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

Health and Wellbeing of Adults in Western Australia, 2017

Overview and Trends

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Acknowledgements

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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 2017, 5,927 adults aged 16 years and over were interviewed via computer assisted telephone interviews between January and December, with an average participation rate of approximately 90 per cent. The sample is randomly selected and then weighted to reflect the Western Australian adult population.

This report describes the findings from the 2017 Health and Wellbeing Surveillance System and provides the health sector and the general public with important information about a number of aspects of the health and wellbeing of the Western Australian adult population.

Some key estimates from the report include:

General health:

- One quarter (25.5%) of adults felt their health status was better than it was one year earlier.
- Of an estimated 497,726 adults living in a household that included a person with a disability, almost one quarter (23.3%) felt that the disability put a big or very big burden on the family.

Chronic health conditions:

- Approximately one in eight adults (13.2%), and almost one-third of those aged 65 years and older (32.8%), have been diagnosed with skin cancer.
- The proportion of adults who have been told they have diabetes increased significantly between 2002 and 2017.
- Almost one in six adults (17.2%) have been diagnosed with a mental health condition in the past 12 months. The proportion of adults that had been diagnosed with a mental health condition in the past 12 months increased significantly between 2002 and 2017.
- Around nine per cent of adults reported having used a mental health service in the past 12 months.

Lifestyle and physiological risk factors:

- The proportion of adults who were current smokers has declined significantly between 2002 and 2017; however, the prevalence was significantly higher in the most disadvantaged areas of WA compared with the least disadvantaged areas (18.9% compared with 7.2%).
- The proportion of adults who consumed alcohol at levels considered high risk for long-term harm and short-term harm decreased significantly between 2002 and 2017.
- The proportion of adults who never consume meals from fast food outlets increased significantly between 2007 and 2017, and the proportion consuming meals from fast food outlets less than once a week decreased significantly.
- More than one-third (38.6%) of adults spent more than 21 hours per week watching TV/DVDs or using a computer/smartphone/tablet device.
- Approximately one-third of adults (32.1%) slept less than the recommended number of hours of sleep per night.
- Approximately one-third of adults (32.2%) were estimated to be obese. The estimated prevalence of obesity increased significantly between 2002 and 2017.

Psychosocial:

- Nearly one in ten adults (8.7%) had high or very high levels of psychological distress.
- More than one-third of adults (41.6%) did not belong to any groups or associations.
- An estimated 6.3% of adults had seriously thought about ending their own life in the past 12 months.

1. INTRODUCTION

The WA Health and Wellbeing Surveillance System (HWSS) is a continuous data collection system that was developed to monitor the health and wellbeing of Western Australians. On average, 550 people throughout Western Australia (WA) are interviewed each month. The HWSS began in March 2002 and as at December 2017 almost 99,000 interviews have been conducted with WA adults.

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

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

This report summarises what WA adults aged 16 years and over said about their health and wellbeing in 2017. The HWSS is designed to examine trends at the population level. Although major socio-demographic group estimates are possible, it is not the purpose of this system. Therefore the information provided in this report is representative of the Western Australian population as a whole but it is unlikely to be reliably representative of small minority groups within the population, such as Aboriginal people, those who are homeless or those without telephones. People requiring information about Aboriginal health are recommended to consult the results of the 2007-08 National Aboriginal and Torres Strait Islander Social Survey[1], the 2012-13 Australian Aboriginal and Torres Strait Islander Health Survey[2] or the 2014-15 National Aboriginal and Torres Strait Islander Social Survey[3], which are more representative of the Aboriginal and Torres Strait Islander population.

2. METHODOLOGY

2.1 Mode of administration and sampling

The HWSS is conducted as a Computer Assisted Telephone Interview (CATI). Households are selected from the 2013 White Pages® by a stratified random process with oversampling of the population in rural and remote areas. An approach letter is sent to selected households informing them that their household has been selected to participate. The approach letter explains the purpose of the survey, gives the time within which they can expect to be contacted by the data collection agency and explains that one person from the household will be selected to participate. A specially prepared brochure is included with the letter, which explains more about the HWSS and provides contact numbers for people to call for further information.

All of the information provided in this report is based on self-reported data. Testing has shown that the responses to the questions on the survey are reliable but very occasionally may not be completely accurate. For example, people are likely to underestimate their weight and alcohol consumption[4, 5] but they do so consistently, so in some cases it is possible to make adjustments for this. Although the estimates for some indicators are likely to be less than the 'true' population value because of this, changes in estimates over time are meaningful and reliable.

2.2 Weighting data

In some sections of this report, unweighted estimates or figures are provided. These estimates and figures are calculated using only the data collected on the sample. However, one of the most important features of a report describing the health and wellbeing of any population is the ability to make comparisons. In order to do this, data must be weighted to the population that is being described, rather than just using data from the sample. In this case, this is the WA adult population aged 16 years and over.

The HWSS data are weighted to compensate for oversampling in the rural and remote areas of WA and then weighted by age and sex to the most recent Estimated

Resident Population (ERP) for the year of the survey. For 2017, this was the 2016 ERP released by the Australian Bureau of Statistics (ABS) in August 2017.[6]

2.3 Response rates

A very important part of any survey is the response rate attained because low response rates may produce estimates that are unreliable, biased or not representative of the population. Each year since the HWSS began, adjusted response rates of above 80 per cent have been attained. The response rate for children and adults for each month of 2017 is shown in Table 1.

The consistency of the response rates over the year provides an excellent basis for producing reliable estimates. These high response rates are also an indication of the willingness of the people of WA to respond to surveys that they feel are important.

Table 1: Response rates for 2017, by month

Month	Sample Frame	Out of Scope (a)	Eligible Sample	No answer after 10 attempts	Eligible Contacts (b)	Refusals	Interviews	Raw Response Rate	Adjusted Response Rate (c)	Participation Rate (d)
Jan	1127	454	673	131	542	54	464	68.9	85.6	89.6
Feb	1705	796	909	189	720	72	607	66.8	84.3	89.4
Mar	1702	791	911	152	759	73	640	70.3	84.3	89.8
Apr	2009	919	1090	201	889	80	736	67.5	82.8	90.2
May	2008	897	1111	242	871	67	758	68.2	87.0	91.9
Jun	1640	746	894	195	699	68	586	65.5	83.8	89.6
Jul	1451	664	787	173	614	47	520	66.1	84.7	91.7
Aug	1452	706	746	156	590	57	500	67.0	84.7	89.8
Sep	1502	712	790	177	613	54	518	65.6	84.5	90.6
Oct	1752	812	940	230	710	63	607	64.6	85.5	90.6
Nov	1399	650	749	160	589	61	491	65.6	83.4	88.9
Dec	745	327	418	86	332	33	285	68.2	85.8	89.6
Total	**18492**	**8474**	**10018**	**2092**	**7928**	**729**	**6712**	**67.0**	**84.7**	**90.2**

a) Non-operational, business or dedicated fax numbers. All other numbers were considered to be part of the eligible sample, which forms the denominator for the raw response rate.
b) If the telephone is answered, the number is part of the eligible contacts. This forms the denominator of the adjusted response rate.
c) The adjusted response rate is the number of people interviewed divided by the number of eligible contacts (b)
d) The participation rate is the number of people interviewed divided by the number of people interviewed plus the number of refusals.

A full explanation of the methodology can be found in the paper titled, 'WA Health and Wellbeing Surveillance System, Technical Paper Series No 1: Design and Methodology, 2018', which is available on the WA Department of Health website: https://ww2.health.wa.gov.au/Reports-and-publications/Population-surveys

3. HOW ESTIMATES ARE REPORTED

3.1 Percentage and prevalence

The information in this report is presented either as a percentage of the population who have a particular risk factor/demographic characteristic or as the prevalence of the population who have a particular health condition. 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 period of time, for example 12 months. Point prevalence represents the proportion of the population who exhibited a condition or characteristic at the time of the survey. In this report, most of the prevalence estimates are presented as period prevalence. In some cases, such as with asthma, lifetime and point prevalence are reported. This is because a person may have had asthma at some point in their life but not have it currently.

3.2 Confidence intervals

Survey results are estimates of ‘true’ population values and will always contain some error because they are based on 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 estimates are considered to be significantly different.

Further information on how to determine whether or not 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 young age groups (e.g. 16 to 44 years) for certain chronic health conditions, due to the fact that 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 have been withheld.

3.3 Using this report

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

4. COMPARISONS

4.1 Prevalence over time

One of the strengths of the HWSS is its ability to show changes over time. Therefore, trends for selected major health conditions and risk factors have been provided.

The prevalence or proportion of males and females who reported a selected condition/risk factor of interest was derived for each year from 2002 to 2017.

As questions on chronic conditions were not always asked of 16 to 24 year olds until 2006, chronic condition estimates are presented for 25 year olds and over to ensure comparability across years. To guarantee any changes in prevalence estimates over time are not the result of changes in the age and sex distribution of the population, all years presented in trend tables have been standardised by weighting them to the 2011 Estimated Resident Population. As a result, 2017 estimates presented in trend tables may differ slightly from 2017 estimates presented in point prevalence tables due to weighting the data to different populations.

Small changes in estimates from those presented in previous reports may also occur due to weighting the data to more recent population estimates.

4.2 Socio-Economic Indexes for Areas

The HWSS collects information on where survey respondents live. This allows for comparisons between the health characteristics of people living in less advantaged areas with those in more advantaged areas, using indexes developed by the ABS.

Socio-Economic Indexes for Areas (SEIFA) are a group of measures that rank areas across Australia based on their level of socioeconomic advantage or disadvantage. This is broadly defined in terms of people's access to material and social resources, and their ability to participate in society. These measures are developed every five years based on information collected during the Census. The latest available SEIFA estimates are from the 2016 Census.[7]

In this report when the acronym SEIFA is used, it refers to the Index of Relative Socio-economic Disadvantage (IRSD).[8] This is the index most frequently used for

analysis of health characteristics. The IRSD ranks geographical areas in terms of relative socioeconomic disadvantage. A score is derived for individual suburbs/localities in WA by summarising characteristics of the population, including low income, low educational attainment, high unemployment and jobs in relatively unskilled occupations.[8] A complex statistical calculation is used to determine the score for each geographical area. A technical explanation of the calculation process can be found on the ABS website: http://www.ausstats.abs.gov.au/ausstats/subscriber.nsf/0/756EE3DBEFA869EFCA258259000BA746/$File/SEIFA%202016%20Technical%20Paper.pdf

Areas are then grouped into quintiles from low scores that reflect the most disadvantage (quintile 1) through to high scores that reflect the least disadvantage (quintile 5). SEIFA quintiles are based on IRSD at statistical area 2 (SA2) level. Tables presenting selected health characteristics by SEIFA quintiles are provided.

4.3 Accessibility/Remoteness Index of Australia

Having location information for survey respondents also allows health behaviours and conditions to be analysed by remoteness.

The Accessibility/Remoteness Index of Australia (ARIA) was created to define remoteness using road distances to selected Service Centres. A score of 0 indicates high accessibility and 15 indicates high remoteness.[9] Scores are then grouped into five categories.

In this report, ARIA+ is used and the categories presented are Major Cities, Inner Regional, Outer Regional, Remote and Very Remote. More information on how ARIA is calculated can be found on the University of Adelaide's Australian Population and Migration Research Centre website: https://www.adelaide.edu.au/hugo-centre/spatial_data/aria/

Tables presenting selected health characteristics by ARIA+ categories are provided.

5. DEMOGRAPHICS

In 2017, 5,927 Western Australians aged 16 years and over participated in the HWSS. Of this sample, 97 people identified as Aboriginal or Torres Strait Islander. The demographic characteristics of the adult sample that participated in the 2017 HWSS collection period are shown in Table 2. The table shows the unweighted number in the sample for each group and the weighted population prevalence estimate expressed as a percentage.

Table 2: Demographic characteristics, 16 years & over, HWSS 2017

	Unweighted Sample (n)	Estimated Per Cent (%)
Age		
16 to 24 yrs	211	14.7
25 to 44 yrs	396	37.4
45 to 64 yrs	2,241	30.8
65 yrs & over	3,079	17.1
Gender		
Females	3,622	50.0
Males	2,305	50.0
Australian Born		
Yes	4,050	66.1
No	1,866	33.9
Marital Status		
Married	3,567	56.1
De facto	298	9.6
Widowed	883	3.5
Divorced	440	3.8
Separated	134	1.7
Never married	567	25.3
Region of Residence		
Metro	2,985	79.5
Rural	2,267	14.4
Remote	675	6.1
Health Region		
East Metro	946	26.6
Goldfields	308	2.4
Great Southern	450	2.8
Kimberley	222	1.7
Midwest	368	2.4
North Metro	985	27.6
Pilbara	145	2.0
South Metro	1054	25.3
South West	996	6.2
Wheatbelt	453	3.1
ARIA+		
Inner Regional	1,170	11.7
Major Cities	2,800	73.8
Outer Regional	1,147	7.7
Remote	560	4.5
Very Remote	250	2.3

The socioeconomic characteristics of the sample and the weighted population estimates are shown in Table 3 and Table 4.

Table 3: Socioeconomic characteristics, 16 years & over, HWSS 2017

	Unweighted Sample (n)	Estimated Per Cent (%)
Current Place of Living		
Rented from govt or public authority	193	1.8
Rented privately	467	13.2
Being paid off by you/your partner	1,115	36.0
Fully owned/outright owner	3,912	44.7
Other	159	4.2
Current Living Arrangment		
Living with parent(s)	202	15.9
Living with other family members	336	7.4
Living with friends	32	2.0 *
Living with a partner and children	863	29.2
Living with a partner but no children	2,865	33.6
Living alone	1,464	8.9
Living in a retirement village	70	0.4
Other living arrangement	62	2.7 *
Household Income		
Under $20,000	553	5.6
$20,000 to $40,000	1,136	14.1
$40,000 to $60,000	548	10.4
$60,000 to $80,000	425	12.1
$80,000 to $100,000	351	10.9
$100,000 to $120,000	270	9.8
$120,000 to $140,000	215	8.9
More than $140,000	165	6.3
Household Spending		
Spend more money than earn/get	248	4.5
Have just enough money to get by	864	15.2
Spend left over money	303	5.5
Save a bit every now and then	1,657	30.0
Save some regularly	1,794	35.0
Save a lot	469	9.9

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

Table 4: Socioeconomic characteristics, 16 years & over, continued, HWSS 2017

	Unweighted Sample (n)	Estimated Per Cent (%)
Highest Level of Education (a)		
Less than Year 10	544	3.6
Year 10 or Year 11	1,180	13.3
Year 12	563	16.3
TAFE/Trade qualification	2,391	41.5
Tertiary degree or equivalent	1,176	25.3
Employment Status		
Self employed	677	11.4
Employed for wages, salary or payment in kind	1,785	50.8
Unemployed for less than one year	52	2.6 *
Unemployed for more than one year	58	1.4
Engaged in home duties	216	5.2
Retired	2,861	17.6
Unable to work	132	3.0 *
A student	102	7.5
Other	31	0.4 *
Working away (fly-in fly-out) (b)		
Yes	77	4.9
No	1,981	95.1
Shift worker (b)		
Yes	156	9.9
No	1,822	90.1
Receiving a Government Pension		
Yes	2,401	19.5
No	3,439	80.5
Possess a Government Health Care Card		
Yes	2,726	24.4
No	3,105	75.6
Possess Private Health Insurance		
Yes - Hospital only	131	2.3
- Ancillary only	372	5.9
- Both hospital and ancillary	3,653	68.2
No	1,638	23.7

(a) Excludes respondents who are currently still at school.
(b) Adults aged 16 to 64 years.
* Prevalence estimate has a RSE between 25%-50% and should be used with caution.

6. GENERAL HEALTH

Self-ratings of health are used internationally, with poor health ratings associated with increased mortality and psychological distress, and lower physical functioning compared with excellent or very good ratings.[10, 11] Respondents were asked several questions regarding their general health, including their overall health status now and compared with one year ago, quality of life questions (using the SF-8™ tool) and questions regarding family members with disabilities. Table 5 shows Western Australian's self-reported general health status.

Table 5: Self-reported health status, 16 years & over, HWSS 2017

	Excellent		Very good		Good		Fair		Poor	
	%	95% CI	%	95% CI	%	95% CI	%	95% CI	%	95% CI
16 to 44 yrs										
Males	23.8	(16.4 - 31.3)	37.2	(28.8 - 45.6)	26.9	(19.4 - 34.5)	7.1	*(3.5 - 10.6)	5.0	* (0.1 - 9.9)
Females	21.7	(14.7 - 28.7)	41.7	(33.6 - 49.9)	23.0	(16.4 - 29.5)	8.1	(4.6 - 11.6)	N/A	(N/A - N/A)
Persons	22.8	(17.6 - 27.9)	39.4	(33.5 - 45.3)	25.0	(20.0 - 30.0)	7.6	(5.1 - 10.1)	5.3	* (1.6 - 8.9)
45 to 64 yrs										
Males	13.9	(10.9 - 17.0)	41.2	(36.8 - 45.7)	30.7	(26.7 - 34.8)	9.1	(6.7 - 11.5)	5.0	(3.2 - 6.8)
Females	19.1	(16.4 - 21.7)	40.0	(36.5 - 43.4)	28.3	(25.1 - 31.6)	9.5	(7.5 - 11.5)	3.1	(2.0 - 4.3)
Persons	16.5	(14.5 - 18.5)	40.6	(37.8 - 43.4)	29.5	(26.9 - 32.1)	9.3	(7.8 - 10.9)	4.0	(3.0 - 5.1)
65 yrs & over										
Males	10.3	(8.4 - 12.2)	35.0	(31.9 - 38.1)	35.0	(32.0 - 38.1)	14.0	(11.8 - 16.3)	5.6	(4.1 - 7.1)
Females	13.8	(11.9 - 15.6)	33.9	(31.3 - 36.5)	34.3	(31.7 - 36.9)	13.3	(11.4 - 15.1)	4.8	(3.6 - 5.9)
Persons	12.1	(10.8 - 13.5)	34.4	(32.4 - 36.4)	34.7	(32.7 - 36.7)	13.6	(12.2 - 15.1)	5.2	(4.2 - 6.1)
Total										
Males	18.6	(14.5 - 22.7)	38.1	(33.4 - 42.8)	29.4	(25.2 - 33.6)	8.8	(6.7 - 10.9)	5.1	* (2.4 - 7.8)
Females	19.4	(15.7 - 23.2)	39.8	(35.5 - 44.1)	26.7	(23.1 - 30.2)	9.5	(7.5 - 11.4)	4.6	* (1.8 - 7.5)
Persons	19.0	(16.3 - 21.8)	38.9	(35.7 - 42.1)	28.0	(25.3 - 30.8)	9.2	(7.7 - 10.6)	4.9	(2.9 - 6.8)

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

The proportion of people reporting excellent or very good health was significantly lower for those aged 65 years and over than for those aged 16 to 44 years and 45 to 64 years (46.5% compared with 62.2% and 57.1%). Approximately one in seven (14.1%) people reported that their health was fair or poor. The proportion of adults reporting fair or poor health was significantly higher for those aged 65 years and over than for those aged 16 to 44 years and 45 to 64 years (18.8% compared with 12.9% and 13.3%).

Respondents were also asked how they would rate their health in general now compared with one year ago. Prevalence estimates are shown in Table 6.

Table 6: Self-reported health status compared with one year ago, 16 years & over, HWSS 2017

	Much better		Somewhat better		About the same		Somewhat worse		Much worse	
	%	95% CI	%	95% CI	%	95% CI	%	95% CI	%	95% CI
16 to 44 yrs										
Males	13.6	(7.7 - 19.6)	21.6	(13.4 - 29.7)	57.2	(48.4 - 66.0)	6.5 *	(1.8 - 11.2)	N/A	(N/A - N/A)
Females	14.8	(9.6 - 20.0)	14.1	(8.3 - 20.0)	54.0	(45.7 - 62.2)	16.5	(9.7 - 23.4)	N/A	(N/A - N/A)
Persons	14.2	(10.2 - 18.2)	17.9	(12.8 - 23.0)	55.6	(49.6 - 61.7)	11.4	(7.3 - 15.6)	N/A	(N/A - N/A)
45 to 64 yrs										
Males	8.0	(5.7 - 10.3)	10.7	(7.9 - 13.4)	68.1	(64.0 - 72.1)	9.9	(7.5 - 12.4)	3.3 *	(1.7 - 5.0)
Females	10.0	(7.5 - 12.4)	12.7	(10.3 - 15.1)	63.7	(60.3 - 67.1)	11.6	(9.4 - 13.8)	2.0	(1.1 - 2.9)
Persons	9.0	(7.3 - 10.7)	11.7	(9.9 - 13.5)	65.9	(63.2 - 68.5)	10.8	(9.1 - 12.4)	2.7	(1.7 - 3.6)
65 yrs & over										
Males	5.0	(3.5 - 6.5)	9.1	(7.2 - 11.0)	66.6	(63.5 - 69.7)	15.9	(13.5 - 18.2)	3.4	(2.2 - 4.6)
Females	4.4	(3.2 - 5.5)	9.1	(7.5 - 10.6)	64.5	(61.9 - 67.2)	18.8	(16.6 - 21.0)	3.2	(2.3 - 4.2)
Persons	4.7	(3.8 - 5.6)	9.1	(7.9 - 10.3)	65.5	(63.5 - 67.5)	17.4	(15.8 - 19.0)	3.3	(2.6 - 4.1)
Total										
Males	10.5	(7.3 - 13.8)	16.2	(11.7 - 20.8)	62.0	(57.1 - 67.0)	9.1	(6.4 - 11.7)	2.2	(1.2 - 3.1)
Females	11.4	(8.7 - 14.2)	12.8	(9.7 - 15.9)	58.9	(54.5 - 63.3)	15.4	(11.8 - 19.0)	1.5	(1.0 - 2.0)
Persons	11.0	(8.8 - 13.1)	14.5	(11.7 - 17.3)	60.5	(57.1 - 63.8)	12.2	(10.0 - 14.5)	1.8	(1.3 - 2.4)

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

Nearly two-thirds (60.5%) reported their health status as about the same as one year ago and one quarter (25.5%) regarded their health as much better or somewhat better. Self-reported improvement in health status decreased significantly with age, with respondents aged 65 years and over being significantly less likely than those aged 16 to 44 years and 45 to 64 years to report their health status as much better or somewhat better than one year ago (13.8% compared with 32.1% and 20.7%).

6.1 Mental and physical functioning

Health status was also measured using the SF-8™ instrument, a quality-of-life measure that determines the effects of physical and mental health on day-to-day functioning. Two overall scores were derived from the SF-8™: a Mental Component Score (MCS), which measures the level of emotional wellbeing (shown in Figure 1) and a Physical Component Score (PCS), which measures the level of physical

functioning (shown in Figure 2). Scores are standardised to a scale ranging from 0 to 100. Scores greater than 50 indicate better than average functioning while scores less than 50 indicate a lower than average functioning.[12]

Figure 1: Mean mental component scores (MCS), 16 years & over, HWSS 2017

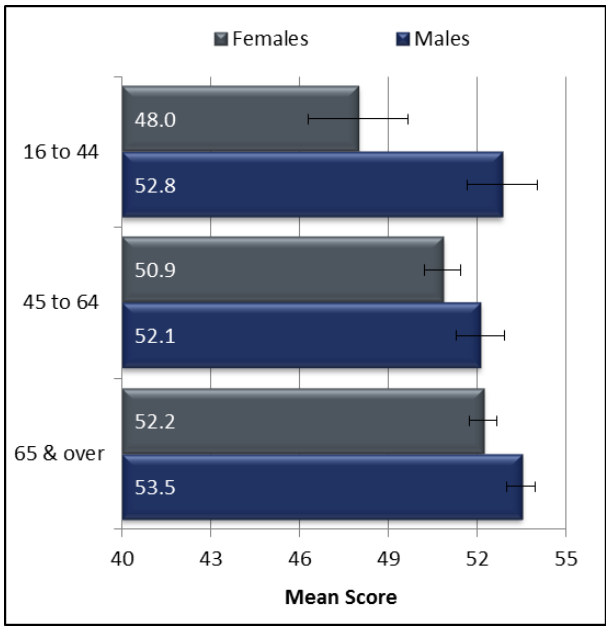
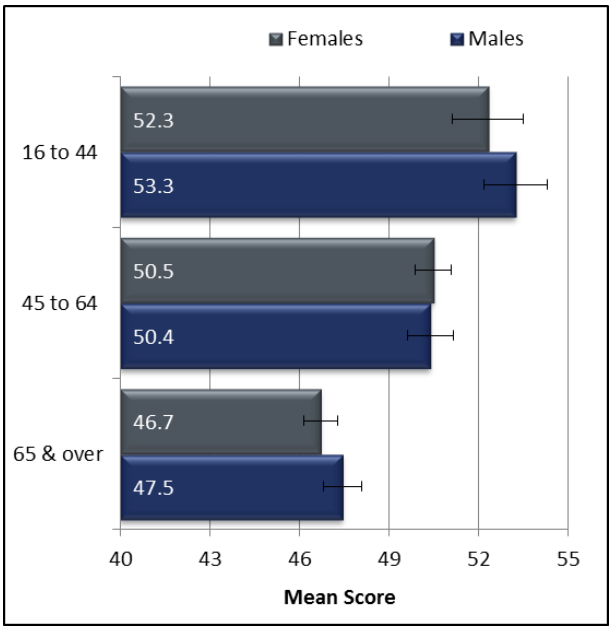


Figure 2: Mean physical component scores (PCS), 16 years & over, HWSS 2017



The mean MCS score (mental functioning) was significantly higher for males overall than for females overall (52.7 compared with 49.6). Mean PCS scores (physical functioning) decreased significantly with age for both males and females.

6.2 Disability

Disability can be experienced in a number of different ways, including cognitive, physical, sensory and psycho-social difficulties.[13] Respondents were asked whether they or a family member had a disability, long-term illness or pain that put a burden on them personally or on their family (Figure 3). In 2017, an estimated 497,726 Western Australian adults (24.5%) were in a family where at least one person had a disability.

Figure 3: Prevalence of disability, long-term illness or pain within the family that puts a burden on them personally or on their family, 16 years & over, HWSS 2017

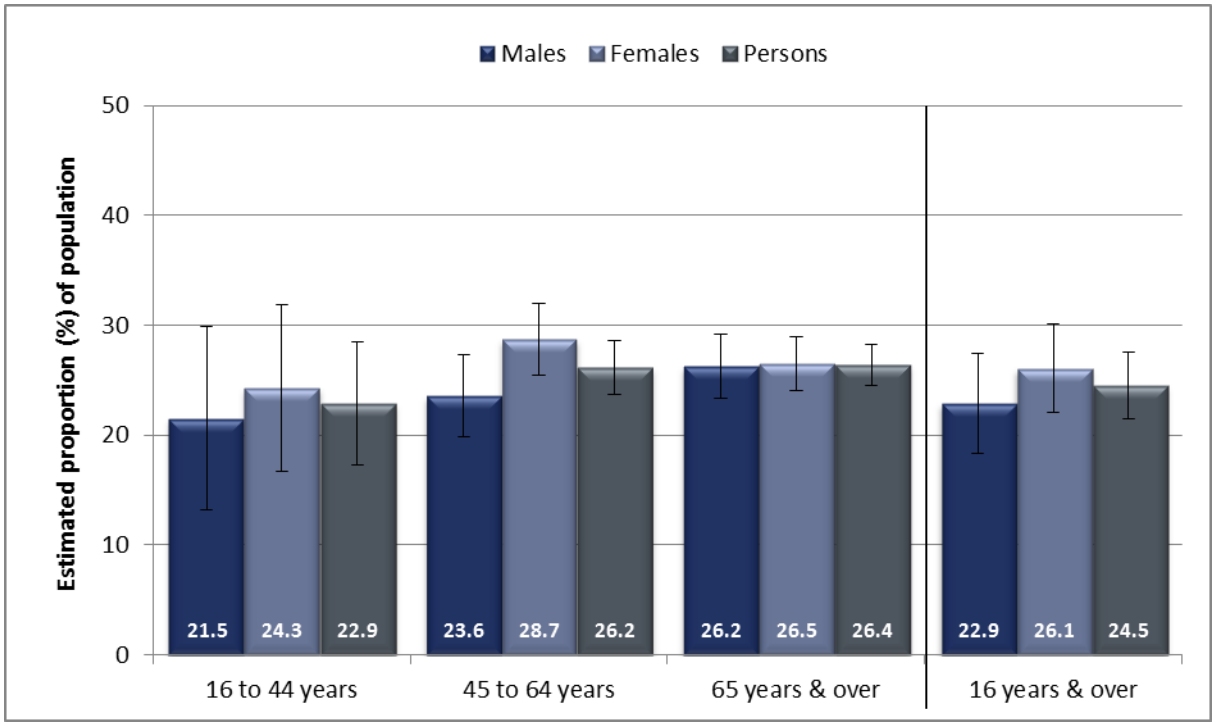


Table 7 shows how people rated the burden of the disability, long-term illness or pain on them personally, or on their family. Of those with a family member with some form of disability, long-term illness or pain, almost one in four (23.4%) reported that this put a big or very big burden on the family.

Table 7: Rating of burden due to disability, long-term illness or pain for those with a family member with a disability, long-term illness or pain, 16 years & over, HWSS 2017

	Not much of a burden at all		A little burden		A fairly big burden		A big burden		A very big burden	
	%	95% CI	%	95% CI	%	95% CI	%	95% CI	%	95% CI
16 to 44 yrs										
Males	23.1 *	(2.6 - 43.6)	39.9 *	(16.3 - 63.4)	10.6 *	(0.8 - 20.4)	N/A	(N/A - N/A)	N/A	(N/A - N/A)
Females	22.3 *	(5.4 - 39.2)	29.4 *	(14.7 - 44.1)	23.6 *	(10.1 - 37.1)	N/A	(N/A - N/A)	N/A	(N/A - N/A)
Persons	22.6 *	(9.5 - 35.7)	34.1	(20.3 - 47.9)	17.7 *	(8.9 - 26.5)	12.6 *	(3.3 - 21.9)	12.9 *	(1.9 - 23.9)
45 to 64 yrs										
Males	18.4	(11.1 - 25.8)	28.4	(20.7 - 36.1)	29.3	(21.2 - 37.3)	17.3	(10.2 - 24.4)	6.6 *	(2.7 - 10.6)
Females	13.9	(9.3 - 18.5)	35.8	(29.2 - 42.4)	30.4	(23.6 - 37.1)	12.4	(8.0 - 16.9)	7.5	(4.5 - 10.4)
Persons	15.9	(11.8 - 20.1)	32.5	(27.4 - 37.5)	29.9	(24.7 - 35.1)	14.6	(10.6 - 18.7)	7.1	(4.7 - 9.5)
65 yrs & over										
Males	21.7	(16.1 - 27.2)	30.2	(24.2 - 36.2)	26.4	(20.6 - 32.1)	12.7	(8.3 - 17.1)	9.0	(5.3 - 12.7)
Females	12.8	(9.3 - 16.3)	33.8	(28.5 - 39.0)	32.7	(27.5 - 38.0)	13.4	(9.5 - 17.3)	7.3	(4.5 - 10.1)
Persons	17.0	(13.8 - 20.2)	32.1	(28.1 - 36.1)	29.7	(25.9 - 33.6)	13.1	(10.2 - 16.0)	8.1	(5.8 - 10.4)
Total										
Males	21.2	(11.2 - 31.3)	34.2	(22.4 - 45.9)	19.9	(13.6 - 26.2)	14.2	(7.7 - 20.7)	10.5 *	(3.7 - 17.3)
Females	17.7	(9.3 - 26.1)	32.4	(24.8 - 40.0)	27.6	(20.4 - 34.7)	12.7 *	(6.0 - 19.3)	9.7 *	(1.6 - 17.8)
Persons	19.3	(12.8 - 25.8)	33.2	(26.4 - 40.0)	24.1	(19.2 - 29.0)	13.4	(8.7 - 18.0)	10.0 *	(4.7 - 15.4)

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

Respondents were asked whether they currently have any health problem that requires the use of special equipment, such as a cane, a wheelchair, a special bed or a special telephone. The prevalence of adults who required the use of special equipment is shown in Table 8.

Table 8: Need an aid or special equipment, 16 years & over, HWSS 2017

	Yes		No	
	%	95% CI	%	95% CI
16 to 44 yrs				
Males	2.9 *	(0.2 - 5.6)	97.1	(94.4 - 99.8)
Females	N/A	(N/A - N/A)	99.0	(98.0 - 100.0)
Persons	2.0 *	(0.5 - 3.4)	98.0	(96.6 - 99.5)
45 to 64 yrs				
Males	4.4	(2.8 - 5.9)	95.6	(94.1 - 97.2)
Females	3.2	(2.0 - 4.3)	96.8	(95.7 - 98.0)
Persons	3.8	(2.8 - 4.7)	96.2	(95.3 - 97.2)
65 yrs & over				
Males	12.9	(10.7 - 15.1)	87.1	(84.9 - 89.3)
Females	14.3	(12.5 - 16.1)	85.7	(83.9 - 87.5)
Persons	13.7	(12.2 - 15.1)	86.3	(84.9 - 87.8)
Total				
Males	5.0	(3.4 - 6.5)	95.0	(93.5 - 96.6)
Females	4.1	(3.3 - 4.8)	95.9	(95.2 - 96.7)
Persons	4.5	(3.6 - 5.4)	95.5	(94.6 - 96.4)

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

In 2017, approximately 4.5 per cent of the population had a health problem requiring the use of special equipment, such as a cane, a wheelchair, a special bed or a special telephone. This is equivalent to an estimated 91,534 people in WA.

7. CHRONIC HEALTH CONDITIONS

Chronic health conditions refer to long-term conditions (lasting more than six months) that can have a significant impact on a person's life. The chronic conditions collected by the HWSS were chosen due to their health impact and the potential to reduce their burden.[14] In the HWSS, the prevalence of a chronic condition was determined by asking respondents whether or not a doctor had ever diagnosed them with a number of common health conditions.

7.1 Arthritis and osteoporosis

Arthritis and osteoporosis are musculoskeletal conditions that can greatly reduce quality of life. Arthritis causes inflammation of the joints, while osteoporosis is a disease where bone density and structural quality deteriorate, leading to an increased risk of fracture.[15] The lifetime prevalence of arthritis and/or osteoporosis is shown in Table 9.

Table 9: Prevalence of arthritis and osteoporosis, 16 years & over, HWSS 2017

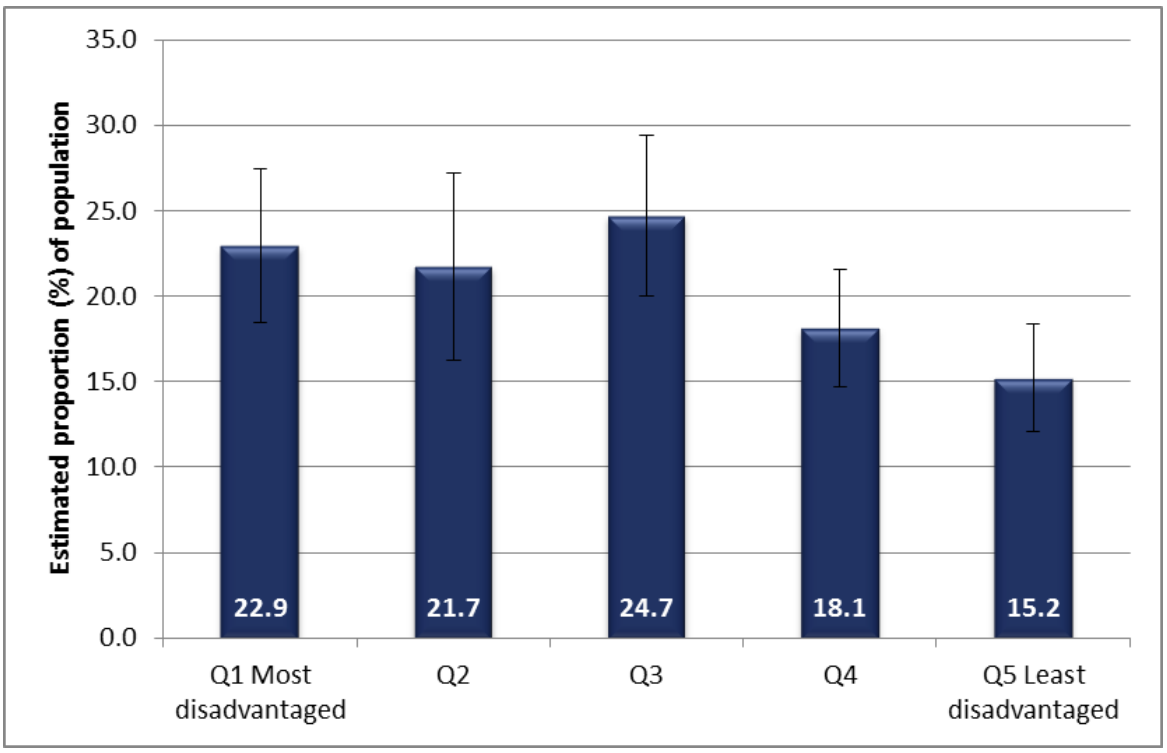
	Arthritis		Osteoporosis	
	%	95% CI	%	95% CI
16 to 44 yrs				
Males	6.3 *	(1.4 - 11.1)	N/A	(N/A - N/A)
Females	5.8 *	(2.8 - 8.8)	N/A	(N/A - N/A)
Persons	6.0	(3.2 - 8.9)	N/A	(N/A - N/A)
45 to 64 yrs				
Males	22.1	(18.5 - 25.8)	2.1 *	(1.0 - 3.2)
Females	31.9	(28.7 - 35.0)	6.7	(5.2 - 8.3)
Persons	27.0	(24.6 - 29.4)	4.4	(3.5 - 5.3)
65 yrs & over				
Males	42.3	(39.0 - 45.5)	9.6	(7.6 - 11.6)
Females	59.1	(56.4 - 61.8)	25.8	(23.4 - 28.2)
Persons	51.1	(49.0 - 53.2)	18.1	(16.5 - 19.7)
Total				
Males	16.9	(14.0 - 19.9)	2.2	(1.7 - 2.8)
Females	23.4	(20.8 - 25.9)	8.1	(6.1 - 10.0)
Persons	20.2	(18.2 - 22.1)	5.2	(4.1 - 6.2)

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

Females were significantly more likely than males to report having been diagnosed with arthritis and/or osteoporosis (arthritis: 23.4% compared with 16.9%, osteoporosis: 8.1% compared with 2.2%). The prevalence of arthritis and osteoporosis also increased significantly with age.

Figure 4 shows the lifetime prevalence of arthritis by SEIFA quintile. The lifetime prevalence of arthritis was significantly higher in more disadvantaged areas of WA (quintiles 1 and 3) compared with the least disadvantaged areas (quintile 5) (22.9% and 24.7% compared with 15.2%).

Figure 4: Prevalence of arthritis, 16 years & over, by SEIFA quintiles in WA, HWSS 2017



The standardised annual prevalence estimates for arthritis and osteoporosis for adults aged 25 years and over from 2002 to 2017 are shown in Table 10.

Table 10: Prevalence of arthritis and osteoporosis over time, 25 years & over, HWSS 2002–17

	Arthritis			Osteoporosis		
	Males	Females	Persons	Males	Females	Persons
2002	21.0	28.3	24.6	-	-	-
2003	23.0	28.7	25.9	2.0	8.2	5.1
2004	20.6	31.7	26.1	2.1	9.9	6.0
2005	21.9	28.4	25.1	2.7	8.8	5.8
2006	20.5	28.7	24.6	2.8	8.5	5.6
2007	20.0	28.3	24.2	2.8	8.2	5.5
2008	20.3	28.1	24.2	2.4	9.2	5.8
2009	19.6	27.4	23.5	2.4	8.6	5.5
2010	21.2	26.4	23.8	2.5	8.9	5.7
2011	18.1	27.0	22.6	2.6	8.1	5.4
2012	18.3	25.9	22.1	2.7	8.6	5.7
2013	18.6	26.5	22.5	2.9	8.1	5.5
2014	18.0	26.8	22.4	2.7	8.4	5.6
2015	18.3	25.9	22.1	2.7	8.4	5.6
2016	19.8	26.9	23.4	3.1	8.2	5.6
2017	19.1	27.0	23.1	2.5	9.1	5.8
Average	**19.9**	**27.5**	**23.7**	**2.7**	**8.6**	**5.7**

- This information is not available in 2002.

There was no difference in the lifetime prevalence of arthritis or osteoporosis for males, females or all persons when the 2017 estimates are compared with previous years.

7.2 Heart disease and stroke

Cardiovascular diseases (including heart disease and stroke) include a range of conditions that affect the heart or blood vessels[16] and are the third-leading cause of burden in WA.[17] Nationally, cardiovascular disease accounts for the highest proportion of health system costs, much of which is preventable.[18, 19] The lifetime prevalence of heart disease and stroke are shown in Table 11.

Table 11: Prevalence of heart disease and stroke, 16 years & over, HWSS 2017

	Heart Disease		Stroke	
	%	95% CI	%	95% CI
16 to 44 yrs				
Males	N/A	(N/A - N/A)	N/A	(N/A - N/A)
Females	N/A	(N/A - N/A)	N/A	(N/A - N/A)
Persons	N/A	(N/A - N/A)	N/A	(N/A - N/A)
45 to 64 yrs				
Males	7.6	(5.6 - 9.7)	2.0 *	(0.4 - 3.5)
Females	3.8	(2.6 - 4.9)	0.9 *	(0.4 - 1.4)
Persons	5.7	(4.5 - 6.9)	1.4 *	(0.6 - 2.2)
65 yrs & over				
Males	29.1	(26.1 - 32.0)	7.5	(5.8 - 9.2)
Females	16.5	(14.5 - 18.5)	4.9	(3.8 - 6.1)
Persons	22.5	(20.7 - 24.2)	6.2	(5.2 - 7.2)
Total				
Males	7.4	(6.2 - 8.6)	1.9	(1.3 - 2.4)
Females	4.5	(3.6 - 5.3)	1.6	(0.9 - 2.2)
Persons	5.9	(5.2 - 6.6)	1.7	(1.3 - 2.1)

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

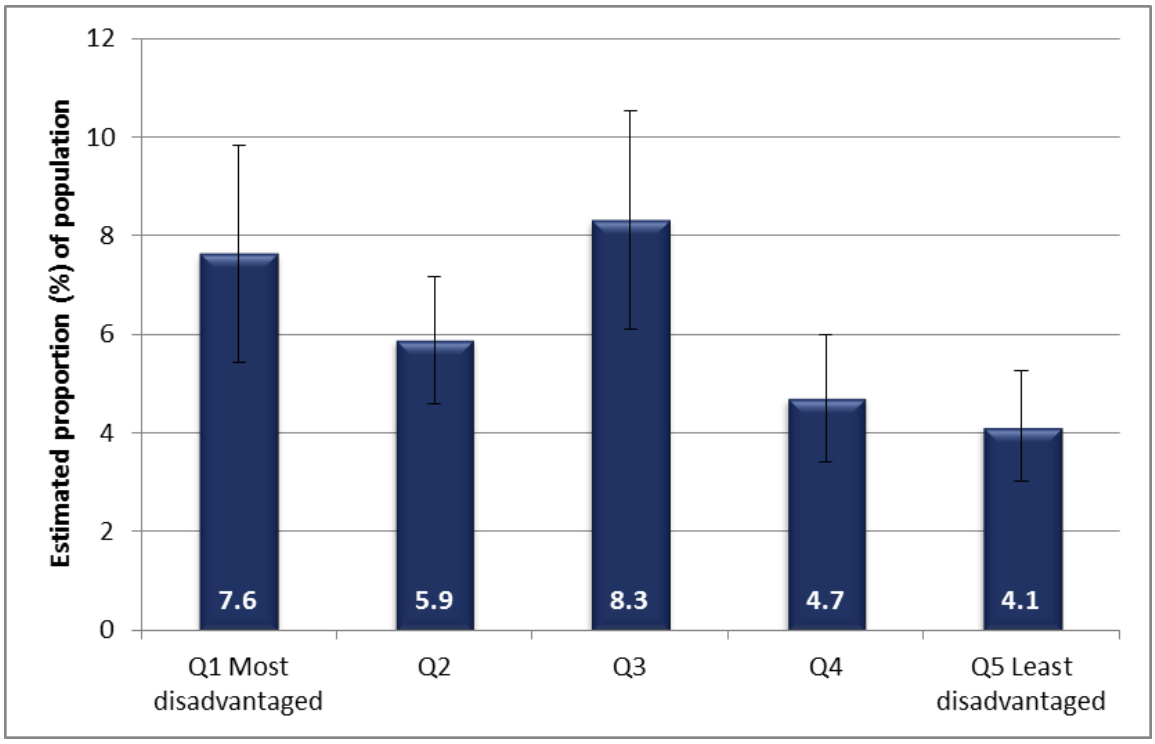
N/A Prevalence estimate has a RSE greater than 50% and is considered too unreliable for general use.

The prevalence of heart disease was significantly higher in males compared with females (7.4% compared with 4.5%). Adults aged 65 years and over were significantly more likely to report heart disease than those aged 45 to 64 years (22.5% compared with 5.7%).

The prevalence of stroke also increased significantly with age (6.2% amongst adults 65 years and over compared with 1.4% for those aged 45 to 64 years).

The prevalence of heart disease by SEIFA quintile is shown in Figure 5. The prevalence of heart disease was significantly higher in more disadvantaged areas of WA (quintiles 1 and 3) compared with the least disadvantaged areas (quintile 5) (7.6% and 8.3% compared with 4.1%).

Figure 5: Prevalence of heart disease, 16 years & over, by SEIFA quintiles in WA, HWSS 2017



The standardised annual prevalence estimates of heart disease and stroke for adults aged 25 years and older from 2002 to 2017 are shown in Table 12.

Table 12: Prevalence of heart disease and stroke over time, 25 years & over, HWSS 2002–17

	Heart disease			Stroke		
	Males	Females	Persons	Males	Females	Persons
2002	9.2	6.5	7.8	2.3	1.1	1.7
2003	9.0	4.5	6.7	2.5	2.4	2.5
2004	9.7	6.4	8.1	3.1	2.1	2.6
2005	8.8	5.9	7.3	1.9	1.9	1.9
2006	9.2	5.4	7.6	2.6	1.6	2.1
2007	9.2	5.9	7.6	3.0	1.7	2.3
2008	7.8	5.1	6.4	2.7	2.2	2.4
2009	8.3	5.5	6.9	2.6	2.0	2.3
2010	9.0	5.1	7.0	2.4	1.6	2.0
2011	8.6	5.7	7.2	2.5	1.9	2.2
2012	8.2	4.8	6.5	2.3	1.5	1.9
2013	8.9	5.2	7.0	2.0	1.5	1.8
2014	8.0	5.1	6.5	1.8	1.6	1.7
2015	7.5	4.8	6.2	2.2	1.4	1.8
2016	7.5	4.9	6.2	2.5	2.1	2.3
2017	7.7	5.0	6.4	2.1	1.8	1.9
Average	**8.5**	**5.3**	**6.9**	**2.3**	**1.7**	**2.0**

There was no significant difference in the lifetime prevalence of heart disease or stroke for males, females or all persons when the 2017 estimates are compared with previous years.

7.3 Cancer and skin cancer

Cancer is the name given to diseases that are characterised by the abnormal proliferation of cells that can invade other tissues and spread through the body and do not respond to normal growth controls.[20] In WA, there were 13,184 new cases of cancer recorded in 2014.[21] According to the Cancer Council Australia, approximately 30 per cent of cancer cases could be prevented by modifying lifestyle behaviours.[22]

Respondents were asked if they had ever been diagnosed with skin cancer or a cancer other than skin cancer. The prevalence of skin cancer and other cancer is shown in Table 13.

Table 13: Prevalence of skin cancer and other cancer, 16 years & over, HWSS 2017

	Skin Cancer		Other Cancer	
	%	95% CI	%	95% CI
16 to 44 yrs				
Males	N/A	(N/A - N/A)	5.5 *	(1.0 - 9.9)
Females	3.7 *	(1.1 - 6.3)	1.7 *	(0.3 - 3.0)
Persons	4.6 *	(2.0 - 7.2)	1.2 *	(0.2 - 2.1)
45 to 64 yrs				
Males	17.9	(14.7 - 21.0)	6.6	(4.5 - 8.6)
Females	15.8	(13.3 - 18.2)	8.0	(6.2 - 9.8)
Persons	16.8	(14.8 - 18.8)	7.3	(5.9 - 8.6)
65 yrs & over				
Males	36.5	(33.3 - 39.6)	19.8	(17.2 - 22.5)
Females	29.6	(27.1 - 32.0)	15.0	(13.1 - 16.9)
Persons	32.8	(30.8 - 34.8)	17.3	(15.7 - 18.9)
Total				
Males	14.3	(11.6 - 17.0)	5.6	(4.5 - 6.7)
Females	12.1	(10.3 - 13.8)	6.0	(5.0 - 7.1)
Persons	13.2	(11.5 - 14.8)	5.8	(5.0 - 6.6)

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

The prevalence of skin cancer was significantly higher than all other cancers (13.2% compared with 5.8%). The prevalence of both skin cancer and any other cancer increased significantly with age. The prevalence of skin cancer and other cancer was significantly higher in males than females in those over the age of 65 years (skin cancer: 36.5% compared with 29.6%, other cancer: 19.8% compared with 15.0%).

Due to changes in the way the question on cancer was asked, standardised annual prevalence estimates of cancer for adults aged 16 years and over can only be compared since 2007 (Table 14).

Table 14: Prevalence of cancer, excluding skin cancer, over time, 16 years & over, HWSS 2007–17

	Males	Females	Persons
2007	4.4	5.6	5.0
2008	4.5	5.3	4.9
2009	4.3	5.6	4.9
2010	4.9	5.8	5.3
2011	4.0	6.4	5.2
2012	4.4	6.6	5.5
2013	5.0	5.6	5.3
2014	4.4	6.0	5.2
2015	5.2	6.4	5.8
2016	4.2	5.2	4.7
2017	5.3	5.9	5.6
Average	**4.6**	**5.9**	**5.2**

The prevalence of people ever diagnosed with cancer (excluding skin cancer) and the prevalence of people ever diagnosed with skin cancer was similar in 2017 and 2007.

7.4 Diabetes

Diabetes is a condition where the body is unable to maintain normal blood glucose levels. Diabetes contributes significantly to ill health, disability and premature death in Australia.[23] Table 15 shows the prevalence of diabetes (of any type) in WA and the proportion of people with diabetes who have type 2 diabetes.

Table 15: Prevalence of all diabetes and proportion with type 2 diabetes, 16 years & over, HWSS 2017

	All Diabetes (a)		Proportion with type 2 diabetes (b)	
	%	95% CI	%	95% CI
16 to 44 yrs				
Males	3.2 *	(0.3 - 6.1)	N/A	(N/A - N/A)
Females	6.2 *	(1.2 - 11.1)	N/A	(N/A - N/A)
Persons	4.7 *	(1.8 - 7.5)	N/A	(N/A - N/A)
45 to 64 yrs				
Males	8.9	(6.5 - 11.2)	88.3	(79.7 - 96.8)
Females	7.4	(5.6 - 9.2)	83.2	(75.0 - 91.4)
Persons	8.1	(6.7 - 9.6)	86.0	(80.0 - 91.9)
65 yrs & over				
Males	18.2	(15.7 - 20.6)	93.5	(90.1 - 96.9)
Females	11.5	(9.7 - 13.2)	87.9	(82.6 - 93.1)
Persons	14.6	(13.2 - 16.1)	91.2	(88.2 - 94.1)
Total				
Males	7.3	(5.6 - 9.1)	77.5	(62.5 - 92.6)
Females	7.5	(4.9 - 10.1)	52.6	(33.5 - 71.7)
Persons	7.4	(5.8 - 9.0)	65.0	(51.5 - 78.4)

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

Approximately one in thirteen people (7.4%) reported having ever been diagnosed with diabetes; this represents approximately 150,847 people in WA. The prevalence of diabetes was significantly higher in those aged 65 years and compared with those aged 16 to 44 years and 45 to 64 years (14.6%, compared with 4.7% and 8.1%). Of those persons 16 years and over who reported having ever being diagnosed with diabetes, two-thirds (65.0%) had been diagnosed with type 2 diabetes.

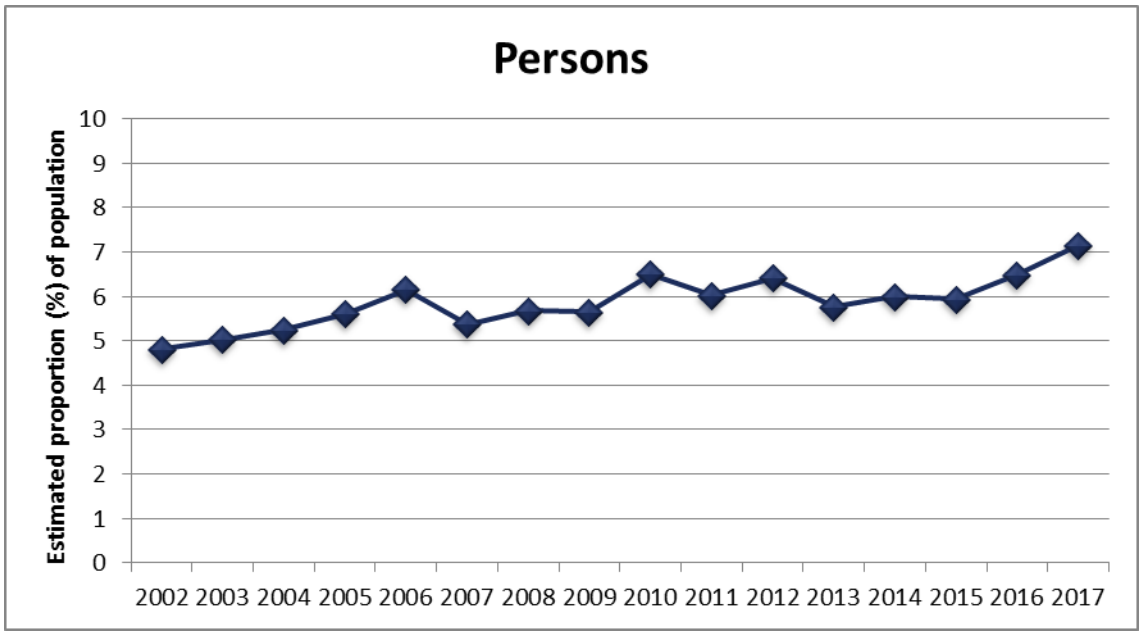
The standardised annual prevalence estimates of all diabetes for adults aged 16 years and over from 2002 to 2017 are shown in Table 16 and Figure 6.

The prevalence of diabetes for males and all persons was significantly higher in 2017 than in 2002; though prevalence for females remained unchanged over this time.

Table 16: Prevalence of diabetes over time, 16 years & over, HWSS 2002–17

	Males	Females	Persons
2002	4.2	5.4	4.8
2003	5.4	4.7	5.0
2004	5.0	5.5	5.2
2005	5.8	5.4	5.6
2006	6.2	6.1	6.2
2007	5.0	5.8	5.4
2008	6.0	5.3	5.7
2009	5.8	5.5	5.7
2010	6.7	6.3	6.5
2011	6.2	5.8	6.0
2012	5.8	7.0	6.4
2013	6.1	5.5	5.8
2014	6.3	5.7	6.0
2015	5.9	5.9	5.9
2016	7.0	6.0	6.5
2017	7.0	7.3	7.2
Average	**5.9**	**5.7**	**5.8**

Figure 6: Prevalence of diabetes over time, 16 years & over, HWSS 2002–17



7.5 Injury

Injury is a major cause of hospitalisation and death in Australia.[24] One of the primary contributors to injury burden arises from the management of injuries in older people that result from falls.[25] Respondents were asked whether they had any injuries in the past 12 months that required treatment from a health professional, and if so, whether these injuries were due to falls. Prevalence estimates are shown in Table 17.

Table 17: Prevalence of injuries and falls in the past 12 months, 16 years & over, HWSS 2017

	Injury		Proportion of injuries due to falls (a)		Injury due to falls, all respondents (b)	
	%	95% CI	%	95% CI	%	95% CI
16 to 44 yrs						
Males	23.3	(15.6 - 30.9)	22.3 *	(6.8 - 37.9)	5.2 *	(1.3 - 9.1)
Females	26.4	(18.6 - 34.3)	37.0 *	(18.3 - 55.7)	9.8 *	(3.5 - 16.1)
Persons	24.8	(19.3 - 30.3)	30.0	(17.3 - 42.8)	7.4 *	(3.7 - 11.1)
45 to 64 yrs						
Males	20.8	(17.2 - 24.4)	21.8	(14.4 - 29.3)	4.5	(2.8 - 6.2)
Females	22.2	(19.3 - 25.1)	37.6	(30.5 - 44.7)	8.3	(6.4 - 10.2)
Persons	21.5	(19.2 - 23.8)	30.0	(24.7 - 35.3)	6.4	(5.2 - 7.7)
65 yrs & over						
Males	15.6	(13.3 - 17.9)	51.8	(43.7 - 59.9)	8.1	(6.3 - 9.8)
Females	18.4	(16.3 - 20.5)	63.9	(57.6 - 70.1)	11.8	(10.0 - 13.5)
Persons	17.1	(15.5 - 18.6)	58.7	(53.7 - 63.7)	10.0	(8.7 - 11.3)
Total						
Males	21.3	(17.0 - 25.5)	25.7	(16.2 - 35.1)	5.4	(3.3 - 7.6)
Females	23.7	(19.5 - 27.8)	40.9	(30.2 - 51.6)	9.7	(6.4 - 13.0)
Persons	22.5	(19.5 - 25.4)	33.7	(26.3 - 41.2)	7.6	(5.6 - 9.5)

(a) As a proportion of respondents reporting an injury.
(b) As a proportion of all respondents.
*Prevalence estimate has a RSE between 25% and 50% and should be used with caution.

Approximately one in five people (22.5%) reported an injury in the past 12 months that required treatment from a health professional. About one in three (33.7%) of these injuries was the result of a fall.

The standardised annual prevalence of injury requiring treatment by a health professional for adults aged 16 years and over from 2002 to 2017 are shown in Table 18 and Figure 7.

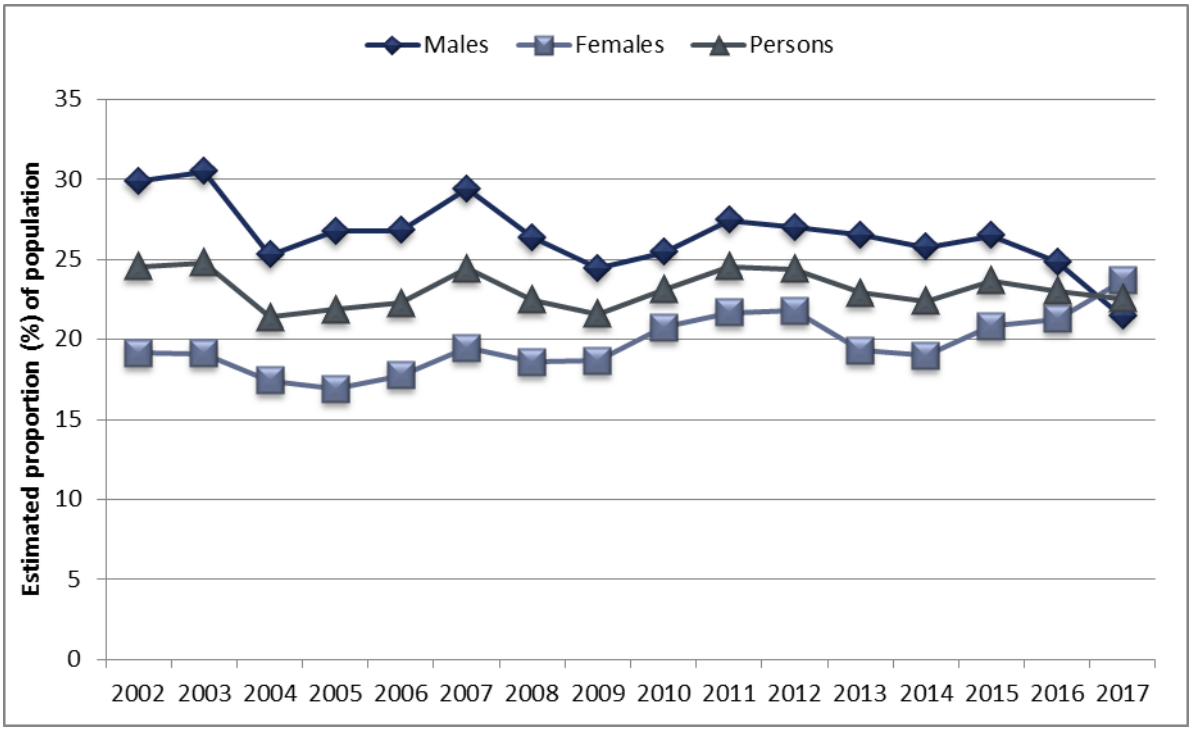
The proportion of males who sustained an injury requiring treatment by a health professional was significantly lower in 2017 than in 2002. For all persons and females, there was no significant change in the prevalence of injury requiring treatment by a health professional between 2002 and 2017.

Table 18: Prevalence of injuries (a) in the past 12 months over time, 16 years & over, HWSS 2002–17

	Males	Females	Persons
2002	29.9	19.2	24.5
2003	30.5	19.1	24.8
2004	25.3	17.4	21.4
2005	26.8	16.9	21.9
2006	26.8	17.7	22.3
2007	29.4	19.5	24.4
2008	26.4	18.6	22.5
2009	24.5	18.7	21.6
2010	25.4	20.8	23.1
2011	27.4	21.7	24.6
2012	27.0	21.8	24.4
2013	26.5	19.3	22.9
2014	25.8	19.0	22.4
2015	26.5	20.8	23.7
2016	24.8	21.3	23.0
2017	21.4	23.7	22.6
Average	**27.1**	**19.6**	**23.4**

(a) Injuries in the past 12 months that required treatment from a health professional

Figure 7: Prevalence of injuries (a) in the past 12 months over time, 16 years & over, HWSS 2002–17



(a) Injuries in the past 12 months that required treatment from a health professional

The mean number of injuries over time are shown in Table 19. The estimates in Table 19 are reported to two decimal places given changes over time (even those that are significant) are very small. Overall and for males, the mean number of injuries in 2017 was significantly lower than for 2002. For females, the mean number of injuries in 2017 was similar to earlier years.

It is possible to have a mean number of injuries that is less than one, as the majority of people do not sustain an injury in the previous year. However, a mean of 0.29 injuries still equates to 456,626 injuries among Western Australian adults that required treatment by a health care professional in 2017.

Table 19: Mean number of injuries (a) in the past 12 months over time, 16 years & over, HWSS 2002–17

	Males	Females	Persons
2002	0.49	0.29	0.39
2003	0.51	0.28	0.40
2004	0.41	0.26	0.33
2005	0.39	0.23	0.31
2006	0.38	0.24	0.31
2007	0.47	0.27	0.37
2008	0.40	0.26	0.33
2009	0.34	0.29	0.32
2010	0.39	0.29	0.34
2011	0.46	0.31	0.38
2012	0.49	0.30	0.40
2013	0.40	0.31	0.36
2014	0.40	0.30	0.35
2015	0.38	0.33	0.36
2016	0.37	0.30	0.33
2017	0.29	0.29	0.29
Average	**0.42**	**0.28**	**0.35**

(a) Injuries in the past 12 months that required treatment from a health professional

7.6 Asthma

Asthma is a common chronic condition defined clinically as the combination of variable respiratory symptoms (such as wheezing, coughing, tightness of the chest, breathing difficulty and shortness of breath) and excessive variation in lung function.[26] Respondents were asked 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 an asthma action plan. The lifetime prevalence of asthma, prevalence of asthma over the past 12 months, and proportion of adults who have asthma action plans (for those who reported having asthma in the past 12 months) is shown in Table 20.

Table 20: Prevalence of asthma and asthma action plan, 16 years & over, HWSS 2017

	Lifetime (a)		Period (b)		Action plan (c)	
	%	95% CI	%	95% CI	%	95% CI
16 to 44 yrs						
Males	13.8	(7.2 - 20.5)	10.7 *	(4.4 - 17.0)	N/A	(N/A - N/A)
Females	16.3	(10.7 - 21.9)	9.8	(5.2 - 14.4)	34.6 *	(17.1 - 52.1)
Persons	15.0	(10.7 - 19.4)	10.2	(6.3 - 14.2)	20.1 *	(9.0 - 31.2)
45 to 64 yrs						
Males	8.3	(6.0 - 10.6)	5.2	(3.3 - 7.0)	24.1 *	(11.8 - 36.4)
Females	15.9	(13.4 - 18.4)	10.5	(8.4 - 12.6)	31.5	(23.7 - 39.3)
Persons	12.1	(10.4 - 13.8)	7.8	(6.4 - 9.2)	29.0	(22.4 - 35.6)
65 yrs & over						
Males	9.0	(7.1 - 10.9)	4.7	(3.3 - 6.1)	26.3	(16.2 - 36.3)
Females	12.4	(10.6 - 14.3)	9.1	(7.5 - 10.7)	39.5	(31.9 - 47.2)
Persons	10.8	(9.5 - 12.1)	7.0	(6.0 - 8.1)	34.3	(28.2 - 40.4)
Total						
Males	11.4	(7.7 - 15.0)	8.0	(4.6 - 11.5)	11.2 *	(5.5 - 16.9)
Females	15.5	(12.5 - 18.5)	9.9	(7.4 - 12.3)	34.3	(24.5 - 44.1)
Persons	13.4	(11.1 - 15.8)	8.9	(6.8 - 11.1)	24.5	(17.5 - 31.5)

(a) People who reported they had been told by a doctor or nurse that they have asthma (ever).
(b) People who reported they have had symptoms of, or treatment for, asthma in the last 12 months.
(c) Written instructions, developed with a doctor, of what to do if the asthma is worse or out of control. Presented only for those with asthma.
* Prevalence estimate has a RSE between 25%-50% and should be used with caution.
N/A Prevalence estimate has a RSE greater than 50% and is considered too unreliable for general use.

Around one in seven Western Australian adults (13.4%) had ever had asthma. Of those who had ever been diagnosed with asthma, one in four (24.5%) had an action plan, developed with a doctor, on what to do if their asthma worsened or got out of control.

Almost one in ten Western Australians (8.9%) reported having had symptoms of, or taken treatment for, asthma in the past 12 months. This is the definition of current asthma and is equivalent to over 181,794 people in WA.

The standardised annual prevalence estimates of asthma for adults aged 16 years and over for 2002 to 2017 are shown in Table 21. The prevalence of lifetime asthma

was significantly lower in 2017 than in 2002. Prevalence estimates for current asthma in 2017 were not significantly different from 2002.

Table 21: Prevalence of asthma over time, 16 years & over, HWSS 2002–17

	Lifetime (a)			Period (b)		
	Males	Females	Persons	Males	Females	Persons
2002	16.3	17.7	17.0	8.7	11.4	10.1
2003	15.9	18.5	17.2	8.5	12.4	10.5
2004	17.0	18.8	17.9	9.9	11.7	10.8
2005	14.5	18.1	16.3	8.3	12.6	10.4
2006	16.5	18.3	17.4	9.2	12.2	10.7
2007	15.5	21.4	18.5	6.9	12.4	9.6
2008	16.9	17.9	17.4	8.9	10.6	9.7
2009	14.0	16.3	15.2	7.2	10.1	8.6
2010	14.3	17.3	15.8	6.5	11.0	8.8
2011	13.2	17.2	15.2	7.3	9.8	8.6
2012	13.4	17.3	15.3	5.4	11.0	8.2
2013	11.5	14.9	13.2	6.0	9.0	7.5
2014	13.6	13.5	13.6	7.6	9.1	8.3
2015	13.6	16.5	15.0	7.2	11.4	9.3
2016	15.3	15.7	15.5	6.9	9.9	8.4
2017	11.2	15.6	13.4	7.9	9.9	8.9
Average	**14.6**	**17.3**	**16.0**	**7.5**	**11.0**	**9.3**

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

Respondents who reported having ever been diagnosed with asthma were asked how often, in the last 4 weeks, their asthma interfered with their daily activities. Of those who had been diagnosed with asthma, approximately one in four (25.1%) said that during the past four weeks their asthma interfered with their daily activities some, all or most of the time. The prevalence of asthma interference is shown in Table 22.

Table 22: Prevalence of asthma interfering with daily activities in the last 4 weeks, 16 years & over, HWSS 2017

	All or most of the time		Some of the time		None of the time	
	%	95% CI	%	95% CI	%	95% CI
16 to 44 yrs						
Males	N/A	(N/A - N/A)	22.5 *	(1.9 - 43.0)	76.0	(55.3 - 96.7)
Females	N/A	(N/A - N/A)	27.1 *	(11.1 - 43.2)	72.3	(56.3 - 88.4)
Persons	N/A	(N/A - N/A)	24.9 *	(12.0 - 37.9)	74.1	(61.1 - 87.0)
45 to 64 yrs						
Males	N/A	(N/A - N/A)	17.1 *	(4.9 - 29.3)	79.7	(67.2 - 92.2)
Females	N/A	(N/A - N/A)	22.0	(14.6 - 29.5)	75.7	(68.1 - 83.4)
Persons	2.6 *	(0.4 - 4.7)	20.4	(13.9 - 26.8)	77.1	(70.5 - 83.7)
65 yrs & over						
Males	6.2 *	(0.5 - 12.0)	15.6 *	(7.5 - 23.7)	78.1	(68.8 - 87.5)
Females	5.7 *	(1.9 - 9.6)	22.5	(15.8 - 29.1)	71.8	(64.6 - 79.0)
Persons	5.9 *	(2.7 - 9.2)	19.8	(14.6 - 24.9)	74.3	(68.6 - 80.0)
Total						
Males	2.5 *	(0.5 - 4.5)	20.4	(6.8 - 33.9)	77.1	(63.4 - 90.8)
Females	N/A *	(N/A - N/A)	24.8 *	(15.8 - 33.9)	73.3	(64.3 - 82.4)
Persons	2.1 *	(1.0 - 3.2)	23.0	(15.2 - 30.7)	74.9	(67.1 - 82.8)

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

7.7 Respiratory condition other than asthma

Respondents were asked whether a doctor had told them they had a respiratory problem other than asthma, such as chronic bronchitis, emphysema, or chronic lung disease that lasted six months or more.

The prevalence of respiratory conditions in WA adults is shown in Table 23. The lifetime prevalence of respiratory conditions other than asthma was significantly higher in those aged 65 years and older than in those aged 16 to 44 years and 45 to 64 years (7.0% compared with 1.2% and 2.7%). The current prevalence of respiratory conditions other than asthma was significantly higher in those aged 65 years and older than in those aged 45 to 64 years (5.7% compared with 2.1%).

Table 23: Prevalence of respiratory conditions other than asthma, 16 years & over, HWSS 2017

	Lifetime (a)		Point (b)	
	%	95% CI	%	95% CI
16 to 44 yrs				
Males	N/A	(N/A - N/A)	N/A	(N/A - N/A)
Females	N/A	(N/A - N/A)	N/A	(N/A - N/A)
Persons	1.2	* (0.1 - 2.2)	N/A	(N/A - N/A)
45 to 64 yrs				
Males	2.8	(1.5 - 4.1)	2.4	* (1.1 - 3.7)
Females	2.5	(1.6 - 3.4)	1.8	(1.0 - 2.6)
Persons	2.7	(1.9 - 3.5)	2.1	(1.4 - 2.8)
65 yrs & over				
Males	7.6	(5.9 - 9.2)	6.5	(4.9 - 8.0)
Females	6.5	(5.2 - 7.8)	5.1	(3.9 - 6.3)
Persons	7.0	(6.0 - 8.0)	5.7	(4.8 - 6.7)
Total				
Males	2.9	(1.8 - 4.1)	2.5	(1.4 - 3.5)
Females	2.3	(1.7 - 2.9)	1.6	(1.2 - 2.0)
Persons	2.6	(2.0 - 3.3)	2.0	(1.4 - 2.6)

(a) People who reported they were told by a doctor or nurse that they have a respiratory condition other than asthma that lasted 6 months or more, such as bronchitis, emphysema or chronic lung disease (ever).
(b) People who reported they had a respiratory condition other than asthma that lasted 6 months or more that is still present.
* Prevalence estimate has a RSE between 25%-50% and should be used with caution.
N/A Prevalence estimate has a RSE greater than 50% and is considered too unreliable for general use.

The standardised annual prevalence estimates of a respiratory condition other than asthma for adults aged 16 years and over for 2007 to 2017 are shown in Table 24. Due to changes in the way the question was asked, the respiratory condition information is only comparable from 2007. The lifetime and point prevalence of respiratory conditions remained unchanged from 2007 to 2017.

Table 24: Prevalence of respiratory conditions other than asthma over time, 16 years & over, HWSS 2007–17

	Lifetime (a)			Point (b)		
	Males	Females	Persons	Males	Females	Persons
2007	3.6	3.2	3.4	2.6	1.8	2.2
2008	3.7	3.4	3.6	2.4	2.2	2.3
2009	3.9	3.0	3.4	2.5	1.7	2.1
2010	2.6	3.3	3.0	1.7	1.9	1.8
2011	3.8	3.3	3.5	2.7	1.9	2.3
2012	2.5	2.6	2.5	1.9	1.6	1.7
2013	3.9	2.6	3.3	2.6	1.6	2.1
2014	2.8	3.2	3.0	1.8	1.8	1.8
2015	3.2	3.1	3.2	2.3	1.8	2.0
2016	2.5	3.3	2.9	1.7	2.3	2.0
2017	2.8	2.2	2.5	2.3	1.5	1.9
Average	**3.2**	**3.1**	**3.1**	**2.2**	**1.9**	**2.0**

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

7.8 Mental health

Mental health problems encompass a wide range of conditions that vary widely in severity and duration. People with a mental health problem are at an increased risk of experiencing other disorders, including physical disorders, epilepsy and diabetes.[27]

Respondents were asked whether or not a doctor had diagnosed them with a number of common mental health conditions during the past 12 months. The population prevalence of each condition is shown in Table 25.

Table 25: Prevalence of mental health conditions, 16 years & over, HWSS 2017

	Anxiety		Depression		Stress-related problem		Other mental health condition	
	%	95% CI	%	95% CI	%	95% CI	%	95% CI
16 to 44 yrs								
Males	8.2	*(2.8 - 13.5)	6.1	*(2.4 - 9.7)	8.4	*(2.8 - 14.0)	1.8	*(0.2 - 3.4)
Females	15.9	(9.6 - 22.3)	16.2	(9.6 - 22.7)	14.7	(8.8 - 20.7)	9.4	*(3.2 - 15.5)
Persons	12.0	(7.8 - 16.1)	11.0	(7.2 - 14.8)	11.5	(7.4 - 15.5)	5.5	*(2.3 - 8.7)
45 to 64 yrs								
Males	5.9	(3.9 - 7.8)	7.7	(5.4 - 10.0)	9.1	(6.5 - 11.7)	1.5	*(0.6 - 2.5)
Females	8.9	(6.9 - 10.8)	10.9	(8.5 - 13.3)	12.1	(9.8 - 14.4)	1.5	(0.8 - 2.2)
Persons	7.4	(6.0 - 8.8)	9.3	(7.6 - 11.0)	10.6	(8.9 - 12.3)	1.5	(0.9 - 2.1)
65 yrs & over								
Males	3.2	(2.1 - 4.3)	5.1	(3.7 - 6.5)	3.7	(2.5 - 4.9)	0.6	*(0.2 - 1.1)
Females	6.7	(5.3 - 8.1)	5.2	(4.0 - 6.3)	6.6	(5.3 - 8.0)	1.2	*(0.6 - 1.8)
Persons	5.0	(4.1 - 5.9)	5.2	(4.3 - 6.1)	5.3	(4.3 - 6.2)	0.9	(0.5 - 1.3)
Total								
Males	6.7	(3.7 - 9.6)	6.4	(4.3 - 8.5)	7.8	(4.7 - 10.9)	1.6	*(0.7 - 2.5)
Females	12.1	(8.8 - 15.4)	12.6	(9.1 - 16.1)	12.5	(9.3 - 15.6)	5.5	*(2.2 - 8.7)
Persons	9.4	(7.1 - 11.6)	9.5	(7.4 - 11.6)	10.1	(7.9 - 12.3)	3.5	(1.8 - 5.2)

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

Adults aged 16 to 44 years and 45 to 64 years had a significantly higher prevalence of anxiety, depression and stress-related problems diagnosed within the last 12 months compared with adults aged 65 years and over.

Respondents were also asked whether they were currently receiving treatment for a mental health condition. The prevalence of adults with any mental health condition as well as those currently receiving treatment is shown in Table 26.

Table 26: Current mental health status, 16 years & over, HWSS 2017

	Any mental health condition (a)		Any condition currently receiving treatment for (b)	
	%	95% CI	%	95% CI
16 to 44 yrs				
Males	12.8	(6.9 - 18.8)	7.8	* (3.6 - 12.1)
Females	28.2	(20.4 - 36.1)	14.7	(8.5 - 21.0)
Persons	20.4	(15.4 - 25.4)	11.2	(7.4 - 15.0)
45 to 64 yrs				
Males	13.2	(10.3 - 16.1)	7.5	(5.3 - 9.8)
Females	17.9	(15.1 - 20.7)	10.8	(8.5 - 13.1)
Persons	15.5	(13.5 - 17.6)	9.2	(7.5 - 10.8)
65 yrs & over				
Males	8.3	(6.5 - 10.0)	4.8	(3.5 - 6.2)
Females	12.6	(10.8 - 14.4)	6.8	(5.5 - 8.2)
Persons	10.6	(9.3 - 11.8)	5.9	(4.9 - 6.9)
Total				
Males	12.2	(8.9 - 15.5)	7.3	(4.9 - 9.6)
Females	22.2	(18.0 - 26.4)	12.1	(8.8 - 15.4)
Persons	17.2	(14.5 - 19.9)	9.7	(7.6 - 11.7)

(a) People who reported that they had been diagnosed with a mental health condition in the previous 12 months
(b) People who reported that they are currently receiving treatment for a mental health condition.
* Prevalence estimate has a RSE between 25%-50% and should be used with caution.

In 2017, 349,884 WA adults (17.2%) had been diagnosed with a mental health condition during the last 12 months, while one in ten (9.7%) were currently receiving treatment for a mental health condition.

A significantly lower proportion of adults aged 65 years and over had been diagnosed with a mental health condition in the last 12 months compared with those aged 16 to 44 years and 45 to 64 years (10.6% compared with 20.4% and 15.5%, respectively).

The standardised annual prevalence estimates for a current mental health condition for adults aged 16 years and over from 2002 to 2017 are shown in Table 27. Compared with 2002, the prevalence of all persons and females with a current mental health condition was significantly higher in 2017.

Table 27: Prevalence of current mental health condition over time, 16 years & over, HWSS 2002–17

	Males	Females	Persons
2002	9.6	15.6	12.6
2003	10.6	18.2	14.4
2004	10.0	16.5	13.2
2005	-	-	-
2006	8.1	15.9	12.0
2007	10.7	15.8	13.3
2008	9.1	17.5	13.3
2009	10.7	16.8	13.7
2010	11.3	18.2	14.8
2011	10.7	18.3	14.4
2012	12.5	16.1	14.3
2013	11.4	19.2	15.3
2014	11.6	16.1	13.8
2015	10.3	17.3	13.8
2016	11.7	20.3	16.0
2017	12.2	22.1	17.1
Average	**10.4**	**17.2**	**13.8**

- This information is not available for 2005

8. LIFESTYLE BEHAVIOURS

There are many factors that influence a person's health, including genetics, lifestyle, environmental and social factors. These factors may have a positive effect on health, such as a consumption of sufficient fruit and vegetables, or a negative effect, such as smoking and physical inactivity.[28] Modifiable lifestyle behaviours are also associated with the onset of physiological risk factors, such as high cholesterol, high blood pressure and obesity.

8.1 Smoking

Smoking increases the risk of a number of health conditions, including respiratory disease, coronary heart disease, stroke and several types of cancer, such as lung and mouth cancers.[29] Respondents were asked their smoking status, including cigarettes, cigars and pipes and whether or not people smoke in their home.

Smoking status for Western Australian adults in 2017 is shown in Table 28. Females were significantly more likely than males to report having never smoked (59.2% compared with 45.3%). Persons aged 16 to 44 years and 45 to 65 years were significantly more likely than persons aged 65 years and over to report smoking daily (10.0% and 11.2% compared with 3.9%). However, the proportion of adults reporting that they used to smoke, but do not now, increased significantly with age.

Table 28: Current smoking status, 16 years & over, HWSS 2017

	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
16 to 44 yrs										
Males	12.0	(6.4 - 17.6)	4.0	*(0.5 - 7.5)	23.2	(15.5 - 30.9)	9.2	*(4.3 - 14.0)	51.7	(43.0 - 60.3)
Females	8.0	*(4.0 - 12.1)	2.0	*(0.4 - 3.6)	16.7	(11.5 - 21.9)	6.5	*(2.4 - 10.7)	66.8	(59.5 - 74.1)
Persons	10.0	(6.6 - 13.5)	3.0	*(1.0 - 5.0)	20.0	(15.3 - 24.8)	7.9	(4.7 - 11.1)	59.1	(53.2 - 64.9)
45 to 64 yrs										
Males	13.7	(10.6 - 16.7)	2.4	(1.3 - 3.5)	37.0	(32.7 - 41.3)	6.5	(4.1 - 8.8)	40.4	(36.0 - 44.9)
Females	8.7	(6.9 - 10.6)	1.5	*(0.7 - 2.3)	35.8	(32.5 - 39.2)	6.5	(4.7 - 8.3)	47.4	(43.9 - 50.9)
Persons	11.2	(9.4 - 13.0)	2.0	(1.3 - 2.6)	36.4	(33.7 - 39.1)	6.5	(5.0 - 8.0)	43.9	(41.1 - 46.8)
65 yrs & over										
Males	4.3	(3.2 - 5.5)	0.6	*(0.2 - 1.0)	56.5	(53.2 - 59.7)	5.1	(3.8 - 6.4)	33.5	(30.4 - 36.6)
Females	3.5	(2.5 - 4.5)	0.6	*(0.2 - 1.0)	31.1	(28.5 - 33.6)	6.7	(5.3 - 8.1)	58.2	(55.5 - 60.9)
Persons	3.9	(3.1 - 4.6)	0.6	(0.3 - 0.9)	43.1	(41.0 - 45.2)	5.9	(5.0 - 6.9)	46.5	(44.4 - 48.6)
Total										
Males	11.3	(8.1 - 14.4)	3.0	*(1.1 - 4.9)	32.8	(28.5 - 37.2)	7.7	(5.0 - 10.4)	45.3	(40.4 - 50.1)
Females	7.4	(5.3 - 9.6)	1.6	*(0.7 - 2.4)	25.2	(22.1 - 28.3)	6.6	(4.3 - 8.8)	59.2	(55.2 - 63.3)
Persons	9.3	(7.4 - 11.2)	2.3	(1.2 - 3.3)	29.0	(26.3 - 31.7)	7.1	(5.4 - 8.9)	52.3	(49.0 - 55.5)

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

Current smoking status was re-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.[30] 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 having never smoked regularly (Table 29).

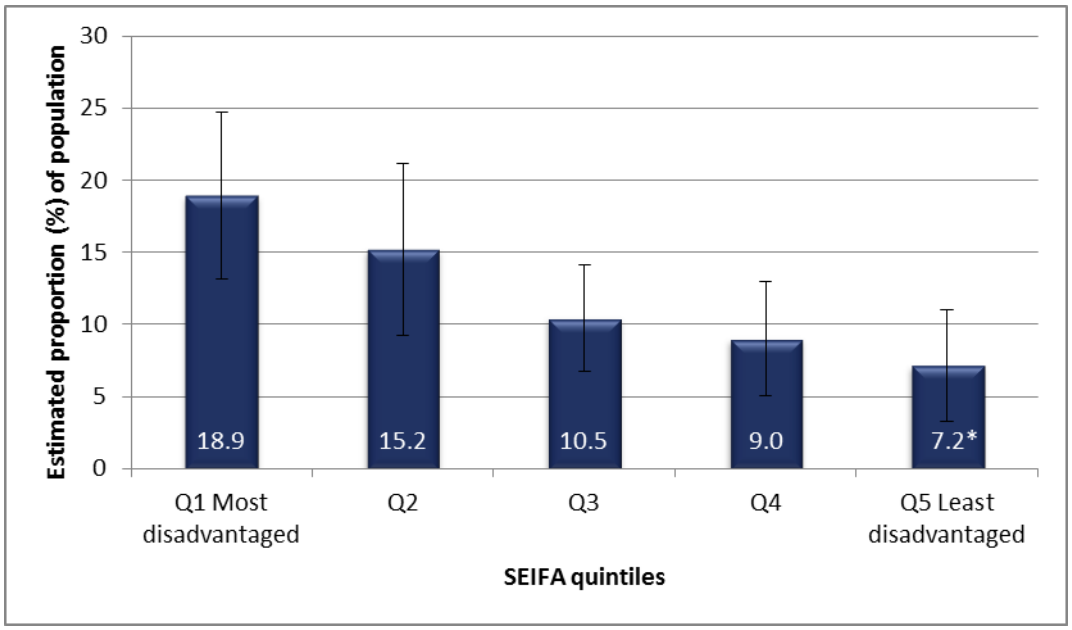
Table 29: Lifetime smoking status, 16 years & over, HWSS 2017

	Current Smoker		Ex-smoker		Never smoked or never smoked regularly	
	%	95% CI	%	95% CI	%	95% CI
16 to 44 yrs						
Males	15.9	(9.6 - 22.3)	19.6	(12.6 - 26.6)	64.5	(56.1 - 72.8)
Females	10.0	(5.7 - 14.3)	13.4	(8.9 - 18.0)	76.6	(70.5 - 82.7)
Persons	13.0	(9.1 - 16.9)	16.6	(12.3 - 20.8)	70.4	(65.1 - 75.7)
45 to 64 yrs						
Males	16.1	(12.9 - 19.2)	37.3	(33.0 - 41.5)	46.6	(42.1 - 51.1)
Females	10.2	(8.3 - 12.2)	33.5	(30.3 - 36.7)	56.3	(52.9 - 59.7)
Persons	13.2	(11.3 - 15.0)	35.4	(32.7 - 38.0)	51.5	(48.7 - 54.3)
65 yrs & over						
Males	4.9	(3.7 - 6.2)	55.7	(52.5 - 58.9)	39.3	(36.1 - 42.5)
Females	4.1	(3.0 - 5.1)	29.6	(27.1 - 32.1)	66.3	(63.8 - 68.9)
Persons	4.5	(3.7 - 5.3)	41.9	(39.8 - 44.0)	53.6	(51.5 - 55.7)
Total						
Males	14.2	(10.7 - 17.7)	30.9	(26.8 - 35.0)	54.9	(50.2 - 59.7)
Females	9.0	(6.7 - 11.3)	22.5	(19.7 - 25.3)	68.5	(64.9 - 72.0)
Persons	11.6	(9.5 - 13.7)	26.7	(24.2 - 29.2)	61.7	(58.7 - 64.7)

Persons aged 65 years and over were significantly less likely to be current smokers compared with people aged 16 to 44 years and 45 to 64 years (4.5% compared with 13.0% and 13.2%). Persons aged 16 to 44 years were significantly more likely to have never smoked or never smoked regularly compared with people aged 45 to 64 years and 65 years and over (70.4% compared with 51.5% and 53.6%).

Figure 8 shows the proportion of current smokers in WA by SEIFA quintile. The prevalence of current smoking was significantly higher in the most disadvantaged areas of WA (quintile 1) compared with the least disadvantaged (quintile 5) (18.9% compared with 7.2%).

Figure 8: Proportion of current smokers, 16 years & over, by SEIFA quintile in WA, HWSS 2017



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

Respondents were asked whether or not their home was smoke free or if people occasionally or frequently smoke in their home. The majority (96.2%) of Western Australians live in a smoke free home (Table 30).

Table 30: Smoking within the home, 16 years & over, HWSS 2017

	Never		Occasionally		Frequently	
	%	95% CI	%	95% CI	%	95% CI
16 to 44 yrs						
Males	94.8	(90.4 - 99.2)	1.0 *	(0.0 - 1.9)	N/A	(N/A - N/A)
Females	96.7	(94.1 - 99.3)	N/A	(N/A - N/A)	1.1 *	(0.0 - 2.2)
Persons	95.8	(93.2 - 98.3)	1.6 *	(0.3 - 2.8)	2.7 *	(0.4 - 5.0)
45 to 64 yrs						
Males	94.8	(93.1 - 96.6)	2.6	(1.3 - 3.9)	2.6	(1.3 - 3.8)
Females	97.0	(96.0 - 98.1)	0.9 *	(0.4 - 1.3)	2.1	(1.1 - 3.1)
Persons	95.9	(94.9 - 96.9)	1.7	(1.1 - 2.4)	2.3	(1.6 - 3.1)
65 yrs & over						
Males	97.0	(96.1 - 97.9)	1.1	(0.6 - 1.7)	1.9	(1.1 - 2.6)
Females	98.9	(98.5 - 99.4)	0.4 *	(0.1 - 0.6)	0.7 *	(0.3 - 1.1)
Persons	98.0	(97.5 - 98.5)	0.7	(0.4 - 1.0)	1.3	(0.9 - 1.7)
Total						
Males	95.2	(92.8 - 97.6)	1.5	(0.9 - 2.2)	3.3 *	(1.0 - 2.0)
Females	97.2	(95.8 - 98.6)	1.4 *	(0.2 - 2.7)	1.4	(0.7 - 2.0)
Persons	96.2	(94.8 - 97.6)	1.5	(0.8 - 2.2)	2.3 *	(1.1 - 3.6)

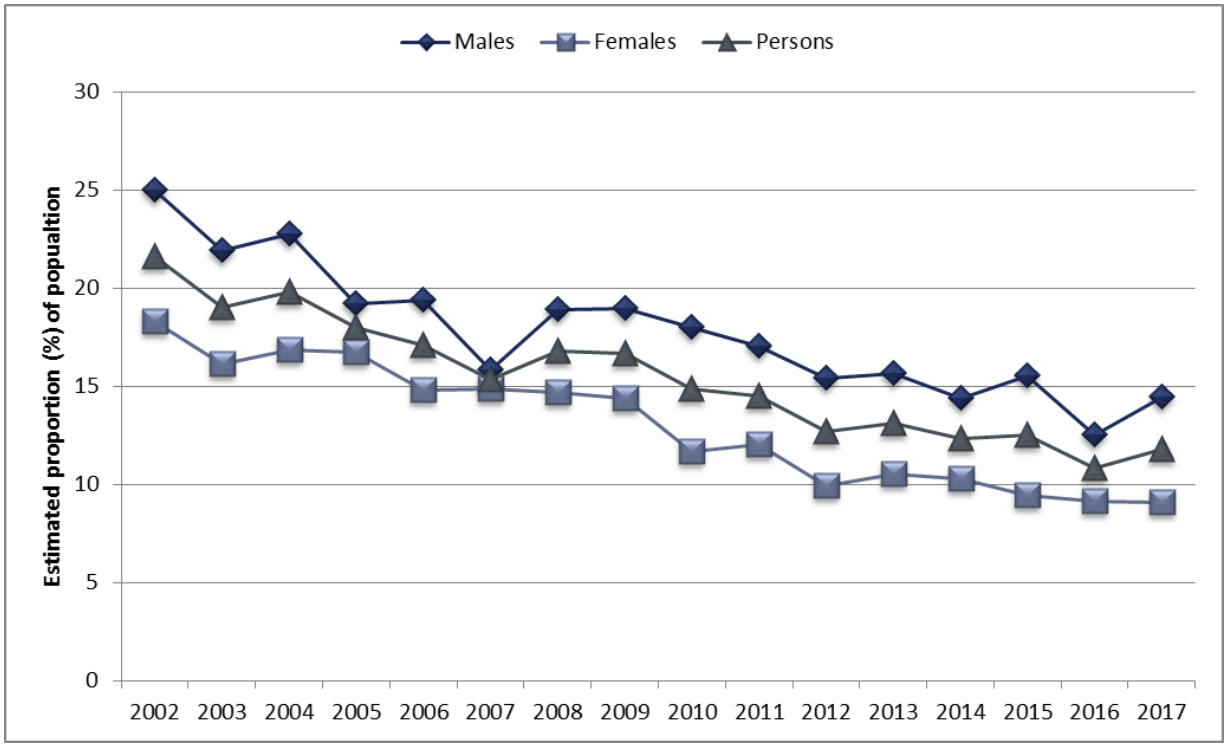
* Prevalence estimate has a RSE between 25%-50% and should be used with caution.
N/A Prevalence estimate has a RSE greater than 50% and is considered too unreliable for general use.

The standardised annual prevalence estimate of current smoking for adults aged 16 years and over continues to decline (Table 31 and Figure 9). For males, females and all persons, the prevalence estimate of current smokers has declined significantly between 2002 and 2017.

Table 31: Prevalence of current smokers over time, 16 years & over, HWSS 2002–17

	Males	Females	Persons
2002	25.0	18.3	21.6
2003	21.9	16.2	19.0
2004	22.7	16.9	19.8
2005	19.2	16.7	18.0
2006	19.4	14.8	17.1
2007	15.8	14.8	15.3
2008	18.9	14.7	16.8
2009	18.9	14.4	16.7
2010	18.0	11.7	14.9
2011	17.0	12.0	14.5
2012	15.4	9.9	12.7
2013	15.7	10.5	13.1
2014	14.4	10.3	12.3
2015	15.6	9.4	12.5
2016	12.5	9.1	10.8
2017	14.5	9.1	11.8
Average	**18.5**	**13.6**	**16.1**

Figure 9: Prevalence of current smokers over time, 16 years & over, HWSS 2002–17



8.2 Alcohol

Excessive alcohol consumption increases the risk of some health conditions, including coronary heart disease, stroke, high blood pressure, and liver and pancreatic disease. It also increases the risk of violence and anti-social behaviour, accidents and mental illness.[31] The current guidelines for the consumption of alcohol in Australia were developed by the National Health and Medical Research Council (NHMRC) in 2009.[32]

Respondents were asked about their alcohol drinking habits, including how many days a week they usually drink and how many drinks they usually have. The alcohol information was categorised into risk levels based on the 2009 guidelines, which categorises any drinking by adults aged less than 18 years as risky. The first risk is long-term harm over a lifetime of drinking (Table 32) and the second risk is short-term harm from injury due to a single occasion of drinking (Table 33).

Table 32: Risk of long-term alcohol related harm, 16 years & over, HWSS 2017

	Doesn't drink/ drinking level undetermined		Low risk (a)		High risk (b)	
	%	95% CI	%	95% CI	%	95% CI
16 to 44 yrs						
Males	31.3	(23.6 - 39.0)	24.1	(16.7 - 31.5)	44.5	(35.8 - 53.3)
Females	44.9	(36.8 - 53.1)	28.5	(21.5 - 35.5)	26.6	(18.5 - 34.7)
Persons	38.0	(32.3 - 43.7)	26.3	(21.2 - 31.3)	35.7	(29.7 - 41.7)
45 to 64 yrs						
Males	28.8	(24.8 - 32.8)	37.4	(33.0 - 41.8)	33.7	(29.5 - 37.9)
Females	38.7	(35.3 - 42.1)	45.4	(41.9 - 48.9)	15.9	(13.4 - 18.4)
Persons	33.8	(31.1 - 36.4)	41.4	(38.6 - 44.2)	24.8	(22.3 - 27.3)
65 yrs & over						
Males	30.8	(27.8 - 33.8)	49.3	(46.1 - 52.6)	19.9	(17.3 - 22.4)
Females	52.0	(49.3 - 54.7)	43.8	(41.1 - 46.6)	4.2	(3.1 - 5.2)
Persons	42.0	(39.9 - 44.0)	46.4	(44.3 - 48.5)	11.6	(10.2 - 13.0)
Total						
Males	30.5	(26.2 - 34.8)	32.3	(28.0 - 36.6)	37.2	(32.3 - 42.2)
Females	44.3	(40.0 - 48.6)	36.5	(32.6 - 40.4)	19.3	(14.9 - 23.6)
Persons	37.4	(34.3 - 40.5)	34.4	(31.5 - 37.3)	28.2	(24.9 - 31.6)

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

Approximately one-third of people aged 16 to 44 years (35.7%) drink at levels considered to be high risk for long-term harm. Males were significantly more likely than females to report drinking at levels considered high risk for long-term harm (37.2% compared with 19.3%). The proportion of adults drinking at high risk levels for long-term harm decreased significantly with age (Table 32).

The prevalence of the population drinking at levels considered high risk for short-term harm decreased significantly with age. Overall, males were significantly more likely than females to report drinking at levels considered high risk for short-term alcohol-related harm (20.3% compared with 4.6%) (Table 33).

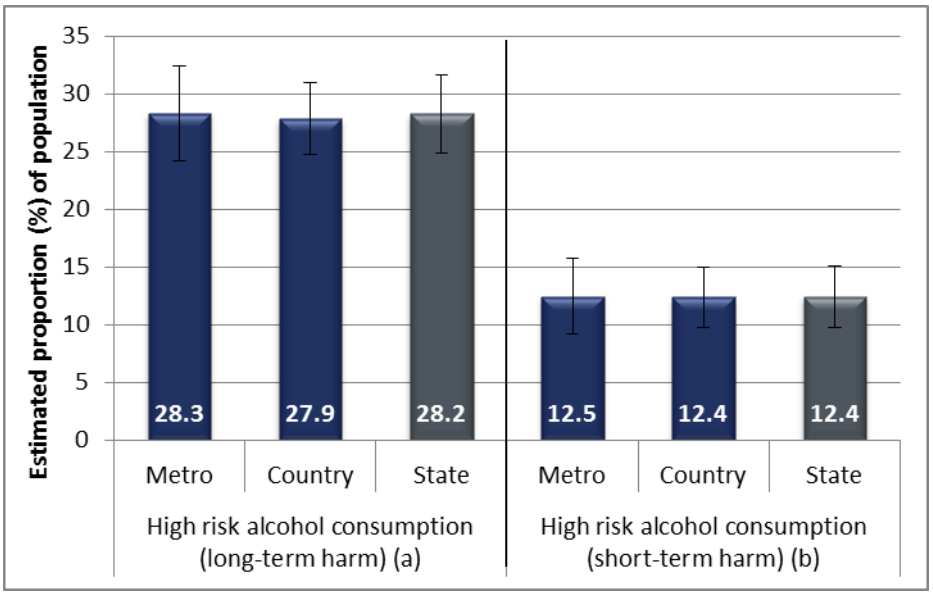
Table 33: Risk of short-term alcohol related harm, 16 years & over, HWSS 2017

	Doesn't drink/ drinking level undetermined		Low risk (a)		High risk (b)	
	%	95% CI	%	95% CI	%	95% CI
16 to 44 yrs						
Males	31.3	(23.6 - 39.0)	38.8	(30.4 - 47.3)	29.8	(21.5 - 38.1)
Females	44.9	(36.8 - 53.1)	47.4	(39.1 - 55.7)	7.7	(4.2 - 11.2)
Persons	38.0	(32.3 - 43.7)	43.0	(37.0 - 49.0)	19.0	(14.1 - 23.8)
45 to 64 yrs						
Males	28.8	(24.8 - 32.8)	59.2	(54.8 - 63.5)	12.0	(9.0 - 15.0)
Females	38.7	(35.3 - 42.1)	59.2	(55.8 - 62.7)	2.1	(1.2 - 2.9)
Persons	33.8	(31.1 - 36.4)	59.2	(56.4 - 62.0)	7.0	(5.4 - 8.6)
65 yrs & over						
Males	30.8	(27.8 - 33.8)	64.6	(61.5 - 67.7)	4.6	(3.3 - 5.9)
Females	52.0	(49.3 - 54.7)	47.7	(44.9 - 50.4)	0.3	*(0.1 - 0.6)
Persons	42.0	(39.9 - 44.0)	55.7	(53.6 - 57.8)	2.3	(1.7 - 3.0)
Total						
Males	30.5	(26.2 - 34.8)	49.3	(44.4 - 54.1)	20.3	(15.6 - 25.0)
Females	44.3	(40.0 - 48.6)	51.1	(46.7 - 55.5)	4.6	(2.8 - 6.4)
Persons	37.4	(34.3 - 40.5)	50.2	(46.9 - 53.4)	12.4	(9.8 - 15.1)

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

Figure 10 shows the prevalence of high risk alcohol consumption for long-term and short-term harm in WA by geographic area of residence. The prevalence of high risk consumption was no different in country areas when compared with the metro areas.

Figure 10: Prevalence of high risk alcohol consumption for long-term and short-term harm, 16 years & over, by geographic area of residence in WA, HWSS 2017



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

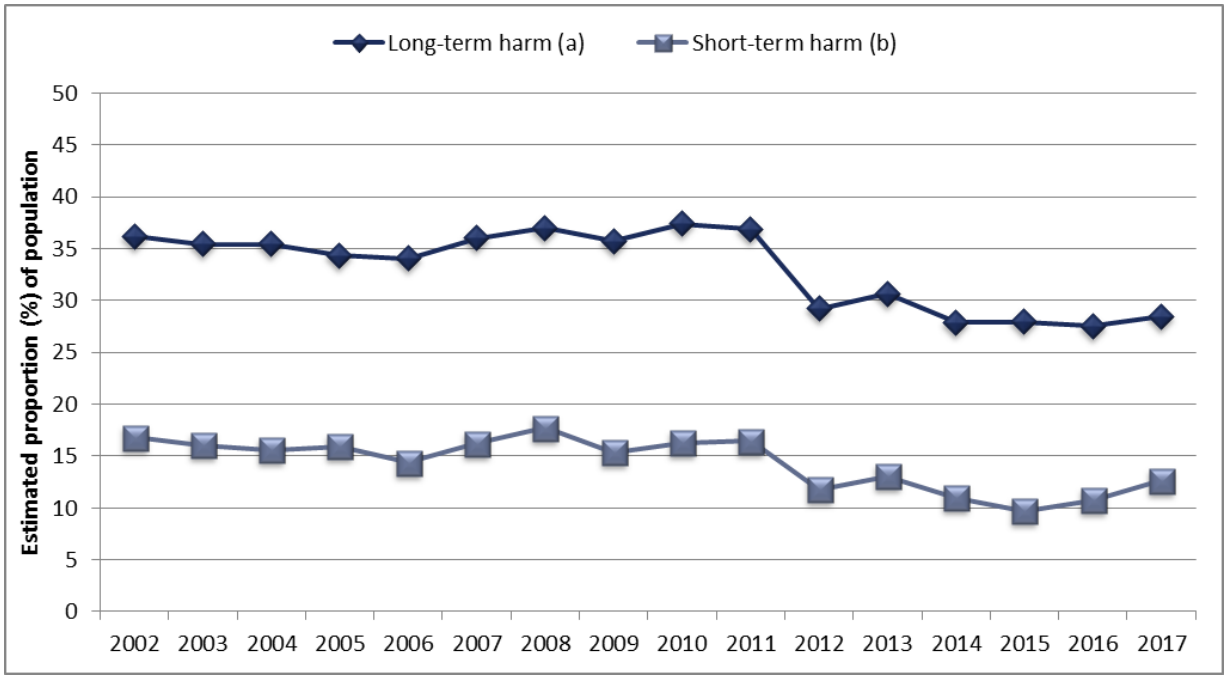
The standardised annual prevalence estimates of high risk long-term and short-term alcohol-related harm for Western Australian adults aged 16 years and over are shown in Table 34 and Figure 11. The prevalence of all persons drinking at levels associated with short-term harm was significantly lower in 2017 compared with 2002. The prevalence of all persons drinking at levels associated with long-term harm was also significantly lower in 2017 compared with 2002.

Table 34: Prevalence of high risk alcohol consumption for long-term and short-term harm over time, 16 years & over, HWSS 2002–17

	Risk of long-term harm (a)			Risk of short-term harm (b)		
	Males	Females	Persons	Males	Females	Persons
2002	49.6	22.6	36.2	25.1	8.5	16.8
2003	46.8	23.9	35.4	23.7	8.3	16.0
2004	47.8	22.9	35.4	24.6	6.6	15.6
2005	46.8	21.8	34.3	23.4	8.5	15.9
2006	45.1	22.8	34.0	21.2	7.5	14.4
2007	48.0	23.9	36.0	22.2	10.3	16.2
2008	48.0	25.9	37.0	24.8	10.6	17.7
2009	46.9	24.4	35.7	21.8	8.9	15.3
2010	49.1	25.5	37.4	24.3	8.2	16.3
2011	48.2	25.4	36.8	22.6	10.3	16.4
2012	39.7	18.6	29.2	17.6	5.9	11.8
2013	42.1	19.1	30.6	20.5	5.5	13.0
2014	37.0	18.7	27.9	15.4	6.6	11.0
2015	38.7	17.1	27.9	14.8	4.5	9.7
2016	37.6	17.5	27.5	16.1	5.3	10.7
2017	37.5	19.3	28.4	20.4	4.9	12.7
Average	**45.5**	**22.7**	**34.1**	**21.9**	**8.1**	**15.0**

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

Figure 11: Prevalence of high risk alcohol consumption for long-term and short-term harm over time, 16 years & over, HWSS 2002–17



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

8.3 Nutrition

Fruit and Vegetables

Diet has an important effect on health and can influence the risk of various diseases, including coronary heart disease, type 2 diabetes, stroke, some cancers and obesity.[33] The 2013 Australian Dietary Guidelines by the National Health and Medical Research Council (NHMRC) are presented in Table 35.

Respondents were asked to self-report how many serves of fruit they usually eat each day, where a serve of fruit is equal to one medium piece, two small pieces of fruit or a cup of diced fruit. They were also asked to self-report how many serves of vegetables they usually eat each day, where 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 will be rounded down to the nearest whole number (Table 35).

Table 35: 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

Table 36 shows the proportion of adults aged 16 years and over, by the number of serves of fruit they usually eat daily. Almost all adults (92.6%) ate some fruit each day while approximately half (49.6%) ate two or more serves of fruit daily.

Table 36: Serves of fruit consumed daily, 16 years & over, HWSS 2017

	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
16 to 44 yrs								
Males	8.9	(4.6 - 13.2)	9.4 *	(4.7 - 14.1)	39.0	(30.3 - 47.6)	42.7	(34.2 - 51.3)
Females	8.5 *	(3.8 - 13.2)	7.5 *	(3.2 - 11.9)	35.0	(27.5 - 42.5)	49.0	(40.7 - 57.3)
Persons	8.7	(5.6 - 11.9)	8.5	(5.3 - 11.7)	37.0	(31.2 - 42.8)	45.8	(39.8 - 51.8)
45 to 64 yrs								
Males	8.0	(5.5 - 10.5)	11.9	(8.9 - 14.9)	31.8	(27.8 - 35.9)	48.3	(43.8 - 52.8)
Females	5.4	(4.0 - 6.8)	9.2	(7.3 - 11.1)	32.1	(28.8 - 35.3)	53.4	(49.9 - 56.8)
Persons	6.7	(5.3 - 8.1)	10.5	(8.8 - 12.3)	31.9	(29.3 - 34.6)	50.8	(48.0 - 53.7)
65 yrs & over								
Males	4.6	(3.3 - 5.9)	8.7	(7.0 - 10.5)	32.4	(29.3 - 35.4)	54.3	(51.1 - 57.5)
Females	4.6	(3.5 - 5.7)	6.2	(4.9 - 7.6)	25.8	(23.4 - 28.3)	63.4	(60.7 - 66.0)
Persons	4.6	(3.7 - 5.4)	7.4	(6.3 - 8.5)	28.9	(27.0 - 30.9)	59.1	(57.0 - 61.2)
Total								
Males	7.9	(5.5 - 10.3)	10.1	(7.4 - 12.8)	35.7	(30.9 - 40.5)	46.3	(41.5 - 51.1)
Females	6.9	(4.4 - 9.3)	7.8	(5.5 - 10.1)	32.4	(28.5 - 36.4)	52.9	(48.5 - 57.3)
Persons	7.4	(5.7 - 9.1)	8.9	(7.2 - 10.7)	34.1	(30.9 - 37.2)	49.6	(46.3 - 52.9)

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

Table 37 shows the proportion of adults aged 16 years and over, by the number of serves of vegetables they usually eat daily. Adults were most likely to eat one (20.8%), two (27.8%) or three (22.8%) serves of vegetables daily.

Table 37: Serves of vegetables consumed daily, 16 years & over, HWSS 2017

	Doesn't eat vegetables		Eats less than one serve of vegetables daily		Eats one serve of vegetables daily		Eats two serves of vegetables daily		Eats three serves of vegetables daily		Eats four serves of vegetables daily		Eats five or more serves of vegetables daily	
	%	95% CI	%	95% CI	%	95% CI	%	95% CI	%	95% CI	%	95% CI	%	95% CI
16 to 44 yrs														
Males	N/A	(N/A- N/A)	2.7 *	(0.7 - 4.6)	28.1	(20.0 - 36.2)	25.8	(18.5 - 33.2)	21.5	(14.2 - 28.7)	13.5	(7.3 - 19.8)	7.1 *	(3.1 - 11.1)
Females	N/A	(N/A- N/A)	N/A	(N/A- N/A)	20.8	(13.8 - 27.8)	31.2	(24.1 - 38.4)	18.8	(12.2 - 25.4)	15.6	(9.5 - 21.6)	11.4 *	(5.1 - 17.8)
Persons	0.8 *	(0.0 - 1.7)	2.2 *	(0.8 - 3.5)	24.6	(19.2 - 30.0)	28.5	(23.4 - 33.6)	20.2	(15.3 - 25.1)	14.5	(10.2 - 18.9)	9.2	(5.5 - 13.0)
45 to 64 yrs														
Males	0.9 *	(0.3 - 1.5)	0.9 *	(0.3 - 1.5)	22.6	(18.8 - 26.4)	31.2	(27.0 - 35.3)	23.5	(19.5 - 27.4)	12.6	(9.6 - 15.6)	8.3	(5.7 - 10.9)
Females	0.9 *	(0.1 - 1.7)	1.5 *	(0.8 - 2.3)	12.6	(10.2 - 14.9)	26.4	(23.2 - 29.5)	26.7	(23.6 - 29.9)	16.6	(14.1 - 19.2)	15.2	(12.9 - 17.6)
Persons	0.9 *	(0.4 - 1.4)	1.2	(0.7 - 1.7)	17.5	(15.3 - 19.8)	28.7	(26.1 - 31.3)	25.1	(22.6 - 27.6)	14.6	(12.7 - 16.6)	11.8	(10.1 - 13.6)
65 yrs & over														
Males	1.2 *	(0.5 - 1.9)	3.2	(2.2 - 4.3)	17.5	(15.0 - 19.9)	25.4	(22.6 - 28.2)	26.5	(23.6 - 29.5)	15.2	(12.9 - 17.6)	11.0	(8.9 - 13.0)
Females	1.1	(0.6 - 1.5)	1.8	(1.0 - 2.5)	13.3	(11.5 - 15.2)	22.3	(20.0 - 24.6)	27.3	(24.8 - 29.8)	18.5	(16.3 - 20.7)	15.7	(13.6 - 17.7)
Persons	1.1	(0.7 - 1.5)	2.5	(1.8 - 3.1)	15.3	(13.7 - 16.8)	23.8	(22.0 - 25.6)	26.9	(25.0 - 28.8)	17.0	(15.4 - 18.6)	13.5	(12.0 - 14.9)
Total														
Males	1.1 *	(0.3 - 1.9)	2.2	(1.2 - 3.3)	24.7	(20.2 - 29.3)	27.4	(23.2 - 31.6)	22.9	(18.8 - 27.0)	13.5	(10.0 - 17.0)	8.1	(5.8 - 10.4)
Females	0.7 *	(0.2 - 1.2)	1.7 *	(0.6 - 2.7)	16.9	(13.2 - 20.7)	28.1	(24.4 - 31.9)	22.8	(19.2 - 26.3)	16.4	(13.2 - 19.6)	13.4	(10.0 - 16.7)
Persons	0.9 *	(0.5 - 1.4)	1.9	(1.2 - 2.7)	20.8	(17.9 - 23.8)	27.8	(25.0 - 30.6)	22.8	(20.1 - 25.5)	15.0	(12.6 - 17.4)	10.7	(8.7 - 12.8)

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

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

The proportion of adults aged 16 years and over meeting the 2013 Australian Dietary Guidelines for fruit and vegetable consumption (rounded down to the nearest whole number) is shown in Table 38.

Table 38: Prevalence of sufficient daily fruit consumption and vegetable consumption, 16 years & over, HWSS 2017

	Sufficient daily fruit consumption		Sufficient daily vegetable consumption	
	%	95% CI	%	95% CI
16 to 44 yrs				
Males	42.7	(34.2 - 51.3)	N/A	(N/A - N/A)
Females	49.0	(40.7 - 57.3)	11.4 *	(5.1 - 17.8)
Persons	45.8	(39.8 - 51.8)	6.9 *	(3.4 - 10.4)
45 to 64 yrs				
Males	48.3	(43.8 - 52.8)	7.4	(4.9 - 9.9)
Females	53.4	(49.9 - 56.8)	15.2	(12.9 - 17.6)
Persons	50.8	(48.0 - 53.7)	11.3	(9.6 - 13.1)
65 yrs & over				
Males	54.3	(51.1 - 57.5)	11.0	(8.9 - 13.0)
Females	63.4	(60.7 - 66.0)	15.7	(13.6 - 17.7)
Persons	59.1	(57.0 - 61.2)	13.5	(12.0 - 14.9)
Total				
Males	46.3	(41.5 - 51.1)	5.4	(3.7 - 7.1)
Females	52.9	(48.5 - 57.3)	13.4	(10.0 - 16.7)
Persons	49.6	(46.3 - 52.9)	9.4	(7.5 - 11.3)

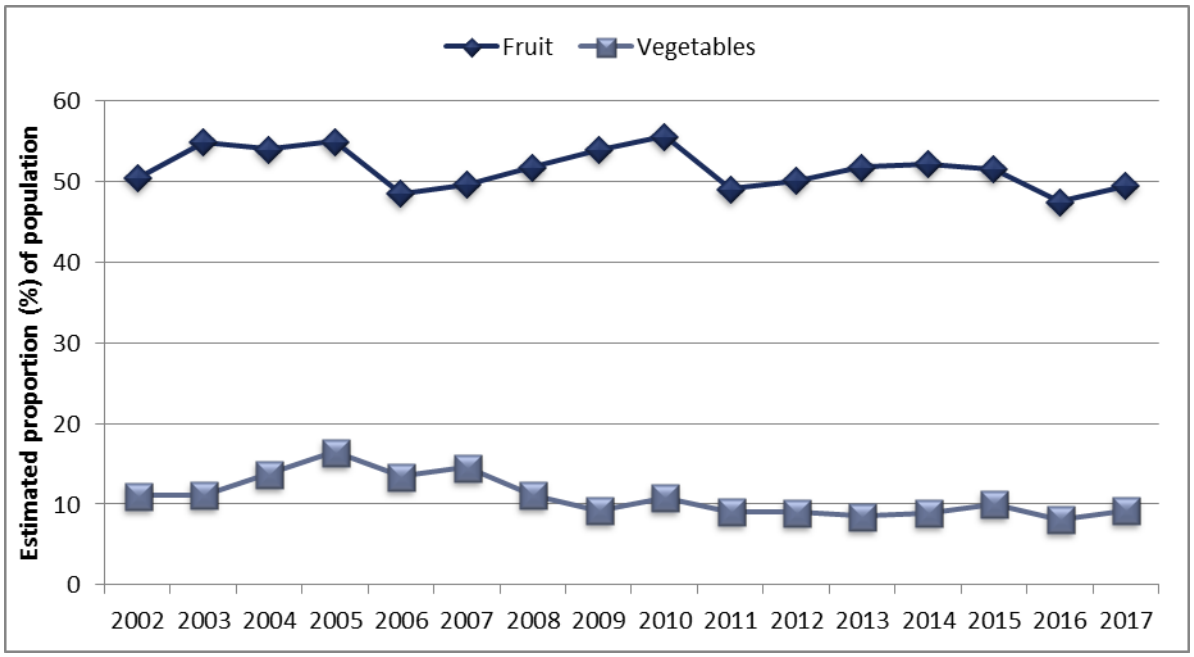
Note: See Table 35 for definitions of sufficient fruit and vegetable consumption.
* Prevalence estimate has a RSE between 25%-50% and should be used with caution.
N/A Prevalence estimate has a RSE greater than 50% and is considered too unreliable for general use.

It is estimated that approximately half (49.6%) of adults aged 16 years and over eat sufficient daily serves of fruit. Adults aged 65 years and over were significantly more likely to eat sufficient serves of fruit daily compared with those aged 16 to 44 and 45 to 64 years (59.1% compared with 45.8% and 50.8%).

Nearly one in ten (9.4%) Western Australians aged 16 years and over eat sufficient daily serves of vegetables. Females were significantly more likely to eat sufficient serves of vegetables compared with males (13.4% compared with 5.4%). Adults aged 16 to 44 were significantly less likely to eat sufficient serves of vegetables compared with adults aged 65 years and over (6.9% compared with 13.5%).

The standardised annual prevalence estimates for sufficient fruit and vegetables consumed daily for adults aged 16 years and over, based on the 2013 Australian Dietary Guidelines (rounded down to the nearest whole number) are shown in Figure 12. The prevalence of sufficient fruit consumption and sufficient vegetable consumption in 2017 is not significantly different to 2002.

Figure 12: Prevalence of sufficient fruit & vegetables consumption over time, 2013 Australian Dietary Guidelines for fruit and vegetable consumption, 16 years & over, HWSS 2002–17



Note: See Table 35 for definitions of sufficient fruit and vegetable consumption.

The mean serves of fruit and vegetables eaten daily from 2002 to 2017 are shown in Table 39. The mean serves of fruit eaten and mean serves of vegetables eaten by adults in 2017 is not significantly different from 2002.

Table 39: Mean serves of fruit and vegetables over time, 16 years & over, HWSS 2002–17

	Fruit			Vegetables		
	Males	Females	Persons	Males	Females	Persons
2002	1.6	1.8	1.7	2.5	2.9	2.7
2003	1.7	1.9	1.8	2.5	3.0	2.8
2004	1.7	1.9	1.8	2.7	3.1	2.9
2005	1.7	1.8	1.8	3.0	3.2	3.1
2006	1.5	1.7	1.6	2.8	3.1	3.0
2007	1.6	1.7	1.6	2.8	3.2	3.0
2008	1.6	1.8	1.7	2.6	3.0	2.8
2009	1.7	1.8	1.7	2.5	2.9	2.7
2010	1.7	1.8	1.8	2.6	3.0	2.8
2011	1.5	1.7	1.6	2.5	2.9	2.7
2012	1.6	1.7	1.7	2.4	2.9	2.6
2013	1.6	1.7	1.7	2.4	2.8	2.6
2014	1.6	1.8	1.7	2.5	2.8	2.7
2015	1.7	1.8	1.7	2.6	2.9	2.8
2016	1.5	1.6	1.6	2.5	2.8	2.6
2017	1.6	1.6	1.6	2.5	2.8	2.6
Average	**1.6**	**1.8**	**1.7**	**2.6**	**2.9**	**2.8**

Milk

Milk has various health benefits and is a good source of many nutrients including calcium, protein, vitamin A, vitamin D, vitamin B12 and zinc. The 2013 Australian Dietary Guidelines recommends the consumption of mostly reduced fat milk and/or alternatives to ensure that nutrition requirements are met within energy requirements.[33] Respondents were asked what type of milk they usually consume, shown in Table 40.

Table 40: Type of milk consumed, 16 years & over, HWSS 2017

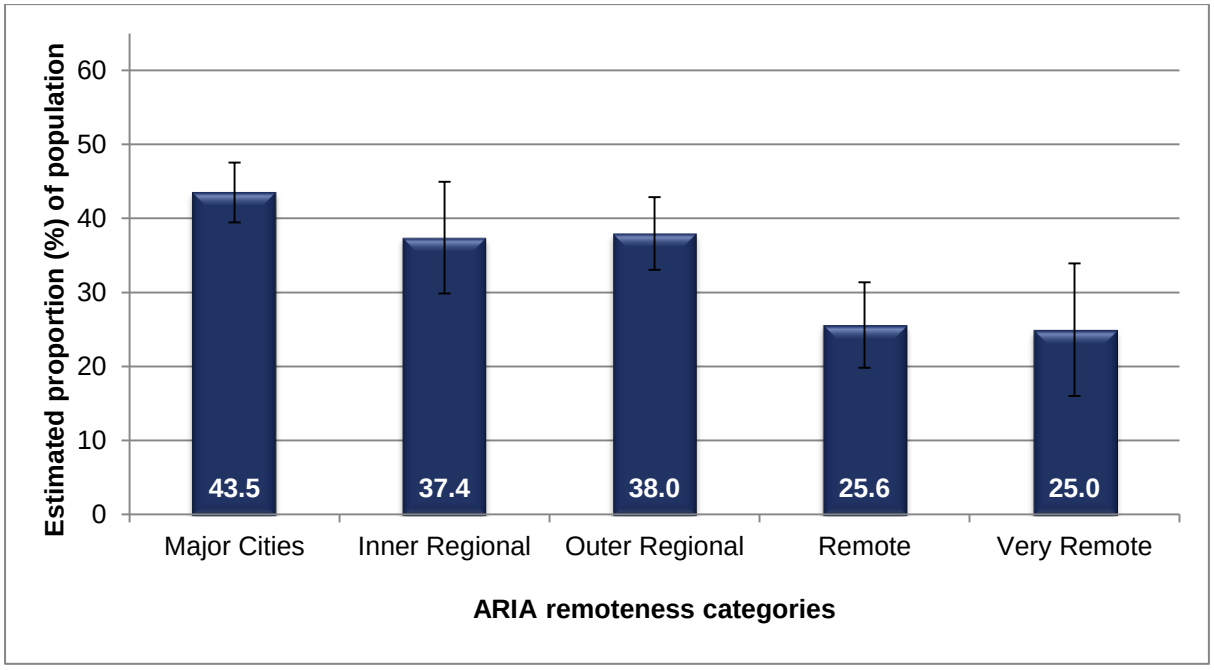
	Full fat/whole		Low/reduced fat/skim milk		Other		Don't use milk	
	%	95% CI	%	95% CI	%	95% CI	%	95% CI
16 to 44 yrs								
Males	54.2	(45.5 - 62.9)	32.9	(24.7 - 41.2)	6.6	* (2.8 - 10.3)	6.3	* (2.3 - 10.3)
Females	45.3	(37.0 - 53.7)	35.5	(27.8 - 43.2)	7.8	(4.1 - 11.5)	11.3	(6.3 - 16.4)
Persons	49.8	(43.8 - 55.8)	34.2	(28.6 - 39.8)	7.2	(4.5 - 9.8)	8.8	(5.6 - 12.0)
45 to 64 yrs								
Males	45.1	(40.7 - 49.5)	43.8	(39.3 - 48.3)	2.6	* (1.0 - 4.1)	8.6	(6.1 - 11.1)
Females	35.2	(31.8 - 38.5)	52.8	(49.4 - 56.3)	6.2	(4.6 - 7.8)	5.8	(4.3 - 7.3)
Persons	40.1	(37.4 - 42.9)	48.3	(45.5 - 51.2)	4.4	(3.3 - 5.5)	7.2	(5.7 - 8.6)
65 yrs & over								
Males	46.4	(43.1 - 49.6)	44.0	(40.7 - 47.2)	2.8	(1.8 - 3.9)	6.9	(5.3 - 8.5)
Females	36.0	(33.4 - 38.6)	53.9	(51.2 - 56.7)	3.9	(2.9 - 5.0)	6.1	(4.9 - 7.4)
Persons	40.9	(38.8 - 42.9)	49.2	(47.1 - 51.3)	3.4	(2.7 - 4.1)	6.5	(5.5 - 7.5)
Total								
Males	50.1	(45.3 - 55.0)	38.1	(33.5 - 42.7)	4.7	(2.7 - 6.8)	7.1	(4.8 - 9.4)
Females	40.5	(36.0 - 45.0)	44.2	(39.9 - 48.4)	6.6	(4.7 - 8.6)	8.7	(6.0 - 11.4)
Persons	45.3	(42.0 - 48.6)	41.1	(38.0 - 44.3)	5.7	(4.3 - 7.1)	7.9	(6.1 - 9.6)

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

Males were significantly more likely to report consuming full fat/whole milk compared with females (50.1% compared with 40.5%). Adults aged 16 to 44 years were less likely to report using low fat, reduced fat or skim milk compared with adults aged 45 to 64 years and 65 years and over (34.2% compared with 48.3% and 49.2%).

Figure 13 shows the consumption of low/ fat, reduced fat or skim milk in WA by ARIA. The proportion of adults in remote (25.6%) or very remote (25.0%) areas of WA consuming low fat, reduced fat or skim milk was significantly lower compared with areas classified as major cities (43.5%).

Figure 13: Low/reduced fat or skim milk consumption, 16 years & over, by ARIA in WA, HWSS 2017



Food security

Respondents were asked whether there was any time in the last 12 months when they had run out of food and could not afford to buy more (Table 41). In 2017, an estimated 76,850 people in WA ran out of food and could not afford to buy any more within the past 12 months. Those aged 16 to 44 years were significantly more likely to have experienced this compared with those aged 45 to 64 years and 65 years and over (5.9% compared with 1.7% and 0.9%).

Table 41: Ran out of food and could not afford to buy more, 16 years & over, HWSS 2017

	Yes		No	
	%	95% CI	%	95% CI
16 to 44 yrs				
Males	6.8	* (1.3 - 12.2)	93.2	(87.8 - 98.7)
Females	5.1	* (1.9 - 8.2)	94.9	(91.8 - 98.1)
Persons	5.9	* (2.7 - 9.1)	94.1	(90.9 - 97.3)
45 to 64 yrs				
Males	1.4	* (0.5 - 2.2)	98.6	(97.8 - 99.5)
Females	2.1	(1.2 - 2.9)	98.0	(97.1 - 98.8)
Persons	1.7	(1.1 - 2.3)	98.3	(97.7 - 98.9)
65 yrs & over				
Males	0.8	* (0.3 - 1.4)	99.2	(98.6 - 99.7)
Females	1.0	* (0.5 - 1.6)	99.0	(98.4 - 99.5)
Persons	0.9	(0.6 - 1.3)	99.1	(98.7 - 99.4)
Total				
Males	4.1	* (1.2 - 7.1)	95.9	(92.9 - 98.8)
Females	3.4	(1.8 - 5.1)	96.6	(94.9 - 98.2)
Persons	3.8	(2.1 - 5.5)	96.2	(94.5 - 97.9)

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

Fast food

Respondents were asked how many times a week on average they would eat fast food meals, such as burgers, pizza, chicken or chips from fast food outlets. The mean number of meals consumed from fast food outlets per week was 0.6 meals. Females consumed significantly fewer fast food meals per week than males (0.5 compared with 0.8).

The population prevalence of fast food consumption is shown in Table 42. Females were significantly more likely to never eat fast food meals than males (48.9% compared with 37.0%). The proportion of adults never eating from fast food outlets also increased significantly with age.

Table 42: Meals from fast food outlets per week, 16 years & over, HWSS 2017

	Never		Less than once a week		Once or twice a week		Three or more times per week	
	%	95% CI	%	95% CI	%	95% CI	%	95% CI
16 to 44 yrs								
Males	25.1	(18.0 - 32.2)	15.3	(10.0 - 20.5)	49.7	(41.0 - 58.4)	10.0 *	(3.5 - 16.4)
Females	39.2	(30.9 - 47.5)	23.1	(16.3 - 29.8)	36.1	(28.4 - 43.8)	N/A	(N/A - N/A)
Persons	32.0	(26.4 - 37.6)	19.1	(14.8 - 23.4)	43.0	(37.1 - 48.9)	5.9 *	(2.3 - 9.5)
45 to 64 yrs								
Males	46.1	(41.7 - 50.6)	23.7	(20.0 - 27.4)	28.5	(24.2 - 32.7)	1.7 *	(0.7 - 2.7)
Females	52.1	(48.6 - 55.6)	26.0	(22.9 - 29.0)	21.4	(18.4 - 24.4)	0.6 *	(0.1 - 1.0)
Persons	49.1	(46.3 - 51.9)	24.9	(22.5 - 27.2)	24.9	(22.3 - 27.5)	1.1	(0.6 - 1.7)
65 yrs & over								
Males	59.0	(55.8 - 62.2)	27.6	(24.7 - 30.5)	13.2	(11.0 - 15.5)	N/A	(N/A - N/A)
Females	71.3	(68.8 - 73.9)	21.6	(19.3 - 23.9)	6.7	(5.2 - 8.1)	0.4 *	(0.0 - 0.8)
Persons	65.5	(63.5 - 67.5)	24.4	(22.6 - 26.3)	9.8	(8.5 - 11.1)	0.3 *	(0.1 - 0.5)
Total								
Males	37.0	(32.7 - 41.3)	19.9	(16.7 - 23.0)	37.3	(32.3 - 42.3)	5.8 *	(2.3 - 9.4)
Females	48.9	(44.6 - 53.3)	23.7	(20.1 - 27.3)	26.2	(22.2 - 30.3)	N/A	(N/A - N/A)
Persons	43.0	(39.8 - 46.1)	21.8	(19.4 - 24.2)	31.8	(28.5 - 35.0)	3.5 *	(1.6 - 5.4)

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

The standardised annual prevalence estimates for weekly fast food consumption for adults aged 16 years and over from 2007 to 2017 are shown in Table 43. The prevalence of adults aged 16 years and over never consuming meals from fast food outlets has increased significantly from 2007 and 2017, while the prevalence of adults consuming meals less than once a week has decreased significantly.

Table 43: Meals from fast food outlets per week over time, 16 years & over, HWSS 2007-17

	Never	Less than once a week	Once or twice a week	Three or more times a week
2007	31.4	33.0	31.4	4.3
2008	33.7	31.2	31.5	3.5
2009	37.6	28.7	30.0	3.6
2010	33.4	30.9	31.5	4.2
2011	36.1	28.8	31.3	3.7
2012	42.3	24.0	30.3	3.4
2013	40.2	26.0	30.3	3.5
2014	44.0	24.2	28.3	3.6
2015	43.8	22.7	29.8	3.7
2016	43.0	23.7	29.9	3.4
2017	42.4	21.9	32.3	3.4
Average	**38.1**	**27.4**	**30.7**	**3.8**

Older adult nutrition

Respondents aged 65 years and over were asked whether their teeth or dentures affect the type of food they are able to eat. The food eaten by approximately one in ten (10.3%) adults aged 65 years and over was affected by the condition of their teeth or dentures (Table 44).

Table 44: Teeth or dentures affect food eaten, 65 years & over, HWSS 2017

	Yes		No	
	%	95% CI	%	95% CI
Males	8.7	(6.9 - 10.4)	91.3	(89.6 - 93.1)
Females	11.8	(10.1 - 13.6)	88.2	(86.4 - 89.9)
Persons	10.3	(9.1 - 11.6)	89.7	(88.4 - 90.9)

8.4 Physical activity and sedentary behaviour

Physical activity reduces the risk of cardiovascular disease, some cancers and type 2 diabetes, and also helps to improve musculoskeletal health, maintain body weight and reduce symptoms of depression.[34]

Respondents were asked to rate their own physical activity level (Table 45). Approximately half of Western Australian adults reported that they were either active or very active (50.9%).

Table 45: Self-reported level of physical activity, 16 years & over, HWSS 2017

	Very active		Active		Moderately active		Not very active		Not at all active	
	%	95% CI	%	95% CI	%	95% CI	%	95% CI	%	95% CI
16 to 44 yrs										
Males	28.5	(20.6 - 36.3)	31.1	(22.8 - 39.4)	28.0	(20.7 - 35.3)	9.5	*(4.2 - 14.9)	2.9	*(0.3 - 5.5)
Females	19.7	(13.2 - 26.2)	28.1	(20.8 - 35.5)	33.5	(26.1 - 41.0)	14.8	(7.8 - 21.7)	3.8	*(0.3 - 7.4)
Persons	24.2	(19.0 - 29.3)	29.7	(24.1 - 35.2)	30.7	(25.5 - 36.0)	12.1	(7.7 - 16.5)	3.4	*(1.2 - 5.6)
45 to 64 yrs										
Males	18.6	(15.3 - 22.0)	32.7	(28.5 - 37.0)	33.5	(29.2 - 37.7)	12.4	(9.5 - 15.3)	2.8	*(1.4 - 4.2)
Females	15.7	(13.2 - 18.2)	28.8	(25.6 - 32.0)	38.0	(34.5 - 41.4)	14.1	(11.8 - 16.5)	3.4	(2.2 - 4.6)
Persons	17.1	(15.1 - 19.2)	30.8	(28.1 - 33.4)	35.7	(33.0 - 38.5)	13.3	(11.4 - 15.1)	3.1	(2.2 - 4.0)
65 yrs & over										
Males	19.1	(16.5 - 21.6)	31.9	(28.9 - 35.0)	32.7	(29.7 - 35.7)	11.6	(9.5 - 13.7)	4.7	(3.3 - 6.1)
Females	15.6	(13.6 - 17.5)	29.0	(26.5 - 31.4)	36.8	(34.1 - 39.4)	13.6	(11.7 - 15.5)	5.1	(3.9 - 6.2)
Persons	17.2	(15.6 - 18.8)	30.4	(28.4 - 32.3)	34.8	(32.8 - 36.9)	12.7	(11.3 - 14.1)	4.9	(4.0 - 5.8)
Total										
Males	23.9	(19.6 - 28.3)	31.7	(27.1 - 36.4)	30.4	(26.3 - 34.6)	10.7	(7.7 - 13.7)	3.2	(1.7 - 4.7)
Females	17.7	(14.3 - 21.1)	28.5	(24.6 - 32.4)	35.5	(31.5 - 39.5)	14.4	(10.7 - 18.0)	3.9	(2.1 - 5.8)
Persons	20.8	(18.0 - 23.6)	30.1	(27.1 - 33.2)	33.0	(30.1 - 35.9)	12.6	(10.2 - 14.9)	3.5	(2.4 - 4.7)

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

Respondents were also asked how they usually spend most of the day. Population estimates are shown in Table 46. Nearly half of adults (44.3%) spent their day mostly sitting.

Males were significantly more likely than females to spend most of their day in heavy labour or physically demanding work (16.5% compared with 4.4%), while females were significantly more likely than males to spend most of their day walking (31.5% compared with 22.9%).

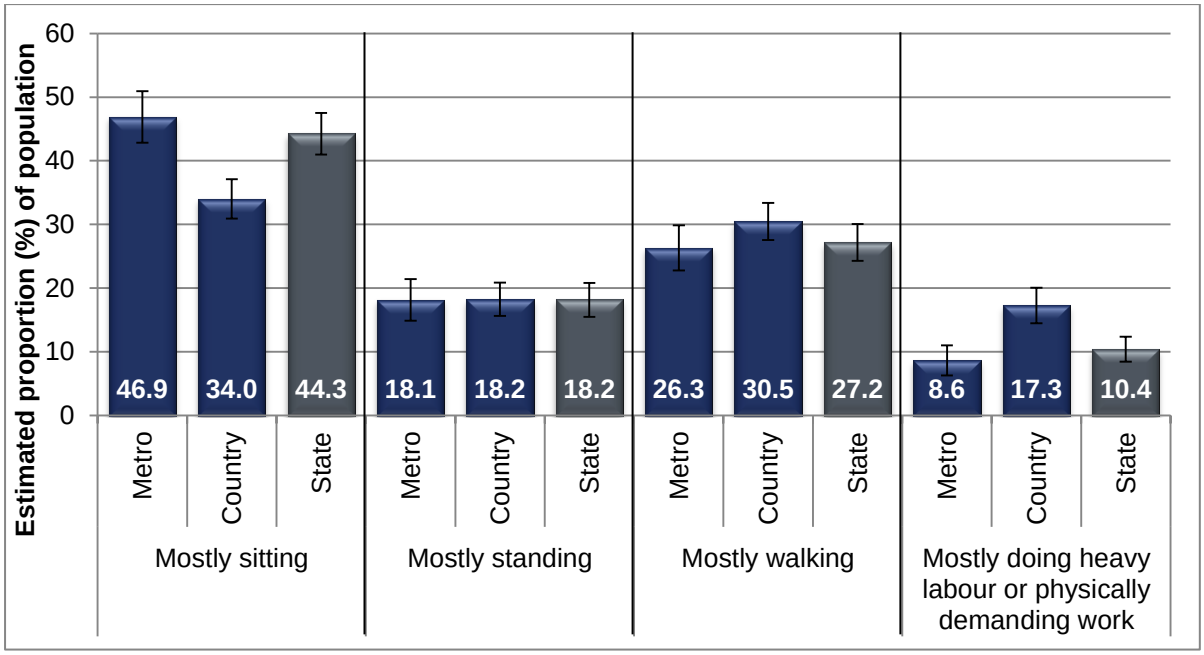
Table 46: How usually spend day, 16 years & over, HWSS 2017

	Sitting		Standing		Walking		Heavy labour/ physically demanding work	
	%	95% CI	%	95% CI	%	95% CI	%	95% CI
16 to 44 yrs								
Males	46.0	(37.3 - 54.8)	14.4	(8.1 - 20.7)	19.7	(12.1 - 27.2)	19.9	(13.7 - 26.1)
Females	44.7	(36.5 - 52.9)	23.6	(16.3 - 30.9)	26.6	(16.3 - 34.0)	5.1 *	(1.6 - 8.5)
Persons	45.4	(39.4 - 51.4)	18.9	(14.1 - 23.8)	23.1	(17.8 - 28.4)	12.6	(9.0 - 16.2)
45 to 64 yrs								
Males	46.1	(41.6 - 50.6)	15.7	(12.4 - 19.0)	22.1	(18.5 - 25.7)	16.2	(12.8 - 25.7)
Females	40.1	(36.7 - 43.5)	20.3	(17.3 - 23.4)	35.3	(31.9 - 38.6)	4.4	(3.1 - 5.6)
Persons	43.1	(40.8 - 45.0)	18.0	(15.7 - 20.3)	28.7	(26.2 - 31.2)	10.2	(8.4 - 12.1)
65 yrs & over								
Males	45.1	(41.9 - 48.4)	14.1	(11.8 - 16.4)	35.0	(31.9 - 38.1)	5.8	(4.3 - 7.3)
Females	40.9	(38.2 - 43.6)	17.8	(15.6 - 20.0)	39.0	(36.3 - 41.7)	2.2	(1.5 - 3.0)
Persons	42.9	(40.8 - 45.0)	16.1	(14.5 - 17.6)	37.1	(35.1 - 39.2)	3.9	(3.1 - 4.7)
Total								
Males	45.9	(41.0 - 50.8)	14.7	(11.2 - 18.3)	22.9	(18.7 - 27.1)	16.5	(13.1 - 19.9)
Females	42.6	(38.3 - 47.0)	21.6	(17.6 - 25.5)	31.5	(27.5 - 35.5)	4.4	(2.5 - 6.2)
Persons	44.3	(41.0 - 47.5)	18.2	(15.5 - 20.8)	27.2	(24.3 - 30.1)	10.4	(8.5 - 12.4)

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

Figure 14 shows the prevalence of how people usually spend their day, by geographic area of residence. Those living in metro areas were significantly more likely to spend most of their day sitting compared with those living in country areas (46.9% compared with 34.0%). Those living in country areas were significantly more likely to spend most of their day doing heavy labour or physically demanding work compared with those living in metro areas (17.3% compared with 8.6%).

Figure 14: How usually spend day, 16 years & over, by geographic area of residence in WA, HWSS 2017



In 2014, the Australian Department of Health reviewed Australia's Physical Activity and Sedentary Behaviour Guidelines and stated 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.[35]

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 days of the week, preferably all, 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.[36]

Table 47 presents the proportion of adults aged 18 years and over completing sufficient levels of physical activity. Approximately three in five (60.0%) adults were sufficiently active for good health, while one in six (16.0%) did no leisure time

physical activity. Adults aged 65 years and over were significantly less likely to complete 150 minutes of moderate physical activity per week compared with those aged 18 to 44 years and 45 to 64 years (50.5% compared with 63.4% and 60.0%).

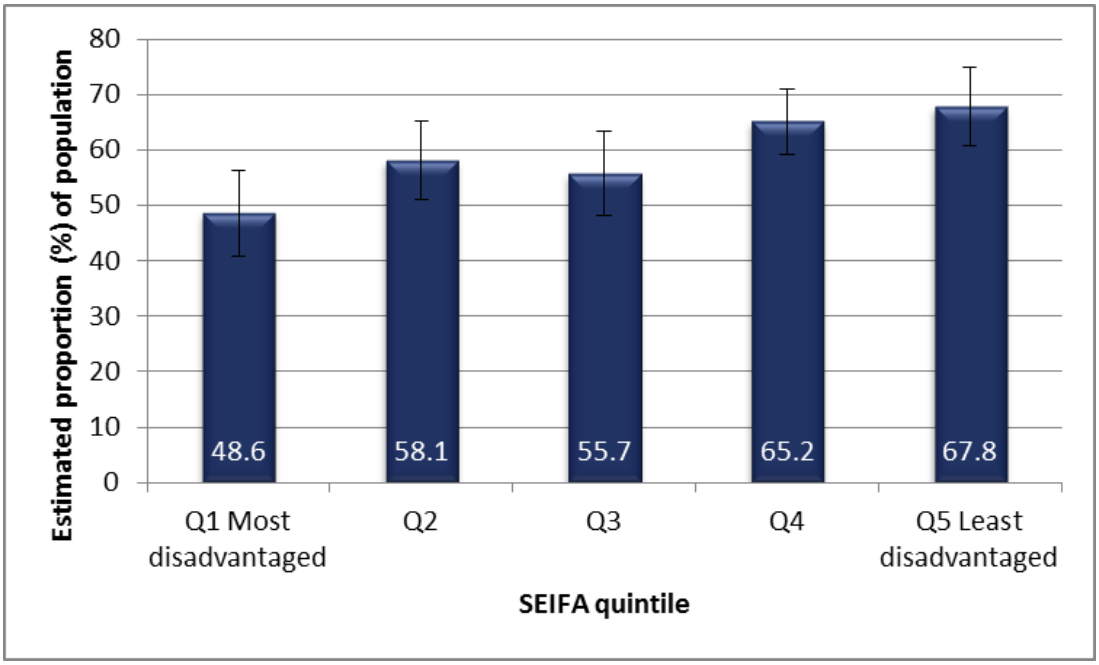
Table 47: Physical activity level, based on the 2014 Australian Physical Activity and Sedentary Behaviour guidelines, 18 years & over, HWSS 2017

	Does no leisure time physical activity per week		Does less than 150 mod mins physical activity per week		Does at least 150 mod mins physical activity per week	
	%	95% CI	%	95% CI	%	95% CI
18 to 44 yrs						
Males	13.4	(7.4 - 19.5)	20.4	(13.3 - 27.5)	66.2	(57.7 - 74.7)
Females	12.0 *	(6.0 - 17.9)	27.6	(19.6 - 35.7)	60.4	(51.7 - 69.1)
Persons	12.7	(8.5 - 17.0)	23.9	(18.5 - 29.3)	63.4	(57.3 - 69.5)
45 to 64 yrs						
Males	17.9	(14.7 - 21.1)	21.7	(17.9 - 25.5)	60.4	(56.0 - 64.8)
Females	13.8	(11.6 - 16.1)	26.6	(23.4 - 29.7)	59.6	(56.2 - 63.0)
Persons	15.9	(13.9 - 17.8)	24.2	(21.7 - 26.6)	60.0	(57.2 - 62.8)
65 yrs & over						
Males	21.1	(18.5 - 23.6)	21.4	(18.7 - 24.1)	57.5	(54.3 - 60.7)
Females	29.4	(26.9 - 31.9)	26.4	(23.9 - 28.8)	44.2	(41.5 - 47.0)
Persons	25.5	(23.7 - 27.3)	24.0	(22.2 - 25.8)	50.5	(48.4 - 52.6)
Total						
Males	16.1	(12.8 - 19.4)	21.0	(17.1 - 24.9)	62.9	(58.3 - 67.6)
Females	15.8	(12.7 - 18.9)	27.1	(23.0 - 31.2)	57.1	(52.7 - 61.6)
Persons	16.0	(13.7 - 18.2)	24.0	(21.2 - 26.9)	60.0	(56.8 - 63.3)

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

Figure 15 shows the proportion of adults aged 18 years and over meeting the physical activity recommendations by SEIFA quintiles. The proportion of adults meeting the physical activity recommendations was significantly higher in the least disadvantaged areas of WA compared with the most disadvantaged areas of WA (67.8% compared with 48.6%).

Figure 15: Proportion of adults completing recommended levels of physical activity, 18 years & over, by SEIFA quintiles in WA, HWSS 2017



The standardised annual estimates of the proportion of adults aged 18 years and over, completing the recommended 150 minutes or more of moderate intensity physical activity per week is shown in Table 48.

Table 48: Proportion of adults completing recommended levels of physical activity over time, 18 years & over, HWSS 2007–17

	Males	Females	Persons
2007	59.5	53.0	56.2
2008	61.4	55.6	58.6
2009	65.7	57.7	61.7
2010	66.0	61.0	63.5
2011	66.6	59.6	63.1
2012	68.4	58.3	63.4
2013	67.8	58.7	63.2
2014	67.7	60.6	64.1
2015	68.0	59.6	63.8
2016	67.7	59.5	63.6
2017	63.1	57.8	60.4
Average	**65.0**	**57.6**	**61.2**

The prevalence of adults 18 years and over meeting sufficient levels of physical activity in 2017 was not significantly different from 2007.

The mean minutes spent in physical activity per week, for respondents who indicated some level of physical activity, are shown in Table 49.

Table 49: Mean time (a) spent in physical activity per week over time, 18 years & over, HWSS 2007–17

	Males	Females	Persons
2007	345.2	252.4	298.8
2008	352.2	271.4	312.0
2009	387.7	292.1	340.0
2010	405.8	307.3	357.2
2011	379.7	299.7	339.4
2012	397.5	302.2	350.0
2013	396.8	304.5	350.7
2014	393.4	305.5	349.1
2015	415.0	303.4	359.4
2016	423.0	293.8	359.0
2017	377.2	305.2	341.4
Average	**383.4**	**289.9**	**335.9**

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

The mean minutes spent in physical activity for females and all persons in 2017 was significantly higher compared with 2007.

Sedentary leisure-time activity, such as television viewing, is strongly associated with both overweight and obesity.[37]

Table 50 shows how many hours per week people 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.

More than one-third of adults (38.6%) spent 21 hours or more per week in screen-based sedentary leisure time activities. Those aged 65 years and over were significantly more likely that respondents aged 16 to 44 years and 45 to 64 years to spend 21 hours or more per week in screen-based sedentary leisure time activities (59.2% compared with 32.1% and 38.2%).

Table 50: Time spent watching TV/DVDs or using a computer/smartphone/tablet device per week, 16 years & over, HWSS 2017

	None		Less than 7 hrs		7 to less than 14 hrs		14 to less than 21 hrs		21+ hrs	
	%	95% CI	%	95% CI	%	95% CI	%	95% CI	%	95% CI
16 to 44 yrs										
Males	N/A	(N/A- N/A)	13.8	(7.4 - 20.2)	19.1	(12.2 - 25.9)	30.0	(21.9 - 38.1)	36.0	(27.7 - 44.2)
Females	N/A	(N/A- N/A)	10.8	(5.9 - 15.7)	31.5	(23.2 - 39.9)	27.1	(20.1 - 34.1)	28.1	(20.8 - 35.5)
Persons	1.8	* (0.4 - 3.2)	12.3	(8.2 - 16.4)	25.2	(19.7 - 30.7)	28.6	(23.2 - 34.0)	32.1	(26.6 - 37.7)
45 to 64 yrs										
Males	2.0	* (0.7 - 3.2)	8.1	(5.8 - 10.4)	19.3	(15.7 - 23.0)	34.6	(30.2 - 38.9)	36.0	(31.8 - 40.2)
Females	0.9	* (0.2 - 1.5)	6.6	(5.0 - 8.3)	19.1	(16.4 - 21.9)	32.9	(29.7 - 36.2)	40.4	(36.9 - 43.9)
Persons	1.4	* (0.7 - 2.1)	7.4	(6.0 - 8.8)	19.2	(16.9 - 21.5)	33.8	(31.0 - 36.5)	38.2	(35.5 - 41.0)
65 yrs & over										
Males	1.3	* (0.5 - 2.0)	4.0	(2.8 - 5.3)	11.2	(9.2 - 13.3)	23.2	(20.4 - 25.9)	60.3	(57.1 - 63.5)
Females	1.1	* (0.5 - 1.6)	3.4	(2.4 - 4.3)	10.0	(8.3 - 11.6)	27.3	(24.9 - 29.8)	58.3	(55.5 - 61.0)
Persons	1.2	(0.7 - 1.6)	3.7	(2.9 - 4.5)	10.6	(9.3 - 11.9)	25.4	(23.5 - 27.2)	59.2	(57.1 - 61.3)
Total										
Males	1.4	* (0.6 - 2.3)	10.5	(7.0 - 14.0)	17.9	(14.1 - 21.7)	30.3	(25.8 - 34.8)	39.9	(35.3 - 44.5)
Females	1.7	* (0.4 - 3.0)	8.2	(5.6 - 10.7)	23.8	(19.3 - 28.3)	29.0	(25.2 - 32.7)	37.3	(33.3 - 41.4)
Persons	1.6	* (0.8 - 2.3)	9.3	(7.1 - 11.5)	20.8	(17.9 - 23.8)	29.6	(26.7 - 32.6)	38.6	(35.5 - 41.7)

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

8.5 Sleep

There is recognition of the importance of sleep to good health, with insufficient sleep linked to cardiovascular disease, diabetes, depression and injury.[38] Sleep duration recommendations vary by age group. It is recommended that those aged 16 to 17 years sleep between 8 to 10 hours per night, 18 to 64 year olds sleep 7 to 9 hours per night and adults aged 65 years and over sleep 7 to 8 hours per night.[39] Note, however, that sleep needs will differ from person to person and sleeping more or less than the recommended number of hours per night may still be appropriate.[39]

Respondents were asked how many hours sleep they get on a usual night. Table 51 shows the prevalence of the population getting the recommended numbers of hours sleep. Almost two-thirds of adults (64.0%) reported sleeping the recommended number of hours per night. Those aged 65 years and over were significantly less likely than respondents aged 16 to 44 years and 45 to 64 years to sleep the recommended number of hours per night (55.0% compared with 65.8% and 66.0%) and significantly more likely to sleep more than the recommended hours per night

(10.7% compared with 2.8% and 1.8%). Overall, respondents reported sleeping an average of 7.1 hours per night.

Table 51: Proportion of adults sleeping the recommended number of hours on a usual night, 16 years & over, HWSS 2017

	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
16 to 44 yrs						
Males	64.7	(56.0 - 73.5)	32.8	(24.0 - 41.6)	2.5 *	(0.6 - 4.4)
Females	67.0	(58.9 - 75.0)	29.8	(22.0 - 37.6)	N/A	(N/A - N/A)
Persons	65.8	(59.9 - 71.8)	31.3	(25.4 - 37.2)	2.8 *	(0.9 - 4.8)
45 to 64 yrs						
Males	68.1	(64.0 - 72.2)	29.8	(25.8 - 33.8)	2.1 *	(1.0 - 3.2)
Females	63.8	(60.4 - 67.3)	34.7	(31.3 - 38.1)	1.5	(0.8 - 2.2)
Persons	66.0	(63.3 - 68.6)	32.2	(29.6 - 34.9)	1.8	(1.1 - 2.5)
65 yrs & over						
Males	58.6	(55.4 - 61.8)	29.3	(26.4 - 32.3)	12.1	(10.0 - 14.1)
Females	51.7	(48.9 - 54.4)	38.8	(36.1 - 41.5)	9.5	(7.9 - 11.1)
Persons	55.0	(52.9 - 57.1)	34.3	(32.3 - 36.3)	10.7	(9.4 - 12.0)
Total						
Males	64.8	(59.9 - 69.6)	31.3	(26.4 - 36.2)	3.9	(2.8 - 5.0)
Females	63.3	(59.0 - 67.6)	32.9	(28.8 - 37.1)	3.8	(2.0 - 5.6)
Persons	64.0	(60.8 - 67.3)	32.1	(28.9 - 35.3)	3.8	(2.8 - 4.9)

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

The standardised annual estimates of the proportion of adults aged 16 years and over, sleeping the recommended number of hours per night is shown in Table 52.

The proportion of adults sleeping less than, more than and the recommended number of hours per night in 2017 was not significantly different from 2009.

Table 52: Proportion of adults sleeping the recommended number of hours on a usual night over time, 16 years & over, HWSS 2017

	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
2009	68.2	27.7	4.1
2010	67.7	28.5	3.7
2011	68.5	28.0	3.5
2012	67.9	28.2	3.9
2013	64.5	32.1	3.4
2014	66.4	29.9	3.7
2015	66.9	29.5	3.7
2016	66.2	30.0	3.8
2017	64.5	31.8	3.7
Average	**67.2**	**29.0**	**3.7**

9. PHYSIOLOGICAL RISK FACTORS

Biomedical factors such as high cholesterol, high blood pressure and excess body mass are major contributors to disease burden.[18] However, they can be effectively managed through a combination of clinical practice, medications, population-based interventions and lifestyle behaviours.[28]

9.1 Cholesterol

High cholesterol is a major risk factor for coronary heart disease and stroke.[28] Respondents were asked when they last had their cholesterol measured and whether or not they have had high cholesterol.

Table 53 shows the proportion of adults who have been told by a doctor that they have high cholesterol levels. The lifetime prevalence of high cholesterol increased significantly with age (16 to 44 years: 12.2%, 45 to 64 years: 32.1%, and 65 years and over: 41.1%). The point prevalence (i.e. has a current diagnosis) of high cholesterol also increased significantly with age (16 to 44 years: 3.8%, 45 to 64 years: 20.5%, and 65 years and over: 35.3%). Table 54 shows the proportion of adults by when their cholesterol was last tested.

Table 53: Prevalence of diagnosed high cholesterol levels, 16 years & over, HWSS 2017

	Lifetime (a)		Point (b)	
	%	95% CI	%	95% CI
16 to 44 yrs				
Males	15.4	(7.9 - 23.0)	N/A	(N/A - N/A)
Females	* 8.6	(3.9 - 13.3)	N/A	(N/A - N/A)
Persons	12.2	(7.6 - 16.7)	* 3.8	(1.0 - 6.5)
45 to 64 yrs				
Males	37.8	(33.4 - 42.2)	24.7	(20.9 - 28.6)
Females	26.2	(23.2 - 29.2)	16.2	(13.8 - 18.6)
Persons	32.1	(29.3 - 34.8)	20.5	(18.2 - 22.8)
65 yrs & over				
Males	41.0	(37.8 - 44.2)	35.4	(32.3 - 38.6)
Females	41.8	(39.0 - 44.5)	35.2	(32.5 - 37.8)
Persons	41.4	(39.3 - 43.5)	35.3	(33.2 - 37.3)
Total				
Males	29.2	(25.2 - 33.2)	18.5	(15.6 - 21.3)
Females	22.9	(20.1 - 25.6)	15.4	(13.3 - 17.4)
Persons	26.1	(23.6 - 28.5)	17.0	(15.2 - 18.7)

(a) People who reported having been told by a doctor that they have high cholesterol (ever).
(b) People who reported having been diagnosed by a doctor with high cholesterol and either still have high cholesterol or are taking medication for high cholesterol.
* Prevalence estimate has a RSE between 25%-50% and should be used with caution.
N/A Prevalence estimate has a RSE greater than 50% and is considered too unreliable for general use.

Table 54: Cholesterol level last tested, 16 years & over, HWSS 2017

	Never		Within 6 mths		6 mths to 1 yr		1 to 2 yrs		2 or more yrs ago		Unsure	
	%	95% CI	%	95% CI	%	95% CI	%	95% CI	%	95% CI	%	95% CI
16 to 44 yrs												
Males	38.6	(30.5 - 46.7)	20.0	(12.4 - 27.7)	15.5	(9.0 - 21.9)	7.6 *	(2.6 - 12.5)	7.1 *	(3.1 - 11.0)	11.2 *	(5.5 - 16.9)
Females	41.0	(32.9 - 49.0)	14.4	(8.8 - 20.1)	14.0	(8.3 - 19.7)	8.8 *	(3.6 - 14.1)	9.0 *	(3.7 - 14.2)	12.8	(7.2 - 18.3)
Persons	39.8	(34.0 - 45.5)	17.3	(12.5 - 22.1)	14.7	(10.4 - 19.1)	8.2	(4.6 - 11.8)	8.0	(4.7 - 11.3)	12.0	(8.0 - 16.0)
45 to 64 yrs												
Males	2.4 *	(1.1 - 3.6)	53.1	(48.6 - 57.5)	24.2	(20.3 - 28.1)	6.8	(4.7 - 8.8)	8.2	(5.7 - 10.8)	5.4	(3.4 - 7.4)
Females	5.5	(4.0 - 7.0)	43.9	(40.5 - 47.3)	27.4	(24.1 - 30.6)	9.1	(7.3 - 11.0)	8.9	(6.7 - 11.1)	5.2	(3.7 - 6.7)
Persons	3.9	(2.9 - 4.9)	48.5	(45.6 - 51.3)	25.8	(23.3 - 28.3)	8.0	(6.6 - 9.4)	8.6	(6.9 - 10.3)	5.3	(4.0 - 6.5)
65 yrs & over												
Males	0.7 *	(0.2 - 1.2)	66.6	(63.6 - 69.7)	18.7	(16.1 - 21.2)	3.6	(2.4 - 4.8)	2.1	(1.3 - 3.0)	8.2	(6.5 - 10.0)
Females	1.4	(0.8 - 2.1)	56.9	(54.2 - 59.6)	21.4	(19.1 - 23.6)	6.6	(5.2 - 7.9)	3.7	(2.7 - 4.7)	10.0	(8.5 - 11.6)
Persons	1.1	(0.7 - 1.5)	61.5	(59.5 - 63.6)	20.1	(18.4 - 21.8)	5.2	(4.3 - 6.1)	3.0	(2.3 - 3.6)	9.2	(8.0 - 10.4)
Total												
Males	21.4	(17.0 - 25.8)	37.7	(33.2 - 42.2)	18.7	(15.0 - 22.3)	6.7	(4.0 - 9.4)	6.6	(4.4 - 8.9)	8.9	(5.8 - 12.1)
Females	22.9	(18.6 - 27.2)	31.2	(27.7 - 34.7)	19.5	(16.3 - 22.6)	8.5	(5.8 - 11.3)	8.0	(5.2 - 10.8)	9.9	(7.0 - 12.8)
Persons	22.1	(19.0 - 25.2)	34.4	(31.6 - 37.3)	19.1	(16.7 - 21.5)	7.6	(5.7 - 9.6)	7.3	(5.5 - 9.1)	9.4	(7.3 - 11.6)

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

Cholesterol information has not always been asked of adults 16 to 24 years. Therefore, the standardised annual prevalence estimates of high cholesterol for adults aged 25 years and over from 2003 to 2017 are shown in Table 55. For females and overall, the lifetime prevalence of high cholesterol was significantly lower in 2017 compared with 2003. The point prevalence of high cholesterol was not significantly different in 2017 compared with 2003.

Table 55: Prevalence of high cholesterol over time, 25 years & over, HWSS 2003–17

	Lifetime (a)			Point (b)		
	Males	Females	Persons	Males	Females	Persons
2003	32.2	30.6	31.4	19.8	19.2	19.5
2004	32.8	31.9	32.3	21.8	18.8	20.3
2005	30.9	30.5	30.7	16.3	14.0	15.2
2006	29.8	30.3	30.1	19.8	18.0	18.9
2007	31.9	29.3	30.6	20.3	19.8	20.1
2008	29.5	27.3	28.4	18.2	17.2	17.7
2009	31.3	27.6	29.5	20.9	18.5	19.7
2010	32.6	31.3	32.0	21.4	20.7	21.1
2011	33.6	29.3	31.5	22.9	18.5	20.7
2012	30.2	26.1	28.1	20.2	16.8	18.5
2013	29.1	26.9	28.0	19.8	18.4	19.1
2014	30.4	27.8	29.1	20.4	17.8	19.1
2015	31.3	27.3	29.3	20.9	17.1	19.0
2016	26.6	24.1	25.4	17.9	16.6	17.2
2017	30.1	23.8	26.9	18.8	15.8	17.3
Average	**31.4**	**28.5**	**30.0**	**20.3**	**18.1**	**19.2**

(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.

9.2 Blood pressure

High blood pressure is a major risk factor for the development of coronary artery disease, stroke and renal failure.[28]

Respondents were asked when they last had their blood pressure measured and if a doctor has ever told them that they have high blood pressure. Of those who have had their blood pressure measured, an estimate of the prevalence of people who have had high blood pressure as well as people who currently have high blood pressure or who are being treated for high blood pressure is shown in Table 56.

The lifetime prevalence for high blood pressure and point prevalence of high blood pressure both increased significantly with age. Table 57 shows the proportion of adults by when their blood pressure was last tested.

Table 56: Prevalence of high blood pressure, 16 years & over, HWSS 2017

	Lifetime (a)		Point (b)	
	%	95% CI	%	95% CI
16 to 44 yrs				
Males	15.4	(8.6 - 22.3)	6.6 *	(1.3 - 11.8)
Females	9.8	(5.7 - 13.9)	3.0 *	(1.1 - 4.9)
Persons	12.6	(8.6 - 16.7)	4.8 *	(2.0 - 7.6)
45 to 64 yrs				
Males	26.5	(22.8 - 30.2)	19.4	(16.1 - 22.7)
Females	29.0	(25.9 - 32.2)	19.7	(17.1 - 22.4)
Persons	27.8	(25.4 - 30.2)	19.6	(17.5 - 21.7)
65 yrs & over				
Males	47.0	(43.8 - 50.3)	43.0	(39.8 - 46.2)
Females	52.0	(49.3 - 54.8)	47.1	(44.4 - 49.9)
Persons	49.7	(47.5 - 51.8)	45.2	(43.1 - 47.3)
Total				
Males	24.2	(20.4 - 28.1)	16.7	(13.7 - 19.7)
Females	23.4	(20.7 - 26.2)	16.2	(14.3 - 18.1)
Persons	23.8	(21.5 - 26.2)	16.5	(14.7 - 18.2)

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

Table 57: Blood pressure last tested, 16 years & over, HWSS 2017

	Never		Within 6 mths		6 mths to 1 yr		1 to 2 yrs		2 or more yrs ago		Unsure	
	%	95% CI	%	95% CI	%	95% CI	%	95% CI	%	95% CI	%	95% CI
16 to 44 yrs												
Males	5.9 *	(2.7 - 9.1)	64.7	(57.0 - 72.4)	14.1	(8.8 - 19.3)	6.4 *	(2.4 - 10.3)	5.8 *	(2.3 - 9.2)	3.2 *	(1.3 - 5.1)
Females	1.6 *	(0.1 - 3.2)	70.8	(63.3 - 78.2)	11.1	(5.8 - 16.4)	3.4 *	(0.8 - 6.0)	4.0 *	(1.7 - 6.3)	9.1 *	(3.8 - 14.4)
Persons	3.8	(2.0 - 5.6)	67.7	(62.4 - 73.0)	12.6	(8.9 - 16.3)	4.9	(2.5 - 7.3)	4.9	(2.8 - 7.0)	6.1	(3.3 - 8.9)
45 to 64 yrs												
Males	N/A	(N/A - N/A)	78.4	(74.7 - 82.1)	14.4	(11.0 - 17.7)	2.8	(1.5 - 4.2)	2.8 *	(1.4 - 4.3)	1.5 *	(0.8 - 2.3)
Females	0.2 *	(0.0 - 0.4)	76.3	(73.3 - 79.2)	16.6	(13.9 - 19.4)	4.0	(2.7 - 5.4)	1.3	(0.7 - 1.9)	1.6	(0.9 - 2.2)
Persons	0.1 *	(0.0 - 0.2)	77.3	(74.9 - 79.7)	15.5	(13.4 - 17.6)	3.4	(2.5 - 4.4)	2.1	(1.3 - 2.9)	1.6	(1.1 - 2.1)
65 yrs & over												
Males	N/A	(N/A - N/A)	90.8	(89.0 - 92.7)	4.7	(3.4 - 6.1)	1.1 *	(0.5 - 1.8)	0.8 *	(0.3 - 1.4)	2.4	(1.4 - 3.4)
Females	N/A	(N/A - N/A)	88.2	(86.5 - 90.0)	5.9	(4.6 - 7.2)	0.8 *	(0.3 - 1.2)	0.6 *	(0.3 - 1.0)	4.4	(3.3 - 5.5)
Persons	N/A	(N/A - N/A)	89.5	(88.2 - 90.7)	5.4	(4.4 - 6.3)	0.9	(0.6 - 1.3)	0.7	(0.4 - 1.1)	3.5	(2.7 - 4.2)
Total												
Males	3.1 *	(1.5 - 4.8)	73.1	(69.0 - 77.3)	12.6	(9.7 - 15.6)	4.4	(2.3 - 6.6)	4.1	(2.2 - 5.9)	2.6	(1.5 - 3.6)
Females	0.9 *	(0.1 - 1.7)	75.6	(71.7 - 79.5)	11.9	(9.0 - 14.7)	3.1	(1.7 - 4.5)	2.6	(1.4 - 3.7)	5.9	(3.2 - 8.7)
Persons	2.0	(1.1 - 3.0)	74.4	(71.5 - 77.2)	12.3	(10.2 - 14.3)	3.8	(2.5 - 5.1)	3.3	(2.2 - 4.4)	4.2	(2.7 - 5.7)

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

Blood pressure information has not always been asked of adults aged 16 to 24 years. Therefore, the standardised annual prevalence estimates of high blood pressure for adults aged 25 years and over from 2003 to 2017 are shown in Table 58.

Table 58: Prevalence of high blood pressure over time, 25 years & over, HWSS 2003–17

	Lifetime (a)			Point (b)		
	Males	Females	Persons	Males	Females	Persons
2003	24.7	29.7	27.2	16.2	18.8	17.5
2004	26.4	30.9	28.7	17.1	20.4	18.8
2005	26.2	29.1	27.7	17.6	17.8	17.7
2006	27.1	30.7	28.9	18.5	19.2	18.9
2007	28.4	30.2	29.3	18.5	19.4	19.0
2008	26.2	29.3	27.7	18.2	19.4	18.8
2009	27.0	28.8	27.9	19.9	19.3	19.6
2010	29.8	29.2	29.5	21.0	19.0	20.0
2011	26.7	27.6	27.1	18.3	19.2	18.7
2012	24.8	26.7	25.8	18.6	19.0	18.8
2013	26.4	24.6	25.5	19.2	17.1	18.2
2014	27.2	25.5	26.3	19.3	17.9	18.6
2015	25.0	26.3	25.6	18.9	18.4	18.6
2016	25.0	23.9	24.5	18.5	17.0	17.8
2017	26.3	25.2	25.8	18.0	18.2	18.1
Average	**26.9**	**28.2**	**27.6**	**19.1**	**18.8**	**19.0**

(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 prevalence of current or lifetime high blood pressure was not significantly different in 2017 compared with 2003.

9.3 Body weight

Overweight and obesity in adults is associated with cardiovascular disease, diabetes, some cancers, osteoarthritis, dementia and a range of other conditions.[40]

Respondents were asked 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.[41] Each respondent's BMI was then classified as not overweight or obese

(BMI<25), overweight (25≤BMI<30) or obese (BMI≥30).[42] Prevalence estimates for these BMI categories are shown in Table 59.

Based on self-reported height and weight measurements, more than two-thirds of adults (69.3%) were classified as overweight or obese. Almost one-third of adults were classified as obese (32.2%). Females were significantly more likely to be classified as not overweight or obese than males (38.6% compared with 22.7%). The prevalence of obesity was significantly higher for persons aged 45 to 64 years compared with those aged 16 to 44 years and 65 years and over (39.0% compared with 28.3% and 31.8%).

Table 59: Prevalence by BMI categories, 16 years & over, HWSS 2017

	Not overweight or obese		Overweight		Obese	
	%	95% CI	%	95% CI	%	95% CI
16 to 44 yrs						
Males	27.6	(20.7 - 34.5)	42.7	(33.5 - 51.8)	29.7	(21.6 - 37.8)
Females	48.5	(40.0 - 57.0)	24.6	(18.1 - 31.0)	26.9	(19.1 - 34.7)
Persons	37.9	(32.0 - 43.7)	33.8	(27.8 - 39.8)	28.3	(22.7 - 34.0)
45 to 64 yrs						
Males	15.0	(11.9 - 18.1)	46.8	(42.2 - 51.3)	38.2	(33.8 - 42.6)
Females	26.7	(23.5 - 29.9)	33.6	(30.3 - 36.9)	39.7	(36.2 - 43.2)
Persons	20.8	(18.5 - 23.1)	40.2	(37.4 - 43.1)	39.0	(36.1 - 41.8)
65 yrs & over						
Males	21.6	(18.9 - 24.3)	49.2	(45.9 - 52.5)	29.2	(26.2 - 32.2)
Females	30.8	(28.1 - 33.4)	35.1	(32.3 - 37.8)	34.1	(31.4 - 36.9)
Persons	26.4	(24.4 - 28.3)	41.9	(39.7 - 44.1)	31.8	(29.7 - 33.8)
Total						
Males	22.7	(19.0 - 26.4)	45.0	(40.0 - 50.0)	32.3	(27.8 - 36.8)
Females	38.6	(33.9 - 43.4)	29.2	(25.6 - 32.8)	32.1	(27.9 - 36.4)
Persons	30.6	(27.5 - 33.8)	37.1	(33.9 - 40.4)	32.2	(29.1 - 35.3)

Figure 16 shows adults aged 16 years and over classified as overweight or obese based on BMI by SEIFA quintiles. The prevalence of overweight or obesity was significantly lower in the least disadvantaged quintiles (Q4 and Q5) compared with the second quintile (66.9% and 59.1% compared with 79.6%).

Figure 16: Prevalence of overweight and obesity by BMI, 16 years & over, by SEIFA in WA, HWSS 2017

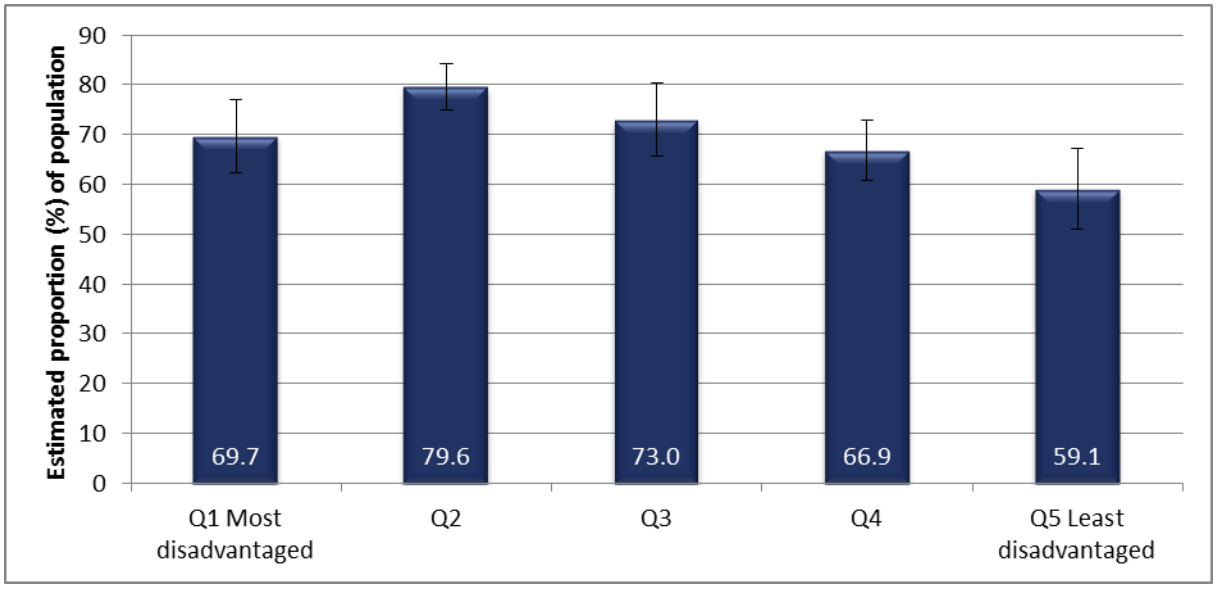


Table 60 shows the prevalence from 2002 to 2017 for three BMI categories; not overweight or obese, overweight, and obese. The prevalence of obesity was significantly higher in 2017 compared with 2002 for males, females and all persons.

Table 60: Prevalence by BMI categories over time, 16 years & over, HWSS 2002–17

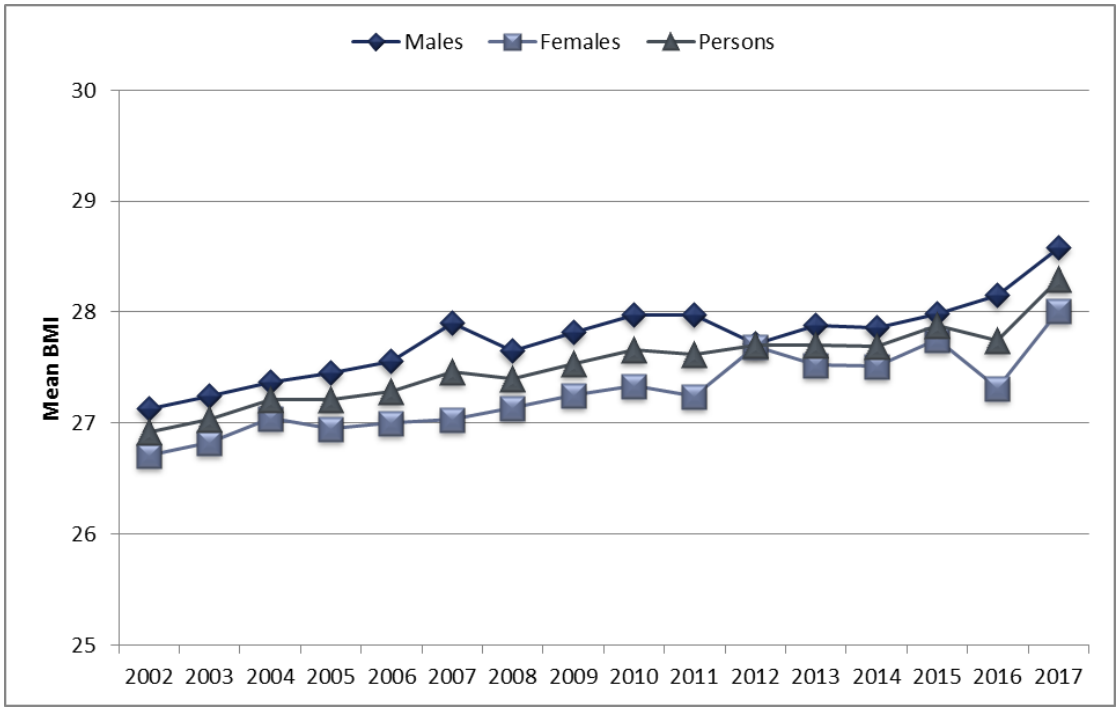
	Not overweight or obese			Overweight			Obese		
	Males	Females	Persons	Males	Females	Persons	Males	Females	Persons
2002	31.8	45.4	38.5	47.8	32.5	40.2	20.5	22.1	21.3
2003	32.1	44.8	38.3	46.8	33.1	40.1	21.1	22.1	21.6
2004	28.7	42.2	35.3	49.5	33.9	41.8	21.8	24.0	22.9
2005	28.2	44.5	36.2	48.9	29.7	39.5	22.9	25.9	24.3
2006	28.7	42.4	35.5	47.4	33.3	40.4	23.9	24.3	24.1
2007	27.6	43.0	35.2	45.4	31.9	38.7	27.1	25.2	26.1
2008	30.2	43.0	36.4	44.2	31.7	38.1	25.6	25.3	25.4
2009	26.2	40.8	33.4	46.9	32.7	39.9	26.9	26.5	26.7
2010	26.2	41.5	33.7	46.9	32.3	39.7	26.9	26.2	26.6
2011	26.3	41.3	33.6	47.3	32.9	40.3	26.4	25.8	26.1
2012	29.4	38.4	33.8	43.5	32.2	38.0	27.1	29.4	28.3
2013	26.3	41.0	33.5	45.5	31.5	38.7	28.2	27.5	27.9
2014	28.0	39.2	33.5	44.2	33.3	38.9	27.9	27.5	27.7
2015	27.3	38.7	32.8	45.5	34.4	40.1	27.1	26.9	27.0
2016	26.9	42.0	34.3	43.4	30.8	37.2	29.7	27.1	28.4
2017	23.4	38.7	31.0	44.4	29.4	36.9	32.2	31.9	32.1
Average	**28.1**	**41.9**	**34.8**	**46.3**	**32.1**	**39.3**	**25.6**	**26.1**	**25.8**

The standardised annual mean BMI estimates for adults aged 16 years and over from 2002 to 2017 are shown in Table 61 and Figure 17.

Table 61: Mean BMI over time, 16 years & over, HWSS 2002–17

	Males	Females	Persons
2002	27.1	26.7	26.9
2003	27.2	26.8	27.0
2004	27.4	27.0	27.2
2005	27.5	27.0	27.2
2006	27.6	27.0	27.3
2007	27.9	27.0	27.5
2008	27.7	27.1	27.4
2009	27.8	27.3	27.5
2010	28.0	27.3	27.7
2011	28.0	27.2	27.6
2012	27.7	27.7	27.7
2013	27.9	27.5	27.7
2014	27.9	27.5	27.7
2015	28.0	27.8	27.9
2016	28.2	27.3	27.7
2017	28.6	28.0	28.3
Average	**27.7**	**27.2**	**27.5**

Figure 17: Mean BMI over time, 16 years & over, HWSS 2002–17



The overall trend for the standardised mean BMI has been increasing steadily over time. For males, females and all persons, the mean BMI in 2017 was significantly higher compared with 2002.

Respondents were asked about their perceptions of their own weight (Table 62). Perceptions of weight have been reported against BMI based weight categories derived from corrected self-reported height and weight.[41] Of those people with a BMI that classified them as overweight, approximately half perceived their weight to be normal (51.5%). A similar result was seen in people with BMIs that classified them as obese; with almost three out of four (79.4%) perceiving themselves to be overweight and approximately one in nine perceiving themselves as a normal weight (11.6%).

Respondents were then asked what they were trying to do about their weight (Table 63). Intentions to change weight have been reported against BMI calculations based on corrected self-reported height and weight. Approximately half (47.2%) of people with a BMI that classified them as overweight had intentions to lose weight, while this increased to around two thirds (69.8%) among people with a BMI that classified them as obese.

Table 62: Prevalence of self-perception of body weight, by Body Mass Index classification, 16 years & over, HWSS 2017

Body Mass index classification	Self-perception of body weight							
	Underweight		Normal weight		Overweight		Very overweight	
	%	95% CI	%	95% CI	%	95% CI	%	95% CI
Underweight	74.0	(38.6 - 100.0)	N/A	(N/A - N/A)	N/A	(N/A - N/A)	N/A	(N/A - N/A)
Normal weight	12.8	(8.9 - 16.6)	77.3	(72.4 - 82.3)	9.7	(6.2 - 13.2)	N/A	(N/A - N/A)
Overweight	1.2 *	(0.1 - 2.3)	51.5	(46.0 - 57.0)	47.2	(41.7 - 52.7)	N/A	(N/A - N/A)
Obese	N/A	(N/A - N/A)	11.6	(8.2 - 15.0)	79.4	(75.4 - 83.4)	8.7	(6.5 - 10.8)

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

Table 63: Prevalence of intentions to change weight, by Body Mass Index classification, 16 years & over, HWSS 2017

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)	N/A	(N/A - N/A)	N/A	(N/A - N/A)	88.3	(74.1 - 100.0)
Normal weight	21.6	(15.7 - 27.4)	9.4	(5.9 - 12.9)	27.6	(22.1 - 33.1)	41.4	(35.5 - 47.4)
Overweight	47.2	(41.6 - 52.7)	N/A	(N/A - N/A)	22.8	(17.7 - 28.0)	29.0	(24.3 - 33.6)
Obese	69.8	(64.8 - 74.8)	N/A	(N/A - N/A)	11.3	(7.4 - 15.3)	18.4	(14.8 - 21.9)

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

10. PSYCHOSOCIAL

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.[43] Mental health is also referred to as psychosocial health as it involves aspects of both social and psychological behaviour.

10.1 Psychological distress

Psychological distress can be determined in ways other than having been diagnosed or treated for a mental health condition. The Kessler Psychological Distress Scale-10 (K10) is a standardised instrument consisting of 10 questions that measure psychological distress by asking about levels of anxiety and depressive symptoms experienced in the past four weeks. Each item on the K10 is scored and then summed, resulting in a range of possible scores from 10 to 50, which have then been categorised into low, moderate, high and very high levels of psychological distress (Table 64).[44,45]

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.[45]

Table 64: Psychological distress as measured by Kessler Psychological Distress Scale-10, 16 years & over, HWSS 2017

	Low		Moderate		High		Very high	
	%	95% CI	%	95% CI	%	95% CI	%	95% CI
16 to 44 yrs								
Males	82.7	(77.3 - 88.1)	9.8	(5.7 - 13.8)	6.2 *	(2.7 - 9.6)	1.3 *	(0.1 - 2.6)
Females	66.3	(58.1 - 74.5)	20.0	(13.2 - 26.7)	10.0 *	(4.8 - 15.2)	N/A	(N/A - N/A)
Persons	74.6	(69.5 - 79.8)	14.8	(10.8 - 18.8)	8.0	(4.9 - 11.2)	2.5 *	(0.1 - 5.0)
45 to 64 yrs								
Males	80.4	(76.9 - 84.0)	11.2	(8.4 - 14.0)	5.8	(3.6 - 8.0)	2.6 *	(1.3 - 4.0)
Females	78.5	(75.6 - 81.3)	14.0	(11.6 - 16.5)	6.0	(4.4 - 7.6)	1.5 *	(0.7 - 2.3)
Persons	79.4	(77.2 - 81.7)	12.6	(10.8 - 14.5)	5.9	(4.5 - 7.3)	2.1	(1.3 - 2.8)
65 yrs & over								
Males	87.3	(85.2 - 89.4)	9.1	(7.3 - 10.9)	2.7	(1.6 - 3.7)	1.0 *	(0.4 - 1.5)
Females	82.8	(80.7 - 84.9)	12.3	(10.5 - 14.2)	3.9	(2.9 - 5.0)	1.0 *	(0.4 - 1.5)
Persons	84.9	(83.4 - 86.4)	10.8	(9.5 - 12.1)	3.3	(2.6 - 4.1)	1.0	(0.6 - 1.4)
Total								
Males	82.7	(79.7 - 85.8)	10.1	(7.8 - 12.4)	5.5	(3.5 - 7.5)	1.7	(0.9 - 2.5)
Females	73.0	(68.6 - 77.4)	16.8	(13.2 - 20.3)	7.7	(4.9 - 10.4)	2.6 *	(0.1 - 5.0)
Persons	77.9	(75.1 - 80.7)	13.4	(11.3 - 15.6)	6.6	(4.9 - 8.3)	2.1 *	(0.8 - 3.4)

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

High or very high levels of psychological distress were reported for 8.7% of the population, which is equivalent to approximately 176,663 people.

The standardised annual prevalence estimates of high or very high levels of psychological distress for adults aged 16 years and over are shown in Table 65. The prevalence of high and very high psychological distress has remained unchanged from 2002 to 2017 for males, females and all persons.

Table 65: Prevalence of high and very high psychological distress as measured by the Kessler Psychological Distress Scale-10, 16 years & over, HWSS 2002–17

	Males	Females	Persons
2002	7.5	10.2	8.9
2003	8.3	10.5	9.4
2004	8.1	10.3	9.2
2005	6.6	9.4	8.0
2006	7.4	11.5	9.5
2007	6.3	7.7	7.0
2008	6.9	11.9	9.4
2009	6.8	9.4	8.1
2010	7.6	9.8	8.7
2011	6.9	9.7	8.3
2012	5.8	9.0	7.4
2013	6.4	9.9	8.2
2014	5.8	7.8	6.8
2015	8.5	9.2	8.8
2016	7.7	12.4	10.1
2017	7.2	10.1	8.7
Average	**7.1**	**9.7**	**8.4**

10.2 Major life events

Major life events can have strong influences on a person's subjective well-being.[46] Respondents were asked whether they had personally been affected by major life events in the past 12 months, shown in Table 66.

The most common major life events were the death of someone close (28.3%) and financial hardship (11.7%).

Those aged 16 to 44 years and 45 to 64 years were significantly more likely than those aged 65 years and over to have experienced financial hardship in the past 12 months (14.7% and 10.6% compared with 4.2%).

Respondents aged 16 to 44 years and 45 to 64 years were also significantly more likely than those aged 65 years and over to have experienced a relationship breakdown. Furthermore, the prevalence of moving house in the past 12 months was significantly higher in younger age groups.

Table 66: Prevalence by major life events experienced, 16 years & over, HWSS 2017

	Moved house		Robbed or burgled		Death of someone close		Relationship breakdown		Serious injury		Financial hardship		Loss of driver's licence		Seriously ill		Other major event	
	%	95% CI	%	95% CI	%	95% CI	%	95% CI	%	95% CI	%	95% CI	%	95% CI	%	95% CI	%	95% CI
16 to 44 yrs																		
Males	12.2	*(6.1 - 18.2)	5.3	*(1.4 - 9.2)	30.5	(22.2 - 38.9)	7.1	*(2.5 - 11.7)	5.4	*(2.4 - 8.4)	13.9	*(6.9 - 20.9)	3.8	*(0.1 - 7.5)	6.6	*(1.7 - 11.5)	7.4	*(3.1 - 11.7)
Females	18.5	(11.1 - 25.9)	6.5	*(2.5 - 10.5)	26.0	(18.6 - 33.3)	8.5	*(4.0 - 12.9)	2.9	*(1.2 - 4.6)	15.6	(9.6 - 21.7)	N/A	(N/A - N/A)	10.1	*(4.2 - 16.0)	17.3	(10.2 - 24.3)
Persons	15.2	(10.5 - 20.0)	5.9	(3.1 - 8.7)	28.3	(22.7 - 33.9)	7.8	(4.6 - 11.0)	4.2	(2.4 - 5.9)	14.7	(10.1 - 19.4)	2.3	*(0.4 - 4.2)	8.3	(4.5 - 12.2)	12.2	(8.0 - 16.4)
45 to 64 yrs																		
Males	5.9	(3.8 - 8.0)	4.7	(2.7 - 6.7)	27.0	(23.0 - 30.9)	5.9	(3.8 - 8.0)	7.2	(4.8 - 9.5)	11.1	(8.3 - 14.0)	1.1	*(0.2 - 1.9)	10.5	(7.9 - 13.1)	9.1	(6.7 - 11.6)
Females	5.4	(3.9 - 7.0)	4.5	(3.1 - 5.9)	31.8	(28.5 - 35.1)	4.7	(3.3 - 6.2)	6.1	(4.4 - 7.8)	10.0	(8.1 - 11.9)	N/A	(N/A - N/A)	11.5	(9.2 - 13.9)	12.3	(10.2 - 14.5)
Persons	5.7	(4.4 - 7.0)	4.6	(3.4 - 5.8)	29.4	(26.8 - 31.9)	5.3	(4.0 - 6.6)	6.6	(5.2 - 8.1)	10.6	(8.9 - 12.3)	0.8	*(0.3 - 1.3)	11.0	(9.3 - 12.8)	10.7	(9.1 - 12.4)
65 yrs & over																		
Males	3.0	(1.9 - 4.0)	3.0	(1.9 - 4.0)	25.8	(23.0 - 28.6)	2.0	(1.1 - 2.9)	4.5	(3.2 - 5.9)	4.4	(3.1 - 5.8)	1.3	*(0.6 - 2.0)	12.7	(10.5 - 14.9)	6.5	(4.9 - 8.1)
Females	2.0	(1.3 - 2.8)	3.1	(2.2 - 4.1)	27.2	(24.7 - 29.6)	2.4	(1.6 - 3.2)	6.1	(4.8 - 7.4)	4.1	(3.0 - 5.1)	1.7	(1.0 - 2.4)	12.1	(10.3 - 13.9)	7.4	(6.0 - 8.8)
Persons	2.5	(1.8 - 3.1)	3.1	(2.4 - 3.7)	26.5	(24.7 - 28.4)	2.2	(1.6 - 2.8)	5.4	(4.4 - 6.3)	4.2	(3.4 - 5.1)	1.5	(1.0 - 2.0)	12.4	(10.9 - 13.8)	7.0	(5.9 - 8.0)
Total																		
Males	8.8	(5.5 - 12.1)	4.7	(2.5 - 6.9)	28.7	(24.1 - 33.3)	5.9	(3.4 - 8.5)	5.8	(4.1 - 7.6)	11.5	(7.7 - 15.4)	2.6	*(0.6 - 4.6)	8.8	(6.0 - 11.5)	7.8	(5.3 - 10.2)
Females	11.5	(7.5 - 15.4)	5.3	(3.2 - 7.4)	28.0	(24.1 - 31.9)	6.2	(3.9 - 8.6)	4.5	(3.4 - 5.5)	11.8	(8.6 - 15.0)	0.9	*(0.4 - 1.3)	10.9	(7.8 - 14.0)	14.0	(10.2 - 17.7)
Persons	10.1	(7.5 - 12.7)	5.0	(3.5 - 6.5)	28.3	(25.3 - 31.4)	6.1	(4.3 - 7.8)	5.1	(4.1 - 6.2)	11.7	(9.2 - 14.2)	1.7	*(0.7 - 2.7)	9.8	(7.8 - 11.9)	10.9	(8.6 - 13.1)

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

10.3 Feeling a lack of control

Perceptions of control relate to an individual's belief as to whether outcomes are determined by external events outside their control or by their own actions.[47] Feelings of a lack of control have been found to have an adverse effect on health and to increase the risk of mortality.[48,49]

Respondents were asked to rate how often during the past four weeks they felt a lack of control over their life in general, their personal life and their health. Table 67 shows self-reported lack of control over life in general.

Table 67: Lack of control over life in general during past four weeks, 16 years & over, HWSS 2017

	Never		Rarely		Sometimes		Often		Always	
	%	95% CI	%	95% CI	%	95% CI	%	95% CI	%	95% CI
16 to 44 yrs										
Males	57.7	(48.9 - 66.4)	19.5	(12.1 - 26.9)	21.7	(14.1 - 29.3)	0.7	* (0.0 - 1.4)	N/A	(N/A - N/A)
Females	45.2	(37.2 - 53.2)	18.7	(12.6 - 24.8)	25.6	(18.0 - 33.1)	8.1	* (1.6 - 14.6)	N/A	(N/A - N/A)
Persons	51.5	(45.5 - 57.6)	19.1	(14.3 - 23.9)	23.6	(18.2 - 29.0)	4.3	* (1.0 - 7.6)	N/A	(N/A - N/A)
45 to 64 yrs										
Males	66.6	(62.4 - 70.8)	14.8	(11.7 - 18.0)	14.3	(11.2 - 17.3)	3.7	* (1.7 - 5.6)	0.6	* (0.1 - 1.1)
Females	64.0	(60.7 - 67.3)	16.9	(14.4 - 19.5)	14.1	(11.8 - 16.4)	4.2	(2.8 - 5.6)	0.8	* (0.3 - 1.3)
Persons	65.3	(62.6 - 68.0)	15.9	(13.8 - 17.9)	14.2	(12.3 - 16.1)	3.9	(2.7 - 5.1)	0.7	* (0.3 - 1.1)
65 yrs & over										
Males	77.0	(74.3 - 79.8)	12.6	(10.4 - 14.8)	7.9	(6.2 - 9.6)	1.7	(0.9 - 2.5)	0.8	* (0.2 - 1.3)
Females	71.6	(69.1 - 74.1)	14.2	(12.3 - 16.1)	11.8	(10.0 - 13.6)	1.9	(1.1 - 2.8)	0.5	* (0.2 - 0.8)
Persons	74.2	(72.3 - 76.0)	13.5	(12.0 - 14.9)	10.0	(8.7 - 11.2)	1.8	(1.3 - 2.4)	0.6	(0.3 - 0.9)
Total										
Males	63.5	(58.6 - 68.5)	17.0	(12.9 - 21.1)	17.2	(13.0 - 21.4)	1.8	(1.0 - 2.5)	0.5	* (0.1 - 0.9)
Females	55.7	(51.2 - 60.3)	17.4	(14.1 - 20.6)	19.6	(15.5 - 23.6)	5.8	(2.4 - 9.2)	N/A	(N/A - N/A)
Persons	59.6	(56.2 - 63.0)	17.2	(14.6 - 19.8)	18.4	(15.5 - 21.3)	3.8	(2.0 - 5.6)	1.0	* (0.2 - 1.9)

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

How often people reported feeling a lack of control over their personal life in the past four weeks is shown in Table 68. How often people reported feeling a lack of control over their health in the past four weeks is shown in Table 69.

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Table 68: Lack of control over personal life during past four weeks, 16 years & over, HWSS 2017

	Never		Rarely		Sometimes		Often		Always	
	%	95% CI	%	95% CI	%	95% CI	%	95% CI	%	95% CI
16 to 44 yrs										
Males	68.8	(60.5 - 77.1)	12.4	(6.7 - 18.1)	15.5	(8.5 - 22.4)	N/A	(N/A - N/A)	N/A	(N/A - N/A)
Females	56.6	(48.2 - 64.9)	16.8	(11.0 - 22.6)	21.5	(14.4 - 28.7)	N/A	(N/A - N/A)	N/A	(N/A - N/A)
Persons	62.8	(56.9 - 68.8)	14.5	(10.5 - 18.6)	18.4	(13.4 - 23.4)	2.8	*(0.3 - 5.2)	N/A	(N/A - N/A)
45 to 64 yrs										
Males	71.7	(67.7 - 75.7)	13.0	(10.1 - 16.0)	11.3	(8.6 - 14.1)	3.1	*(1.5 - 4.7)	0.9	*(0.1 - 1.7)
Females	68.6	(65.3 - 71.9)	16.0	(13.4 - 18.6)	11.6	(9.2 - 14.0)	3.1	(1.9 - 4.4)	0.7	*(0.2 - 1.2)
Persons	70.1	(67.5 - 72.7)	14.5	(12.6 - 16.5)	11.5	(9.6 - 13.3)	3.1	(2.1 - 4.1)	0.8	*(0.3 - 1.2)
65 yrs & over										
Males	79.8	(77.2 - 82.4)	11.2	(9.2 - 13.3)	6.6	(5.0 - 8.2)	1.9	(1.0 - 2.7)	0.5	*(0.1 - 0.9)
Females	77.8	(75.5 - 80.1)	12.7	(10.8 - 14.6)	8.1	(6.6 - 9.7)	1.2	*(0.6 - 1.8)	0.2	*(0.0 - 0.3)
Persons	78.8	(77.0 - 80.5)	12.0	(10.6 - 13.4)	7.4	(6.3 - 8.5)	1.5	(1.0 - 2.0)	0.3	*(0.1 - 0.5)
Total										
Males	71.5	(66.8 - 76.1)	12.4	(9.2 - 15.6)	12.8	(8.9 - 16.6)	2.5	*(1.1 - 3.9)	0.8	*(0.1 - 1.6)
Females	64.1	(59.5 - 68.6)	15.8	(12.7 - 18.9)	16.1	(12.3 - 19.9)	2.8	*(0.6 - 5.1)	N/A	(N/A - N/A)
Persons	67.8	(64.5 - 71.0)	14.1	(11.9 - 16.3)	14.4	(11.7 - 17.1)	2.7	*(1.3 - 4.0)	1.0	*(0.1 - 1.9)

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

Table 69: Lack of control over health during past four weeks, 16 years & over, HWSS 2017

	Never		Rarely		Sometimes		Often		Always	
	%	95% CI	%	95% CI	%	95% CI	%	95% CI	%	95% CI
16 to 44 yrs										
Males	74.6	(66.8 - 82.4)	5.8	*(2.6 - 8.9)	15.8	(9.2 - 22.4)	N/A	(N/A - N/A)	N/A	(N/A - N/A)
Females	55.0	(46.6 - 63.4)	20.0	(13.2 - 26.7)	17.2	(9.8 - 24.6)	4.0	*(1.4 - 6.5)	3.8	*(0.2 - 7.4)
Persons	65.0	(59.1 - 70.9)	12.7	(8.9 - 16.6)	16.5	(11.6 - 21.5)	3.6	*(1.1 - 6.2)	2.1	*(0.3 - 3.9)
45 to 64 yrs										
Males	68.1	(64.0 - 72.2)	13.4	(10.4 - 16.4)	13.1	(10.2 - 16.0)	3.7	(2.0 - 5.4)	1.7	*(0.9 - 2.6)
Females	62.2	(58.8 - 65.7)	15.9	(13.4 - 18.5)	14.8	(12.4 - 17.3)	5.4	(3.4 - 7.4)	1.6	(0.8 - 2.4)
Persons	65.2	(62.5 - 67.8)	14.7	(12.7 - 16.6)	14.0	(12.1 - 15.9)	4.5	(3.2 - 5.9)	1.7	(1.1 - 2.2)
65 yrs & over										
Males	73.2	(70.3 - 76.1)	12.5	(10.2 - 14.7)	10.0	(8.1 - 12.0)	2.6	(1.6 - 3.7)	1.7	(0.9 - 2.5)
Females	69.3	(66.7 - 71.8)	11.9	(10.2 - 13.7)	13.8	(11.9 - 15.8)	2.9	(1.9 - 3.8)	2.1	(1.3 - 2.9)
Persons	71.1	(69.2 - 73.1)	12.2	(10.8 - 13.6)	12.0	(10.6 - 13.4)	2.8	(2.1 - 3.5)	1.9	(1.3 - 2.5)
Total										
Males	72.4	(68.0 - 76.7)	9.2	(7.2 - 11.2)	14.1	(10.4 - 17.7)	3.3	*(0.9 - 5.7)	1.1	(0.6 - 1.6)
Females	59.8	(55.3 - 64.4)	17.3	(13.7 - 20.9)	15.9	(12.0 - 19.8)	4.2	(2.8 - 5.7)	2.8	*(1.0 - 4.7)
Persons	66.1	(62.9 - 69.3)	13.2	(11.1 - 15.3)	15.0	(12.3 - 17.6)	3.8	*(2.4 - 5.2)	2.0	(1.0 - 2.9)

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

Table 70 shows the prevalence of adults who reported often or always feeling a lack of control.

Table 70: Often or always perceive a lack of control, 16 years & over, HWSS 2017

	General		Personal		Health	
	%	95% CI	%	95% CI	%	95% CI
16 to 44 yrs						
Males	1.1 *	(0.2 - 2.1)	3.4 *	(0.6 - 6.1)	N/A	(N/A - N/A)
Females	10.5 *	(3.4 - 17.6)	N/A	(N/A - N/A)	7.8 *	(3.5 - 12.1)
Persons	5.7 *	(2.1 - 9.4)	4.2 *	(1.3 - 7.2)	5.8 *	(2.7 - 8.9)
45 to 64 yrs						
Males	4.3	(2.3 - 6.3)	3.9	(2.2 - 5.7)	5.4	(3.5 - 7.3)
Females	5.0	(3.5 - 6.5)	3.8	(2.5 - 5.1)	7.0	(4.9 - 9.1)
Persons	4.6	(3.4 - 5.9)	3.9	(2.8 - 5.0)	6.2	(4.8 - 7.6)
65 yrs & over						
Males	2.5	(1.5 - 3.4)	2.3	(1.4 - 3.3)	4.3	(3.0 - 5.6)
Females	2.4	(1.6 - 3.3)	1.4	(0.7 - 2.0)	5.0	(3.8 - 6.2)
Persons	2.4	(1.8 - 3.1)	1.8	(1.3 - 2.4)	4.7	(3.8 - 5.5)
Total						
Males	2.3	(1.5 - 3.1)	3.4	(1.8 - 4.9)	4.4 *	(2.0 - 6.8)
Females	7.3 *	(3.6 - 11.1)	4.0 *	(1.3 - 6.8)	7.0	(4.7 - 9.3)
Persons	4.8	(2.9 - 6.8)	3.7	(2.1 - 5.3)	5.7	(4.0 - 7.4)

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

10.4 Suicidal ideation

Mental health problems are associated with higher rates of death from many causes, including suicide.[50] Respondents were asked whether or not they had suicidal thoughts in the past 12 months and if friends or family had attempted suicide in the past 12 months.

Table 71 shows the prevalence of adults who had suicidal thoughts over the past 12 months and Table 72 shows the prevalence of adults who had a friend or family member attempt suicide over the past 12 months.

Table 71: Suicide thoughts over past 12 months, 16 years & over, HWSS 2017

	Seriously thought about ending own life	
	%	95% CI
16 to 44 yrs		
Males	8.8 *	(3.0 - 14.6)
Females	7.5 *	(3.1 - 11.8)
Persons	8.1	(4.5 - 11.8)
45 to 64 yrs		
Males	6.5	(4.4 - 8.7)
Females	4.1	(2.9 - 5.4)
Persons	5.3	(4.1 - 6.5)
65 yrs & over		
Males	2.4	(1.4 - 3.3)
Females	2.1	(1.3 - 2.9)
Persons	2.2	(1.6 - 2.9)
Total		
Males	7.1	(3.9 - 10.2)
Females	5.5	(3.2 - 7.7)
Persons	6.3	(4.3 - 8.2)

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

Adults aged 16 to 44 years and 45 to 64 years were significantly more likely to report having thought about ending their own life in the last 12 months compared with respondents aged 65 years and over (8.1% and 5.3% compared with 2.2%).

Table 72: Friends/family suicide attempts over past 12 months, 16 years & over, HWSS 2017

	Friend(s) attempted		Family attempted	
	%	95% CI	%	95% CI
16 to 44 yrs				
Males	12.0 *	(5.6 - 18.5)	4.3 *	(0.3 - 8.2)
Females	11.2	(6.7 - 15.7)	8.6 *	(4.0 - 13.3)
Persons	11.6	(7.6 - 15.6)	6.4	(3.4 - 9.4)
45 to 64 yrs				
Males	7.1	(4.7 - 9.5)	4.5	(2.8 - 6.3)
Females	6.2	(4.6 - 7.8)	6.4	(4.7 - 8.2)
Persons	6.6	(5.2 - 8.1)	5.5	(4.2 - 6.7)
65 yrs & over				
Males	3.7	(2.5 - 5.0)	1.7	(0.9 - 2.4)
Females	2.4	(1.5 - 3.2)	3.1	(2.2 - 4.1)
Persons	3.0	(2.3 - 3.8)	2.4	(1.8 - 3.0)
Total				
Males	9.2	(5.6 - 12.8)	3.9 *	(1.8 - 6.1)
Females	8.0	(5.7 - 10.4)	7.0	(4.5 - 9.4)
Persons	8.6	(6.5 - 10.8)	5.4	(3.8 - 7.1)

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

The proportion of adults who reported that friend(s) had tried to end their own life in the past 12 months was significantly higher in adults aged 16-44 years and 45 to 64 years compared with adults aged 65 years and over (11.6% and 6.6% compared with 3.0%).

Similarly, the proportion of adults who reported that family member(s) had attempted suicide in the past 12 months was significantly higher in adults aged 16-44 years and 45-64 years compared with adults aged 65 years and over (6.4% and 5.5% compared with 2.4%).

10.5 Social support

Social support relates to the resources available within communities and is believed to have a positive influence on health status.[51,52] As a surrogate measure of social support, respondents were asked how many groups/associations they belong to, including church, social groups, political and professional groups, shown in Table 73.

Table 73: Number of groups/associations belonging to, 16 years & over, HWSS 2017

	None		One		Two		Three		Four or more	
	%	95% CI	%	95% CI	%	95% CI	%	95% CI	%	95% CI
16 to 44 yrs										
Males	36.7	(28.4 - 45.0)	27.5	(19.3 - 35.6)	18.4	(11.8 - 25.0)	7.3	*(3.4 - 11.2)	10.1	*(4.6 - 15.5)
Females	50.5	(42.2 - 58.7)	22.7	(15.2 - 30.2)	13.5	(8.7 - 18.3)	5.7	(3.1 - 8.2)	7.7	(4.5 - 10.8)
Persons	43.5	(37.5 - 49.4)	25.1	(19.6 - 30.7)	16.0	(11.9 - 20.1)	6.5	(4.2 - 8.9)	8.9	(5.7 - 12.1)
45 to 64 yrs										
Males	42.0	(37.6 - 46.4)	27.4	(23.3 - 31.6)	15.5	(12.3 - 18.7)	6.9	(4.6 - 9.3)	8.1	(5.6 - 10.6)
Females	41.4	(37.9 - 44.9)	28.0	(24.8 - 31.1)	14.8	(12.4 - 17.3)	8.7	(6.9 - 10.6)	7.1	(5.4 - 8.7)
Persons	41.7	(38.9 - 44.5)	27.7	(25.1 - 30.3)	15.2	(13.2 - 17.2)	7.8	(6.4 - 9.3)	7.6	(6.1 - 9.1)
65 yrs & over										
Males	38.6	(35.5 - 41.8)	26.8	(23.9 - 29.7)	16.6	(14.2 - 19.1)	9.8	(7.9 - 11.7)	8.1	(6.3 - 9.8)
Females	32.5	(30.0 - 35.1)	29.9	(27.4 - 32.5)	17.3	(15.3 - 19.4)	10.8	(9.1 - 12.5)	9.4	(7.8 - 11.0)
Persons	35.4	(33.4 - 37.4)	28.5	(26.6 - 30.4)	17.0	(15.4 - 18.6)	10.3	(9.1 - 11.6)	8.8	(7.6 - 10.0)
Total										
Males	38.7	(34.0 - 43.3)	27.3	(22.8 - 31.9)	17.2	(13.6 - 20.9)	7.6	(5.4 - 9.8)	9.1	(6.2 - 12.1)
Females	44.4	(40.0 - 48.9)	25.6	(21.7 - 29.6)	14.6	(12.0 - 17.2)	7.5	(6.0 - 9.0)	7.8	(6.1 - 9.5)
Persons	41.6	(38.3 - 44.8)	26.5	(23.5 - 29.5)	15.9	(13.7 - 18.2)	7.6	(6.2 - 8.9)	8.5	(6.7 - 10.2)

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

More than one third (41.6%) of adults reported belonging to no groups or associations of any kind. Adults aged 16 to 44 years and 45 to 64 years were significantly more likely to report belonging to no groups or associations of any kind compared with adults aged 65 years and over (43.5% and 41.7% compared with 35.4%).

11. HEALTH SERVICE UTILISATION

Health services are the way in which health care is provided to patients and the general population and consist of many different forms, including GP, hospital, dental, mental and alternative health services. Respondents were asked whether they had used a number of common health services within the past 12 months, shown in Table 74 and how often they visited them, shown in Table 75 and Table 76.

While approximately nine out of ten adults (89.2%) used primary health services (e.g. visited a GP) within the past 12 months, only one out of eleven (9.0%) reported having used mental health services during this period. A significantly higher proportion of females reported using allied health services compared with males (60.8% compared with 48.9%).

Persons aged 65 years and over were significantly more likely than those aged 16 to 44 years and 45 to 64 years to use primary and hospital based services but significantly less likely than these younger age groups to use mental health or alternative health services.

The most commonly used health service at a population level was primary health care services, with a mean of 4.6 visits in the past 12 months, followed by allied health services with 3.0 visits. Females had a significantly higher mean number of visits for primary and allied health services in the past 12 months compared with males (Table 75).

Table 76 presents the mean number of visits to health services amongst those who used the type of service at least once in the past 12 months. Of those who used a mental health care service in the past 12 months, the mean number of visits was 6.0 times a year.

Table 74: Health service utilisation in the past 12 months, 16 years & over, HWSS 2017

	Primary (a)		Hospital based (b)		Allied (c)		Dental		Mental (d)		Alternative (e)	
	%	95% CI	%	95% CI	%	95% CI	%	95% CI	%	95% CI	%	95% CI
16 to 44 yrs												
Males	81.9	(75.6 - 88.2)	21.5	(14.2 - 28.8)	40.0	(31.5 - 48.5)	60.5	(52.2 - 68.8)	9.5 *	(3.9 - 15.0)	12.9 *	(6.0 - 19.8)
Females	89.4	(83.6 - 95.1)	28.5	(21.0 - 36.1)	53.6	(45.2 - 61.9)	53.2	(44.9 - 61.6)	14.4	(8.6 - 20.1)	10.8	(6.8 - 14.7)
Persons	85.6	(81.3 - 89.8)	24.9	(19.7 - 30.2)	46.7	(40.7 - 52.6)	56.9	(51.0 - 62.9)	11.9	(7.9 - 15.9)	11.8	(7.8 - 15.9)
45 to 64 yrs												
Males	89.8	(86.9 - 92.7)	30.1	(26.1 - 34.1)	56.4	(51.9 - 60.8)	56.7	(52.3 - 61.1)	7.0	(4.8 - 9.2)	6.7	(4.6 - 8.9)
Females	92.6	(90.9 - 94.3)	26.7	(23.5 - 29.9)	68.1	(64.7 - 71.4)	66.4	(63.1 - 69.8)	7.3	(5.6 - 9.0)	14.3	(12.0 - 16.7)
Persons	91.2	(89.5 - 92.9)	28.4	(25.8 - 30.9)	62.2	(59.4 - 65.0)	61.6	(58.8 - 64.3)	7.2	(5.8 - 8.6)	10.5	(8.9 - 12.1)
65 yrs & over												
Males	96.2	(95.0 - 97.4)	40.1	(36.9 - 43.3)	64.1	(61.0 - 67.2)	58.3	(55.2 - 61.5)	3.4	(2.2 - 4.6)	4.2	(3.0 - 5.5)
Females	96.9	(95.9 - 97.8)	35.4	(32.8 - 38.0)	69.1	(66.5 - 71.6)	61.2	(58.6 - 63.9)	3.2	(2.2 - 4.2)	7.4	(6.0 - 8.9)
Persons	96.5	(95.8 - 97.3)	37.6	(35.6 - 39.7)	66.7	(64.7 - 68.7)	59.9	(57.8 - 61.9)	3.3	(2.5 - 4.1)	5.9	(4.9 - 6.9)
Total												
Males	86.6	(83.2 - 90.1)	27.1	(23.0 - 31.3)	48.9	(44.1 - 53.7)	59.0	(54.3 - 63.6)	7.7	(4.7 - 10.8)	9.6	(5.8 - 13.4)
Females	91.7	(88.7 - 94.7)	29.2	(25.2 - 33.2)	60.8	(56.2 - 65.4)	58.8	(54.3 - 63.2)	10.2	(7.2 - 13.2)	11.3	(9.1 - 13.4)
Persons	89.2	(86.9 - 91.5)	28.2	(25.3 - 31.1)	54.9	(51.5 - 58.2)	58.9	(55.6 - 62.1)	9.0	(6.8 - 11.1)	10.4	(8.2 - 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.
* Mean estimate has a RSE between 25%-50% and should be used with caution.

Table 75: Mean visits to health services in the past 12 months, 16 years & over, HWSS 2017

	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
16 to 44 yrs												
Males	3.1	(2.6 - 3.5)	0.3	(0.2 - 0.5)	1.7	(1.1 - 2.3)	1.2	(0.9 - 1.5)	0.5 *	(0.2 - 0.8)	N/A	(N/A - N/A)
Females	5.3	(3.9 - 6.8)	0.5	(0.3 - 0.6)	3.3	(2.4 - 4.2)	1.1	(0.8 - 1.3)	0.9	(0.5 - 1.3)	0.5	(0.2 - 0.7)
Persons	4.2	(3.4 - 4.9)	0.4	(0.3 - 0.5)	2.5	(2.0 - 3.1)	1.1	(1.0 - 1.3)	0.7	(0.4 - 0.9)	0.7 *	(0.1 - 1.2)
45 to 64 yrs												
Males	4.2	(3.7 - 4.7)	0.6	(0.5 - 0.8)	2.8	(2.3 - 3.3)	1.1	(1.0 - 1.2)	0.5	(0.3 - 0.7)	0.3	(0.2 - 0.4)
Females	4.5	(4.1 - 4.9)	0.5	(0.4 - 0.6)	4.0	(3.4 - 4.5)	1.3	(1.2 - 1.4)	0.5	(0.3 - 0.6)	0.9	(0.5 - 1.2)
Persons	4.4	(4.0 - 4.7)	0.6	(0.5 - 0.7)	3.4	(3.0 - 3.7)	1.2	(1.1 - 1.3)	0.5	(0.4 - 0.6)	0.6	(0.4 - 0.8)
65 yrs & over												
Males	6.5	(6.0 - 7.0)	1.1	(0.9 - 1.3)	3.1	(2.6 - 3.7)	1.1	(1.0 - 1.2)	0.2 *	(0.1 - 0.3)	0.2	(0.1 - 0.2)
Females	6.2	(5.9 - 6.6)	0.7	(0.6 - 0.8)	4.0	(3.6 - 4.3)	1.2	(1.1 - 1.3)	0.2 *	(0.1 - 0.3)	0.5	(0.3 - 0.6)
Persons	6.4	(6.1 - 6.7)	0.8	(0.7 - 1.0)	3.6	(3.3 - 3.9)	1.2	(1.1 - 1.2)	0.2	(0.1 - 0.3)	0.3	(0.2 - 0.4)
Total												
Males	4.0	(3.6 - 4.3)	0.5	(0.4 - 0.6)	2.3	(1.9 - 2.6)	1.2	(1.0 - 1.3)	0.4	(0.3 - 0.6)	0.6 *	(0.0 - 1.2)
Females	5.3	(4.5 - 6.0)	0.5	(0.4 - 0.6)	3.6	(3.1 - 4.1)	1.2	(1.0 - 1.3)	0.6	(0.4 - 0.8)	0.6	(0.4 - 0.7)
Persons	4.6	(4.2 - 5.0)	0.5	(0.5 - 0.6)	3.0	(2.6 - 3.3)	1.2	(1.1 - 1.3)	0.5	(0.4 - 0.7)	0.6 *	(0.3 - 0.9)

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

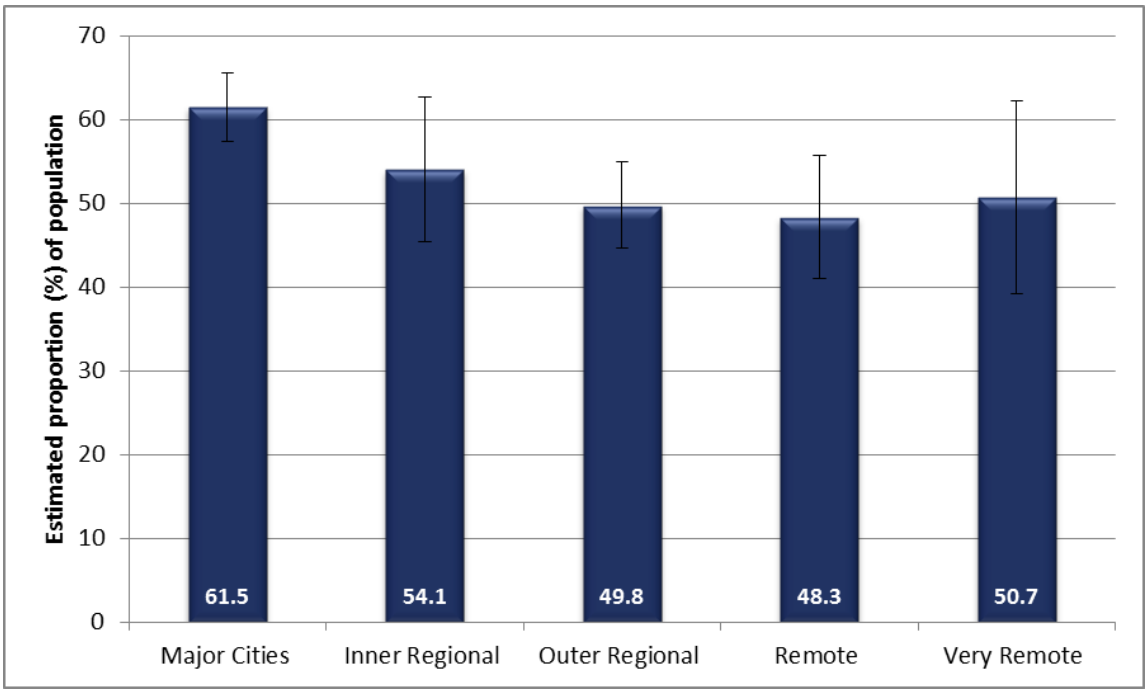
Table 76: Mean visits to health services in the past 12 months of those who attended the service, 16 years & over, HWSS 2017

	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
16 to 44 yrs												
Males	3.7	(3.2 - 4.2)	1.5	(1.2 - 1.8)	4.3	(3.1 - 5.5)	2.0	(1.6 - 2.3)	5.2	* (2.4 - 7.9)	6.9	* (0.6 - 13.2)
Females	6.0	(4.4 - 7.6)	1.7	(1.4 - 2.0)	6.2	(4.8 - 7.6)	2.0	(1.6 - 2.4)	6.0	(4.5 - 7.5)	4.4	(2.8 - 6.0)
Persons	4.9	(4.0 - 5.7)	1.6	(1.4 - 1.8)	5.4	(4.4 - 6.3)	2.0	(1.7 - 2.2)	5.7	(4.2 - 7.1)	5.8	* (2.1 - 9.5)
45 to 64 yrs												
Males	4.7	(4.1 - 5.2)	2.1	(1.6 - 2.7)	4.9	(4.1 - 5.8)	1.9	(1.8 - 2.1)	7.1	(4.3 - 9.8)	4.3	(2.8 - 5.9)
Females	4.9	(4.5 - 5.3)	1.9	(1.6 - 2.2)	5.8	(5.0 - 6.6)	1.9	(1.8 - 2.0)	6.6	(5.5 - 7.7)	6.0	(3.9 - 8.1)
Persons	4.8	(4.4 - 5.1)	2.0	(1.7 - 2.3)	5.4	(4.8 - 6.0)	1.9	(1.8 - 2.0)	6.8	(5.4 - 8.3)	5.5	(3.9 - 7.0)
65 yrs & over												
Males	6.8	(6.2 - 7.3)	2.7	(2.2 - 3.1)	4.9	(4.1 - 5.7)	1.9	(1.8 - 2.0)	6.1	* (2.9 - 9.2)	3.7	(2.5 - 5.0)
Females	6.5	(6.1 - 6.8)	1.9	(1.6 - 2.1)	5.7	(5.3 - 6.2)	1.9	(1.8 - 2.0)	6.3	* (2.7 - 10.0)	6.3	(5.0 - 7.6)
Persons	6.6	(6.3 - 6.9)	2.3	(2.0 - 2.5)	5.4	(4.9 - 5.8)	1.9	(1.9 - 2.0)	6.2	(3.8 - 8.6)	5.5	(4.5 - 6.4)
Total												
Males	4.6	(4.2 - 4.9)	2.0	(1.7 - 2.2)	4.7	(4.0 - 5.3)	2.0	(1.8 - 2.2)	5.8	(3.8 - 7.8)	6.2	* (1.6 - 10.7)
Females	5.7	(4.9 - 6.5)	1.8	(1.6 - 2.0)	6.0	(5.3 - 6.7)	2.0	(1.8 - 2.1)	6.2	(5.1 - 7.3)	5.2	(4.1 - 6.4)
Persons	5.2	(4.7 - 5.6)	1.9	(1.7 - 2.0)	5.4	(4.9 - 5.9)	2.0	(1.8 - 2.1)	6.0	(4.9 - 7.1)	5.7	(3.4 - 7.9)

(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 a RSE between 25%-50% and should be used with caution.

Use of dental health services differed significantly by ARIA, with those in major cities more likely to have used a dental health service than those in areas classified as outer regional and remote (61.5% compared with 49.8% and 48.3%) (Figure 18).

Figure 18: Dental health service utilisation in the past 12 months, 16 years & over, by ARIA in WA, HWSS 2017



Annual flu vaccinations are recommended for adults aged 65 years and over and are available free of charge.[53] Respondents aged 65 years and over were asked if they had received the flu vaccination since the first of March 2017 (Table 77).

Table 77: Prevalence of flu vaccinations received, 65 years & over, HWSS 2017

	%	95% CI
Males	64.2	(60.0 - 68.3)
Females	63.1	(59.5 - 66.6)
Persons	63.6	(60.9 - 66.3)

Note: Based on data collected from April to September 2017.

Between April and September 2017, it is estimated that 63.6% of adults aged 65 years and over in WA had received a flu vaccination since the 1st of March.

12. SOCIAL CHARACTERISTICS

In Australia, private health insurance operates in conjunction with the publicly-funded universal healthcare cover, Medicare. Private health insurance can be purchased by individuals to contribute to the cost of private patient hospital care as well as ancillary medical services such as dental care, optical, chiropractic and physiotherapy treatments.

Adults aged 45 to 64 years were significantly more likely to have both hospital and ancillary private health insurance when compared with those aged 65 years and over. Adults aged 65 years and over were significantly more likely to have no form of private health insurance when compared with those aged 45 to 64 years (28.7% compared with 20.6%) (Table 78).

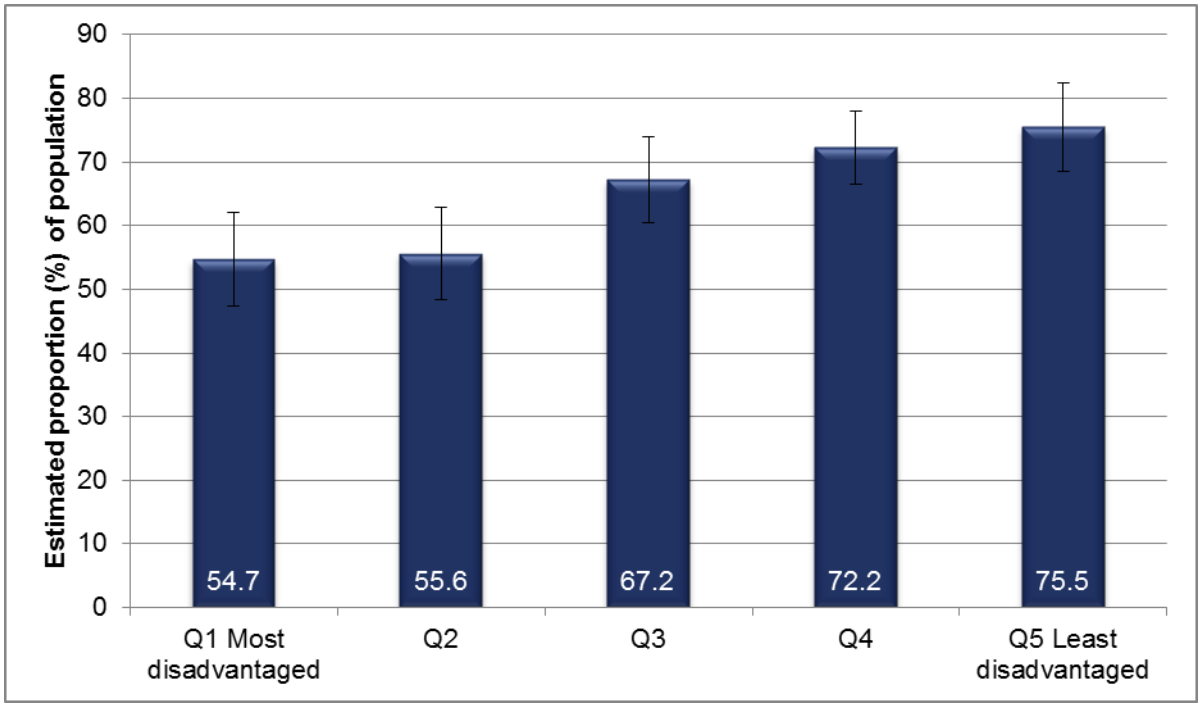
Table 78: Private health insurance status, 16 years & over, HWSS 2017

	None		Hospital Only		Ancillary Only		Both Hospital and Ancillary	
	%	95% CI	%	95% CI	%	95% CI	%	95% CI
16 to 44 yrs								
Males	23.6	(16.0 - 31.3)	N/A	(N/A - N/A)	4.5 *	(1.3 - 7.8)	68.4	(60.0 - 76.8)
Females	24.1	(16.8 - 31.4)	N/A	(N/A - N/A)	6.2 *	(1.7 - 10.6)	69.0	(61.0 - 76.9)
Persons	23.9	(18.6 - 29.2)	2.1 *	(0.2 - 4.1)	5.3 *	(2.6 - 8.1)	68.7	(62.9 - 74.4)
45 to 64 yrs								
Males	23.6	(19.9 - 27.3)	2.8 *	(1.3 - 4.4)	5.5	(3.5 - 7.4)	68.1	(64.0 - 72.3)
Females	17.7	(15.0 - 20.4)	2.1	(1.1 - 3.1)	9.0	(7.0 - 11.0)	71.2	(68.0 - 74.4)
Persons	20.6	(18.3 - 22.9)	2.5	(1.5 - 3.4)	7.2	(5.8 - 8.6)	69.7	(67.1 - 72.3)
65 yrs & over								
Males	29.9	(26.9 - 32.8)	2.3	(1.4 - 3.2)	4.8	(3.4 - 6.3)	63.0	(59.8 - 66.1)
Females	27.6	(25.2 - 30.0)	2.6	(1.7 - 3.5)	5.2	(4.0 - 6.3)	64.6	(62.1 - 67.2)
Persons	28.7	(26.8 - 30.5)	2.5	(1.8 - 3.1)	5.0	(4.1 - 5.9)	63.9	(61.8 - 65.9)
Total								
Males	24.7	(20.5 - 28.9)	3.1 *	(1.1 - 5.1)	4.9	(3.0 - 6.7)	67.4	(62.8 - 72.0)
Females	22.7	(18.9 - 26.5)	1.5	(0.9 - 2.1)	6.9	(4.5 - 9.2)	68.9	(64.7 - 73.0)
Persons	23.7	(20.8 - 26.5)	2.3	(1.3 - 3.3)	5.9	(4.4 - 7.3)	68.2	(65.1 - 71.2)

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

The prevalence of people with both hospital and ancillary private health insurance was significantly higher among those in the two least disadvantaged quintiles (Q4: 72.2% and Q5: 75.5%) compared with those in the two most disadvantaged quintiles (Q1: 54.7% and Q2: 55.6%) (Figure 19).

Figure 19: Prevalence of population with both hospital and ancillary private health insurance, 16 years & over, by SEIFA quintile in WA, HWSS 2017



The standardised annual prevalence estimates for private health insurance over time for adults aged 16 years and over are shown in (Table 79).

The prevalence of adults aged 16 years and over with both hospital and ancillary private health insurance increased significantly between 2008 and 2017. The prevalence of people without any form of private health insurance decreased significantly between 2008 and 2017.

Table 79: Private health insurance status over time, 16 years & over, HWSS 2008-2017

	None	Hospital Only	Ancillary Only	Both Hospital and Ancillary
2008	34.9	3.0	4.4	57.8
2009	33.2	2.7	4.1	60.1
2010	30.9	2.7	4.3	62.1
2011	28.1	2.9	5.5	63.4
2012	29.1	3.1	5.0	62.8
2013	26.7	2.9	5.2	65.2
2014	26.8	2.1	5.5	65.6
2015	22.7	2.0	6.5	68.8
2016	25.7	3.0	5.1	66.2
2017	23.6	2.3	5.8	68.3
Average	**28.8**	**2.6**	**5.0**	**63.5**

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