

Sips, drinks & Australian adolescent alcohol use: Is it really what we think?

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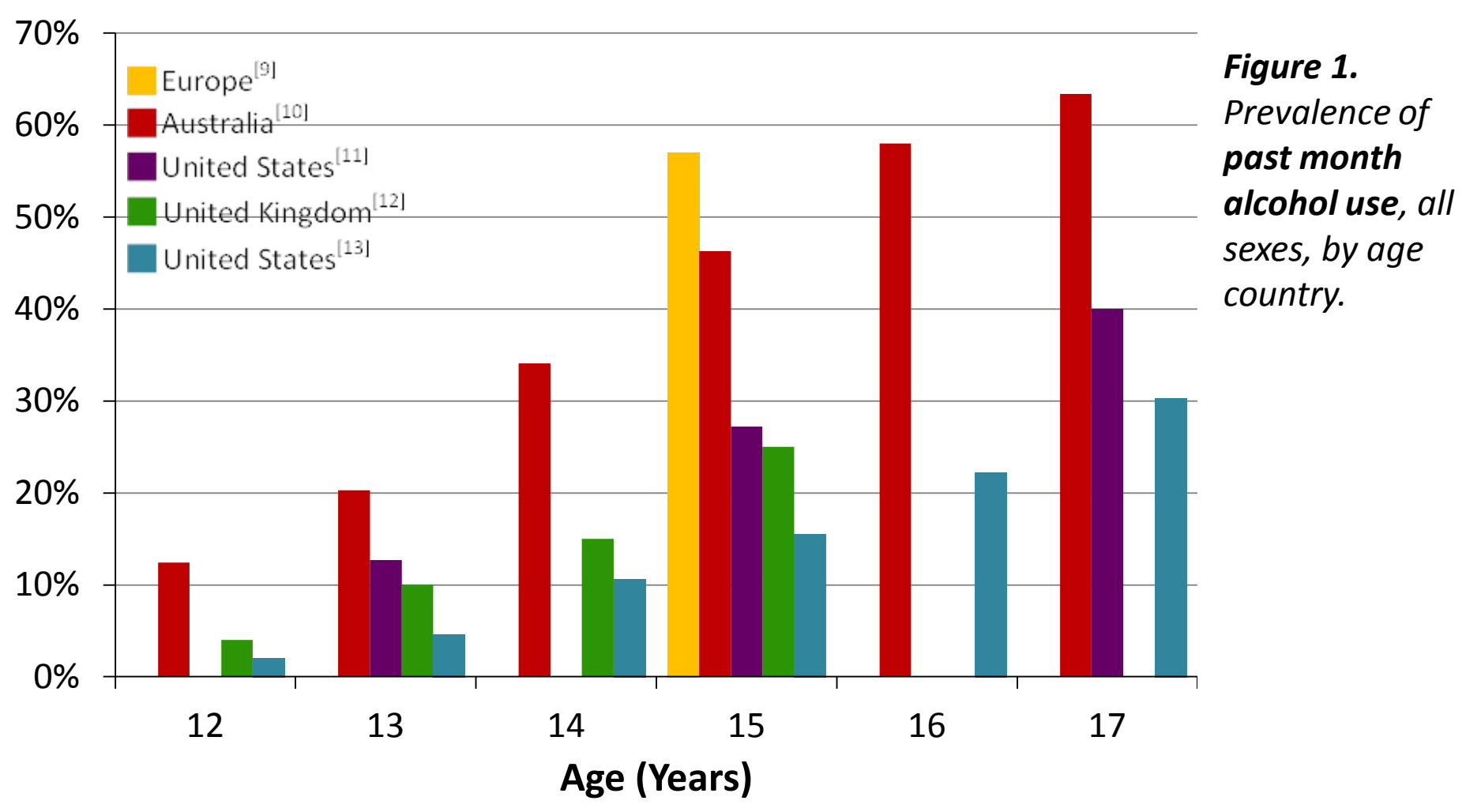
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Why is adolescent alcohol use a problem?

Alcohol is one of the largest contributors to the global burden of disease.^[1]

Internationally, population surveys report increasing levels of adolescent alcohol involvement.

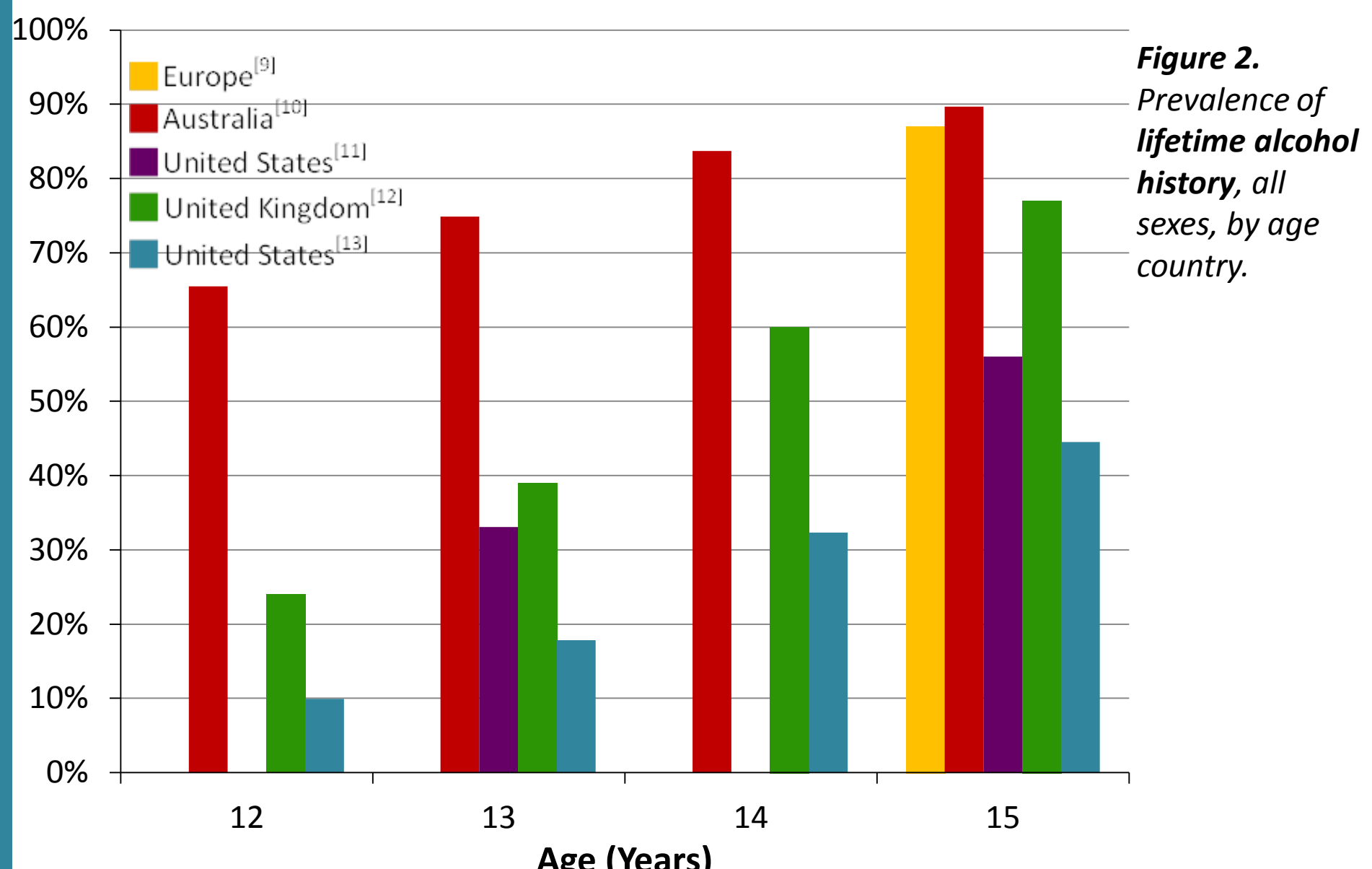
Adolescent alcohol use is associated with a range of short- and long-term harms, such as adult drinking problems,^[2] other substance use,^[3] criminal activity,^[3] suicide attempts,^[4] physical fights,^[5] injuries,^[6-7] and unplanned and unprotected sex.^[8]



Alcohol initiation

There has also been concern over the decreasing age of alcohol initiation and use, internationally.

One of the biggest predictors of adolescent and young adult alcohol misuse is early age of alcohol initiation.^[2-5,7,8]



How alcohol use, alcohol initiation and lifetime alcohol history are defined is often unclear.

Population surveys often ask if respondents have ever used alcohol without explicitly excluding having a “sip” of alcohol.

Subsequently, in reporting data, adolescents who have only had a sip of alcohol are often collapsed with those who have had at least a full drink, into a single category representing alcohol use.

However, having a sip of alcohol and drinking alcohol are two very different adolescent alcohol behaviours.

Having a sip of alcohol is a common alcohol behaviour in early adolescence, but consumption of full drinks is less common.^[14]

Whilst having a sip of alcohol represents initiating alcohol involvement, it does not necessarily represent initiation of, or progression to, consumption of full drinks, ie. alcohol use.

This lack of distinction between having a sip of alcohol and consuming full drinks may inadvertently overestimate actual drinking rates in population reporting.

The current study

Only one existing study explicitly investigates sipping in early adolescence.^[14]

To date, no longitudinal research addresses the role of having a sip of alcohol in relation to adolescent alcohol use trajectories.

The current research aims to unpack early adolescent alcohol use:

- Prevalence of having a sip of alcohol
- Prevalence of consuming full drinks or more
- Contexts of having a sip versus full drinks
- Factors relating to having a sip versus full drinks

Method

The current data refers to baseline data collected from an ongoing Australian longitudinal cohort.

Students (M age=12.5yrs) were recruited via secondary school schools across NSW, TAS, and WA in 2010/11, to participate with one of their parents.

A total of 1,978 parent-child dyads opted in to the study, with 1,894 dyads completing baseline surveys either online or paper-based.

Youth Measures

Demographics – gender, age, family composition

Alcohol use – quantity and frequency, sources and context of supply and consumption

Alcohol-related harms

Alcohol-specific rules

Parenting styles and relationships

Parental monitoring

Peer substance use and approval

Delinquency and mental health

Parent Measures

Demographics – gender, country of birth, education, income

Religiosity

Parental alcohol use – quantity and frequency, family history

Parental alcohol supply– context, supervision, quantity-frequency

Home alcohol access

Child’s peer substance use

Family conflict and positive family relations

Parental rules

Parental monitoring

Child’s academic performance

Results: How many adolescents have tried alcohol?

Not as many as we may expect. Table 1 shows the proportion of adolescents who have ever tried alcohol in their lifetime. Most reported alcohol involvement in 11-13-year-olds was in fact confined to having had only a sip of alcohol, with an increasing proportion of adolescents consuming a full drink with older age.

Table 1. Proportion of adolescents who have ever tried alcohol in their lifetime, by sex and age.			
	11 years	12 years	13 years
Never tried alcohol			
Male	36.8%	29.3%	24.0%
Female	41.2%	36.4%	27.1%
Total	38.5%	37.2%	25.3%
Have only ever had a sip of alcohol			
Male	60.8%	66.7%	64.4%
Female	56.6%	59.1%	64.9%
Total	58.9%	63.1%	64.6%
Have consumed a whole glass of alcohol or more			
Male	2.3%	4.0%	11.5%
Female	2.2%	4.5%	8.0%
Total	2.3%	4.2%	10.1%

However, as per the Australian Secondary Schools Survey on Alcohol & Drugs (ASSAD),^[10] when adolescents who have only had a sip of alcohol and those who have had at least a full glass are combined into a single category, a different picture is evident. Specifically, lifetime alcohol use prevalence between the 2008 ASSAD and current sample are very similar (see Table 2).

Table 2. Comparison of lifetime history of alcohol involvement between the current sample and the ASSAD 2008, ^[10] by age and sex.				
	Current Study		ASSAD 2008	
	12 years	13 years	12 years	13 years
Male	70.7%	76.7%	66.1%	76.7%
Female	63.6%	72.9%	64.8%	73.1%
Total	67.4%	74.7%	65.5%	74.9%

Are adolescents who have had only a sip different to those consuming full drinks?

Adolescents who have consumed at least a full glass of alcohol or more are indeed significantly different from adolescents who have only ever had a sip of alcohol on a range of domains (see Table 3). Specifically, adolescents with greater parental discipline, rule enforcement, monitoring, positive family relations and maternal responsiveness and demandingness appear less likely to have consumed a full glass of alcohol (OR=0.66-0.91).

Table 3. Estimated odds ratio from a logistic regression of adolescents having a lifetime history of consuming full drinks versus having only a sip of alcohol by demographics, parent education, peer factors, parenting style, family relationships, and child behaviour.			
	OR	χ^2	p-value
Demographics			
Child’s age	2.19	38.42	0.00*
Child sex	0.94	0.09	0.76
Two-parent household	0.58	5.55	0.02*
Parents employed	0.70	1.92	0.15
Parent Education			
Diploma	1.07	2.48	0.78
Parent consumed alcohol in past 12 months	0.47	2.70	0.08
Peer Factors			
Child has friends who smoke cigarettes	6.63	79.35	0.00*
Child has friends who drink alcohol regularly	8.31	99.65	0.00*
Child has friends who have been drunk	8.81	105.32	0.00*
Parenting Style & Family Relationships			
Parental discipline	0.89	12.04	0.00*
Parental rule enforcement	0.91	12.55	0.00*
Family conflict	1.49	14.21	0.00*
Positive family relations	0.66	5.96	0.01*
Parental monitoring	0.75	38.29	0.00*
Alcohol-specific rules	0.66	94.96	0.00*
Maternal responsiveness	0.91	19.66	0.00*
Maternal demandingness	0.88	31.17	0.00*
Child rule-breaking behaviour	1.17	25.46	0.00*
Child aggressive behaviour	1.07	10.79	0.00*
Child withdrawn-depressed behaviour	1.09	4.18	0.03*
Child anxious-depressed behaviour	1.02	0.26	0.61
Child social problem behaviour	1.03	0.76	0.38

Adolescents reporting having substance-using peers appear more likely to have consumed a full glass of alcohol or more (OR=6.63-8.81). Likewise, adolescents appear more likely to have consumed a full glass of alcohol or more if they reported rule-breaking, aggressive, and withdrawn-depressed behaviour (OR=1.07-1.17).

Conclusion

This study is consistent with previous work demonstrating the common nature of having a sip of alcohol in early adolescence.^[14] The current results suggest having a sip of alcohol and consuming at least a full drink indeed represent different alcohol behaviours.

This research emphasises the need to appropriately distinguish between such behaviours in measuring and reporting adolescent alcohol involvement. Not accounting for this distinction is likely to result in a significant overestimate of actual alcohol involvement in childhood adolescence. This has significant implications for international public health policies and future adolescent alcohol epidemiology and intervention research. To date, adolescent alcohol interventions demonstrate limited long-term success,^[15-16] and in-depth distinction between different levels of adolescent alcohol involvement may provide important insight to this.

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