



## Cohort Profile

# Cohort Profile: The Australian Parental Supply of Alcohol Longitudinal Study (APSALS)

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## Abstract

The Australian Parental Supply of Alcohol Longitudinal Study (APSALS) was established in 2010 to investigate the short- and long-term associations between exposure to early parental alcohol provision, early adolescent alcohol initiation, subsequent alcohol use and alcohol-related harms, controlling for a wide range of parental, child, familial, peer and contextual covariates. The cohort commenced with 1927 parent-child dyads comprising Australian Grade 7 school students (mean age = 12.9 years, range = 10.8–15.7 years), and a parent/guardian. Baseline, 1- and 2-year follow-up data have been collected, with > 90% retention, and a 3-year follow-up is under way. The data collected include child, familial, parental and peer factors addressing demographics, alcohol use and supply, parenting practices, other substance use, adolescent behaviours and peer influences. The cohort is ideal for prospectively examining predictors of initiation and progression of alcohol use, which increases markedly through adolescence.

## Key Messages

- Results to date have highlighted the importance of distinguishing between the sipping and drinking of full servings of alcohol in the measurement of adolescent alcohol use, as these represent distinct behaviours which occur in different environments.
- Whereas rates of alcohol use are high amongst adolescents (baseline = 19.8%, 1-year follow-up = 32.7% and 2-year follow-up = 39.8%), the majority of this consumption is sipping rather than consuming whole standard drinks.
- The rates of parental supply were high (baseline = 15.3%, 1-year follow-up = 26.0% and 2-year follow-up = 34.6%), consistent with the view that parents are the main suppliers of alcohol to their children.

## Why was the cohort set up?

Harmful alcohol use is a leading cause of disease burden for young people in Australia and internationally.<sup>1</sup> In 2010, 23% of 12 to 15-year-old Australians had consumed alcohol in the past year, increasing to 68% of 16 to 17-year-olds.<sup>2</sup> Cross-sectional and prospective studies suggest that early age of initiation is associated with later drinking problems;<sup>3–5</sup> yet other research has shown that these impacts are limited to adolescence,<sup>6</sup> or that the relationship disappears once child, parent and contextual factors are taken into account.<sup>7</sup>

The study focuses specifically on the role of parental supply of alcohol in the alcohol use trajectories of adolescents. Parents are one of the predominant sources of alcohol for adolescents.<sup>8–11</sup> Many parents believe it is their responsibility to introduce their children to the consumption of alcohol,<sup>9,12</sup> and that doing so in supervised situations will reduce the likelihood of alcohol misuse.<sup>13</sup> However, there is a critical lack of research examining the role of parents in trajectories of adolescent alcohol use, especially regarding parental alcohol provision to children in early adolescence.<sup>14</sup> In examining the role of parental supply, control of covariates which have been shown to influence adolescent alcohol use is critical. The study aims to further investigate the context and predictors of alcohol use and alcohol-related harms amongst adolescents in Australia, and address the lack of clarity around the long-term impacts of early alcohol initiation.<sup>15</sup>

Existing research has shown that parental supply of alcohol increases the frequency of consumption by adolescents;<sup>16–20</sup> however, the findings concerning the quantity of consumption are mixed.<sup>21–24</sup> Some studies find associations between parental supply and lower binge drinking.<sup>22,25–27</sup> Conversely, other studies have found that supply was associated with higher rates of binge drinking.<sup>18,19,28,29</sup> Existing studies are typically cross-sectional,<sup>8,22,28,30</sup> and the few longitudinal studies have short follow-up periods and do not examine the full range of contextual factors identified as protective and risk factors in adolescent alcohol use.<sup>17,19,20,29,31–34</sup> Parental and family factors (such as monitoring,<sup>31,35</sup> behaviour management,<sup>31,36</sup> parent-child relationships,<sup>35,37</sup> parental modelling of alcohol use,<sup>31,35,38</sup> and parental/family alcohol problems,<sup>31,39</sup> adolescent behaviours,<sup>7,20</sup> peer influences<sup>7,20</sup> and demographic factors<sup>40–43</sup> have been shown to be associated with adolescent alcohol consumption; there are few, if any, studies that have taken the full range of these into account in the context of parental supply.<sup>7,17,19,20</sup>

In light of the mixed evidence regarding the effects of parental supply and the need to develop a more comprehensive understanding of the determinants of adolescent

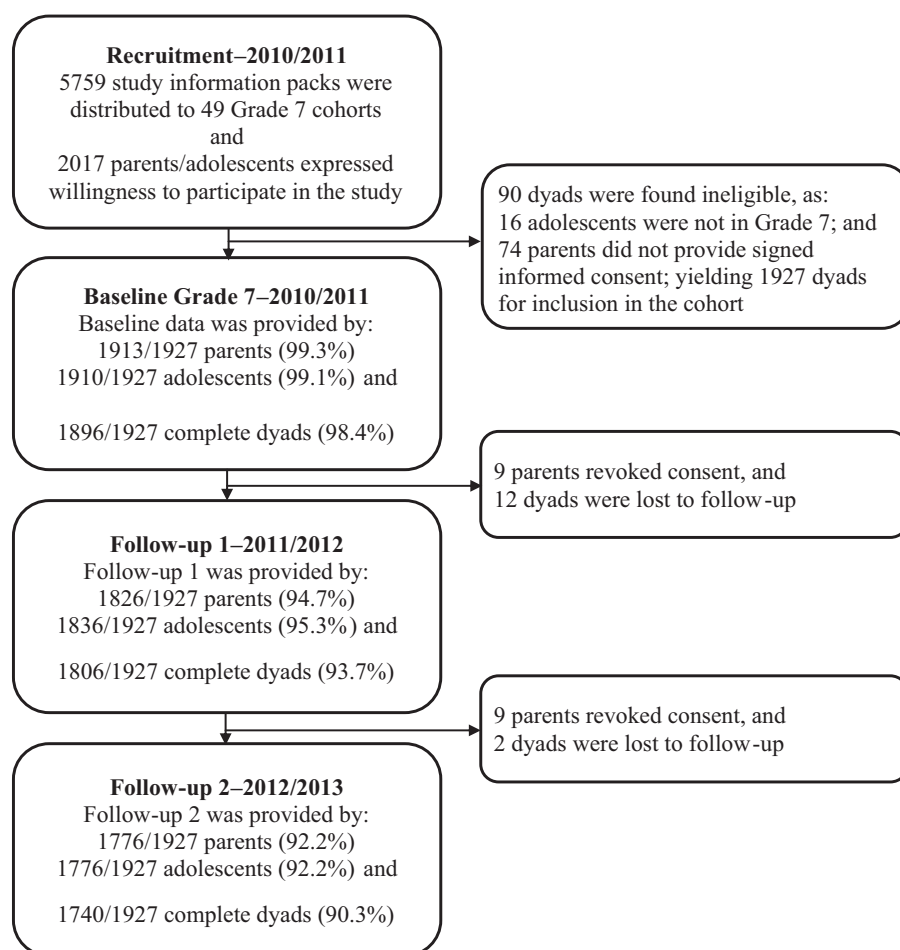
alcohol use,<sup>44</sup> the current cohort was established during 2010–11 to investigate the long-term impacts of parental alcohol supply, and individual, family, peer and other contextual factors, on early adolescent alcohol initiation and alcohol use trajectories. The research team hypothesized: that parental supply is associated with the progression (acceleration/deceleration) in adolescent drinking over time; and that a number of important immediate and broader contextual factors mediate or moderate the relationship between parental supply and progression in adolescent drinking over time.

The planned analyses will model changes in drinking status (consumption of whole alcoholic beverages, heavy episodic drinking and alcohol-related harms), using regression and multi-level modelling approaches. Models will incorporate a broad range of moderating and mediating variables, both time variant (e.g. association with alcohol-using peers) and time-invariant (e.g. sex). Initial sample size calculations indicated that a sample of 600 dyads would be adequate to detect medium effect size relationships. However, concerns regarding possible small cell sizes for less common outcomes resulted in a decision to increase the sample size approximately 3-fold above this initial target.

The cohort is led by the National Drug and Alcohol Research Centre at the University of New South Wales (UNSW) Australia, in collaboration with the Universities of Queensland, Newcastle and Tasmania and Curtin University. The study is registered at ClinicalTrials.gov (identifier: NCT02280551), and reports are prepared according to the STROBE statement guidelines for cohort study findings.<sup>45</sup>

## Who is in the observational cohort?

The cohort includes 1927 Australian adolescents born from 1996–99 (mean age at baseline: 12.9 years), and a parent or guardian [typically the mother (in 86.3% of dyads); mean age at baseline: 43.9 years]. A total of 107 Grade 7 cohorts were approached to assist in the recruitment: 49 (45.8%) agreed to participate (with 57% of government, 29% of Catholic and 47% of independent schools approached, agreeing to participate). The participating Grade 7 cohorts were from government (39%), Catholic (12%) and private independent (49%) schools in New South Wales (24%) (NSW), Western Australia (27%) (WA) and Tasmania (49%) (TAS). Schools elected to either: (i) distribute information packs by mail to parents directly; or (ii) have members of the research team provide a brief presentation to students, distributing study information packs. The first option was selected by 65.3% of



**Figure 1.** Time and study flow chart with participation rates from the APSALS cohort.

schools, with a return rate of 39.3%, and the second option by 35.0% of schools, with a return rate of 22.1%. Return rates for individual schools ranged between 9.0% and 55.0%. Overall 5759 study information packs were distributed and 2017 parent-adolescent dyads (in 1977 families) expressed initial interest in the study (overall return rate of 35.0%). These rates are comparable to expectation in the context of the active informed consent (vs passive consent) method of school-based recruitment.<sup>46</sup>

After opting to receive information about the study, informed consent forms were sent to parents, and the Grade 7 students and parents were sent separate baseline and follow-up questionnaires to be completed independently of each other, either online or by mail (61.0% online at baseline). This separate independent reporting aimed to minimize reporting bias (especially by the children). Participants were eligible for inclusion if the adolescent was in Grade 7 at recruitment and if active parental signed informed consent was provided. Of 1977 families, there were 38 families with twins and one family with triplets. The parents of the twins and triplets were asked to complete a separate

survey about each child and each child completed their own survey, which resulted in an additional 40 dyads, taking the total number of dyads opting into the study to 2017. Of the 2017 dyads expressing willingness to opt into the study, 16 (0.8%) proved ineligible as the child was not in Grade 7, and 74 parents (3.7%) did not provide signed informed consent. These dyads were not included, resulting in a cohort of 1927 dyads (see Figure 1).

No information about non-participants was gathered as researchers did not obtain contact details or information about the families until after recruitment, as required by the institutional review board. However, comparison with Australian population data from national data collections suggests that the cohort was comparable with, though somewhat more advantaged than, the general population (see Table 1). Parents reported higher levels of education and employment compared with the general population, though the median weekly income was similar. Tasmania and Western Australia and independent and Catholic schools are overrepresented in the cohort. The predominance of students from non-government schools may have

**Table 1.** Baseline cohort demographics and comparison with Australian population data

Demographics	Cohort	Australian population
Participating parent demographics	( <i>n</i> =1913 <sup>a</sup> )	
Reporting parent is female	87.1% (95% CI: 85.52–88.53)	
Mean age, years (range)	43.9 (range: 22.8–70.1) (SD = 5.4)	
Participating parent education		
School Certificate/Grade 10	12.3% (95% CI: 10.10–14.79)	In 2012, 67% of 25–64-year-olds had a post-high school tertiary qualification, 35% with a non-degree qualification, 30% with a university degree <sup>47</sup>
High School Certificate/Grade 12	13.7% (95% CI: 11.43–16.34)	
Diploma, trade qualification	32.9% (95% CI: 29.68–36.37)	
University degree	40.5% (95% CI: 37.00–43.99)	
Participating parent employment status		
Employed (full- or part-time)	81.2% (95% CI: 79.37–82.87)	In 2010–11, 80% of males and 65% of females aged 20–74 were employed <sup>48</sup>
Unemployed	1.0% (95% CI: 0.07–1.62)	
Home duties	12.4% (95% CI: 10.99–13.94)	
Studying	2.3% (95% CI: 1.72–3.08)	
Retired or on a pension	1.6% (95% CI: 1.10–2.23)	
Unable to work	0.9% (95% CI: 0.06–1.49)	
Household income		
Up to \$34 999 <sup>b</sup>	8.6% (95% CI: 7.38–9.91)	In 2011, median weekly income of Australian households with children was \$2 310.00, which is equivalent to \$120 120 annually <sup>49</sup>
\$35 000–\$80 999	24.6% (95% CI: 22.70–26.57)	
\$81 000–180 999	48.8% (95% CI: 46.55–51.04)	
\$181 000 or more	18.1% (95% CI: 16.40–19.86)	
Participating parent country of origin		
Australia	73.8% (95% CI: 71.74–75.67)	In 2013, 72.3% of Australia's population was born in Australia. People born in the United Kingdom and New Zealand made up the top two groups of overseas-born residents (5.3% and 2.6%, respectively) <sup>50</sup>
United Kingdom	12.1% (95% CI: 10.75–13.67)	
New Zealand	3.3% (95% CI: 2.56–4.16)	
Africa	3.6% (95% CI: 2.88–4.57)	
Asia	3.4% (95% CI: 2.65–4.28)	
Europe	1.8% (95% CI: 1.26–2.46)	
Other	2.1% (95% CI: 1.52–2.82)	
Household composition, socioeconomic status, state of residence		
Two-parent household (including step-parent/blended families)	79.6% (95% CI: 77.70–81.31)	In 2010, 81% of families were two-parent families <sup>51</sup>
Mean number of children (SD)	2.6 (SD = 1.1)	In 2011, the average number of children per family was 1.9 <sup>49</sup>
Mean Index of Relative Socio-economic Advantage and Disadvantage (IRSAD) Score (SD)	1023.5 (SD = 80.3) Range = 807.3–1213.9	IRSAD is standardized against a mean score of 1000, with a SD of 100 <sup>52</sup>
State of residence:		
NSW	25.3% (95% CI: 23.42–27.30)	In 2013, 32.0% of the population lived in NSW, 2.2% in TAS, 10.9% in WA <sup>53</sup> Of 12–13-year olds in Australia, 32.0% reside in NSW, 10.9% in WA and 2.4% in TAS <sup>54</sup>
TAS	42.2% (95% CI: 40.03–44.44)	
WA	32.2% (95% CI: 30.16–34.33)	
Other	0.26% (95% CI: 1.08–6.22)	
Child demographics	( <i>n</i> = 1910 <sup>a</sup> )	
Child is female	44.9% (95% CI: 42.63–47.09)	In 2011, 48.7% of 12–13-year-olds were female; mean age was 12.5 years <sup>54</sup>
Mean age (range)	12.9 (10.8–15.7)	
School type:		
Government	38.8% (95% CI: 26.43–52.75)	In 2010, of school students, 66% enrolled in government, 20% in Catholic and 14% in independent schools <sup>55</sup>
Catholic	12.2% (95% CI: 5.73–2.42)	
Independent	49.0% (95% CI: 35.58–62.53)	

<sup>a</sup>1927 dyads are involved in the cohort, but a number of either parents (*n* = 14), or adolescents (*n* = 17) did not return the baseline surveys.

<sup>b</sup>\$, Australian dollars.

biased the cohort towards higher levels of advantage compared with the general population. Despite this, the similarity of the cohort to the Australian population on a range of demographic variables suggests such potential biases are not large.

### How often have they been followed up?

Follow-up of dyads occurs annually and, to date, the baseline, 1-year, and 2-year follow-ups have been completed (Figure 1). Baseline questionnaire response rates were 99.3% for parents and 99.1% for adolescents; 1913 parents (mean (M) age = 43.9 years, standard deviation (SD) = 5.3) and 1910 adolescents (M age = 12.9 years, SD = 0.5) completed baseline surveys. This resulted in 1896 complete parent-child dyads and 31 dyads where only one member completed the baseline survey. The 31 dyads where only one member completed the baseline survey were included, resulting in a cohort of 1927 dyads. The parents or adolescents in these dyads who did not complete baseline were invited to complete follow-up surveys.

### What is attrition like?

Attrition has been low over the first three waves of data collection (Figure 1); 32 dyads withdrew or were lost to follow-up by the end of the second follow-up (21 at follow-up 1, 11 at follow-up 2), such that 1895 dyads (98.3% of the original cohort of 1927) remained involved in the study at the beginning of third follow-up. Parents from dyads who withdrew or were lost to follow-up were less likely to have a university education (17.2% vs 36.6%;  $\chi^2(1, N=1905) = 4.61, P=0.03$ ), less likely to be working (81.5% vs 63.3%;  $\chi^2(1, N=1912) = 6.35, P=0.01$ ), and more likely to be in the lowest income bracket (30.0% vs 8.2%;  $\chi^2(3, N=1903) = 21.45, P<0.001$ ).

Families that dropped out were more likely to be single-parent households (53.1% vs 19.8%;  $\chi^2(1, N=1927) = 21.47, P<0.0001$ ), and to have lower socioeconomic status as indicated by their lower Socio-Economic Indexes for Areas (SEIFA) score (mean score 984.4 vs 1024.1;  $t_{1925} = 2.78, P=0.01$ ). There were no differences in country of birth, religiosity, family size, parent sex, parent alcohol use, child alcohol use, parental alcohol supply or child sex.

### What has been measured?

Measures included at each survey wave are shown in Table 2, with additional information available in Appendix 1 (available as [Supplementary data](#) at *IJE* online); most are taken or modified from existing measures. A subsample of parents

(65.8% of the cohort) also consented to researchers accessing their child's Grade 7 and Grade 9 National Assessment Program – Literacy and Numeracy (NAPLAN) results, a national standardized literacy and numeracy test for students conducted in schools.

### What has it found?

A comparison of alcohol use across time points for parents and adolescents is presented in Table 3. These data indicate that the cohort was recruited prior to initiation of alcohol consumption (of a whole beverage) for all but 5.8% of the adolescents, creating a large cohort in whom to examine predictors of initiation and progression of alcohol use.

Rates of parental drinking are similar those in the 2010 National Drug Strategy Household Survey (NDSHS), which is considered representative of the Australian population.<sup>2</sup> At Follow-up 2, consumption of at least a full serving of alcohol and frequency of consumption were similar between the current study and the NDSHS, although only 2.5% of parents reporting daily use vs 7.7% in the NDSHS, with 46.0% vs 41.7% weekly use, 38.0% vs 33.0% less than weekly use and 13.6% vs 17.6% never using or only sipping in the past 12 months, respectively.<sup>2</sup>

The rate of consumption for 12 to 15-year-olds in the 2010 NDSHS was somewhat higher than for the adolescents in the current study, with 22.8% reporting consuming a full serving of alcohol in the past year compared with 15.2% at Follow-up 2 in the current study (mean age = 14.8 years). The 2010 NDSHS showed a decrease in the proportions of adolescents consuming alcohol since 2007, so it is possible that this decline has continued since 2010.<sup>2,70</sup> Frequency of consumption was similar between adolescents in the current study and 12 to 17-year-olds in the 2010 NDSHS, with 0.1% vs 0.1% consuming daily, 1.1% vs 5.1% weekly, 37.1% vs 33.2% less than weekly and 61.7% vs 61.6% never in the past 12 months, for the most recent wave of the current study and NDSHS, respectively.<sup>2</sup> These comparisons suggest that the cohort population is broadly similar to the general Australian population in terms of alcohol consumption.

A number of publications based on baseline and first follow-up data have been prepared. The first of these studies identified a possible cause of the wide variation in reports of adolescent alcohol use, suggesting that failing to distinguish between the sipping and the drinking of full servings of alcoholic beverages (which has frequently occurred in previous research<sup>71,72</sup>) has substantial impacts on apparent rates of adolescent alcohol involvement.<sup>73</sup> Much existing research is likely to be overestimating the extent of alcohol use by adolescents by not recognizing that much of this use is limited to sipping. The second

**Table 2.** Parent and adolescent measures at each survey point

Parent Measures	Baseline	Follow-up 1	Follow-up 2
Parent and household demographics			
Birth date, sex, employment, income, SEIFA	✓	✓	✓
Education, family size, older siblings, country of birth	✓		
Religiosity <sup>22</sup>	✓	✓	✓
Parental alcohol use			
Age of first alcohol use <sup>56</sup>	✓	✓	✓
Quantity/frequency (Q/F) <sup>56</sup>	✓	✓	✓
Heavy episodic alcohol use: Q/F <sup>56</sup>	✓	✓	✓
Consumption of alcohol in front of child	✓	✓	✓
Alcohol harm minimization <sup>56</sup>			✓
Partner alcohol use: Q/F, heavy episodic alcohol use: Q/F <sup>56</sup>		✓	✓
Family alcohol problems	✓		
Supply of alcohol to adolescents			
Parental: quantity/frequency, context/supervision <sup>57</sup>	✓	✓	✓
Non-parental: Q/F <sup>57</sup>	✓	✓	✓
Home access to alcohol <sup>19</sup>	✓	✓	✓
Parenting practices			
Consequences for child if s/he drinks alcohol <sup>22</sup>	✓	✓	✓
Positive family relations and conflict <sup>58</sup>	✓	✓	✓
Parental enforcement/consistency of rules <sup>59</sup>	✓	✓	✓
Parental monitoring of activities <sup>60</sup>	✓	✓	✓
Supervision of child's activities <sup>61</sup>	✓	✓	✓
Parents' alcohol norms <sup>62</sup>		✓	✓
Alcohol communication <sup>63</sup>		✓	✓
Parental substance use			
Tobacco		✓	✓
Illicit substance(s)			✓
Adolescent behaviours			
Parent perception of child's externalizing and internalizing behaviours and social problems <sup>64</sup>			✓
Parent perception of child's intention to use alcohol <sup>19</sup>		✓	✓
Peer influences			
Parent perception of peer alcohol use <sup>65</sup>	✓	✓	✓
Adolescent measures	Baseline	Follow-up 1	Follow-up 2
Adolescent demographics			
Age, sex, household composition, school grade	✓	✓	✓
Available discretionary money	✓	✓	✓
Adolescent alcohol use			
Age of first alcohol use <sup>56</sup>	✓	✓	✓
Source of first alcohol <sup>56</sup>	✓	✓	✓
Parental supply: Q/F, supervision <sup>57</sup>	✓	✓	✓
Alcohol use: Q/F <sup>56</sup>	✓	✓	✓
Heavy episodic alcohol use: Q/F <sup>56</sup>	✓	✓	✓
Source and quantity of alcohol supplied <sup>57</sup>	✓	✓	✓
Context of alcohol supply and consumption <sup>57</sup>	✓	✓	✓
Effects of alcohol <sup>7</sup>	✓	✓	✓
Alcohol-related harms <sup>57</sup>	✓	✓	✓
Motivations for alcohol use <sup>66</sup>		✓	✓
Symptoms of DSM-IV alcohol abuse <sup>67</sup>		✓	✓
Intentions to use alcohol <sup>19</sup>		✓	✓
Alcohol use norms <sup>62</sup>		✓	✓
Parent/family factors			

(continued)



**Table 2.** Continued

Adolescent measures	Baseline	Follow-up 1	Follow-up 2
Adolescent report of parenting practices			
Consequences for drinking alcohol <sup>22</sup>	✓	✓	✓
Parental alcohol-specific rules <sup>68</sup>	✓	✓	✓
Parental responsiveness/demandingness <sup>69</sup>	✓		
Parental monitoring of activities <sup>60</sup>	✓	✓	✓
Peer influences			
Peer substance use <sup>65</sup>	✓	✓	✓
Peer disapproval of alcohol use <sup>65</sup>	✓	✓	✓
Adolescent behaviours			
Adolescent externalizing and internalizing behaviours and social problems <sup>64</sup>	✓	✓	✓
Illicit substances: frequency			✓
Tobacco: frequency	✓	✓	✓
Energy drinks: Q/F			✓
NAPLAN scores (for consenting students)	✓		✓

**Table 3.** Parent and adolescent report of alcohol use and parental supply of alcohol

Alcohol use		Baseline <i>n</i> = 1913		Follow-up 1 <i>n</i> = 1826		Follow-up 2 <i>n</i> = 1776	
Parent report		<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
Used alcohol in past 12 months	None	132	6.9%	149	8.2%	147	8.3%
	Sip	67	3.5%	79	4.3%	97	5.5%
	Full serving	1714	89.6%	1598	87.5%	1532	86.3%
Frequency of use in past 12 months <sup>a</sup>	Never	201	10.5%	235	12.9%	242	13.6%
	<than monthly	261	13.6%	227	12.4%	230	13.0%
	Monthly	473	24.7%	459	25.1%	443	25.0%
	Weekly	929	48.6%	868	47.5%	816	46.0%
	Daily	49	2.6%	37	2.0%	45	2.5%
Supplied alcohol to child in past 12 months	None	1384	72.4%	1358	74.4%	1179	67.0%
	Sip	520	27.2%	437	23.9%	523	29.5%
	Full serving	9	0.5%	31	1.7%	74	4.2%

Alcohol use		Baseline 12.9 years <i>n</i> = 1910		Follow-up 1 13.9 years <i>n</i> = 1836		Follow-up 2 14.8 years <i>n</i> = 1776	
Adolescent report		<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
Used alcohol in past 12 months	None	1531	80.2%	1235	67.2%	1070	60.3%
	Sip	268	14.0%	454	24.7%	437	24.6%
	Full serving	111	5.8%	147	8.0%	269	15.2%
Frequency of use in past 12 months <sup>b</sup>	Never	1531	80.2%	1241	67.6%	1096	61.7%
	<than monthly	279	14.6%	442	24.1%	506	28.5%
	Monthly	80	4.2%	121	6.6%	152	8.6%
	Weekly	20	1.1%	32	1.8%	20	1.1%
	Daily	0	0.0%	0	0.0%	2	0.1%
Parent supplied alcohol to child in past 12 months	None	1618	84.7%	1358	74.0%	1290	65.4%
	Sip	264	13.8%	406	22.1%	359	20.0%
	Full serving	28	1.5%	72	3.9%	127	14.6%

<sup>a</sup>Some parents reporting only sipping alcohol, did not provide frequency data and are coded as 'Never' in the frequency data.

<sup>b</sup>There was also minor inconsistency between whether a child reportedly 'Used alcohol' and their reported frequency at Follow-ups 1 and 2.

study examined predictors of sipping and drinking (full servings) of alcohol, showing that these are quite different behaviours which occur in different environments. Grouping 'sippers' and 'drinkers' together may have significant effects on the results of epidemiological studies, potentially diluting outcomes for drinkers.<sup>73</sup> In addition to these, a range of publications are currently under way, investigating topics including the impacts of parental supply of alcohol on adolescent alcohol use, changes in patterns of youth alcohol use over time, influences on parental supply and adolescent alcohol use, and outcomes of early alcohol initiation. Publications and presentations will be listed on the study website as they become available [<http://ndarc.med.unsw.edu.au/project/can-parents-teach-their-children-drink-alcohol-responsibly-or-one-drop-drop-too-many>].

### What are the main strengths and weaknesses?

The longitudinal design and the early age of recruitment are strengths of this study, with measurement beginning at or before the initiation of alcohol use, allowing investigation of the temporal order of initiation to alcohol use and development of risky drinking patterns and alcohol use disorders, accounting for covariates. Importantly, this cohort also distinguishes between sipping (having a sip or taste) and drinking (consumption of whole beverages), which to date has been overlooked by many other studies.<sup>71,74-76</sup> A further strength is the separate reporting by parent and child. Specifically, to maintain separate independent reporting by the parent and adolescent; paper surveys were mailed separately to each individual adolescent and to each parent (with separate reply-paid envelopes), and online surveys were emailed separately (except where separate email addresses for the parent and adolescent were unavailable, in which case separate email links for the adolescent and parent were provided to ensure separate reporting). This approach also allows exploration of relationships between father/mother and son/daughter dyad reporting and drinking.

Differential attrition is a threat to the validity of inferences from longitudinal studies. Whereas there was evidence that those who dropped out or did not complete follow-up were different in a number of predictable ways from those who completed follow-up assessments, the overall retention of the sample was high. This can be attributed to rigorous follow-up procedures, supported by funding from competitive grants. The cohort is diverse demographically and in terms of alcohol use among parents and children. The large sample size will facilitate complex analyses regarding the developmental trajectories of alcohol use in relation to a range of parental, child and

contextual factors. Utilization of both parent- and child-report also differentiates these data from other longitudinal cohorts.<sup>7,77-81</sup>

Weaknesses include the low initial response rate of 34.3%. This is typical for school-based recruitment using active opt-in procedures in Australia, which are standard in Australia.<sup>46</sup> However, aspects of self-selection may interact with variables of interest, thereby biasing estimates of association.<sup>81</sup> Another issue is representativeness. Independent and Catholic school students were overrepresented. Participants were also only recruited from three Australian states (NSW, TAS, WA) and those from TAS and WA are overrepresented in terms of the distribution of the Australian population.<sup>53</sup> Participants were mostly from metropolitan or large regional centres, so the cohort is not representative of rural/remote populations. No information was collected about those who chose not to participate, as researchers had no contact with families until enrolment into the study.

### Can I get hold of the data? Where can I find out more?

The cohort is managed by the National Drug and Alcohol Research Centre at UNSW Australia [<http://ndarc.med.unsw.edu.au/project/can-parents-teach-their-children-drink-alcohol-responsibly-or-one-drop-drop-too-many>]. Those interested in accessing data or collaborating with the team should contact Richard P Mattick [[r.mattick@unsw.edu.au](mailto:r.mattick@unsw.edu.au)] or Alexandra Aiken [[a.aiken@unsw.edu.au](mailto:a.aiken@unsw.edu.au)]. The APSALS welcomes interest and offers of collaboration from colleagues, dependent on some provisions and on institutional review board (IRB) ethical approval. Generally, approval of a proposal depends upon the topic of interest, the degree of data access being sought and the availability of an agreed data analysis plan. If a topic is currently the subject of research/analysis, then a request for data access may be declined or else be subject to constraints. A memorandum of understanding will be developed to stipulate the conditions under which access is made available.

### Supplementary Data

Supplementary data are available at *IJE* online.

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