



# DASSA Statistical Bulletin

Number 18 – October 2019

South Australian Population Health Survey 2018: a  
summary of the results relating to alcohol consumption

## ***South Australian Population Health Survey 2018: a summary of the results relating to alcohol consumption***

This Bulletin is the 18th in a series providing the most up-to-date data available on the prevalence of alcohol and other drug use, the harms associated with use, and alcohol and other drug treatment services in South Australia.

### **Background**

Between 2011 and 2017, data were collected as part of the Health Omnibus Survey (HOS). This was an annual survey of a representative sample of South Australian residents, which collected data that was used to plan, monitor and evaluate health programs and other initiatives in South Australia. Information gathered for Drug and Alcohol Services South Australia (DASSA) focused on alcohol consumption, including risky drinking. The HOS involved face-to-face interviews with approximately 3,000 people over the age of 15 years in both metropolitan and regional South Australia. Data were weighted with the 2016 Census, which adjusts the data to better align each individual with the age, sex and geographic location distribution in the total population. However, in recent years there have been problems recruiting participants using this face-to-face methodology, including an increase in refusals and difficulties accessing households due to locked gates/security systems, as well as concerns among interviewers as to their safety when calling on randomly selected households. The face-to-face methodology is also less cost-effective. As a result, in 2018 there was a change to the South Australian Population Health Survey (SAPHS). This is a computer-assisted telephone interview (CATI) survey that utilised random digit dialling of mobile and landline numbers to draw a random sample of South Australians; 3,002 were surveyed in 2018. The data obtained in 2018 are likely to underestimate the true prevalence due to the change in survey mode. A review of the changes to methodology and their implications on the prevalence of alcohol use and risk drinking estimates can be found in Appendix 1.

A total of 10 questions relating to alcohol consumption were included in the 2018 survey. Questions were adapted from the National Drug Strategy Household Survey (NDSHS)<sup>1</sup>. The NDSHS questions were first included in the HOS in 2011; comparisons are therefore made from 2011 to 2018. Information on risky drinking is presented separately for single occasion and lifetime use, with comparisons made between 2011 and 2018, and between 2017 and 2018<sup>2</sup>.

### **Summary of findings**

#### **Alcohol consumption: frequency**

In 2018, 78% of South Australians aged 15 years and over had consumed alcohol at least once in the previous 12 months (45% drank at least weekly and 6.3% daily), and 22% were abstainers<sup>3</sup>. This has remained relatively stable since 2011, although there are sex and age differences.

A higher proportion of men in 2018 consumed alcohol than women (79% compared with 77%), but unlike previous years, this difference was negligible and not statistically significant. However, a significantly higher proportion of men drank daily (7.7% compared with 4.9%) and at least weekly (54% compared with 36%). The change from previous years is the significant increase in male abstainers (16% in 2011 to 22% in 2018), together with significant decreases in daily drinking (12% to 7.7%). There was also a significant increase between 2011 (7.3%) and 2018 (14.4%) in the proportion of men who had never consumed alcohol.

In 2018, older South Australians consumed alcohol more often than younger people, with at least weekly consumption highest among those aged 60 years and over (54%), followed by those aged 40-49 and 50-59 years (both 53%). Daily drinking was also highest among those aged 60 years and over (13%). In contrast, there has been a substantial and statistically significant increase since 2011 in South Australians aged 15-19 years who have never consumed alcohol (30% to 70%). There was also a significant decrease between 2011 and 2018 in the proportion of 15-19 year olds who consumed alcohol at least weekly (21% to 4.5%).

***There has been a substantial increase in South Australians aged 15-19 years who have never consumed alcohol, and a decrease in the proportion of South Australians aged 30 years or less who consume at least weekly. There has also been a significant increase in the proportion of men who abstain from alcohol, and a decrease in their daily drinking.***

### **Alcohol consumption: quantity**

For the majority (88%) of South Australians in 2018, the quantity of alcohol *usually* consumed in a session fell within the national guidelines for consumption at levels that would not put them at risk of injury from a single drinking occasion (four or less drinks). This is a significant increase since 2011 and 2017 (78% in both years usually consumed four or less drinks).

Nearly two-thirds (63%) of South Australians reported usually drinking quantities of alcohol that fell within the national guidelines for consumption at levels that would not put them at risk of disease or injury over a lifetime (two or less drinks on average). This is also a significant increase since 2011 and 2017 (48% and 53%, respectively, consumed two or less drinks on average).

In 2018, men were significantly more likely to consume larger quantities of alcohol than women, with 16% usually drinking five or more drinks (8.2% of women). However, the proportion drinking five or more drinks has decreased among both men (from 28% in both 2011 and 2017 to 16% in 2018) and women (from 15% in both 2011 and 2017 to 8.2% in 2018). In addition, the proportion drinking five or more drinks decreased significantly between 2011 and 2018 among all age groups except those aged 15-19 and 40-49 years, where there was no change.

***In South Australia, men and young people drink larger quantities of alcohol than women and older age groups, although the quantity consumed has decreased among men, and among all age groups except 15-19 and 40-49 year olds.***

### **Risky drinking**

In 2018, 21% of South Australians aged 15 years and over drank at levels that put them at risk of injury on a single occasion at least monthly, a significant decrease from both 2011 (26%) and 2017 (25%). A higher proportion of men (29%) than women (14%) drank at these levels at least monthly, although there was a significant decrease between 2011 (36%) and 2018 (29%); risky drinking at these levels remained stable among women. Risky drinking at least weekly also decreased significantly between 2011 and 2018 for all South Australian (14% to 8.9%), men (22% to 14%) and women (6.7% to 3.9%).

In 2018, 14% of South Australians aged 15 years and over drank at levels that put them at risk of injury or disease over a lifetime, a significant decrease since 2011 (19%). Again, a higher proportion of men (21%) than women (7.5%) drank at these levels, and there was a significant decrease between 2011 and 2018 for men (29% to 21%).

***In South Australia, a higher proportion of men drink at risky levels on a single occasion and over a lifetime than women, but there have been decreases over time in both risk measures. Drinking at risky levels at least weekly has also decreased among men and women.***

From 2011 to 2018, 20-29 year olds had the highest proportion drinking at risky levels at least monthly (ranging from 39% to 48%); in 2018 this was followed by those aged 40-49 years (31%). Risky drinking at least monthly decreased significantly between 2011 and 2018 among those aged 15-19 (29% to 12%) and 30-39 years (32% to 23%).

***In South Australia, single occasion risky drinking at least monthly in 2018 is highest among 20-29 and 40-49 year olds, with a decrease over time for 15-19 and 30-39 year olds.***

In 2018, the highest proportion of South Australians drinking at levels that put them at risk of injury or disease over a lifetime were aged 40-49 years (22%) and 20-29 years (20%). There were significant decreases in lifetime risky drinking between 2011 and 2018 for those aged 15-19 years (15% to 3.4%), 30-39 years (21% to 11%), and 50-59 years (20% to 15%). Between 2017 and 2018, there was a significant decrease in lifetime risky drinking among 50-59 years olds (20% to 15%).

***In South Australia, lifetime risky drinking is more prevalent among those aged 20-29 years and 40-49 years, with decreases over time among those aged 15-19, 30-39 and 50-59 years.***

## Conclusions

The survey data obtained in 2018 are likely to underestimate the true prevalence due to the change in survey mode. However, it is important to note that alcohol consumption measures have been decreasing over time, with frequency of use and risky drinking measures showing decreases between 2011 and 2017. In addition, decreases have been reported among South Australian school students<sup>4</sup>. Wastewater data have also shown small decreases in alcohol consumption levels in Adelaide between 2016 and 2017, remaining fairly stable in 2018<sup>5</sup>. In conclusion, while the data in 2018 are reflective of this general trend, the magnitude of the decrease may be overestimated.

## Results

### Frequency of alcohol consumption<sup>6</sup>

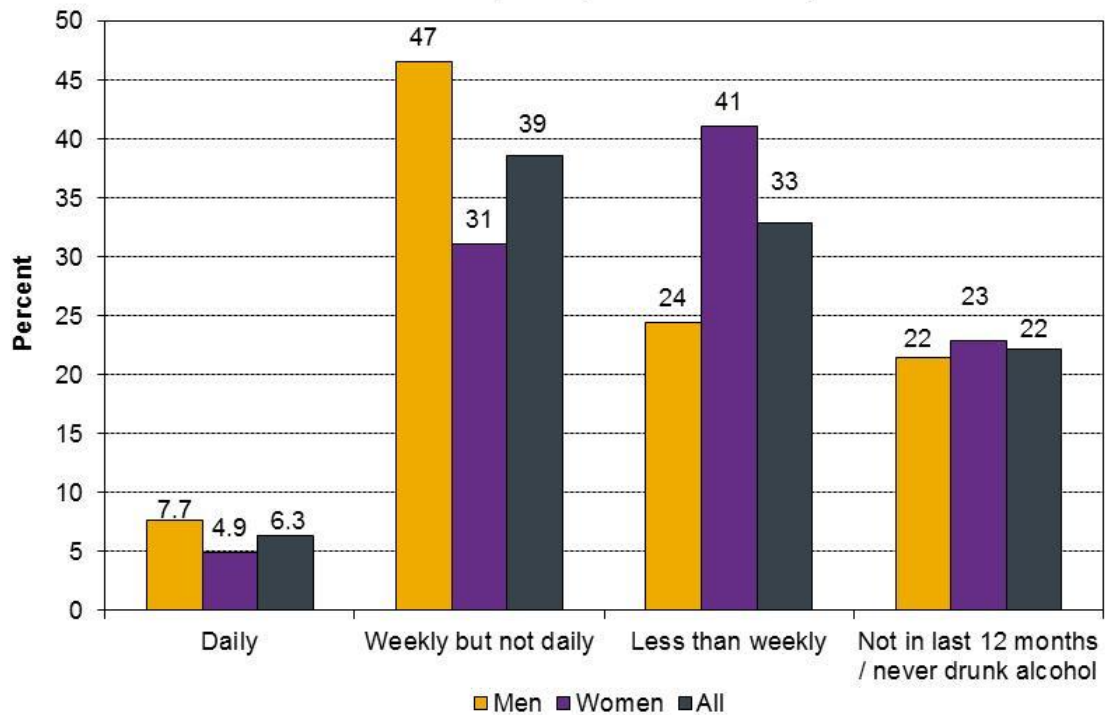
***A higher proportion of South Australian men than women consume alcohol regularly; however there has been a significant increase in the proportion who abstain and a decrease in daily drinking.***

In 2018, 78% of South Australians reported consuming alcohol in the last 12 months. This has remained relatively stable since data collection began in 2011 (79%). Just under half (45%) drank at least weekly; 6.3% daily (see Figure 1). However, daily drinking has decreased significantly since 2011 (8.5%).

Just over one-fifth (22%) of South Australians in 2018 were abstainers: 53% were women and 48% were 40 years and over, with a median age of 38 years. The demographics of abstainers have changed significantly from 2017, where 61% were women and 58% were 40 years and over, with a median age of 47 years.

For the first time since data collection began, there was no statistically significant difference between the proportion of men (79%) and women (77%) who reported consuming any alcohol in the last 12 months. However, consistent with previous years, men were still significantly more likely to consume alcohol more regularly, with 54% reporting use at least once a week (36% of women), and 7.7% drinking daily (4.9% of women).

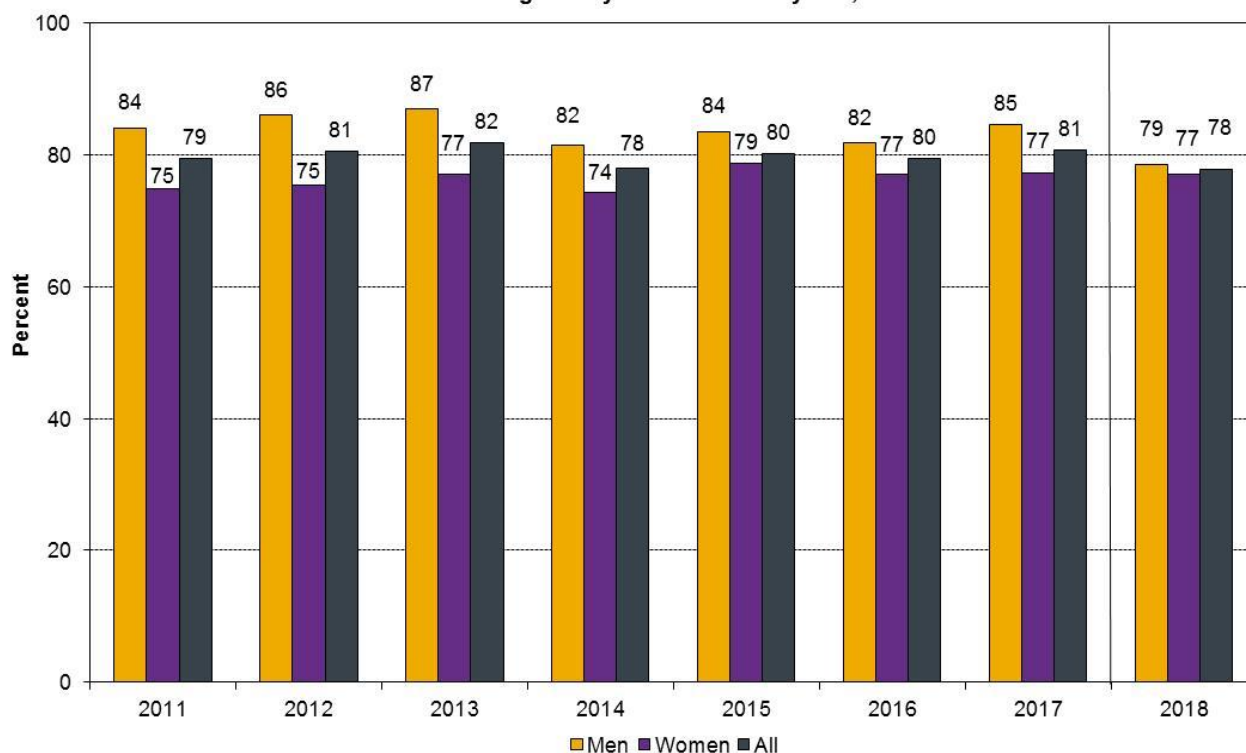
**Figure 1: Alcohol consumption in the previous 12 months among South Australians aged 15 years and over by sex, 2018**



Source: South Australian Population Health Survey 2018

Figure 2 shows the proportion of men and women who had consumed alcohol at least once in the last 12 months over time. Although men still consume alcohol more often than women, there have been significant decreases over time in their drinking frequency. In 2018, 79% of men had consumed alcohol at least once in the last 12 months, significantly lower than in 2011 (84%) and in 2017 (85%). There has therefore been an increase in the proportion of South Australian men who abstain from alcohol between 2011 (16%) and 2018 (22%), and between 2017 (15%) and 2018 (22%). In addition, 14% had never consumed alcohol, significantly higher than in both 2011 (7.3%) and 2017 (7.9%), and 7.7% drank daily, significantly lower than in 2011 (12%). There were no significant changes over time among women.

**Figure 2: Alcohol consumption at least once in the previous 12 months among South Australians aged 15 years and over by sex, 2011-2018**



**Source:** South Australian Health Omnibus Survey 2011-2017 and South Australian Population Health Survey 2018  
Due to changes in methodology, differences between 2018 and previous years should be interpreted with caution

***There has been an increase in South Australians aged 15-19 years who abstain from alcohol, as well as a decrease in the proportion who consume at least weekly. Conversely, there has been an increase in frequency of consumption among those aged 30-39 years and 60 years and over.***

Figure 3 shows the proportion of South Australians in 2018 who reported consuming alcohol by age group. At least weekly (that is, including daily) consumption was highest among those aged 60 years and over (54%), followed by those aged 40-49 and 50-59 years (both 53%). It was lowest among those aged 15-19 years (4.5%). The age group with the highest proportion of abstainers was 15-19 years (75%) and the lowest was 30-39 years (12%).

***South Australians aged 20-29 and 50-59 years have reduced their daily drinking since 2011.***

Daily drinking in 2018 was highest among those aged 60 years and over (13%), stable from 2017 (14%). Between 2011 and 2018, daily drinking decreased significantly among those aged 20-29 years (2.7% to 0%) and 50-59 years (13% to 6%). There were no changes between 2017 and 2018. As in previous years, no South Australians aged 15-19 years reported daily drinking and for the first time, no 20-29 year olds reported daily drinking.

**Figure 3: Alcohol consumption in the previous 12 months among South Australians aged 15 years and over by age group, 2018**

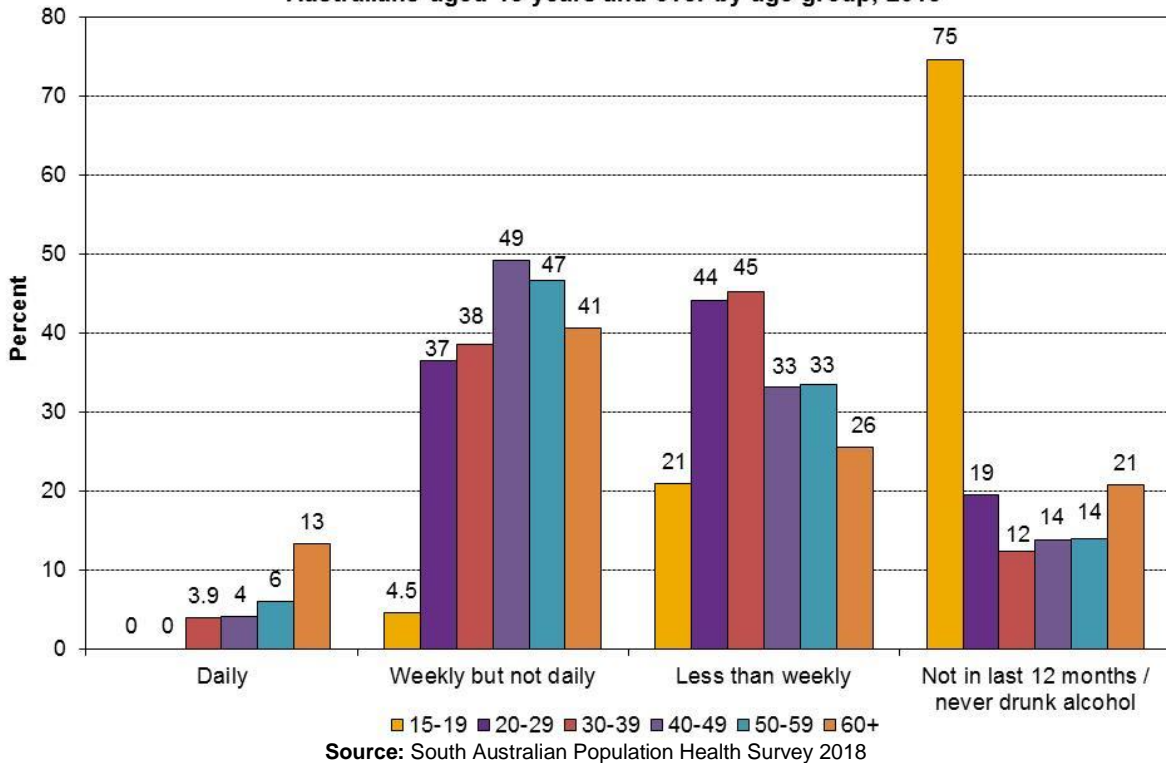
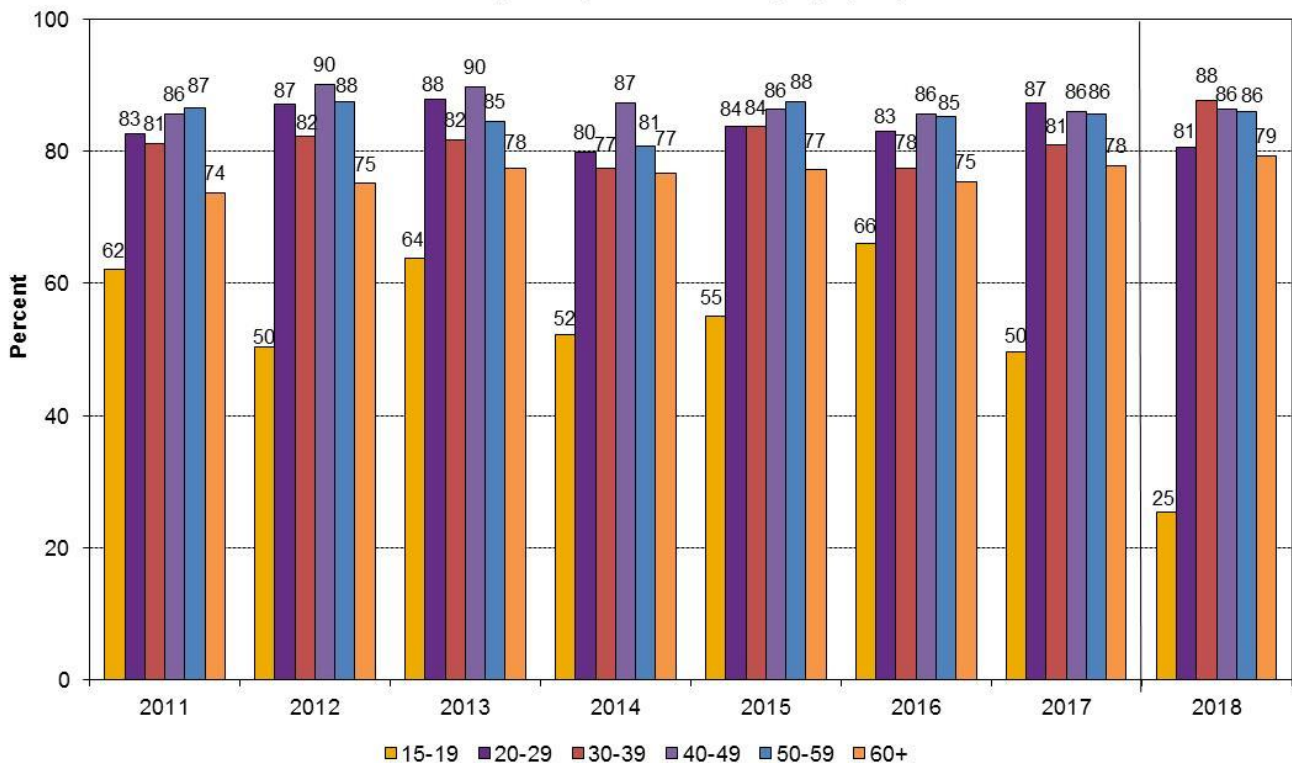


Figure 4 shows any alcohol consumption over time by age group. Between 2011 and 2018, there were significant changes in drinking frequency for some age groups. For the youngest age group (15-19 years), the proportion who had consumed alcohol at least once in the last 12 months decreased from 62% to 25%. In addition, the proportion that had never consumed alcohol increased from 30% to 70%. These changes translated into a significant decrease in the proportion at least weekly drinking among this age group, from 21% to 4.5%. Conversely, the proportion of drinkers increased among those aged 30-39 years (81% to 88%), translating into an increase in proportion drinking less than weekly (36% to 45%) rather than at higher frequencies. In addition, the proportion that had never consumed alcohol decreased significantly (8.7% to 5%). While the proportion of drinkers also increased among those aged 60 years and over (74% to 78%), at least weekly drinking increased, from 48% to 54%.

There were also significant changes in drinking frequency between 2017 and 2018 among those aged 15-19 years, with the proportion who had consumed alcohol at least once in the last 12 months decreasing from 50% to 25%. In addition, those who had never consumed alcohol increased from 49% to 70% and at least weekly drinking decreased from 11% to 4.5%. However, as seen between 2011 and 2018, those aged 30-39 years showed a significant increase in the proportion consuming alcohol at least once in the last 12 months (81% to 88%), and a significant decrease in those who had never consumed alcohol (12% to 5%).

**Figure 4: Alcohol consumption at least once in the previous 12 months among South Australians aged 15 years and over by age group, 2011-2018**



Source: South Australian Health Omnibus Survey 2011-2017 and South Australian Population Health Survey 2018  
Due to changes in methodology, differences between 2018 and previous years should be interpreted with caution

### Quantity<sup>7</sup> of alcohol consumption<sup>8</sup>

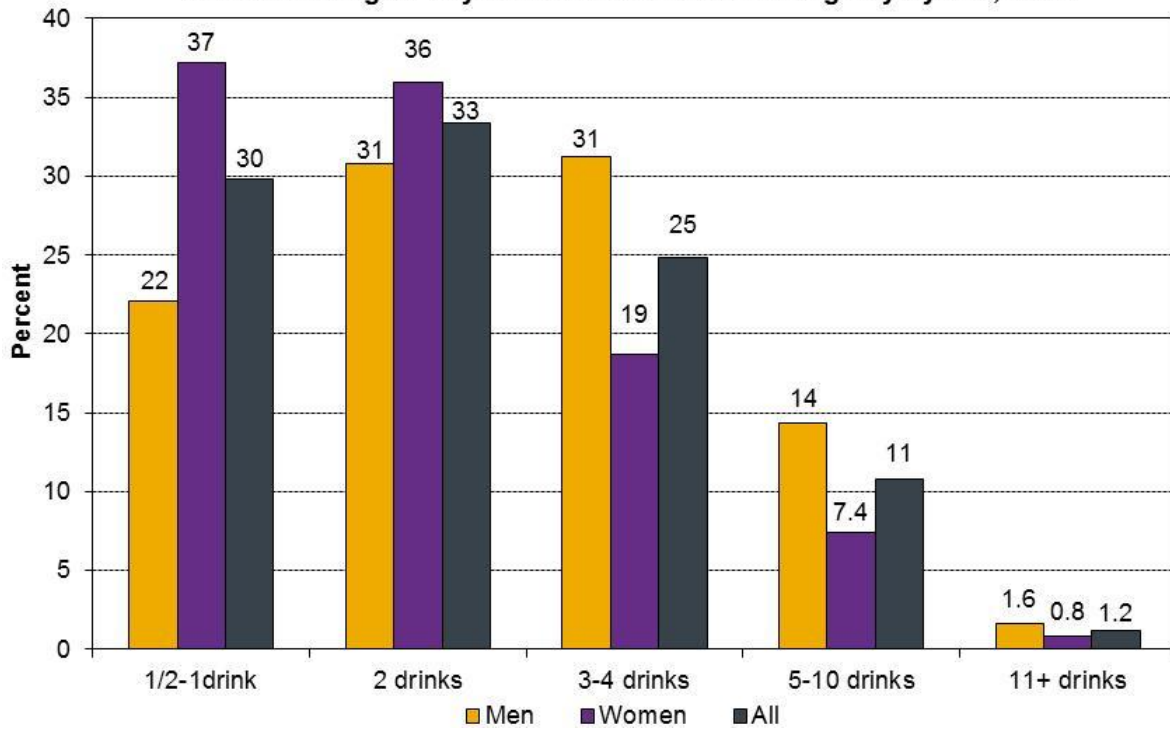
The majority of South Australians (88%) in 2018 reported that they usually significantly lower than in 2011 and 2017 (both 78%).

**South Australian men consume larger quantities of alcohol than South Australian women, although there were decreases over time in the proportion of both men and women who usually drank at levels that exceed the national guidelines for safe consumption.**

On a single drinking occasion, a significantly lower proportion of men (84%) than women (92%) reported *usually* having between a half and four standard drinks (Figure 5). Thus, 16% of men and 8.2% of women reported usually consuming five or more drinks on a day they drank (an amount that exceeds the national guidelines for consumption at levels that would not put them at risk of injury from a single drinking occasion<sup>9</sup>). In addition, 47% of men and 27% of women reported usually consuming three or more drinks a day (an amount that exceeds the national guidelines for consumption at levels that would not put them at risk of disease or injury over a lifetime).<sup>10</sup>



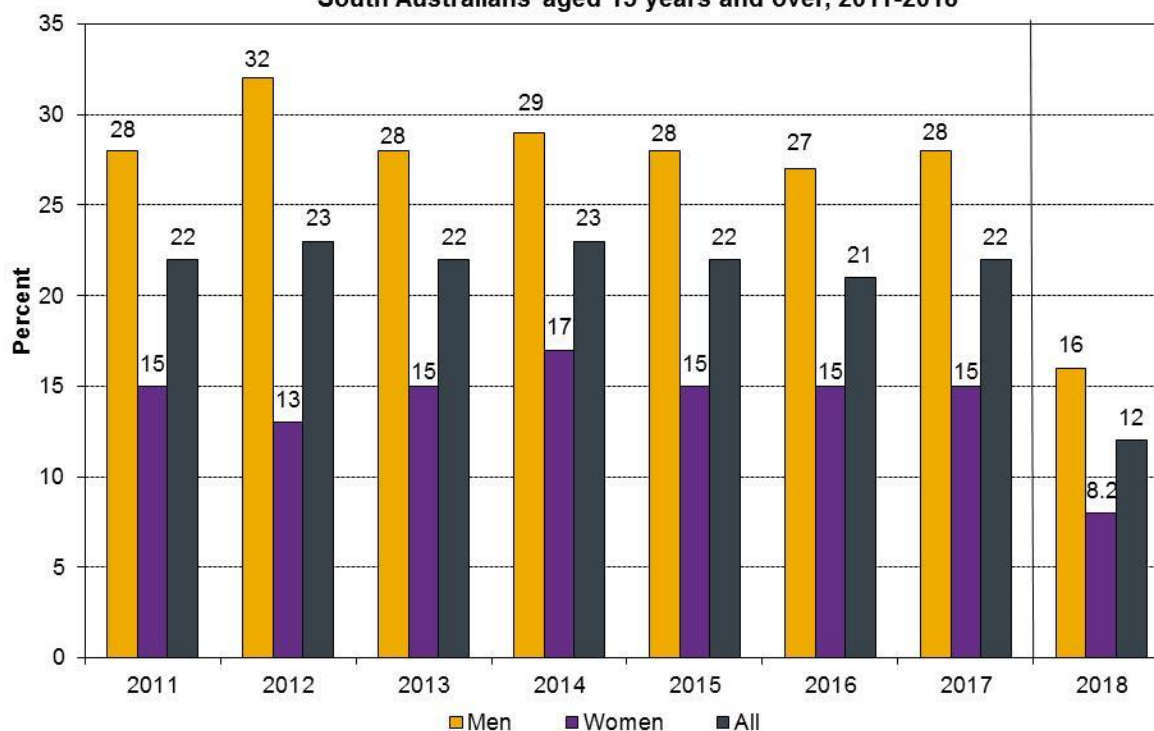
**Figure 5: Number of standard drinks usually consumed by South Australians aged 15 years and over on a drinking day by sex, 2018**



Source: South Australian Population Health Survey 2018

Figure 6 shows the quantity of alcohol usually consumed for men and women over time. There were significant decreases between 2011 and 2018 in the proportion of men who reported usually consuming three or more drinks (60% to 47%) and five or more drinks (28% to 16%). The quantity consumed also decreased significantly among women, for three or more drinks (43% to 27%) and five or more drinks (15% to 8.1%). Significant decreases were found between 2017 and 2018.

**Figure 6: Usual consumption of five drinks or more on a drinking day among South Australians aged 15 years and over, 2011-2018**



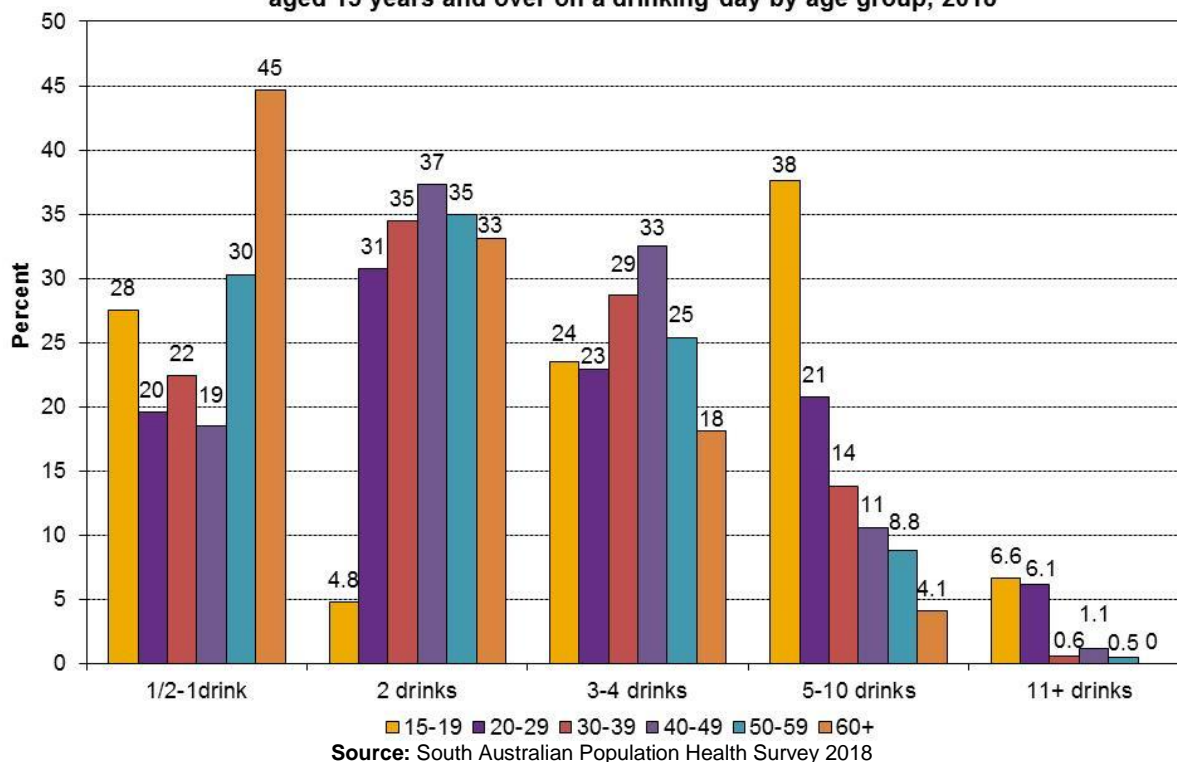
**Source:** South Australian Health Omnibus Survey 2011-2017 and South Australian Population Health Survey 2018  
Due to changes in methodology, differences between 2018 and previous years should be interpreted with caution

Of those who drank in the last 12 months, the majority (92%) in 2018 reported having at least one alcohol-free day per week; 90% of men and 94% of women. This is unchanged from previous years.

***Drinking quantities of alcohol that exceeded at least one of the national guidelines decreased among all South Australians except those aged 15-19 years.***

The proportion of South Australians who usually consumed five or more drinks on a single drinking occasion (within the guidelines) generally decreased with age (see Figures 7 and 8). Almost half (44%) of those aged 15-19 years consumed five or more drinks, followed by 27% of those aged 20-29 years, and 14% of those aged 30-39 years. This decreased to 12% of those aged 40-49 years, followed by 9% of those aged 50-59 years. Only six percent of those aged 60 years and over usually consumed five or more drinks on a single drinking occasion.

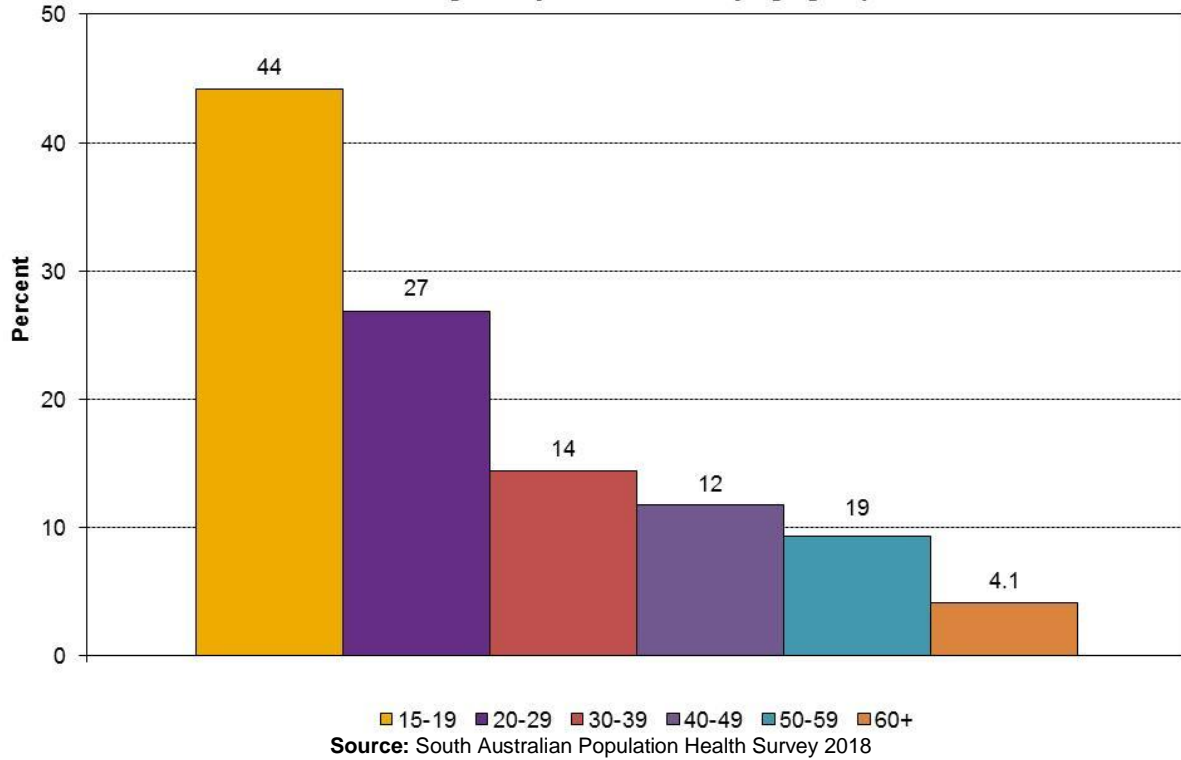
**Figure 7: Number of standard drinks usually consumed by South Australians aged 15 years and over on a drinking day by age group, 2018**



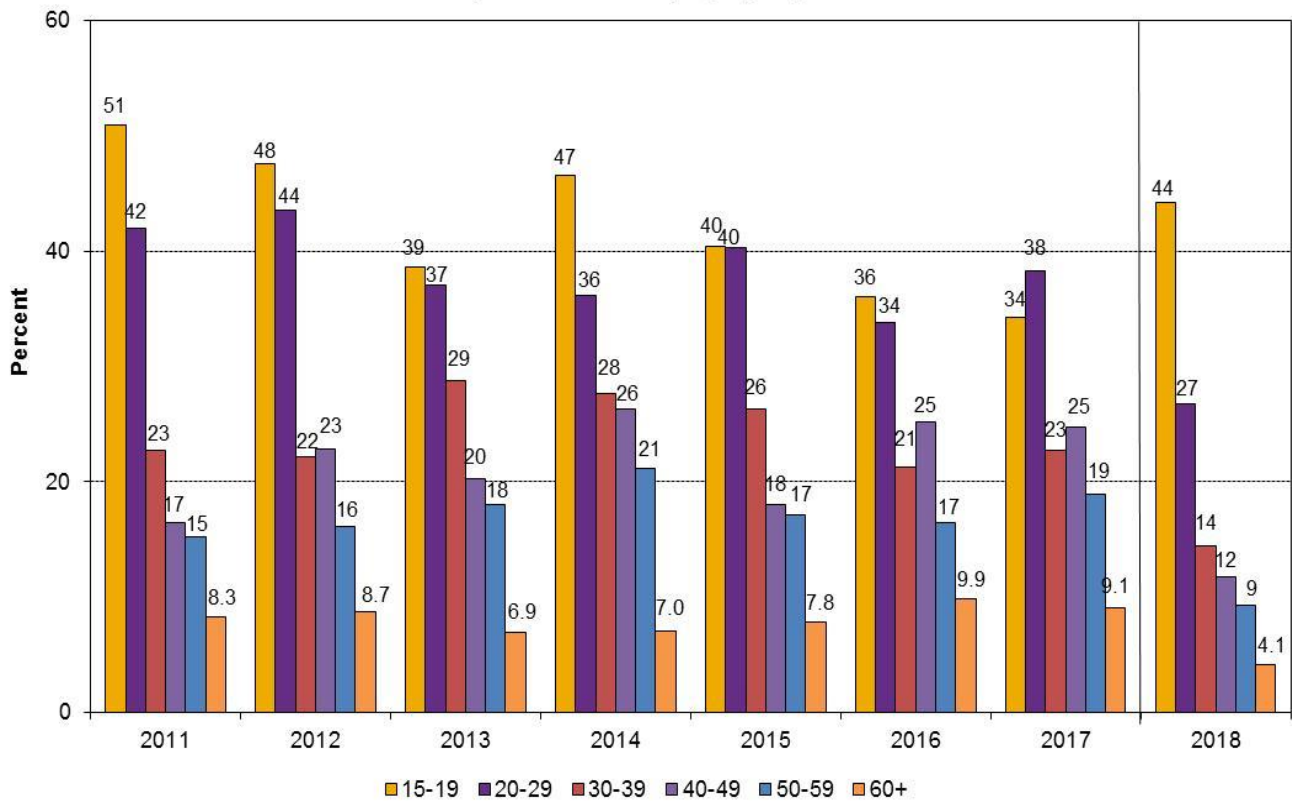
There were significant decreases between 2011 and 2018 in the proportion consuming five or more drinks among those aged 20-29 years (42% to 27%), 39-39 years (23% to 14%), 50-59 years (15% to 9.3%) and 60 years and over (8.3% to 4.1%). These decreases were also significant between 2017 and 2018 among those aged 40-49, 50-59 years and 60 years and over (see Figure 9).

There were significant decreases between 2011 and 2018 in the proportion consuming three or more drinks among all but those aged 15-19 years: 20-29 years (71% to 50%), 39-39 years (58% to 43%), 40-49 years (55% to 42%), 50-59 years (49% to 35%) and 60 years and over (31% to 22%); these decreases were again significant between 2017 and 2018.

**Figure 8: Usual consumption of 5+ drinks on a drinking day by South Australians aged 15 years and over by age group, 2018**



**Figure 9: Usual consumption of 5+ drinks on a drinking day by South Australians aged 15 years and over by age group, 2011-2018**



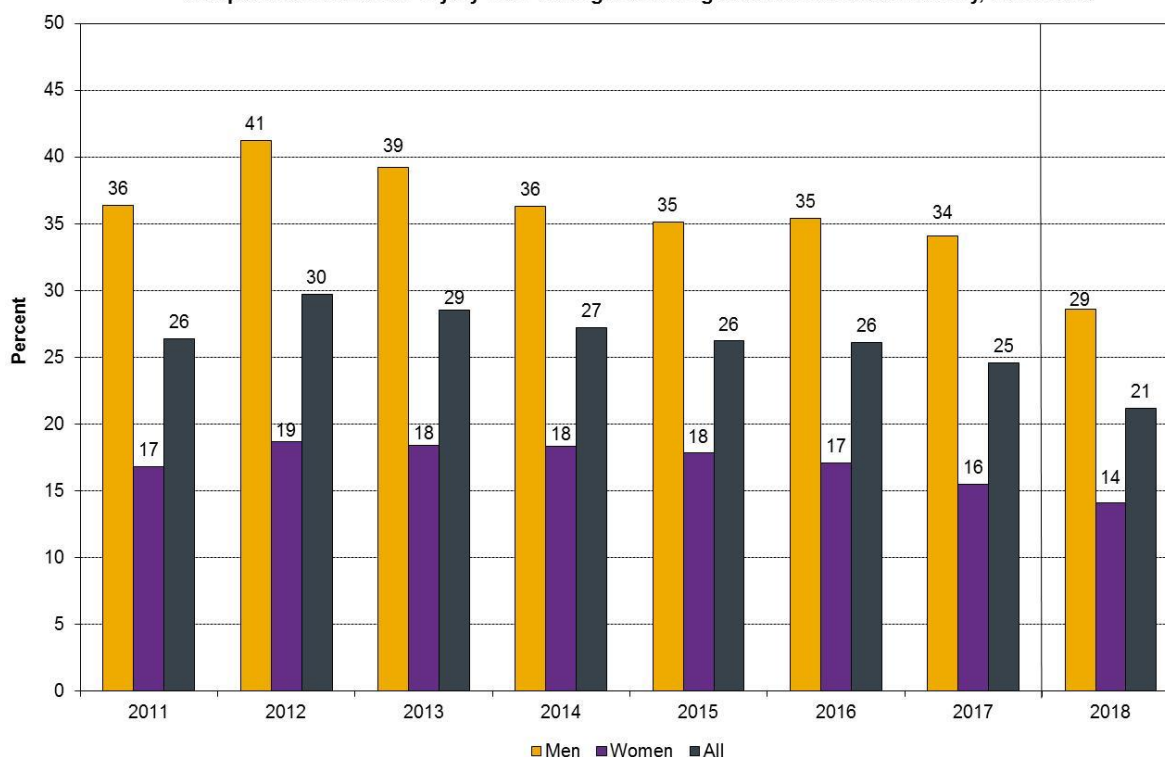
## Risky alcohol consumption – single occasion

**Men were more likely than women to drink at risky levels. Single occasion risky drinking at least monthly and at least weekly decreased significantly in 2018 for South Australian men, and risky drinking at least weekly among women.**

In 2018, 21% of South Australians aged 15 years and over drank at levels that put them at risk of injury on a single occasion **at least monthly** (Figure 10). This was significantly lower than in both 2011 (26%) and 2017 (25%), and the lowest since data collection began. Decreases between 2011 and 2018 were significant among men (36% to 29%) but remained stable among women (17% to 14%). In addition, there was a significant decrease between 2017 and 2018 among men (34% to 29%). In 2018, men were significantly more likely to drink at these levels at least monthly (29% compared with 14% of women).

In 2018, 8.9% of South Australians aged 15 years and over drank at levels that put them at risk of injury on a single occasion **at least weekly**, a significant decrease from both 2011 (14%) and 2017 (12%). Decreases between 2011 and 2018 were significant among men (22% to 14%) and women (6.7% to 3.9%), and also significant between 2017 and 2018 among women (6.5% to 3.9%). In 2018, men were significantly more likely to drink at these levels at least weekly (14% compared with 3.9% of women). However, there was no change over time in the proportion of South Australians that reported drinking at levels that increased their risk of injury from a single occasion **at least once in the previous 12 months** (44% in 2011 and 42% in 2018). Although risky drinking at least once in the previous 12 months did not change over time, in 2018, men were significantly more likely to drink at these levels (53% compared with 32% of women).

**Figure 10: The proportion of South Australians aged 15 years and over who drank at levels that put them at risk of injury from a single drinking occasion at least monthly, 2011-2018**



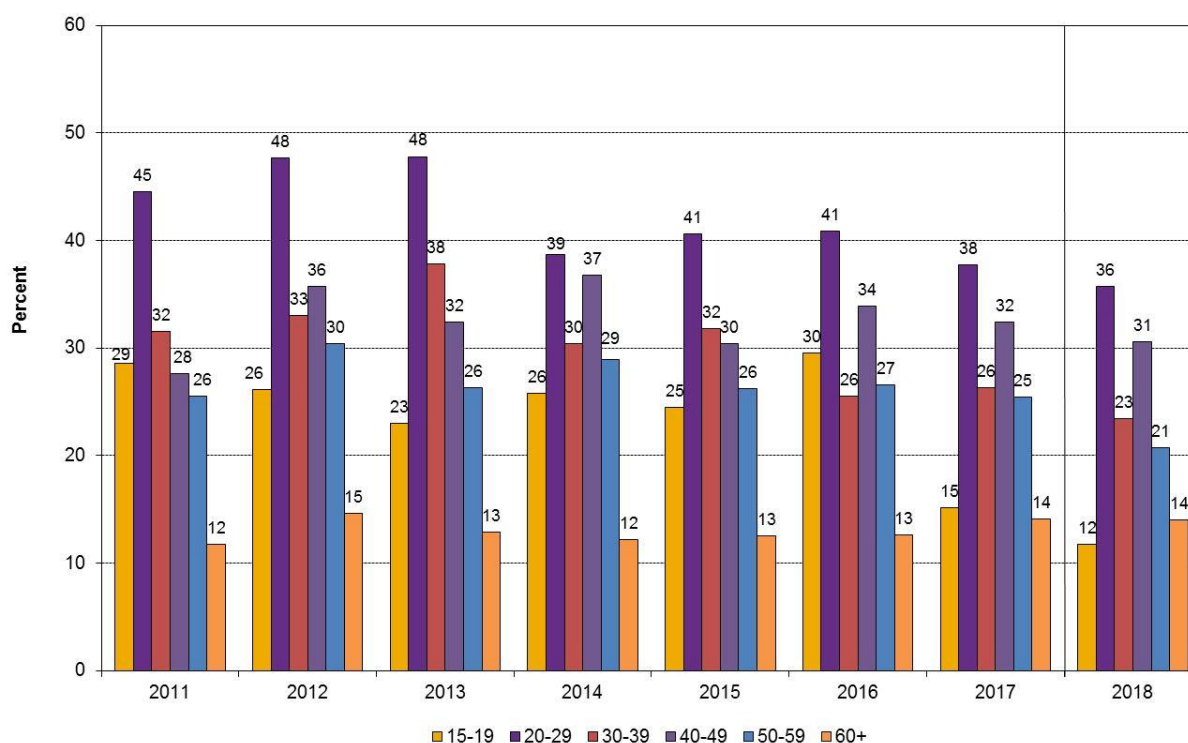
**Source:** South Australian Health Omnibus Survey 2011-2017 and South Australian Population Health Survey 2018  
Due to changes in methodology, differences between 2018 and previous years should be interpreted with caution

**Single occasion risky drinking at least monthly is highest among 20-29 and 40-49 year old South Australians, with a decrease over time for those aged 15-19 and 30-39 years.**

Figure 11 shows that in all eight years (2011 to 2018), the group with the highest proportion drinking at risky levels at least monthly was aged 20-29 years (ranging from 36% to 48%). In 2018 this was followed by those aged 40-49 (31%) and 30-39 (23%) years. The groups with the lowest proportion in 2018 were aged 60 years or over (14%) and 15-19 (12%). This differs from 2011-2016, where the proportion of 15-19 year olds drinking at these levels was much higher, ranging from 23% to 30%.

Although 20-29 year olds had the highest proportion that drank at risky levels at least monthly, there has been a significant decrease among this group since its peak in 2012 (48%), to 36% in 2018. However, there was no change between 2011 (45%) and 2018, or between 2017 (38%) and 2018. Between 2011 and 2018, there were significant decreases in the proportions risky drinking at least monthly among those aged 15-19 (from 29% to 12%) and 30-39 (from 32% to 23%) years. Drinking at risky levels at least monthly did not change significantly among any age group between 2017 and 2018. Drinking at risky levels at least weekly decreased significantly between 2011 and 2018 among those aged 15-19 (13% to 3.4%) and 20-29 (26% to 13%) years, with no changes between 2017 and 2018.

**Figure 11: The proportion of South Australians aged 15 years and over who drank at levels that put them at risk of injury from a single drinking occasion at least monthly, by age group, 2011-2018**



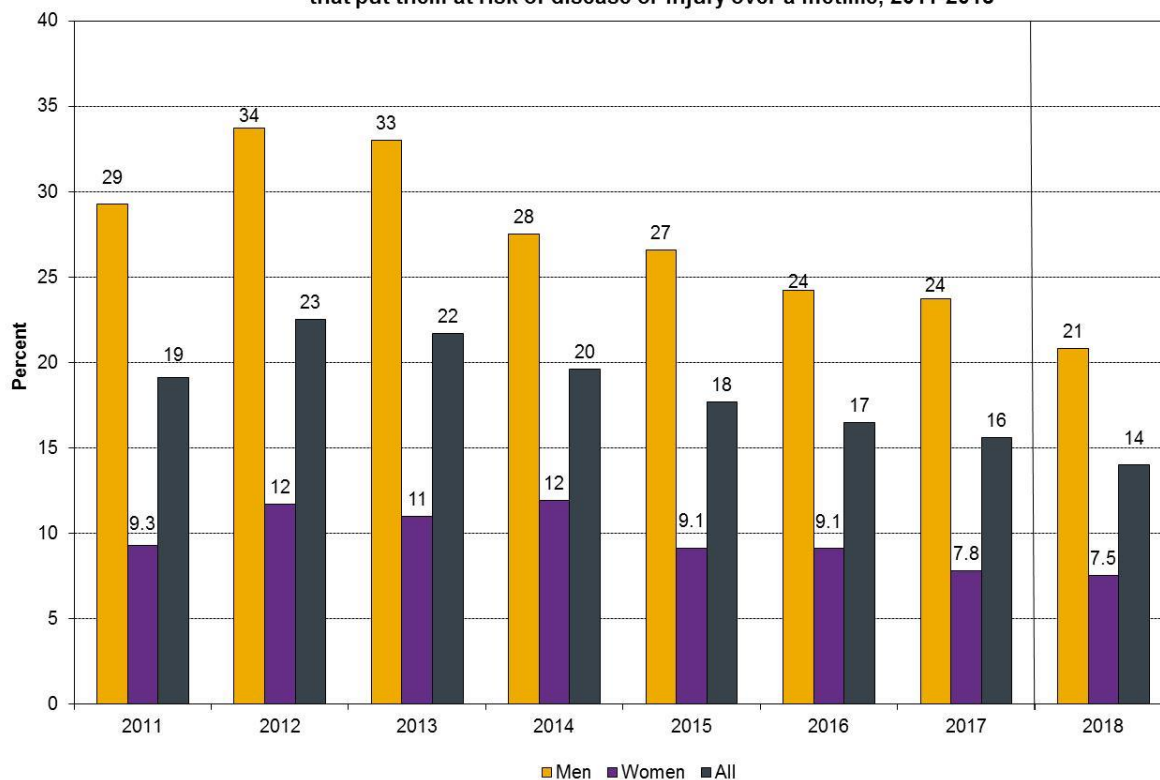
**Source:** South Australian Health Omnibus Survey 2011-2017 and South Australian Population Health Survey 2018  
Due to changes in methodology, differences between 2018 and previous years should be interpreted with caution

## Risky alcohol consumption – lifetime

***Lifetime risk has decreased significantly over time among South Australian men.***

Figure 12 shows that in 2018, 14% of South Australians aged 15 years and over drank at levels that put them at risk of injury or disease over a lifetime. This was significantly lower than in 2011 (19%), and the lowest since data collection began. Lifetime risk decreased significantly over time for men (29% to 21%) but not for women (9.3% to 7.5%). There were no changes between 2017 and 2018.

**Figure 12: The proportion of South Australians aged 15 years and over who drank at levels that put them at risk of disease or injury over a lifetime, 2011-2018**



**Source:** South Australian Health Omnibus Survey 2011-2017 and South Australian Population Health Survey 2018  
 Due to changes in methodology, differences between 2018 and previous years should be interpreted with caution

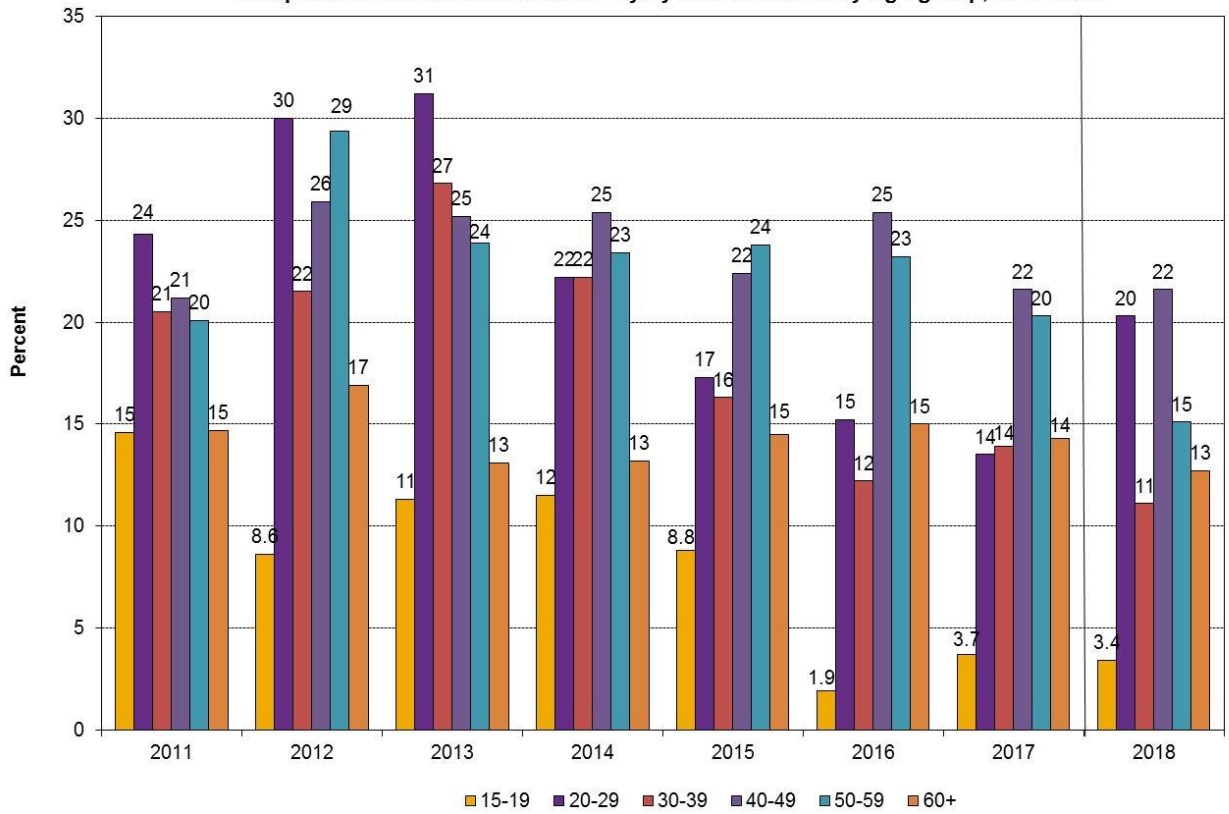
***Lifetime risky drinking is highest among 20-29 and 40-49 year old South Australians, with a decrease among those aged 15-19, 30-39 and 50-59 years.***

Figure 13 shows that from 2011-2013, the group with the highest proportion drinking at levels that put them at risk of injury or disease over a lifetime was aged 20-29 years (ranging from 24% in 2011 to 31% in 2013). In contrast, from 2014 to 2017, the highest proportion drinking at these levels were aged 40-49 (22% in 2017) and 50-59 (20% in 2017) years. There were significant decreases in lifetime risk between 2011 and 2017 for those aged 15-19 (from 15% to 3.7%), 20-29 (from 24% to 14%), and 30-39 (from 21% to 14%) years.

In 2018, the groups with the highest proportion drinking at levels that put them at risk of injury or disease over a lifetime were aged 40-49 years (22%) and 20-29 years (20%). Although there was an increase between 2017 and 2018 in lifetime risk among those aged 20-29 years (14% to 20%), it was not statistically significant, and lifetime risk has not returned to the levels seen from 2011-2013. There were significant decreases in lifetime risk between 2011 and 2018 among those aged 15-19 (15% to 3.4%), 30-39 (21% to 11%) and 50-59 (20% to 15%) years, and decreases between 2017 and 2018 among those aged 50-59 years (20% to 15%).



**Figure 13: The proportion of South Australians aged 15 years and over who drank at levels that put them at risk of disease or injury over a lifetime by age group, 2011-2018**



**Source:** South Australian Health Omnibus Survey 2011-2017 and South Australian Population Health Survey 2018  
 Due to changes in methodology, differences between 2018 and previous years should be interpreted with caution



## Appendix 1: Survey methodological changes and their implications

### Difference in survey mode

A change to the survey methodology can impact comparability of data between years. The South Australian Health and Medical Research Institute (SAHMRI) looked at the impact of survey mode on smoking estimates<sup>11</sup>, with studies finding that telephone surveys produce lower estimates of smoking prevalence (approximately 3 percentage points) than face-to-face surveys<sup>12</sup>. SAHMRI attribute these differences in part to social desirability bias (where people want to give a more socially desirable response), as well as the difficulty of hiding evidence of smoking in a face-to-face interview. A lower smoking prevalence was therefore predicted in 2018, which was borne out in the data. In 2018, 8.6% of those aged 15 years and over reported daily smoking, which was significantly lower than in 2017 (13.9%) and 2016 (12.8%). While the decrease may be partly attributable to methodology changes, the downward trend is consistent with other data sources. Wastewater analysis from bi-monthly sampling in metropolitan Adelaide has shown a downward trend in anabasine (a tobacco-specific metabolite) levels since 2015<sup>13</sup>, and other population surveys have shown decreases in smoking prevalence in recent years<sup>14</sup>.

Studies that examine the extent to which estimates of alcohol consumption might be affected by a change in the survey mode also found that telephone samples yield lower estimates than face-to-face samples, with differences ranging from 6.8<sup>15</sup> to 8.3<sup>16</sup> percentage points; others report no difference<sup>17</sup>. One study reported that the results of the alcohol-related measures in the telephone sample were reasonably well in line with the face-to-face sample overall<sup>18</sup>, although some differences were found among age groups, with the frequency and quantity of alcohol consumption lower among the telephone sample of respondents aged 30-49 years compared with the face-to-face sample.

### Use of proxies

In addition to the change in survey mode, the SAPHS used proxies (parents or guardians) to answer questions on behalf of 15 year olds, which was not part of the Health Omnibus Survey (HOS) methodology. This has the potential to underestimate substance use because 15 year olds may take these substances without their parent or guardian's knowledge. It may also artificially increase the number of 15 year olds who consent to participating, as a proxy may be more likely to agree than would the 15 year old. Although SAHMRI concluded that the use of proxies in 2018 had a minimal effect on smoking estimates as very few 15 year olds smoke, it may be an issue for alcohol consumption.

Research on the potential impact of using proxies as a measure of adolescent risky behaviours uses matched pairs of parents and adolescents (mostly ranging from 12-17 years) and asks them about the adolescent's behaviours. Parents tend to underestimate behaviours, including sexual risk<sup>19,20,21</sup>, violence<sup>22</sup>, disordered eating<sup>23</sup>, health and wellbeing<sup>24,25</sup> and quality of life<sup>26</sup>. Importantly, parents underestimate their adolescents' use of substances including marijuana<sup>27,28,29</sup> and tobacco<sup>30,31,32,33,34</sup> with one study concluding that 'parents are largely ignorant of the extent to which their adolescents are involved in major risk behaviors' (p. 1137<sup>35</sup>).

These discrepancies are also found for alcohol consumption. Noting that alcohol use is generally not high among young adolescents compared with older age groups, one study found that 72% of parents underestimated their adolescent's drinking in the last six months<sup>36</sup> and another found that although 49% of adolescents reported alcohol consumption, only 5% of parents stated that their child had consumed alcohol<sup>37</sup>. A study looking at parental estimation of their child's use of alcohol in five European countries found that for those aged 11-19 years who reported using alcohol, 79% of parents underestimated their child's weekly alcohol use, and that this underestimation increased with the child's frequency of use; that is, as consumption increased, the degree to which parents were aware of this behaviour decreased<sup>38</sup>. The discrepancy may also be greater among younger cohorts, with a study finding that although 80% of parents whose child had reported drinking were aware of this consumption, those aged 11-14 years were more than twice more likely to have consumed alcohol

without their parent's knowledge than 15-17 year olds<sup>39</sup>. Nearly 94% of parents were unaware of alcohol use reported by their 12-15 year olds<sup>40</sup>.

Analyses were also carried out on selected alcohol consumption measures in the 2018 SAPHS; comparing responses from 15 year olds with those from 16-19 year olds (those aged 15-19 years are compared with other age groups as part of the annual set of analyses). The aim was to examine whether 15 year olds differ from 16-19 year olds on alcohol consumption measures, and by how much. Indicators of consumption and risk were substantially lower among 15 year olds (12% had consumed alcohol vs. 59% of 16-19 year olds; 4.7% had consumed at risky levels at least monthly vs. 29% of 16-19 years; 0% had consumed at risky levels over a lifetime vs. 15% of 16-19 year olds).

When looking at trends over time in both the HOS/SAPHS and the National Drug Strategy Household Survey (NDSHS)<sup>41</sup>, there are differences between surveys in measures of alcohol consumption, although the trends are broadly similar. Methodology may account for some of the variation, and estimates for 15 years olds are likely unreliable in most iterations due to small numbers. Looking at the HOS/SAPHS only, 15 year olds follow a similar pattern to 16-19 year olds on frequency of use over time. However, there was a large drop among 15 year olds between 2017 and 2018 (37% to 12%) but an increase among 16-19 year olds (52% to 59%). Comparing estimates for risky drinking are not useful as in most years as a very small proportion of 15 year olds (or none) reported drinking at these levels. Risky drinking is much higher among 16-19 year olds in 2018 than in 2017 (as well as in some previous years), which is masked by including 15 year olds in the age range. Related to this is that a disproportionate number of 15 year olds took part in the survey in 2018 (72% of those aged 15-19 years) than in 2017 (12% of those aged 15-19 years). Population estimates from the Australian Bureau of Statistics show that in 2018, 15 year olds made up only 19% of 15-19 year olds<sup>42</sup>. Although the SAPHS is weighted to reflect the South Australian population, such a high proportion of respondents aged 15 years may lead to a sample that is less representative. It is likely that 15 year olds had a disproportionate influence on the data, and small numbers for 16-19 year olds may mean that estimates are unreliable. The 2016 NDSHS found that 19% of 15 year old Australians had consumed alcohol<sup>43</sup>, which is 1.6 times higher than in the 2018 SAPHS, further suggesting that data using proxies yield underestimates of consumption. Therefore, data looking at the younger age group should be interpreted with caution.

## **Accessibility**

The SAPHS uses random digit dialling of mobile and landline phone numbers aided by a database of numbers located in South Australia (the completeness of this database is unknown). The HOS used a clustered stratified sampling technique whereby households were sampled using Statistical Area Level 1 (SA1) with probability of selection proportional to each SA1's size. Country areas with a population of less than 1,000 people were not included in the HOS sampling frame. This means that the SAPHS is able to access people via phone that HOS could not access face-to-face, such as people living in localities with less than 1,000 population and people living in secure apartments/gated communities. This also has the potential to affect estimates.

## For more information

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<sup>1</sup> The NDSHS is conducted triennially by the Australian Institute of Health and Welfare (AIHW) since 1995. The survey provides information on drug use patterns, attitudes and behaviours among South Australians aged 12 years and over. Go to <https://www.aihw.gov.au/reports/illicit-use-of-drugs/ndshs-2016-key-findings/contents/summary>.

<sup>2</sup> Statistical tests include: The Pearson chi-squared statistic and linear regression. The Pearson chi-squared is corrected for the survey design with the second-order correction of Rao & Scott (1984: On chi-squared tests for multi-way contingency tables with cell proportions estimated from survey data. *Annals of Statistics* 12: 46-60) and is converted into an F statistic. Statistical significance was accepted at  $p < 0.05$ . All figures presented in this report are rounded to one decimal place in graphs and to zero decimal places in the text unless values fall below 10%. Two types of analyses are carried out on the risky drinking data: (1) Two-level ordinal variable: 'not risky at least monthly' and 'risky at least monthly' for single occasion risk, and 'no risk' 'risk' for lifetime risk; (2) Multi-level ordinal variables that include all levels of risk, including abstainers. Analyses on alcohol quantity and frequency are based on both multi-level ordinal variables: five for quantity and 11 for frequency, as well as more specific comparisons ('four drinks or less' vs 'five or more drinks' for quantity, and 'abstainers' vs 'less than weekly' vs 'at least weekly', 'any alcohol use' vs 'abstainers', 'never drank alcohol' vs 'drank alcohol' for frequency). For age and sex breakdowns, unless otherwise stated, comparisons are as stated above for the total sample. When statistically significant results are described as an overall trend or association, where all data from 2011-2018 are included, comparisons over time are made between 2011 vs 2018, and 2017 vs 2018 only.

<sup>3</sup> Abstainers include both ex-drinkers who had not consumed alcohol in the last 12 months, or non-drinkers, who had never consumed alcohol.

<sup>4</sup> <https://www.sahealth.sa.gov.au/wps/wcm/connect/fbb851ae-cac8-4f04-be5e-20b05d3b192b/Statistical+Bulletin+17+-+May+2019+FINAL.pdf?MOD=AJPERES&CACHEID=ROOTWORKSPACE-fbb851ae-cac8-4f04-be5e-20b05d3b192b-mHprDyH>

<sup>5</sup> <https://www.sahealth.sa.gov.au/wps/wcm/connect/public+content/sa+health+internet/about+us/health+and+medical+research/dassa+research+publications>

<sup>6</sup> 'In the last 12 months, how often did you have an alcoholic drink of any kind?'

<sup>7</sup> This section excludes participants who had not consumed alcohol in the last 12 months, or had never consumed alcohol.

<sup>8</sup> 'On a day that you drink, how many standard drinks do you usually have?'

<sup>9</sup> [http://www.nhmrc.gov.au/files\\_nhmrc/publications/attachments/ds10-alcohol.pdf](http://www.nhmrc.gov.au/files_nhmrc/publications/attachments/ds10-alcohol.pdf)

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