
Females	63.0	(59.8—66.2)	34.0	(30.9—37.2)	2.9	(1.8—4.1)
Males	62.9	(59.1—66.7)	35.3	(31.5—39.1)	1.8	(1.0—2.6)
Persons	63.0	(60.5—65.4)	34.6	(32.2—37.0)	2.4	(1.7—3.2)
<b>65+ years</b>						
Females	50.7	(48.5—52.9)	37.6	(35.5—39.8)	11.6	(10.3—13.0)
Males	55.5	(53.0—57.9)	30.1	(27.8—32.4)	14.4	(12.7—16.1)
Persons	53.1	(51.5—54.8)	33.8	(32.2—35.4)	13.0	(12.0—14.1)
<b>Total</b>						
Females	63.1	(61.0—65.1)	32.3	(30.3—34.3)	4.6	(3.8—5.4)
Males	64.8	(62.5—67.1)	30.2	(28.0—32.5)	5.0	(4.2—5.8)
Persons	63.9	(62.4—65.4)	31.3	(29.8—32.8)	4.8	(4.2—5.3)

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

The prevalence of adults sleeping the recommended number of hours on a usual night was estimated for the WA health regions and compared to the state prevalence.

- The prevalence of adults who reported sleeping the recommended number of hours on a usual night was significantly lower in the Goldfields health region (55.5%) compared to the state prevalence (63.9%) (**Figure 30**).



**Figure 30: Prevalence of adults sleeping the recommended number of hours on a usual night by health regions in WA, 16 years & over, HWSS 2021**

## 5.7 Illicit drug use

We asked respondents if they had used any drugs for non-medical purposes in the last 12 months. This could include cannabis, ecstasy, methamphetamines or pain-relievers, sleeping pills and steroids.

- Cannabis was the most common illicit drug used (7.3%) followed by the illicit use of pharmaceuticals (3.2%) and methamphetamines (3.2%) (**Table 41**).

**Table 41: Use of illicit drugs in the last 12 months for non-medical purposes, 16 years & over, HWSS 2021**

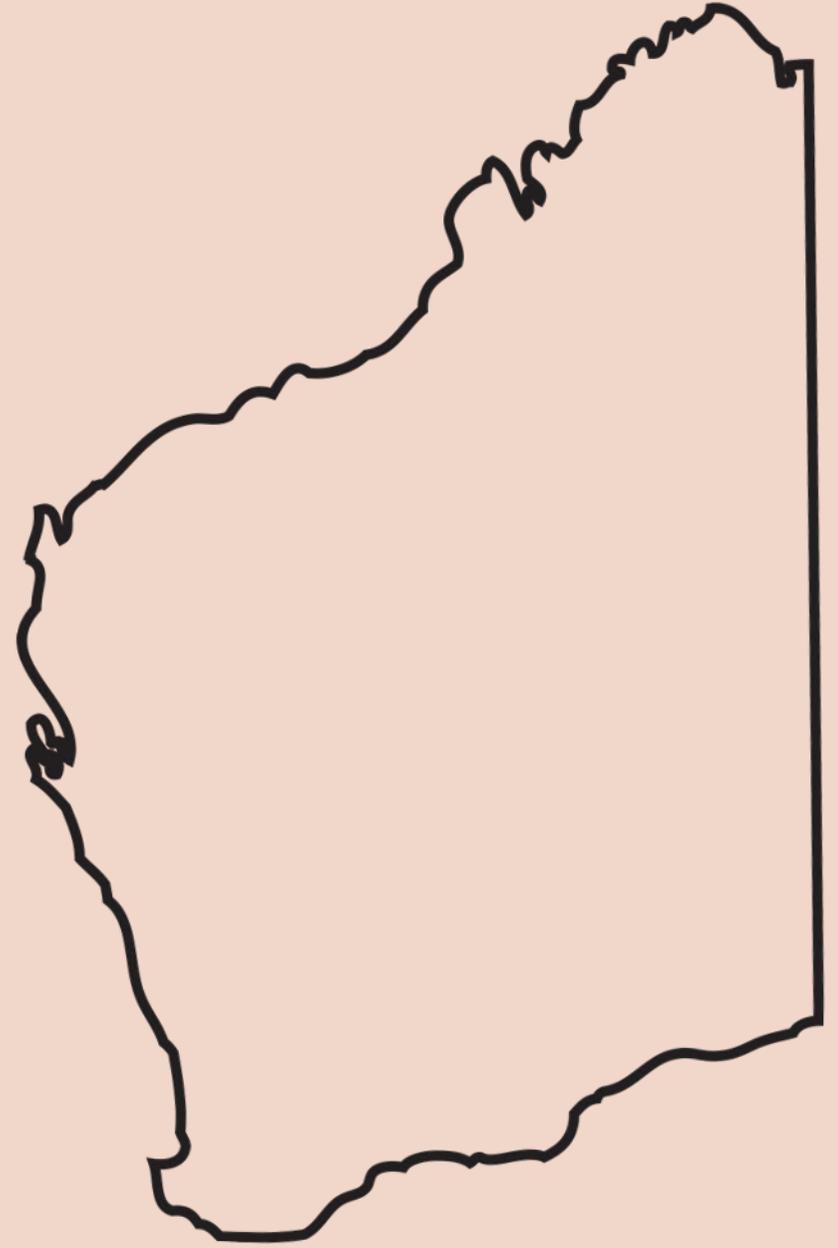
Drug type	Illicit drug use in the last 12 months	
	%	95% CI
Cannabis	7.3	(6.4—8.3)
Ecstasy	2.0	(1.5—2.6)
Cocaine	1.9	(1.3—2.4)
Methamphetamines	3.2	(2.5—3.9)
Amphetamines	3.0	(2.3—3.6)
Illicit use of pharmaceuticals (a)	3.2	(2.5—3.8)
Any illicit drug use (b) (c)	10.3	(9.2—11.4)

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

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

(c) Refers to individuals who may have more than one drug use type.

# PHYSIOLOGICAL RISK FACTORS



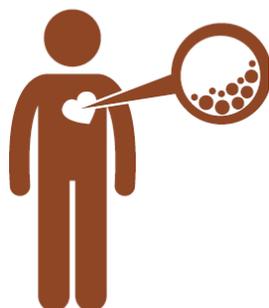
## 6. Physiological risk factors

Physiological risk factors such as high cholesterol, high blood pressure and excess body mass are major contributors to disease burden.<sup>8</sup> However, they can be effectively managed through a combination of clinical practice, medications, population-based interventions and lifestyle behaviours. This section will focus on the following physiological risk factors:

- cholesterol
- blood pressure
- body weight

23.9%

Western Australian adults currently have high cholesterol levels



22.1%

Western Australian adults currently have high blood pressure



36.3%

Western Australian adults are obese



38.0%

Western Australian adults are overweight

<sup>8</sup> Australian Institute of Health and Welfare, 2016, Australia's health 2016. Australia's health series no. 15, cat. no. AUS 199, AIHW, Canberra. Available from: <https://www.aihw.gov.au/getmedia/9844cefb-7745-4dd8-9ee2-f4d1c3d6a727/19787-AH16.pdf.aspx?inline=true>.

## 6.1 Cholesterol

We asked respondents whether a doctor had told them that they had high cholesterol and if they still have high cholesterol.

- The lifetime prevalence of high cholesterol increased significantly with age (16 to 44 years -17.7%, 45 to 64 years - 42.3%, and 65 years and over - 51.9%) (**Table 42**).
- The point prevalence of high cholesterol also increased significantly with age (16 to 44 years - 5.3%, 45 to 64 years - 26.4%, and 65 years and over - 43.4%).

**Table 42: Prevalence of adults with diagnosed high cholesterol levels, 16 years & over, HWSS 2021**

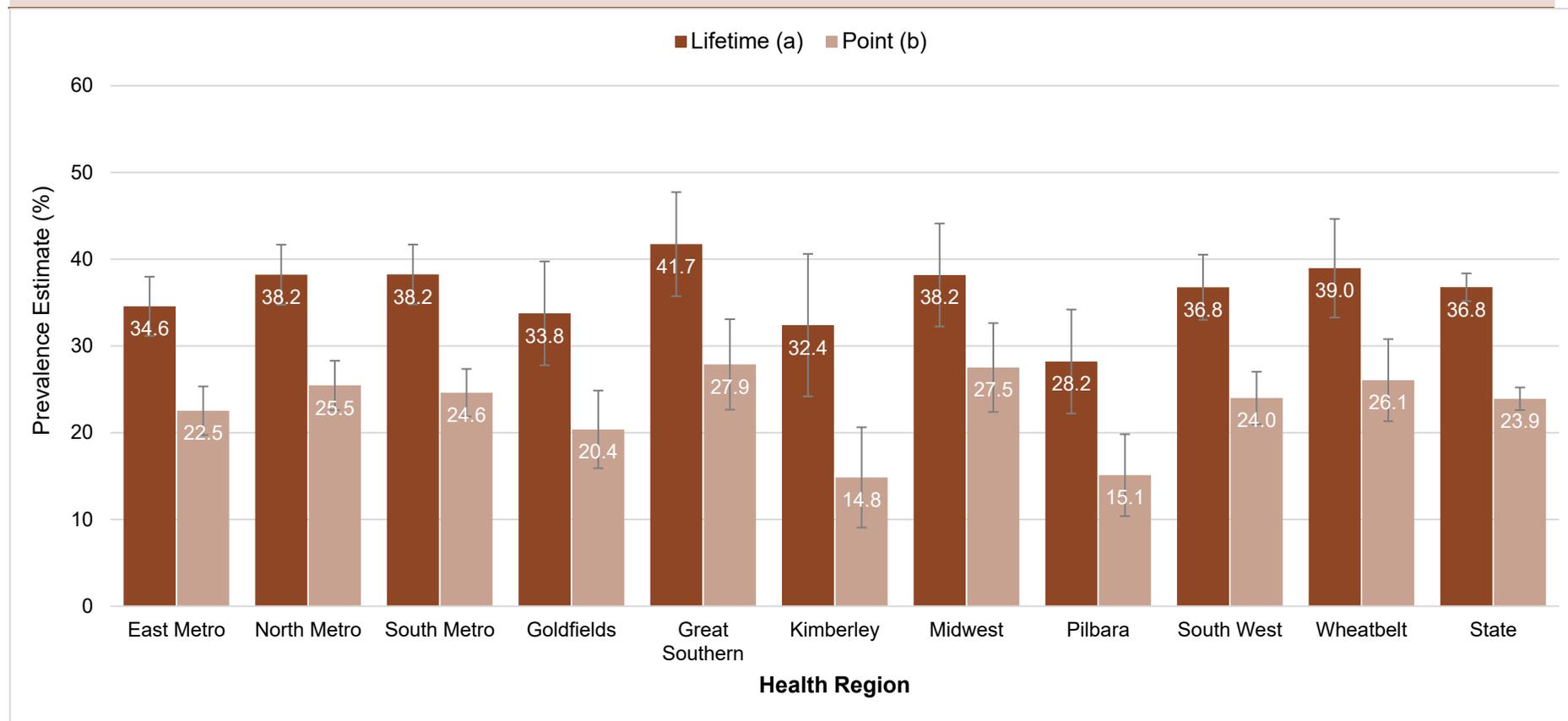
	Lifetime (a)		Point (b)	
	%	95% CI	%	95% CI
<b>16 to 44 years</b>				
Females	16.5	(12.8—20.3)	5.0	(2.9—7.0)
Males	19.0	(14.4—23.5)	5.7	(3.1—8.4)
Persons	17.7	(14.8—20.6)	5.3	(3.7—7.0)
<b>45 to 64 years</b>				
Females	40.1	(36.8—43.4)	24.5	(21.6—27.4)
Males	44.9	(40.8—49.0)	28.6	(24.9—32.4)
Persons	42.3	(39.7—44.9)	26.4	(24.1—28.7)
<b>65+ years</b>				
Females	50.4	(48.1—52.6)	41.3	(39.1—43.5)
Males	53.4	(50.9—55.9)	45.4	(42.8—47.9)
Persons	51.9	(50.2—53.6)	43.4	(41.7—45.0)
<b>Total</b>				
Females	34.9	(32.8—36.9)	22.2	(20.5—23.8)
Males	38.9	(36.4—41.3)	25.8	(23.8—27.9)
Persons	36.8	(35.2—38.4)	23.9	(22.6—25.2)

(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.

The lifetime and point prevalence of adults diagnosed with high cholesterol was estimated for the WA health regions and compared to the state prevalence.

- The lifetime prevalence of high cholesterol was significantly lower in the Pilbara health region (28.2%) compared to the state prevalence (36.8%) (**Figure 31**).
- The point prevalence of high cholesterol was significantly lower in the Kimberley (14.8%) and Pilbara (15.1%) health regions compared to the state prevalence (23.9%).



**Figure 31: Prevalence of adults with diagnosed high cholesterol levels by health regions in WA, 16 years & over, HWSS 2021**  
 (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.

We asked respondents when they last had their cholesterol measured.

- The prevalence of adults who reported never testing for cholesterol levels decreased significantly with age (16 to 44 years - 53.3%, 45 to 64 years - 11.1%, and 65 years and over - 1.6%) (**Table 43**).
- Males aged 65 years and over were significantly more likely to report testing for cholesterol levels within the past six months compared to females (62.7% compared to 56.3%).

**Table 43: Prevalence of population by when cholesterol level was last tested, 16 years & over, HWSS 2021**

	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 years</b>												
Females	54.3	(49.9—58.6)	9.3	(6.8—11.8)	4.7	(3.0—6.5)	2.6 *	(1.2—4.0)	1.9 *	(0.7—3.1)	27.2	(23.3—31.1)
Males	52.2	(47.3—57.2)	9.3	(6.5—12.0)	4.5	(2.5—6.5)	3.7	(1.9—5.5)	1.9 *	(0.6—3.3)	28.3	(23.9—32.8)
Persons	53.3	(50.0—56.6)	9.3	(7.4—11.2)	4.6	(3.3—6.0)	3.1	(2.0—4.3)	1.9	(1.0—2.8)	27.7	(24.8—30.7)
<b>45 to 64 years</b>												
Females	12.2	(9.1—15.2)	39.9	(35.8—44.0)	16.1	(13.0—19.3)	7.3	(5.1—9.4)	5.1	(3.3—6.8)	19.5	(16.1—22.8)
Males	9.7	(6.3—13.1)	42.1	(37.0—47.3)	13.9	(10.4—17.3)	5.1	(2.8—7.4)	5.2	(3.0—7.4)	24.0	(19.5—28.5)
Persons	11.1	(8.8—13.4)	40.9	(37.6—44.1)	15.1	(12.8—17.5)	6.3	(4.7—7.9)	5.1	(3.8—6.5)	21.5	(18.7—24.2)
<b>65+ years</b>												
Females	1.7	(1.0—2.3)	56.3	(53.8—58.9)	18.6	(16.6—20.6)	5.6	(4.4—6.8)	2.4	(1.7—3.2)	15.4	(13.5—17.2)
Males	1.6	(0.8—2.3)	62.7	(59.8—65.6)	14.8	(12.7—16.8)	4.0	(2.7—5.2)	2.3	(1.5—3.2)	14.7	(12.5—16.8)
Persons	1.6	(1.1—2.1)	59.5	(57.5—61.4)	16.7	(15.3—18.2)	4.8	(3.9—5.7)	2.4	(1.8—2.9)	15.0	(13.6—16.5)
<b>Total</b>												
Females	31.7	(29.0—34.3)	27.5	(25.5—29.5)	10.8	(9.4—12.2)	4.5	(3.5—5.5)	2.9	(2.1—3.8)	22.6	(20.3—24.9)
Males	30.2	(27.2—33.3)	29.4	(27.0—31.8)	9.2	(7.7—10.6)	4.1	(3.0—5.3)	2.9	(2.0—3.8)	24.2	(21.6—26.9)
Persons	31.0	(29.0—33.0)	28.4	(26.8—29.9)	10.0	(9.0—11.0)	4.3	(3.6—5.1)	2.9	(2.3—3.5)	23.4	(21.6—25.1)

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

## 6.2 Blood pressure

We asked respondents whether a doctor had told them that they had high blood pressure and if they still have high blood pressure.

- The lifetime prevalence of high blood pressure increased significantly with age (16 to 44 years - 13.1%, 45 to 64 years - 36.2%, and 65 years and over - 57.1%) (**Table 44**).
- The point prevalence of high blood pressure also increased significantly with age (16 to 44 years - 4.2%, 45 to 64 years - 26.0%, and 65 years and over - 51.3%).
- Both lifetime and point prevalence of high blood pressure was significantly higher in males compared to females (lifetime prevalence - 33.6% compared to 28.3%, and point prevalence - 25.2% compared to 19.4%)

**Table 44: Prevalence of adults with high blood pressure, 16 years & over, HWSS 2021**

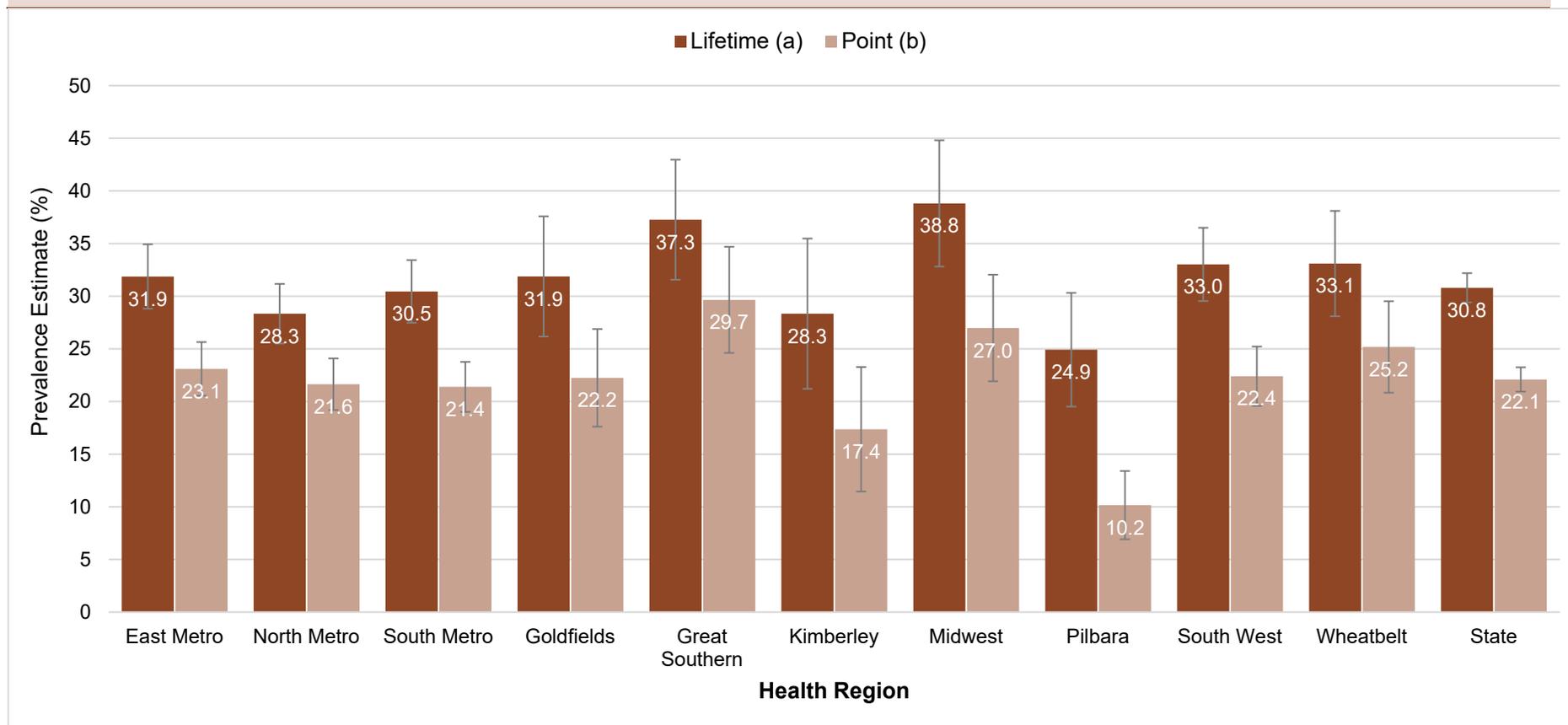
	Lifetime (a)		Point (b)	
	%	95% CI	%	95% CI
<b>16 to 44 years</b>				
Females	11.8	(9.3—14.3)	3.1	(1.8—4.5)
Males	14.7	(11.4—18.0)	5.4	(3.3—7.5)
Persons	13.1	(11.1—15.2)	4.2	(3.0—5.4)
<b>45 to 64 years</b>				
Females	32.9	(29.8—36.0)	22.3	(19.6—25.1)
Males	40.1	(36.2—44.0)	30.4	(26.7—34.0)
Persons	36.2	(33.7—38.6)	26.0	(23.7—28.2)
<b>65+ years</b>				
Females	56.7	(54.5—58.9)	50.2	(48.0—52.4)
Males	57.5	(55.0—60.0)	52.5	(50.0—55.0)
Persons	57.1	(55.4—58.7)	51.3	(49.7—53.0)
<b>Total</b>				
Females	28.3	(26.6—30.1)	19.4	(18.0—20.8)
Males	33.6	(31.4—35.8)	25.2	(23.3—27.1)
Persons	30.8	(29.4—32.2)	22.1	(20.9—23.2)

(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.

The lifetime and point prevalence of adults with high blood pressure was estimated for the WA health regions and compared to the state prevalence.

- The lifetime prevalence of high blood pressure was significantly higher in the Midwest health region (38.8%) compared to the state prevalence (30.8%) (**Figure 32**).
- The point prevalence of high blood pressure was significantly higher in the Great Southern health region (29.7%) and significantly lower in the Pilbara health region (10.2%) compared the state prevalence (22.1%).



**Figure 32: Prevalence of adults with high blood pressure by health regions in WA, 16 years & over, HWSS 2021**

(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.

We asked respondents when they last had their blood pressure measured.

- The prevalence of adults who reported measuring their blood pressure within the last six months increased significantly with age (16 to 44 years - 31.1%, 45 to 64 years - 70.6%, and 65 years and over - 89.6%) (**Table 45**).
- Males were significantly less likely to report measuring their blood pressure within the last six months to a year compared to females (5.5% compared to 9.4%).

**Table 45: Prevalence of population by when blood pressure was last tested, 16 years & over, HWSS 2021**

	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 years</b>												
Females	10.2	(6.7—13.7)	35.0	(29.6—40.3)	10.8	(7.3—14.2)	2.7 *	(1.1—4.3)	N/A	(N/A—N/A)	39.9	(34.3—45.5)
Males	17.0	(12.5—21.6)	27.4	(22.3—32.4)	5.8	(3.1—8.5)	5.4	(2.8—8.0)	2.2 *	(0.6—3.8)	42.2	(36.5—47.9)
Persons	13.7	(10.8—16.6)	31.1	(27.4—34.8)	8.2	(6.1—10.4)	4.1	(2.5—5.6)	1.8 *	(0.7—2.9)	41.1	(37.1—45.1)
<b>45 to 64 years</b>												
Females	2.2 *	(0.4—4.0)	71.6	(67.3—75.8)	11.1	(8.0—14.2)	2.5	(1.5—3.6)	1.0 *	(0.4—1.7)	11.6	(8.6—14.5)
Males	N/A	(N/A—N/A)	69.4	(64.0—74.8)	7.0	(4.6—9.5)	1.4 *	(0.5—2.3)	2.5 *	(0.9—4.1)	17.8	(12.9—22.8)
Persons	2.0 *	(0.8—3.3)	70.6	(67.2—74.0)	9.3	(7.2—11.4)	2.0	(1.3—2.7)	1.7	(0.9—2.5)	14.3	(11.6—17.1)
<b>65+ years</b>												
Females	N/A	(N/A—N/A)	88.8	(87.1—90.5)	4.9	(3.7—6.0)	0.8 *	(0.3—1.3)	N/A	(N/A—N/A)	5.3	(4.1—6.5)
Males	N/A	(N/A—N/A)	90.4	(88.6—92.3)	3.4	(2.3—4.4)	1.0 *	(0.3—1.8)	N/A	(N/A—N/A)	4.9	(3.5—6.2)
Persons	N/A	(N/A—N/A)	89.6	(88.3—90.8)	4.1	(3.4—4.9)	0.9 *	(0.5—1.3)	0.2 *	(0.0—0.4)	5.1	(4.2—6.0)
<b>Total</b>												
Females	5.1	(3.4—6.7)	60.4	(57.3—63.4)	9.4	(7.6—11.2)	2.2	(1.4—2.9)	1.0 *	(0.3—1.7)	22.0	(19.2—24.8)
Males	8.6	(6.3—10.9)	54.8	(51.5—58.1)	5.5	(4.1—7.0)	3.2	(1.9—4.5)	1.8 *	(0.9—2.7)	26.1	(22.9—29.3)
Persons	6.8	(5.4—8.2)	57.7	(55.4—59.9)	7.5	(6.4—8.7)	2.7	(1.9—3.4)	1.4	(0.8—1.9)	24.0	(21.9—26.1)

\* 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

## 6.3 Body weight

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>9</sup> Each respondent's BMI was then classified as not overweight or obese (BMI<25), overweight (25≤BMI<30) or obese (BMI≥30).

- The prevalence of obesity was significantly higher in adults aged 45 to 64 years (42.2%) compared to those aged 16 to 44 years (30.9%) and 65 years and over (37.7%) (**Table 46**).
- Males were significantly more likely to be overweight compared to females (43.3% compared to 33.2%).

**Table 46: Prevalence by BMI categories, 16 years & over, HWSS 2021**

	Not overweight or obese		Overweight		Obese	
	%	95% CI	%	95% CI	%	95% CI
<b>16 to 44 years</b>						
Females	36.5	(32.6—40.5)	31.0	(27.2—34.7)	32.5	(28.7—36.4)
Males	28.5	(24.3—32.8)	42.3	(37.7—46.9)	29.2	(25.0—33.3)
Persons	32.8	(29.8—35.7)	36.3	(33.4—39.3)	30.9	(28.1—33.8)
<b>45 to 64 years</b>						
Females	24.4	(21.4—27.4)	34.6	(31.4—37.8)	41.0	(37.8—44.3)
Males	13.3	(10.5—16.1)	43.2	(39.2—47.2)	43.5	(39.5—47.4)
Persons	19.3	(17.2—21.4)	38.6	(36.0—41.1)	42.2	(39.6—44.7)
<b>65+ years</b>						
Females	24.9	(23.0—26.9)	35.6	(33.4—37.7)	39.5	(37.3—41.7)
Males	18.4	(16.5—20.4)	45.6	(43.1—48.1)	35.9	(33.5—38.4)
Persons	21.6	(20.2—23.0)	40.7	(39.0—42.4)	37.7	(36.0—39.3)
<b>Total</b>						
Females	29.9	(27.7—32.0)	33.2	(31.1—35.2)	37.0	(34.8—39.1)
Males	21.1	(18.9—23.2)	43.3	(40.9—45.8)	35.6	(33.2—37.9)
Persons	25.7	(24.1—27.2)	38.0	(36.4—39.6)	36.3	(34.7—37.9)

<sup>9</sup> Hayes A., Kortt M., Clarke P. and Brandup J., 2008. Estimating equations to correct self-reported height and weight: implications for prevalence of overweight and obesity in Australia. *Australian and New Zealand Journal of Public Health*, 32(6): 542-45.

The prevalence of adults by BMI category was estimated for the WA health regions and compared to the state prevalence.

- The prevalence of obesity was significantly higher in the Great Southern (48.2%), Midwest (47.0%) and Wheatbelt (44.7%) health regions, and significantly lower in the North Metro health region (30.5%) compared to the state prevalence (36.3%) (Figure 33).

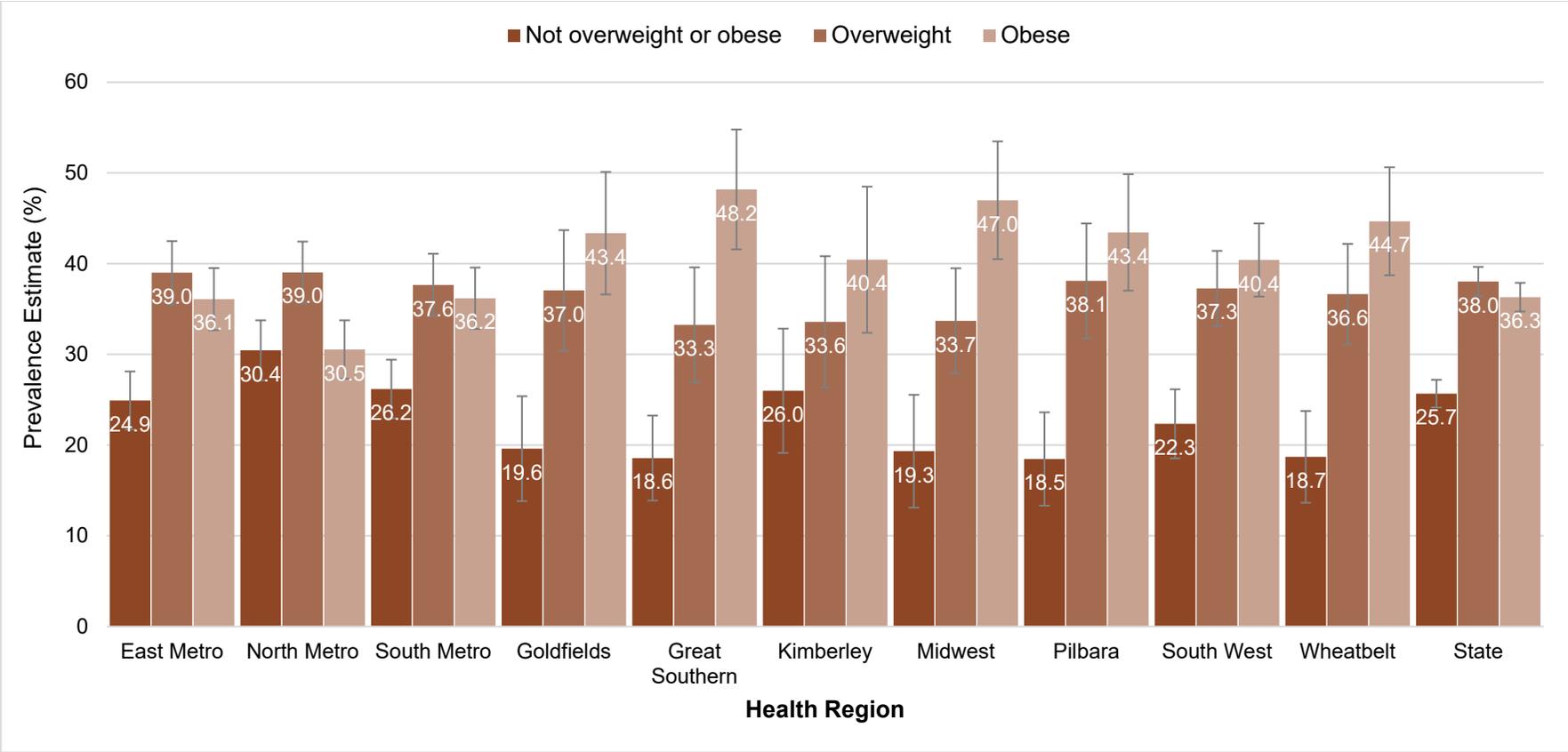


Figure 33: Prevalence of adults with high blood pressure by health regions in WA, 16 years & over, HWSS 2021

Figure 34 shows the prevalence of adults by BMI category and geographic area of residence.

- The prevalence of obesity was significantly higher in the country population (43.3%) compared to the metropolitan population (34.2%).

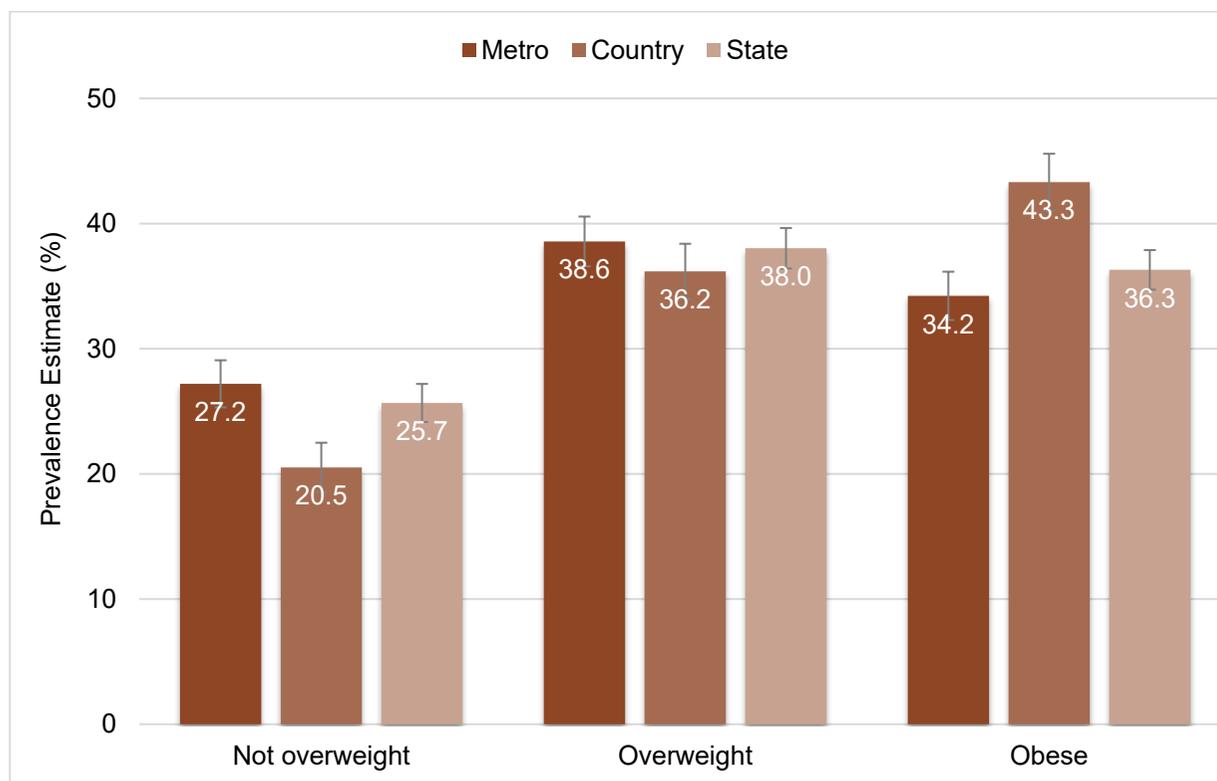


Figure 34: Proportion of adults by BMI category, 16 years & over, by geographic area of residence in WA, HWSS 2021

We asked respondents about their perceptions of their own weight. Perceptions of weight have been reported against BMI based weight categories derived from corrected self-reported height and weight.

- Of those people with a BMI that classified them as overweight, half (51.2%) perceived their weight to be normal (**Table 47**).
- Of those people with a BMI that classified them as obese, almost three in four (73.5%) perceived themselves to be overweight and approximately one in ten (9.5%) perceived their weight to be normal.

**Table 47: Prevalence of self-perception of body weight, by BMI classification, 16 years & over, HWSS 2021**

Body Mass index classification	Self-perception of body weight							
	Underweight		Normal weight		Overweight		Obese	
	%	95% CI	%	95% CI	%	95% CI	%	95% CI
Underweight	65.3	(44.8—85.8)	33.2*	(12.8—53.7)	N/A	(N/A—N/A)	N/A	(N/A—N/A)
Normal weight	8.8	(6.8—10.7)	82.7	(80.0—85.3)	8.5	(6.6—10.5)	N/A	(N/A—N/A)
Overweight	0.7*	(0.2—1.2)	51.2	(48.5—53.9)	47.8	(45.1—50.5)	0.3*	(0.0—0.5)
Obese	0.5*	(0.0—0.9)	9.5	(7.9—11.1)	73.5	(71.1—76.0)	16.5	(14.4—18.6)

\* 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

We asked respondents what they were trying to do about their weight. Intentions to change weight have been reported against BMI calculations based on corrected self-reported height and weight.

- Half (50.8%) the adults with a BMI that classified them as overweight had intentions to lose weight, while this increased to around three-fourths (74.2%) among people with a BMI that classified them as obese (**Table 48**).

**Table 48: Prevalence of intentions to change weight, by BMI classification, 16 years & over, HWSS 2021**

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)	58.3	(37.8—78.8)	19.5*	(3.0—36.0)	20.7*	(5.8—35.7)
Normal weight	20.6	(17.7—23.6)	8.7	(6.6—10.9)	35.0	(31.6—38.4)	35.7	(32.3—39.1)
Overweight	50.8	(48.2—53.5)	1.5*	(0.7—2.3)	21.8	(19.7—23.8)	25.9	(23.6—28.2)
Obese	74.2	(71.9—76.4)	N/A	(N/A—N/A)	8.3	(6.9—9.6)	17.4	(15.5—19.4)

\* 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

# MENTAL HEALTH



## 7. 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>10</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

**18.6%** Western Australian adults reported high or very high levels of psychological distress



**27.9%** Western Australian adults reported the death of someone close, which was the most common major life event reported



**8.8%** Western Australian adults reported often or always feeling a lack of control over life in general

**8.2%** Western Australian adults reported having seriously thought about ending their own life over the past 12 months



**56.4%** Western Australian adults reported belonging to at least one social group or association



<sup>10</sup> Mental Health Commission, n.d., Mental health 2020: making it personal and everybody's business, Mental Health Commission, Perth. Available from: <https://www.mhc.wa.gov.au/media/1316/mhc-strategic-plan.pdf>.

## 7.1 Psychological distress

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. 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>11</sup>

- The prevalence of moderate, high and very high psychological distress decreased significantly with age (16 to 44 years: moderate - 28.4%, high - 16.2% and very high - 9.7%; 45 to 64 years: moderate - 20.6%, high -10.3% and very high - 5.6%; and 65 years and over: moderate - 14.3%, high - 6.0% and very high -1.4%) (**Table 49**).
- Males were significantly more likely to report low levels of psychological distress compared to females (62.0% compared to 55.5%).

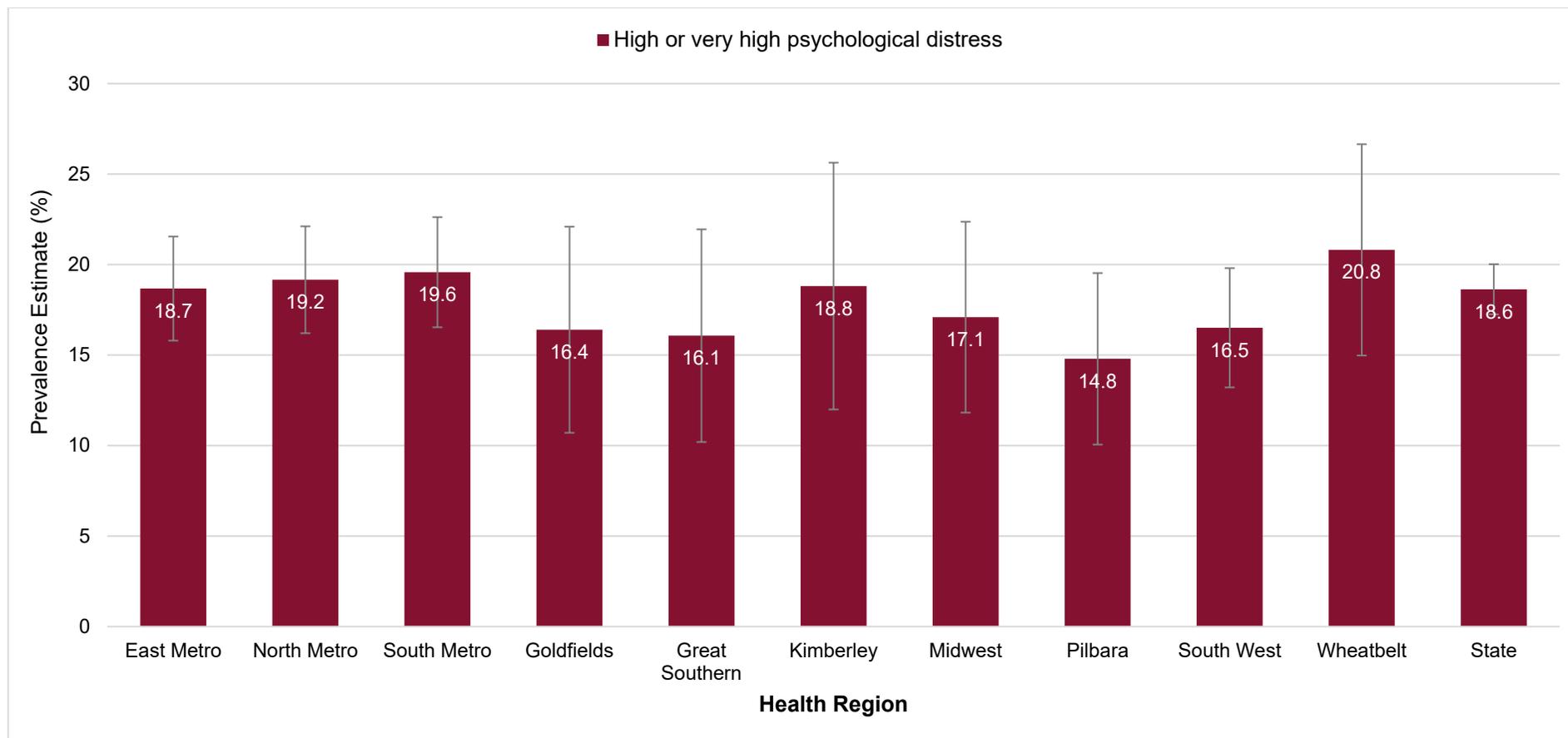
**Table 49: Psychological distress as measured by Kessler Psychological Distress Scale-10, 16 years & over, HWSS 2021**

	Low		Moderate		High		Very high	
	%	95% CI	%	95% CI	%	95% CI	%	95% CI
<b>16 to 44 years</b>								
Females	42.2	(38.3—46.0)	28.7	(25.2—32.3)	17.7	(14.7—20.8)	11.4	(8.8—13.9)
Males	49.7	(45.3—54.2)	28.0	(24.0—32.1)	14.4	(11.2—17.6)	7.9	(5.5—10.3)
Persons	45.7	(42.8—48.6)	28.4	(25.7—31.1)	16.2	(13.9—18.4)	9.7	(8.0—11.5)
<b>45 to 64 years</b>								
Females	61.5	(58.3—64.7)	21.7	(19.0—24.5)	11.4	(9.2—13.6)	5.4	(3.8—6.9)
Males	65.9	(62.0—69.8)	19.3	(16.1—22.6)	8.9	(6.6—11.3)	5.8	(3.9—7.8)
Persons	63.5	(61.0—66.0)	20.6	(18.5—22.7)	10.3	(8.7—11.9)	5.6	(4.3—6.8)
<b>65+ years</b>								
Females	75.5	(73.6—77.4)	16.0	(14.4—17.6)	6.8	(5.7—8.0)	1.7	(1.1—2.2)
Males	81.0	(79.0—83.0)	12.7	(11.0—14.4)	5.1	(4.0—6.2)	1.2	(0.7—1.8)
Persons	78.3	(76.9—79.7)	14.3	(13.2—15.5)	6.0	(5.1—6.8)	1.4	(1.1—1.8)
<b>Total</b>								
Females	55.5	(53.3—57.7)	23.8	(21.9—25.7)	13.4	(11.8—15.0)	7.4	(6.1—8.7)
Males	62.0	(59.5—64.5)	21.8	(19.6—23.9)	10.5	(8.8—12.2)	5.7	(4.5—7.0)
Persons	58.5	(56.9—60.2)	22.8	(21.4—24.3)	12.0	(10.9—13.2)	6.6	(5.7—7.5)

<sup>11</sup> Saunders D. and Daly A., 2000, Collaborative Health and Well-being Survey: psychological distress in the Western Australian population, Department of Health, Western Australia, Perth.

The prevalence of high or very high psychological distress was estimated for the WA health regions and compared to the state prevalence.

- The prevalence of high or very high psychological distress was not significantly different in the health regions compared to the state prevalence (**Figure 35**).



**Figure 35: Prevalence of adults with high or very high psychological distress by health regions in WA, 16 years & over, HWSS 2021**

## 7.2 Major life events

We asked respondents whether they had been personally affected by major life events in the past 12 months.

- The prevalence of adults who reported moving houses in the past 12 months decreased significantly with age (16 to 44 years - 19.0%, 45 to 64 years - 12.0% and 65 years and older - 6.1%) (**Table 50**).
- The prevalence of adults who reported a relationship breakdown in the past 12 months decreased significantly with age (16 to 44 years - 12.3%, 45 to 64 years - 8.1% and 65 years and older - 3.6%).
- Adults aged 16 to 44 years were significantly more likely to report being robbed or burgled in the past 12 months compared to those aged 65 years and over (5.4% compared to 2.4%).
- Adults aged 16 to 44 years were also significantly more likely to report having a serious injury in the past 12 months compared to those aged 65 years and over (9.9% compared to 6.0%).
- Adults aged 16 to 44 years and 45 to 64 years were significantly more likely to have experienced financial hardship in the past 12 months compared to those aged 65 years and over (16.1% and 12.6% compared to 5.8%).
- Females were significantly more likely to report experiencing financial hardships in the past 12 months compared to males (14.6% compared to 10.9%).
- Females were also significantly more likely to report being seriously ill in the past 12 months compared to males (18.2% compared to 13.7%).

**Table 50: Prevalence by major life events experienced, 16 years & over, HWSS 2021**

	Moved house		Robbed or burgled		Death of someone close		Relationship breakdown		Serious injury		Financial hardship		Loss of drivers licence		Seriously ill		Other major event	
	%	95% CI	%	95% CI	%	95% CI	%	95% CI	%	95% CI	%	95% CI	%	95% CI	%	95% CI	%	95% CI
<b>16 to 44 years</b>																		
Females	20.4	(17.3—23.5)	4.2	(2.7—5.7)	29.6	(26.1—33.1)	14.2	(11.4—16.9)	9.4	(7.2—11.7)	19.6	(16.4—22.9)	1.7 *	(0.7—2.7)	18.4	(15.4—21.4)	23.4	(20.1—26.7)
Males	17.4	(14.1—20.8)	6.7	(4.5—8.9)	24.7	(20.9—28.5)	10.1	(7.5—12.8)	10.3	(7.7—13.0)	12.2	(9.4—15.1)	1.5 *	(0.4—2.6)	11.3	(8.5—14.1)	18.1	(14.7—21.5)
Persons	19.0	(16.7—21.3)	5.4	(4.1—6.7)	27.3	(24.7—29.9)	12.3	(10.3—14.2)	9.9	(8.1—11.6)	16.1	(14.0—18.3)	1.6	(0.9—2.4)	15.1	(13.0—17.1)	20.9	(18.5—23.3)
<b>45 to 64 years</b>																		
Females	13.4	(11.2—15.7)	4.0	(2.7—5.2)	30.5	(27.6—33.5)	8.5	(6.6—10.3)	7.8	(6.1—9.5)	12.7	(10.5—15.0)	1.5 *	(0.6—2.4)	19.4	(16.9—21.9)	17.2	(14.8—19.6)
Males	10.4	(8.1—12.7)	2.8	(1.7—3.9)	27.5	(24.0—30.9)	7.6	(5.5—9.7)	7.1	(5.2—9.1)	12.5	(9.8—15.2)	2.0 *	(0.9—3.1)	14.3	(11.7—16.9)	12.3	(9.8—14.9)
Persons	12.0	(10.4—13.7)	3.4	(2.6—4.3)	29.1	(26.9—31.4)	8.1	(6.7—9.5)	7.5	(6.3—8.8)	12.6	(10.9—14.4)	1.7	(1.0—2.4)	17.1	(15.3—18.9)	15.0	(13.2—16.8)
<b>65+ years</b>																		
Females	6.7	(5.5—7.8)	2.3	(1.6—3.0)	28.5	(26.5—30.5)	3.8	(3.0—4.7)	6.2	(5.1—7.2)	6.1	(5.0—7.2)	1.5	(1.0—2.0)	15.7	(14.1—17.3)	10.7	(9.3—12.0)
Males	5.5	(4.4—6.7)	2.5	(1.8—3.2)	25.9	(23.7—28.0)	3.4	(2.5—4.4)	5.8	(4.7—6.8)	5.5	(4.3—6.7)	1.3	(0.8—1.7)	17.5	(15.6—19.4)	6.8	(5.6—8.0)
Persons	6.1	(5.3—6.9)	2.4	(1.9—2.9)	27.2	(25.7—28.7)	3.6	(3.0—4.3)	6.0	(5.2—6.7)	5.8	(5.0—6.6)	1.4	(1.0—1.7)	16.6	(15.4—17.9)	8.7	(7.8—9.6)
<b>Total</b>																		
Females	15.3	(13.6—16.9)	3.7	(2.9—4.6)	29.7	(27.8—31.7)	10.1	(8.7—11.6)	8.2	(7.0—9.4)	14.6	(12.9—16.3)	1.6	(1.0—2.2)	18.2	(16.6—19.9)	18.7	(17.0—20.5)
Males	12.5	(10.8—14.2)	4.5	(3.4—5.6)	25.9	(23.8—28.0)	7.8	(6.4—9.2)	8.3	(6.9—9.6)	10.9	(9.3—12.5)	1.6	(1.0—2.3)	13.7	(12.1—15.3)	13.7	(12.0—15.5)
Persons	14.0	(12.8—15.1)	4.1	(3.4—4.8)	27.9	(26.5—29.4)	9.0	(8.0—10.1)	8.3	(7.3—9.2)	12.8	(11.7—14.0)	1.6	(1.2—2.0)	16.1	(14.9—17.2)	16.4	(15.1—17.6)

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

### 7.3 Lack of control

We asked respondents to rate how often they felt a lack of control over their life in general during the past four weeks.

- The prevalence of adults who reported never feeling a lack of control over life in general during the past four weeks increased significantly with age (16 to 44 years - 39.9%, 45 to 64 years - 56.9% and 65 years and over - 67.9%) (**Table 51**).
- Males were significantly more likely to report never feeling a lack of control over life in general during the past four weeks compared to females (54.6% compared to 48.8%).

**Table 51: Lack of control over life in general during past four weeks, 16 years & over, HWSS 2021**

	Never		Rarely		Sometimes		Often		Always	
	%	95% CI	%	95% CI	%	95% CI	%	95% CI	%	95% CI
<b>16 to 44 years</b>										
Females	36.8	(33.1—40.6)	23.9	(20.6—27.2)	23.8	(20.4—27.1)	11.3	(8.7—13.9)	4.2	(2.5—5.9)
Males	43.3	(38.9—47.7)	24.1	(20.4—27.9)	23.2	(19.4—27.0)	7.0	(4.7—9.3)	2.4 *	(1.0—3.8)
Persons	39.9	(37.0—42.7)	24.0	(21.5—26.5)	23.5	(21.0—26.0)	9.3	(7.5—11.0)	3.3	(2.2—4.4)
<b>45 to 64 years</b>										
Females	54.6	(51.3—57.8)	20.8	(18.2—23.4)	17.2	(14.8—19.7)	5.4	(3.8—7.1)	1.9	(1.1—2.8)
Males	59.6	(55.7—63.5)	19.6	(16.4—22.8)	13.2	(10.5—15.8)	5.2	(3.4—7.1)	2.3 *	(1.0—3.7)
Persons	56.9	(54.4—59.4)	20.3	(18.3—22.3)	15.4	(13.6—17.2)	5.3	(4.1—6.6)	2.1	(1.3—2.9)
<b>65+ years</b>										
Females	66.0	(63.9—68.1)	19.3	(17.5—21.0)	11.5	(10.1—12.9)	2.4	(1.7—3.0)	0.8	(0.5—1.2)
Males	69.8	(67.5—72.1)	18.4	(16.4—20.3)	9.4	(7.9—10.8)	1.8	(1.1—2.4)	0.7 *	(0.3—1.0)
Persons	67.9	(66.4—69.5)	18.8	(17.5—20.1)	10.4	(9.4—11.5)	2.1	(1.6—2.5)	0.8	(0.5—1.0)
<b>Total</b>										
Females	48.8	(46.6—51.0)	21.9	(20.1—23.7)	19.1	(17.3—20.9)	7.5	(6.2—8.8)	2.7	(1.9—3.5)
Males	54.6	(52.1—57.0)	21.4	(19.3—23.4)	16.8	(14.9—18.8)	5.3	(4.1—6.5)	2.0	(1.2—2.8)
Persons	51.5	(49.9—53.1)	21.7	(20.3—23.0)	18.0	(16.7—19.3)	6.4	(5.5—7.3)	2.4	(1.8—3.0)

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

We asked respondents to rate how often they felt a lack of control over their personal life during the past four weeks.

- The prevalence of adults who reported never feeling a lack of control over their personal life during the past four weeks increased significantly with age (16 to 44 years - 43.7%, 45 to 64 years - 58.0% and 65 years and over - 71.7%) (Table 52).

**Table 52: Lack of control over personal life during past four weeks, 16 years & over, HWSS 2021**

	Never		Rarely		Sometimes		Often		Always	
	%	95% CI	%	95% CI	%	95% CI	%	95% CI	%	95% CI
<b>16 to 44 years</b>										
Females	41.6	(37.7—45.4)	22.5	(19.3—25.8)	23.1	(19.7—26.5)	9.4	(7.1—11.6)	3.4	(1.9—5.0)
Males	46.1	(41.6—50.5)	23.5	(19.8—27.2)	20.1	(16.5—23.8)	8.6	(6.0—11.2)	1.7 *	(0.6—2.8)
Persons	43.7	(40.8—46.6)	23.0	(20.5—25.4)	21.7	(19.2—24.2)	9.0	(7.3—10.7)	2.6	(1.7—3.6)
<b>45 to 64 years</b>										
Females	56.9	(53.6—60.1)	21.3	(18.7—24.0)	16.2	(13.8—18.7)	4.4	(2.9—5.8)	1.2 *	(0.6—1.8)
Males	59.3	(55.4—63.2)	20.3	(17.1—23.5)	14.2	(11.4—16.9)	4.7	(3.0—6.4)	1.6 *	(0.6—2.6)
Persons	58.0	(55.5—60.5)	20.8	(18.8—22.9)	15.3	(13.5—17.1)	4.5	(3.4—5.6)	1.4	(0.8—1.9)
<b>65+ years</b>										
Females	70.7	(68.7—72.7)	15.7	(14.1—17.3)	10.3	(9.0—11.7)	2.6	(1.9—3.3)	0.6 *	(0.3—1.0)
Males	72.6	(70.4—74.9)	17.1	(15.2—19.0)	8.4	(7.0—9.9)	1.4	(0.8—2.0)	0.4 *	(0.1—0.7)
Persons	71.7	(70.2—73.2)	16.4	(15.2—17.7)	9.4	(8.4—10.3)	2.0	(1.6—2.5)	0.5	(0.3—0.7)
<b>Total</b>										
Females	52.6	(50.4—54.8)	20.8	(19.0—22.6)	18.2	(16.4—20.0)	6.3	(5.1—7.4)	2.1	(1.4—2.8)
Males	56.3	(53.8—58.8)	21.0	(19.0—23.0)	15.6	(13.7—17.5)	5.7	(4.4—7.0)	1.4	(0.8—2.0)
Persons	54.3	(52.7—56.0)	20.9	(19.6—22.2)	17.0	(15.7—18.3)	6.0	(5.2—6.9)	1.8	(1.3—2.2)

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

We asked respondents to rate how often they felt a lack of control over their health during the past four weeks.

- The prevalence of adults who reported never feeling a lack of control over their health during the past four weeks increased significantly with age (16 to 44 years - 40.3%, 45 to 64 years - 50.5% and 65 years and over - 59.5%) (**Table 53**).
- Males were significantly more likely to report never feeling a lack of control over their health during the past four weeks compared to females (50.8% compared to 45.0%).

**Table 53: Lack of control over health during past four weeks, 16 years & over, HWSS 2021**

	Never		Rarely		Sometimes		Often		Always	
	%	95% CI	%	95% CI	%	95% CI	%	95% CI	%	95% CI
<b>16 to 44 years</b>										
Females	37.3	(33.5—41.0)	21.2	(18.1—24.3)	24.6	(21.2—28.0)	11.6	(9.1—14.2)	5.4	(3.5—7.2)
Males	43.8	(39.4—48.2)	24.8	(20.9—28.7)	21.1	(17.4—24.7)	7.4	(5.0—9.7)	3.0 *	(1.4—4.6)
Persons	40.3	(37.4—43.2)	22.9	(20.4—25.4)	22.9	(20.4—25.4)	9.6	(7.9—11.4)	4.2	(3.0—5.5)
<b>45 to 64 years</b>										
Females	47.8	(44.5—51.0)	18.9	(16.4—21.5)	22.3	(19.6—25.0)	6.6	(4.9—8.4)	4.4	(3.0—5.7)
Males	53.7	(49.7—57.6)	20.1	(17.0—23.2)	17.6	(14.6—20.6)	4.9	(3.3—6.5)	3.7	(2.0—5.4)
Persons	50.5	(47.9—53.0)	19.5	(17.5—21.5)	20.2	(18.1—22.2)	5.8	(4.6—7.0)	4.1	(3.0—5.1)
<b>65+ years</b>										
Females	58.1	(55.9—60.3)	17.4	(15.7—19.1)	17.5	(15.8—19.2)	5.0	(4.1—6.0)	1.9	(1.3—2.5)
Males	60.8	(58.3—63.2)	17.9	(16.0—19.8)	14.9	(13.1—16.7)	4.3	(3.3—5.3)	2.2	(1.4—2.9)
Persons	59.5	(57.8—61.1)	17.6	(16.4—18.9)	16.2	(14.9—17.4)	4.7	(4.0—5.4)	2.0	(1.5—2.5)
<b>Total</b>										
Females	45.0	(42.9—47.1)	19.7	(17.9—21.4)	22.4	(20.6—24.3)	8.6	(7.2—9.9)	4.3	(3.4—5.3)
Males	50.8	(48.3—53.3)	21.7	(19.6—23.8)	18.6	(16.6—20.5)	5.9	(4.7—7.1)	3.0	(2.1—4.0)
Persons	47.7	(46.1—49.3)	20.6	(19.3—22.0)	20.6	(19.3—22.0)	7.3	(6.4—8.2)	3.7	(3.1—4.4)

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

The prevalence of adults who reported often or always feeling a lack of control was determined.

- The prevalence of adults who reported often or always feeling a lack of control over life in general, over their personal life and over their health decreased significantly with age (**Table 54**).
- Females were significantly more likely to report often or always feeling a lack of control over their health compared to males (12.9% compared to 8.9%).

**Table 54: Often or always perceive a lack of control, 16 years & over, HWSS 2021**

	General		Personal		Health	
	%	95% CI	%	95% CI	%	95% CI
<b>16 to 44 years</b>						
Females	15.5	(12.5—18.4)	12.8	(10.1—15.5)	17.0	(14.0—20.0)
Males	9.4	(6.7—12.0)	10.3	(7.6—13.1)	10.3	(7.6—13.1)
Persons	12.6	(10.6—14.6)	11.6	(9.7—13.6)	13.9	(11.8—15.9)
<b>45 to 64 years</b>						
Females	7.4	(5.6—9.2)	5.6	(4.0—7.1)	11.0	(8.9—13.1)
Males	7.6	(5.4—9.8)	6.3	(4.3—8.3)	8.6	(6.3—10.9)
Persons	7.5	(6.0—8.9)	5.9	(4.7—7.1)	9.9	(8.3—11.5)
<b>65+ years</b>						
Females	3.2	(2.4—4.0)	3.2	(2.5—4.0)	7.0	(5.8—8.1)
Males	2.4	(1.7—3.2)	1.8	(1.2—2.5)	6.4	(5.2—7.7)
Persons	2.8	(2.3—3.3)	2.5	(2.0—3.0)	6.7	(5.9—7.5)
<b>Total</b>						
Females	10.2	(8.7—11.7)	8.4	(7.0—9.7)	12.9	(11.3—14.5)
Males	7.3	(5.9—8.7)	7.1	(5.7—8.5)	8.9	(7.4—10.4)
Persons	8.8	(7.8—9.9)	7.8	(6.8—8.8)	11.0	(9.9—12.1)

## 7.4 Suicide ideation

We asked respondents whether they had suicidal thoughts in the past 12 months.

- The prevalence of adults who reported having thought about ending their own life in the past 12 months decreased significantly with age (16 to 44 years - 11.6%, 45 to 64 years - 6.8% and 65 years and over 3.1%) (**Table 55**).

**Table 55: Suicide thoughts over past 12 months, 16 years & over, HWSS 2021**

	Yes	
	%	95% CI
<b>16 to 44 years</b>		
Females	11.9	(9.2—14.5)
Males	11.3	(8.4—14.2)
Persons	11.6	(9.7—13.6)
<b>45 to 64 years</b>		
Females	7.0	(5.3—8.7)
Males	6.5	(4.6—8.5)
Persons	6.8	(5.5—8.1)
<b>65+ years</b>		
Females	3.2	(2.4—4.0)
Males	3.0	(2.1—3.9)
Persons	3.1	(2.5—3.7)
<b>Total</b>		
Females	8.5	(7.1—9.8)
Males	7.9	(6.4—9.4)
Persons	8.2	(7.2—9.2)

We asked respondents if any of their friends or family had attempted suicide in the past 12 months.

- The prevalence of adults who reported their friend(s) had tried to end their own life in the past 12 months decreased significantly with age (16 to 44 years - 11.0%, 45 to 64 years - 6.2% and 65 years and over - 2.3%) (**Table 56**).
- The prevalence of adults who reported that their family had tried to end their own life in the past 12 months was significantly higher in adults aged 16 to 44 years compared to those aged 65 years and over (5.7% compared to 2.9%).
- Females were more likely to report that their family had tried to end their own life in the past 12 months compared to males (5.8% compared to 3.2%).

**Table 56: Friends/family suicide attempts over past 12 months, 16 years & over, HWSS 2021**

	Friend(s) attempted		Family attempted	
	%	95% CI	%	95% CI
<b>16 to 44 years</b>				
Females	11.7	(9.1—14.3)	6.9	(4.9—8.9)
Males	10.3	(7.6—13.0)	4.4	(2.5—6.3)
Persons	11.0	(9.2—12.9)	5.7	(4.3—7.1)
<b>45 to 64 years</b>				
Females	6.2	(4.6—7.8)	5.5	(4.1—7.0)
Males	6.2	(4.4—8.0)	2.5 *	(1.2—3.8)
Persons	6.2	(5.0—7.4)	4.2	(3.2—5.1)
<b>65+ years</b>				
Females	1.8	(1.2—2.4)	3.9	(3.0—4.8)
Males	2.8	(1.9—3.6)	2.0	(1.2—2.7)
Persons	2.3	(1.8—2.8)	2.9	(2.3—3.5)
<b>Total</b>				
Females	7.8	(6.5—9.0)	5.8	(4.8—6.9)
Males	7.2	(5.8—8.6)	3.2	(2.3—4.2)
Persons	7.5	(6.6—8.4)	4.6	(3.9—5.3)

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

## 7.5 Social support

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.

- Adults aged 16 to 44 years and 45 to 64 years were significantly more likely to report not belonging to any groups or associations compared to adults aged 65 years and over (43.2% and 48.3% compared to 36.2%) (**Table 57**).
- Females aged 65 years and over were significantly more likely to report belonging to three and four or more groups and associations compared to males in the same age group (three - 12.1% compared to 9.0%, and four - 9.5% compared to 6.5%).

**Table 57: Number of groups/associations belonging to, 16 years & over, HWSS 2021**

	None		One		Two		Three		Four or more	
	%	95% CI	%	95% CI	%	95% CI	%	95% CI	%	95% CI
<b>16 to 44 years</b>										
Females	44.1	(40.2—48.0)	22.1	(18.9—25.3)	18.6	(15.6—21.6)	7.8	(5.7—9.8)	7.4	(5.5—9.4)
Males	42.1	(37.8—46.5)	23.4	(19.7—27.2)	16.3	(13.1—19.5)	9.6	(7.0—12.2)	8.5	(6.0—11.0)
Persons	43.2	(40.3—46.1)	22.7	(20.3—25.2)	17.5	(15.3—19.7)	8.6	(7.0—10.3)	7.9	(6.4—9.5)
<b>45 to 64 years</b>										
Females	49.2	(46.0—52.5)	22.8	(20.0—25.5)	12.9	(10.9—14.9)	8.7	(6.8—10.6)	6.4	(5.0—7.8)
Males	47.2	(43.2—51.2)	23.7	(20.3—27.1)	16.9	(14.0—19.8)	6.4	(4.8—8.1)	5.8	(4.0—7.5)
Persons	48.3	(45.8—50.8)	23.2	(21.0—25.3)	14.7	(13.0—16.5)	7.7	(6.4—8.9)	6.1	(5.0—7.2)
<b>65+ years</b>										
Females	34.2	(32.1—36.3)	26.7	(24.7—28.6)	17.6	(16.0—19.2)	12.1	(10.7—13.5)	9.5	(8.3—10.6)
Males	38.2	(35.7—40.6)	27.6	(25.4—29.8)	18.7	(16.8—20.6)	9.0	(7.7—10.3)	6.5	(5.3—7.6)
Persons	36.2	(34.6—37.9)	27.1	(25.6—28.6)	18.2	(16.9—19.4)	10.5	(9.5—11.5)	7.9	(7.1—8.8)
<b>Total</b>										
Females	44.1	(41.9—46.2)	23.2	(21.4—25.0)	16.3	(14.8—17.9)	8.9	(7.8—10.1)	7.4	(6.4—8.5)
Males	43.0	(40.6—45.4)	24.4	(22.4—26.5)	17.0	(15.2—18.8)	8.4	(7.1—9.7)	7.1	(5.9—8.4)
Persons	43.6	(41.9—45.2)	23.8	(22.4—25.2)	16.7	(15.5—17.8)	8.7	(7.8—9.6)	7.3	(6.5—8.1)

The prevalence of adults who reported belonging to at least one group/association was estimated for the WA health regions and compared to the state prevalence.

- The prevalence of adults who reported belonging to at least one group/association was significantly higher in the Wheatbelt health region compared to the state prevalence (65.2% compared to 56.4%) (Figure 38).

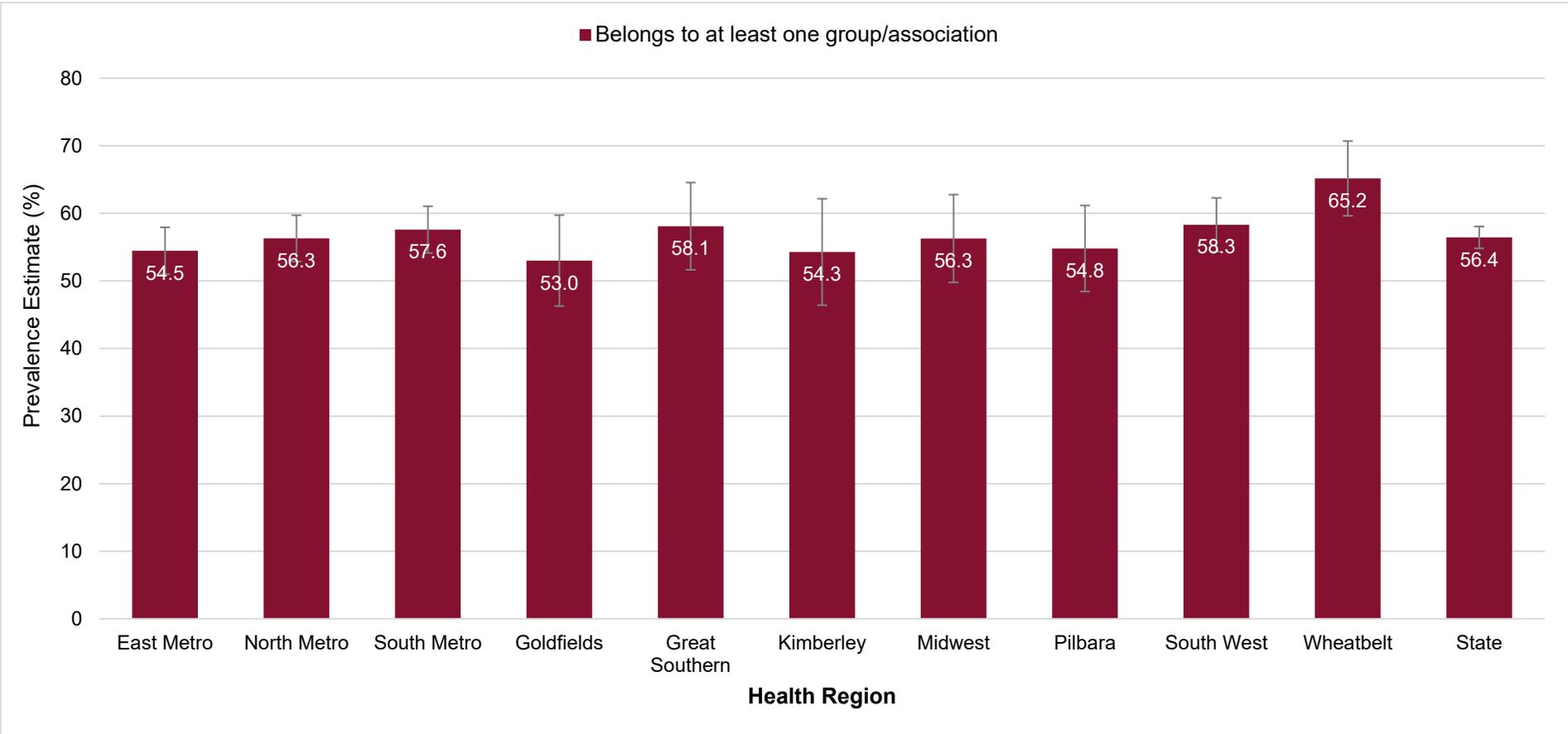
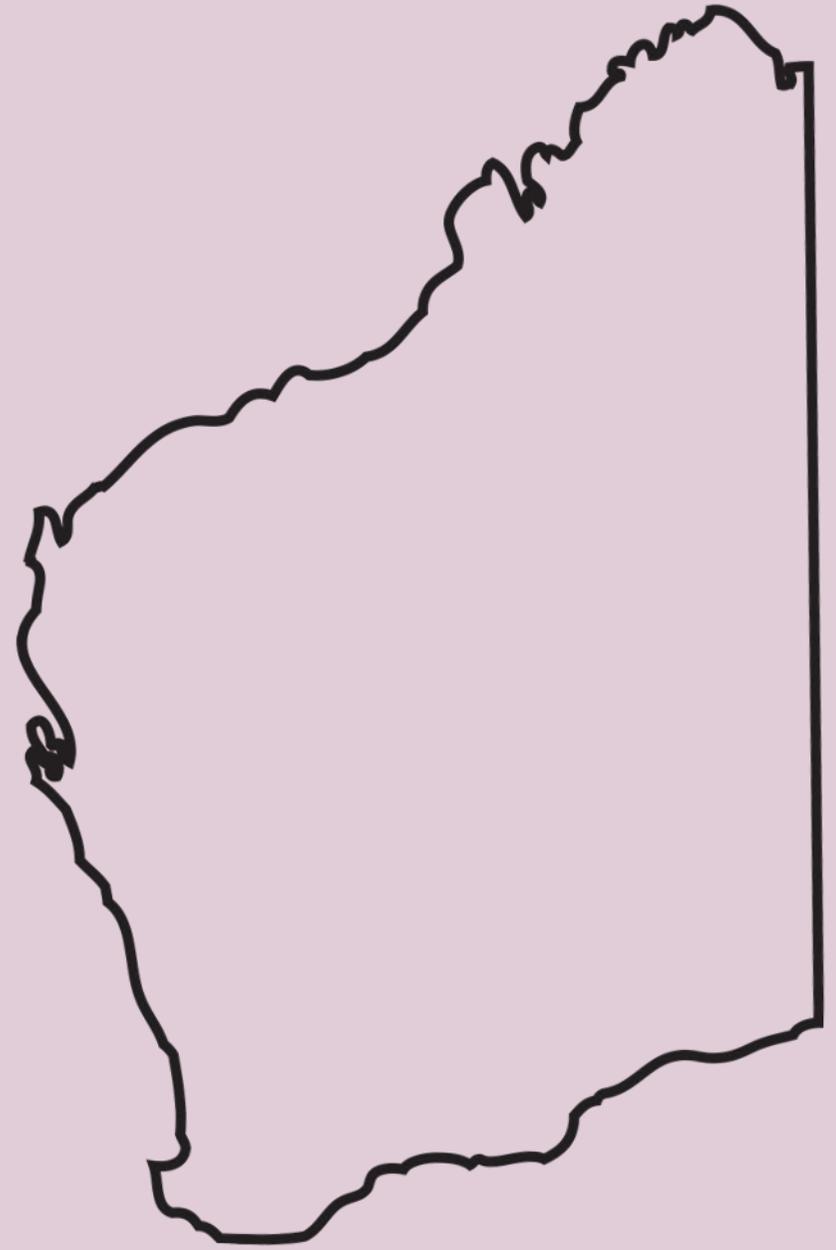


Figure 36: Prevalence of adults who reported belonging to at least one group/association by health regions in WA, 16 years & over, HWSS 2021

# HEALTH SERVICE UTILISATION



## 8. Health service utilisation

Health services are the ways in which health care is provided to the general population such as through GPs, hospitals, dental, mental and alternative health services. This section will focus on the following:

- Health services
- Flu vaccinations

**90.2%**

Western Australian adults used primary health services within the past 12 months



**15.1%**

Western Australian adults used mental health services within the past 12 months

**44.5%**

Western Australian adults received the flu vaccination

## 8.1 Health services

We asked respondents whether they had used any common health services such as GPs, hospitals, allied, dental, mental and alternative health services within the past 12 months.

- Adults aged 65 years and over were significantly more likely to have used primary health care services and hospital services in the past 12 months compared to those aged 16 to 44 years and 45 to 64 years (primary - 97.4% compared to 87.3% and 89.8%, and hospital - 36.6% compared to 27.7% and 28.0%), but were significantly less likely to have used alternative health services in the past 12 months compared to those aged 16 to 44 years and 45 to 64 years (6.7% compared to 13.3% and 12.2%) (**Table 58**).
- The prevalence of adults who reported using allied health services in the past 12 months increased significantly with age (16 to 44 years - 55.1%, 45 to 64 years - 63.8%, 65 years and over - 73.6%).
- The prevalence of adults who reported using mental health services in the past 12 months decreased significantly with age (16 to 44 years - 21.9%, 45 to 64 years - 12.9%, 65 years and over - 3.9%).
- Females were significantly more likely to have used all the different health services in the past 12 months compared to males (primary - 93.5% compared to 86.5%, hospital - 32.5% compared to 26.4%, allied health - 67.0% compared to 56.2%, dental - 65.6% compared to 56.5%, mental health - 17.1% compared to 12.9% and alternative health - 14.8% compared to 8.0%).

**Table 58: Health service utilisation in the past 12 months, 16 years & over, HWSS 2021**

	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 years</b>												
Females	93.0	(91.0—95.1)	32.1	(28.5—35.8)	60.6	(56.7—64.4)	65.3	(61.6—69.1)	25.0	(21.6—28.3)	16.3	(13.6—19.1)
Males	80.8	(77.3—84.3)	22.6	(19.0—26.3)	49.0	(44.6—53.4)	55.7	(51.3—60.1)	18.4	(15.0—21.9)	10.0	(7.3—12.6)
Persons	87.3	(85.3—89.3)	27.7	(25.1—30.3)	55.1	(52.2—58.0)	60.8	(57.9—63.7)	21.9	(19.5—24.3)	13.3	(11.4—15.3)
<b>45 to 64 years</b>												
Females	91.8	(89.9—93.8)	31.1	(28.1—34.2)	70.0	(66.9—73.0)	66.1	(63.0—69.2)	14.3	(12.0—16.6)	16.2	(13.9—18.5)
Males	87.4	(84.6—90.1)	24.2	(20.9—27.5)	56.4	(52.5—60.3)	54.0	(50.1—58.0)	11.2	(8.7—13.8)	7.4	(5.4—9.4)
Persons	89.8	(88.2—91.4)	28.0	(25.7—30.2)	63.8	(61.3—66.3)	60.6	(58.1—63.1)	12.9	(11.2—14.6)	12.2	(10.7—13.8)
<b>65+ years</b>												
Females	97.7	(97.0—98.4)	35.8	(33.7—37.9)	76.4	(74.5—78.3)	65.3	(63.2—67.4)	3.9	(3.1—4.7)	8.4	(7.2—9.6)
Males	97.2	(96.4—98.0)	37.4	(35.0—39.8)	70.8	(68.6—73.1)	61.9	(59.5—64.3)	3.9	(2.9—4.9)	5.0	(3.9—6.1)
Persons	97.4	(96.9—97.9)	36.6	(35.0—38.2)	73.6	(72.1—75.1)	63.6	(62.0—65.2)	3.9	(3.2—4.5)	6.7	(5.9—7.5)
<b>Total</b>												
Females	93.5	(92.3—94.7)	32.5	(30.5—34.5)	67.0	(64.9—69.1)	65.6	(63.5—67.7)	17.1	(15.4—18.9)	14.8	(13.3—16.3)
Males	86.5	(84.7—88.4)	26.4	(24.3—28.4)	56.2	(53.8—58.7)	56.5	(54.1—58.9)	12.9	(11.1—14.6)	8.0	(6.7—9.4)
Persons	90.2	(89.1—91.3)	29.6	(28.1—31.0)	61.9	(60.3—63.5)	61.3	(59.7—62.9)	15.1	(13.9—16.4)	11.6	(10.6—12.6)

(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.

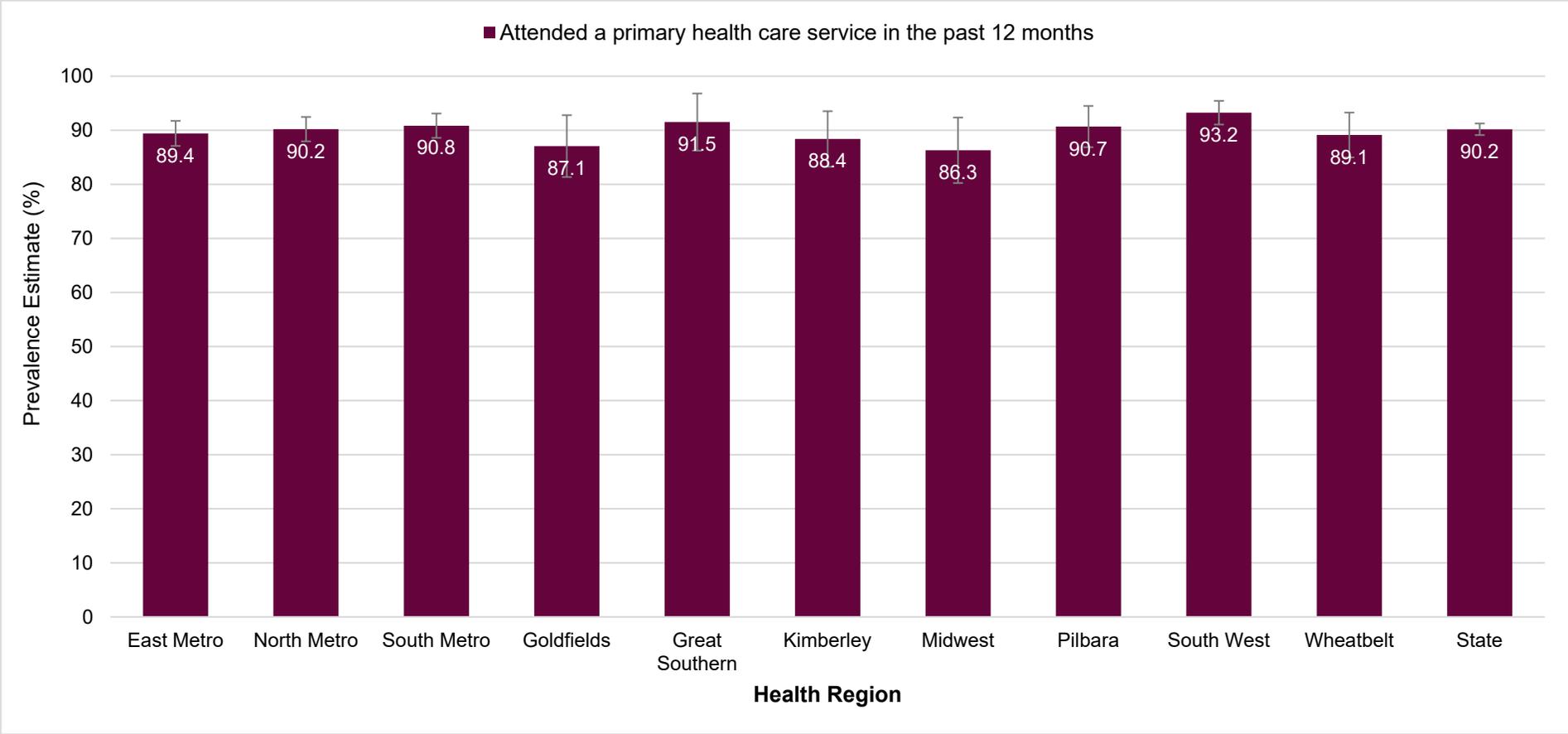
(c) e.g. optician, physiotherapist, chiropractor, podiatrist, dietician, nutritionist, occupational therapist, diabetes/other health educator.

(d) e.g. psychiatrist, psychologist or counsellor.

(e) e.g. acupuncturist, naturopath, homeopath or any other alternative health service.

The prevalence of adults who reported using primary health care services in the past 12 months was estimated for the WA health regions and compared to the state prevalence.

- The prevalence of adults who reported using primary health care services in the past 12 months was not significantly different in the health regions compared to the state (**Figure 39**).



**Figure 37: Prevalence of adults attending a primary health care service in the past 12 months by health regions in WA, 16 years & over, HWSS 2021**

The mean number of visits to health services in the past 12 months are presented in **Table 59**.

- The most used health service at a population level was primary health care services, with a mean of 5.2 visits in the past 12 months, followed by allied health services with 3.8 visits.
- Adults aged 65 years and over had a significantly higher mean number of visits for primary health care services compared to those aged 16 to 44 years and 45 to 64 years (6.6 visits compared to 4.7 visits and 5.0 visits).
- Adults aged 65 years and over had a significantly lower mean number of visits for mental health services compared to those aged 16 to 44 years and 45 to 64 years (0.2 visits compared to 1.4 visits and 1.0 visits).
- Females had a significantly higher number of visits for primary health care services, allied health services and alternative health services compared to males.

**Table 59: Mean visits to health services in the past 12 months, 16 years & over, HWSS 2021**

	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 years</b>												
Females	5.7	(5.2—6.1)	0.7	(0.5—0.8)	4.4	(3.5—5.3)	1.3	(1.1—1.4)	1.7	(1.3—2.1)	0.7	(0.5—0.9)
Males	3.6	(3.0—4.2)	0.4	(0.3—0.5)	3.2	(2.6—3.8)	1.1	(0.9—1.3)	1.1	(0.8—1.5)	0.3	(0.2—0.5)
Persons	4.7	(4.3—5.1)	0.5	(0.4—0.6)	3.8	(3.3—4.4)	1.2	(1.1—1.3)	1.4	(1.2—1.7)	0.5	(0.4—0.6)
<b>45 to 64 years</b>												
Females	5.6	(4.8—6.4)	0.8	(0.6—1.0)	4.0	(3.6—4.3)	1.3	(1.2—1.4)	1.1	(0.7—1.5)	0.9	(0.7—1.1)
Males	4.3	(3.9—4.7)	0.5	(0.3—0.6)	3.1	(2.6—3.6)	1.1	(0.9—1.2)	0.8	(0.5—1.1)	0.4	(0.2—0.5)
Persons	5.0	(4.5—5.5)	0.7	(0.5—0.8)	3.6	(3.3—3.9)	1.2	(1.1—1.3)	1.0	(0.7—1.2)	0.7	(0.5—0.8)
<b>65+ years</b>												
Females	6.8	(6.3—7.2)	0.8	(0.6—1.0)	4.4	(4.1—4.7)	1.3	(1.2—1.4)	0.2	(0.2—0.3)	0.5	(0.4—0.6)
Males	6.5	(6.1—6.9)	1.1	(0.9—1.3)	3.7	(3.2—4.1)	1.2	(1.2—1.3)	0.2	(0.1—0.2)	0.3*	(0.1—0.4)
Persons	6.6	(6.3—6.9)	0.9	(0.8—1.1)	4.0	(3.8—4.3)	1.3	(1.2—1.3)	0.2	(0.2—0.2)	0.4	(0.3—0.5)
<b>Total</b>												
Females	5.8	(5.5—6.2)	0.7	(0.6—0.8)	4.2	(3.8—4.7)	1.3	(1.2—1.4)	1.2	(1.0—1.4)	0.7	(0.6—0.8)
Males	4.4	(4.1—4.8)	0.6	(0.5—0.6)	3.3	(2.9—3.6)	1.1	(1.0—1.2)	0.8	(0.6—1.0)	0.3	(0.2—0.4)
Persons	5.2	(4.9—5.4)	0.7	(0.6—0.7)	3.8	(3.5—4.1)	1.2	(1.2—1.3)	1.0	(0.9—1.2)	0.5	(0.5—0.6)

(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.

The mean number of visits to health services amongst those who used the type of service at least once in the past 12 months are presented in **Table 60**.

- The most 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 (6.7 visits) followed by allied health services (6.1 visits).

**Table 60: Mean visits to health services in the past 12 months of those who attended the service, 16 years & over, HWSS 2021**

	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 years</b>												
Females	6.1	(5.6—6.6)	2.0	(1.8—2.3)	7.3	(5.8—8.7)	1.9	(1.8—2.1)	6.8	(5.5—8.2)	4.2	(3.3—5.0)
Males	4.4	(3.7—5.2)	1.6	(1.3—1.9)	6.5	(5.4—7.6)	2.0	(1.7—2.2)	6.2	(4.9—7.6)	3.2	(2.0—4.4)
Persons	5.4	(4.9—5.8)	1.9	(1.7—2.1)	6.9	(6.0—7.9)	2.0	(1.8—2.1)	6.6	(5.6—7.6)	3.8	(3.1—4.5)
<b>45 to 64 years</b>												
Females	6.1	(5.2—7.0)	2.5	(2.0—3.1)	5.7	(5.2—6.2)	2.0	(1.9—2.1)	7.6	(5.4—9.8)	5.7	(4.8—6.6)
Males	4.9	(4.4—5.3)	2.0	(1.5—2.6)	5.5	(4.7—6.3)	2.0	(1.8—2.1)	7.0	(4.9—9.1)	4.7	(3.0—6.4)
Persons	5.6	(5.0—6.1)	2.3	(1.9—2.7)	5.6	(5.2—6.0)	2.0	(1.9—2.1)	7.4	(5.8—8.9)	5.4	(4.6—6.2)
<b>65+ years</b>												
Females	6.9	(6.5—7.4)	2.3	(1.8—2.7)	5.8	(5.4—6.1)	2.0	(1.9—2.2)	5.7	(4.3—7.0)	5.7	(4.5—6.9)
Males	6.7	(6.3—7.1)	2.8	(2.4—3.3)	5.2	(4.6—5.8)	2.0	(1.9—2.1)	4.5	(3.6—5.4)	5.6	(3.0—8.1)
Persons	6.8	(6.5—7.1)	2.6	(2.2—2.9)	5.5	(5.1—5.9)	2.0	(1.9—2.1)	5.1	(4.3—5.9)	5.7	(4.5—6.9)
<b>Total</b>												
Females	6.3	(5.9—6.6)	2.3	(2.0—2.5)	6.3	(5.7—7.0)	2.0	(1.9—2.1)	7.0	(5.9—8.1)	4.9	(4.4—5.5)
Males	5.1	(4.8—5.5)	2.1	(1.9—2.4)	5.8	(5.3—6.3)	2.0	(1.8—2.1)	6.4	(5.3—7.4)	4.0	(3.1—4.9)
Persons	5.7	(5.5—6.0)	2.2	(2.0—2.4)	6.1	(5.7—6.5)	2.0	(1.9—2.0)	6.7	(6.0—7.5)	4.6	(4.1—5.1)

(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.

## 8.2 Flu vaccinations

We asked respondents if they had received the flu vaccination since the first of since the first of March 2021.

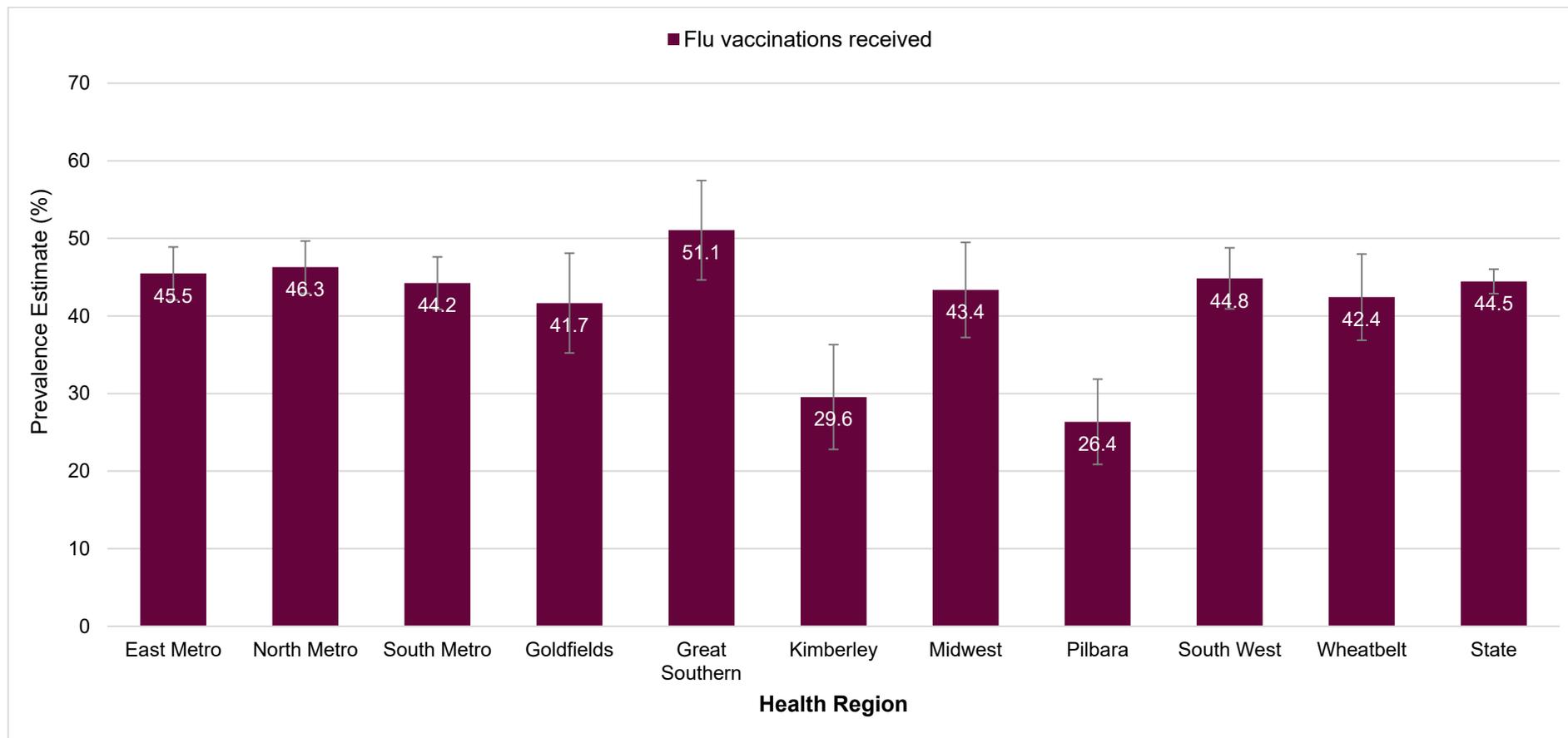
- The prevalence of receiving flu vaccinations increased significantly with age (16 to 44 years - 27.0%, 45 to 64 years - 42.0%, and 65 years and over - 75.1%) (**Table 61**).
- Females aged 45 to 64 years were significantly more likely to have received a flu vaccination compared to males in the same age group (47.0% compared to 36.1%).

**Table 61: Prevalence of flu vaccinations received, 16 years & over, HWSS 2021**

	Vaccination received	
	%	95% CI
<b>16 to 44 years</b>		
Females	28.3	(23.6—32.9)
Males	25.4	(20.0—30.7)
Persons	27.0	(23.5—30.5)
<b>45 to 64 years</b>		
Females	47.0	(42.6—51.5)
Males	36.1	(31.1—41.1)
Persons	42.0	(38.6—45.3)
<b>65+ years</b>		
Females	76.1	(73.7—78.5)
Males	74.1	(71.2—76.9)
Persons	75.1	(73.2—77.0)
<b>Total</b>		
Females	44.5	(41.7—47.3)
Males	40.7	(37.7—43.8)
Persons	44.5	(42.9—46.0)

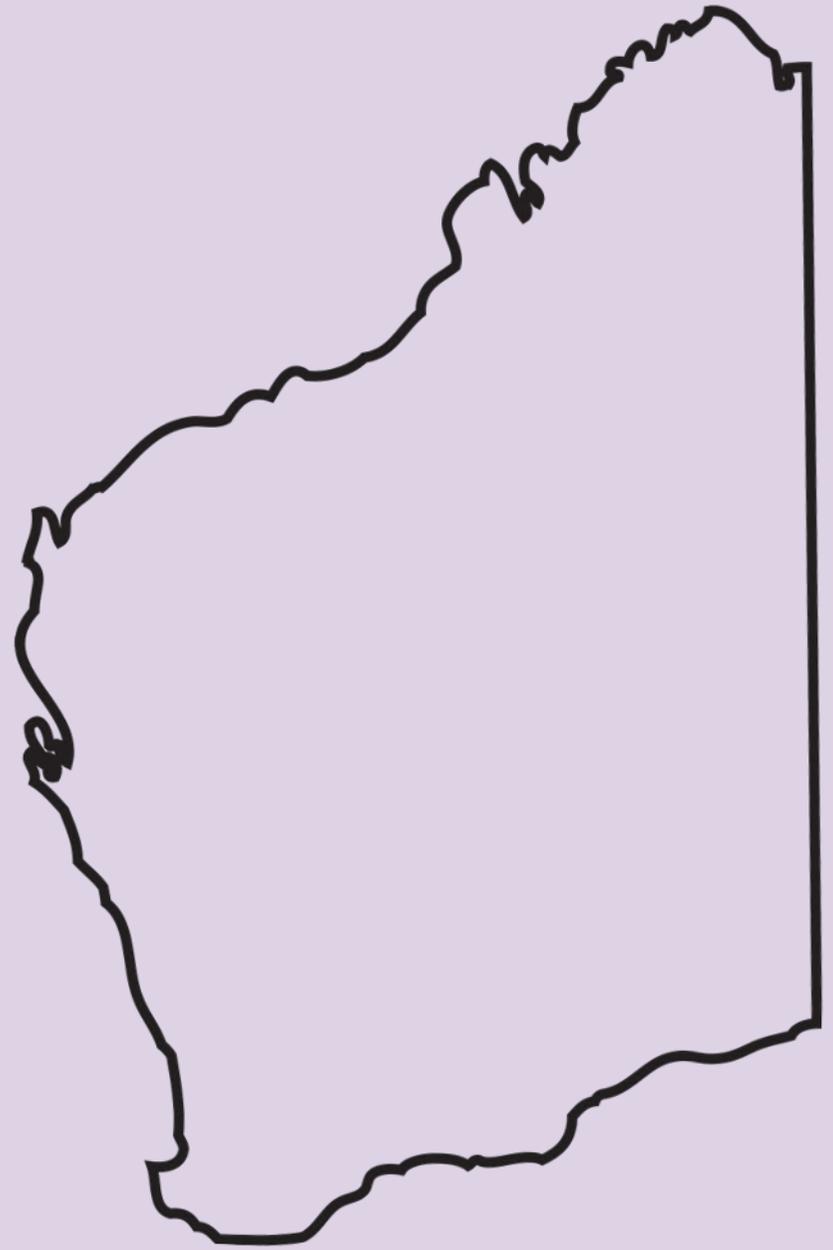
The prevalence of adults who reported receiving flu vaccinations was estimated for the WA health regions and compared to the state prevalence.

- The prevalence of adults who reported receiving flu vaccinations was significantly lower in the Kimberley (29.6%) and Pilbara (26.4%) health regions compared to the state prevalence (44.5%) (**Figure 40**).



**Figure 38: Prevalence of flu vaccinations received by health regions in WA, 16 years & over, HWSS 2021**

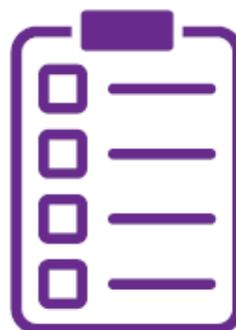
# **SOCIAL CHARACTERISTICS**



## 9. 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.

**24.5%**  
Western Australian adults do not have any kind of private health insurance



**61.9%**  
Western Australian adults have both hospital and ancillary private health insurance

We asked respondents about their health insurance status.

- The prevalence of adults who reported having ‘hospital only’ private health insurance decreased significantly with age (16 to 44 years - 7.2%, 45 to 64 years: 3.8% and 65 years and over: 2.2%) (**Table 62**).
- Females were significantly more likely to report having ‘ancillary only’ private health insurance compared to males (10.4% compared to 6.7%).

**Table 62: Private health insurance status, 16 years & over, HWSS 2021**

	None		Hospital only		Ancillary only		Hospital and ancillary	
	%	95% CI	%	95% CI	%	95% CI	%	95% CI
<b>16 to 44 years</b>								
Females	23.2	(19.8—26.6)	6.0	(4.1—7.9)	10.7	(8.1—13.3)	60.1	(56.1—64.0)
Males	21.7	(17.9—25.5)	8.5	(5.9—11.1)	6.4	(4.1—8.6)	63.5	(59.0—67.9)
Persons	22.5	(20.0—25.0)	7.2	(5.6—8.7)	8.7	(6.9—10.4)	61.7	(58.7—64.6)
<b>45 to 64 years</b>								
Females	23.9	(21.1—26.7)	3.4	(2.2—4.7)	10.6	(8.6—12.6)	62.1	(58.9—65.2)
Males	25.6	(22.0—29.2)	4.3	(2.7—5.9)	6.2	(4.2—8.2)	63.9	(60.0—67.8)
Persons	24.7	(22.4—26.9)	3.8	(2.8—4.9)	8.6	(7.2—10.0)	62.9	(60.4—65.4)
<b>65+ years</b>								
Females	27.8	(25.8—29.8)	2.1	(1.5—2.7)	9.5	(8.1—10.8)	60.6	(58.4—62.8)
Males	28.8	(26.5—31.1)	2.2	(1.5—2.9)	8.1	(6.6—9.5)	60.9	(58.4—63.4)
Persons	28.3	(26.8—29.9)	2.2	(1.7—2.6)	8.8	(7.8—9.7)	60.8	(59.1—62.4)
<b>Total</b>								
Females	24.4	(22.5—26.2)	4.3	(3.3—5.2)	10.4	(9.1—11.8)	60.9	(58.8—63.0)
Males	24.6	(22.5—26.7)	5.7	(4.4—6.9)	6.7	(5.4—7.9)	63.1	(60.7—65.5)
Persons	24.5	(23.1—25.9)	4.9	(4.1—5.7)	8.7	(7.7—9.6)	61.9	(60.3—63.5)

The prevalence of adults having at least one type of private health insurance was estimated for the WA health regions and compared to the state prevalence.

- The prevalence of adults having at least one type of private health insurance was significantly lower in the Great Southern (64.9%), Kimberley (60.5%), Midwest (62.8%), South West (69.7%) and Wheatbelt (66.0%) health regions compared to the state prevalence (75.5%) (Figure 41).

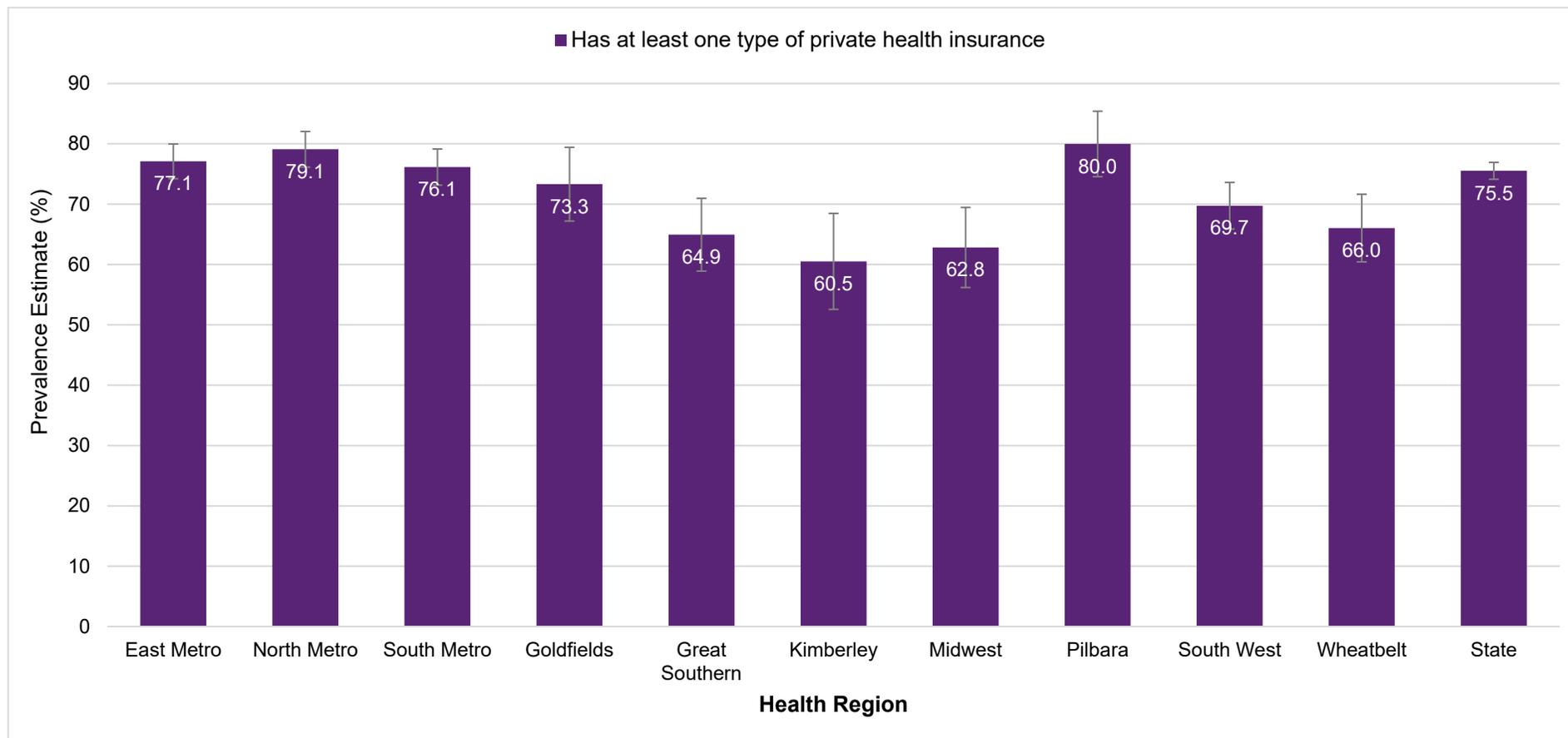


Figure 39: Prevalence of having at least one type of private health insurance by health regions in WA, 16 years & over, HWSS 2021

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