

## Drinking and drunkenness among 11 year olds in the UK – findings from the Millennium Cohort Study

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Risky behaviours including unsafe sex, other substance use and premature death primarily due to accidents are all linked to heavy drinking amongst young people. We hear quite a lot in the public discourse and news stories about young people these days being more abstemious than previous decades.

And that's backed up by some data from sources such as the Smoking, Drinking and Drug Use Survey, a UK survey, which shows that over the last decade or so young people in the 11-15 age bracket are less likely to drink than they were before. So ten years ago about 60% of 11-15 year olds reported ever drinking. The latest figures show that it is around 40% of 11-15 year olds reporting ever having had a drink. However, even though over the last decade we have seen a decline in the proportion of young people reporting drinking, amongst those who do drink the amount they report drinking has not declined. We also know that hospital admissions in the under-18s due to causes related to alcohol remains a problem. And when we compare the UK to the rest of Europe drinking rates amongst young people remain higher than the European average.

Most of what we understand and know about the causes of and consequences of drinking in young people come from studies which look at older teenagers and even groups of people in their early twenties or so with very little attention being paid to the influences on young people drinking at the very start of that adolescent period. So the work I'm going to show today. I am going to show highlights from two papers that we have recently written in which we are looking at influences on drinking amongst eleven year olds using data from the Millennium Cohort Study.

## How many early adolescents are drinking?

- Ever having had an alcoholic drink = 13.6%
- Having been drunk = 1.2%
- Drank 5 or more drinks on one occasion = 0.6%

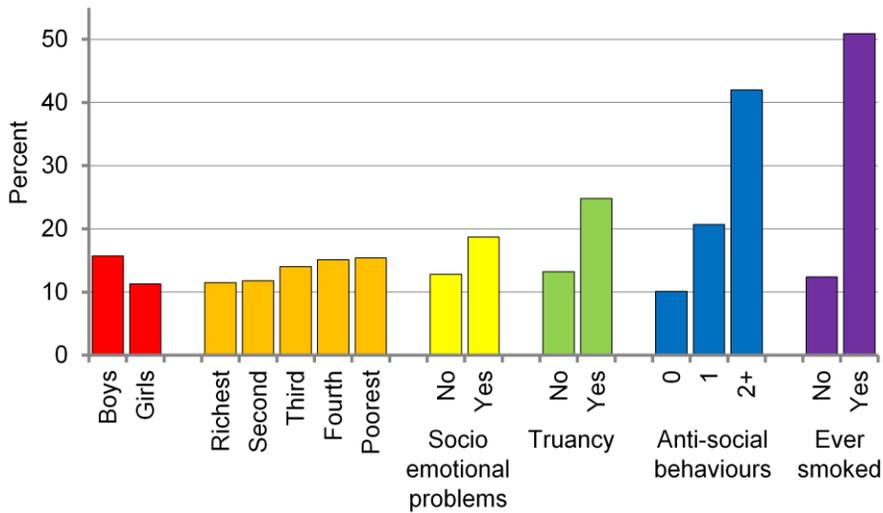
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How many of these eleven year olds are drinking? This slide just shows you a snapshot. At age eleven about one in seven of all members reported ever having had a drink - that is more than a few sips of alcohol, really having a drink. A small proportion, 1.2%, reported having been drunk, and a smaller proportion again reported having five or more drinks on at least one occasion, what we think of as binge drinking.

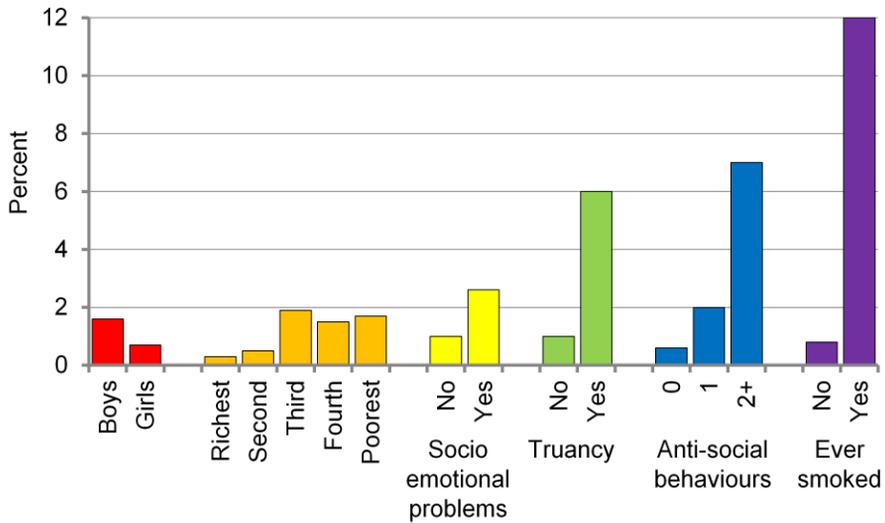
And we might think conceptually that ever having had a drink and drunkenness and being drinking could be qualitatively quite different experiences. We know that these behaviours vary according to a range of individual characteristics and other background factors.

## Prevalence of cohort member ever drinking by demographic and behavioural factors



And this slide just gives you a taste of that, showing that from left to right gender, social circumstances. Boys are a bit more likely to report ever drinking than girls. Young people from poorer families are more likely to drink than those who live in richer families. Children with emotional difficulties, so pre-existing behavioural problems, those who report truancy, those who report anti-social behaviours, including things like being allowed in a public place, participating in acts of vandalism, those who report smoking, they're all more likely to report drinking. The correlations are very strong between those behaviours and reported drinking.

### Prevalence of cohort member drunkenness by demographic and behavioural factors



And we see similar patterns when we look at reported drunkenness by these background factors. Again you see the same sorts of patterns of association with those strong correlations between other markers of behaviour, anti-social behaviour, truancy, smoking, and socioemotional difficulties, and reported drunkenness in this age group.

## Research question

What individual, family and peer factors are linked to drinking and drunkenness in early adolescence?

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So what we wanted to do in these two papers very broadly, the overarching aim for them was to identify the individual and family level practice associated with the risk or the likelihood of ever drinking and reported drunkenness amongst eleven year olds using data from the Millennium Cohort Study.

## Information on drinking

- Cohort member – drinking and drunkenness
- Mother and father
- Friends

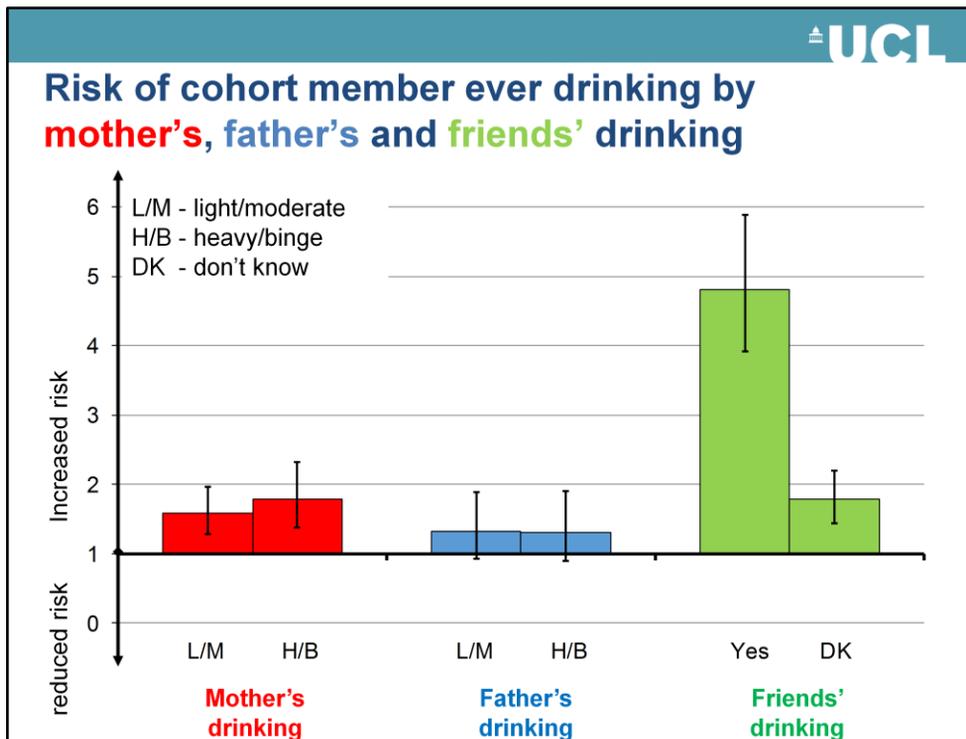
## Other factors

- Parental supervision and family relationships
- Perception of harm, and expectancies towards alcohol
- Gender, puberty, birth order, socioemotional difficulties, income, religion, antisocial behaviours, truancy, smoking

This slide just lists the factors we were interested in. Cohort members themselves were asked about their own drinking and they did so using self-completed questionnaires in a private setting. We used data on their parents drinking reported by the parents themselves and we categorised that into light, moderate, heavy, binge in accordance with DH guidelines for drinking limits. Data on friends drinking were collected from the cohort members as well. Cohort members were asked whether their friends drank, and we categorised those data into yes, no, don't know because a proportion of them didn't know whether or not their friends did drink.

We were also interested in things to do with the family and family relationships. So we used data that parents reported on supervision, so how often the eleven year olds were unsupervised on weekdays before and after school and on weekend days. We looked at data on reported frequency of battles between parents and their eleven year olds and used data on the closeness of the relationship between the mother and the child as well.

We were conceptualising those as potentially modifiable, intervenable factors. We were also interested in the young person themselves in terms of their thoughts and attitudes towards alcohol, their perceptions of harm from daily drinking, their positive and negative expectancies around alcohol. Positive expectancies would be things like drinking helps you make friends, makes things easier. Negative expectancies would be things like drinking makes things harder and gets in the way of school work, if I was caught drinking my parents would punish me, those sorts of things.

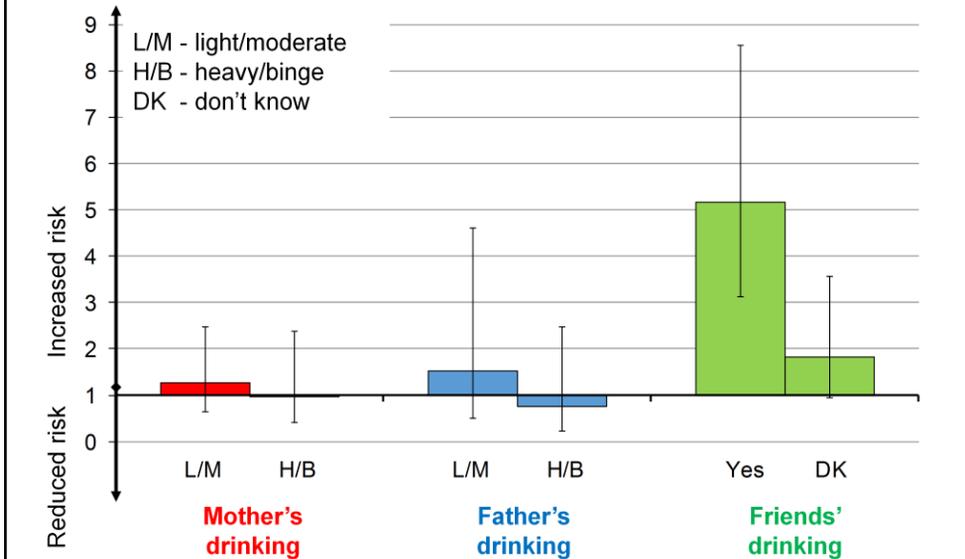


And then in all of our analysis we took account of the background factors, things to do with gender and puberty, data about socioeconomic circumstances, religion as well. We took account of all of these factors simultaneously in our analysis. The associations I'll show you today are independent of all of these background factors. These are associations because this is cross-sectional work using data that is available just at the age of eleven. The next wave of data that Richard mentioned when the cohort members are aged fourteen will be available at the end of this year. Now the next couple of slides I am going to show you, the main results slides, there are six of them. They've all got very similar formats so I'll just spend a little bit of time going over the format of those six slides:

You can see on the Y axis there's above the horizontal line of running an increased risk, so increased likelihood of the drinking behaviour. Below the horizontal line a reduced risk of reduced alcohol intake. So just looking at the right hand side of this graph of friends drinking for example, you can see for cohort members reporting having friends who drank were just under five times likely to drink compared to those who didn't have friends who drank. The black lines at the top they represent the confidence and the thing to say about those is that as long as they don't span the horizontal line then the association that we're looking at is statistically significant. So friends drinking was strongly correlated with ever drinking by eleven year olds. Mums drinking here on the left side you can see that for light, moderate, heavy and binge drinking there was a clear association, relatively small compared to friends

drinking but still statistically significant association between mums drinking and the likelihood of eleven year olds drinking.

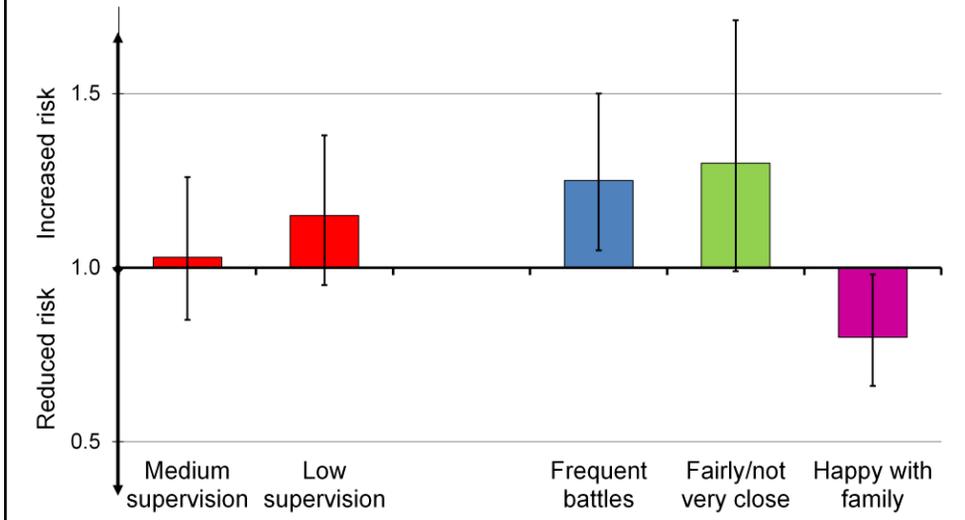
## Risk of cohort member drunkenness by **mother's**, **father's** and **friends'** drinking



For dads drinking we see a lack of association, which is interesting. We have thought about this and wonder if it's something to do with the context in which parents drink. So without trying to stereotype too much dads are more likely to drink outside of the home setting compared with mums. At this age of the children, they are more likely to see their mums drinking in their home setting. So that's perhaps why you see this difference in association for mums and dads.

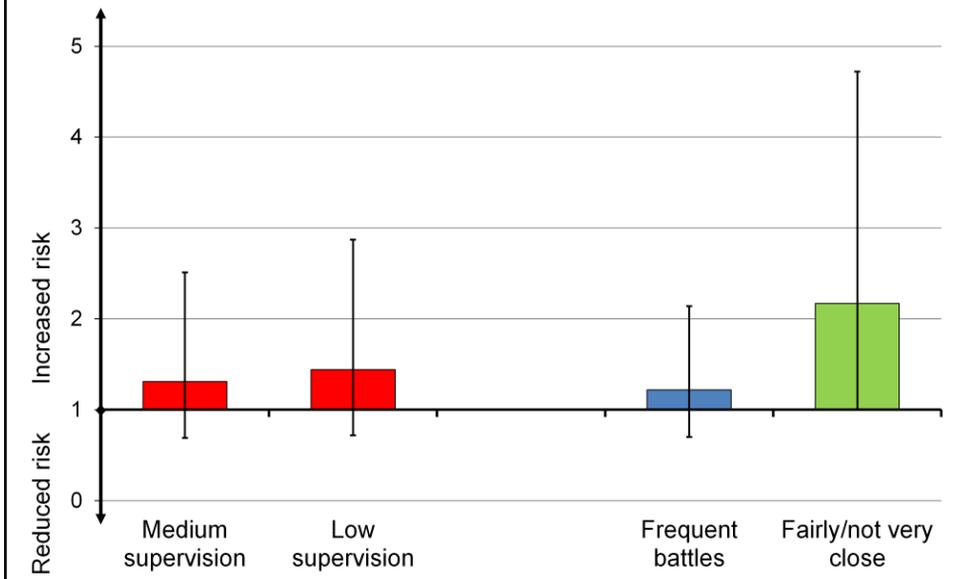
When we look at drunkenness on this next slide (above) we see again on the right hand side a very strong correlation with friends drinking. And then on the only association with mums and dads drinking there are those error bars I was talking about, those black lines span the lines so they're not statistically significant. So drunkenness perhaps is more likely to occur in settings with friends and perhaps is less to do with parents drinking.

**Risk of cohort member ever drinking by parental supervision, battles, closeness and happy with family**



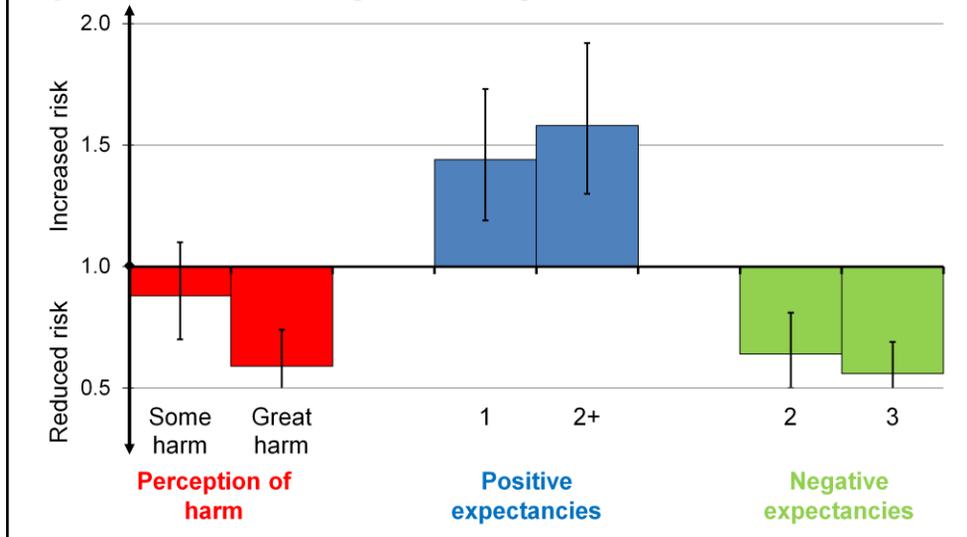
What about those family factors, those family relationships? This slide shows the associations with heavy drinking. On the left hand side is parental supervision. You can see that for low levels of parental supervision on weekends and weekdays there is an increased likelihood of cohort members drinking. As there is with frequent battles in the home and there not being a close relationship between the mother and her child. All of these things increase the likelihood of eleven year olds reporting having had a drink.

### Risk of cohort member drunkenness by parental supervision, battles and closeness



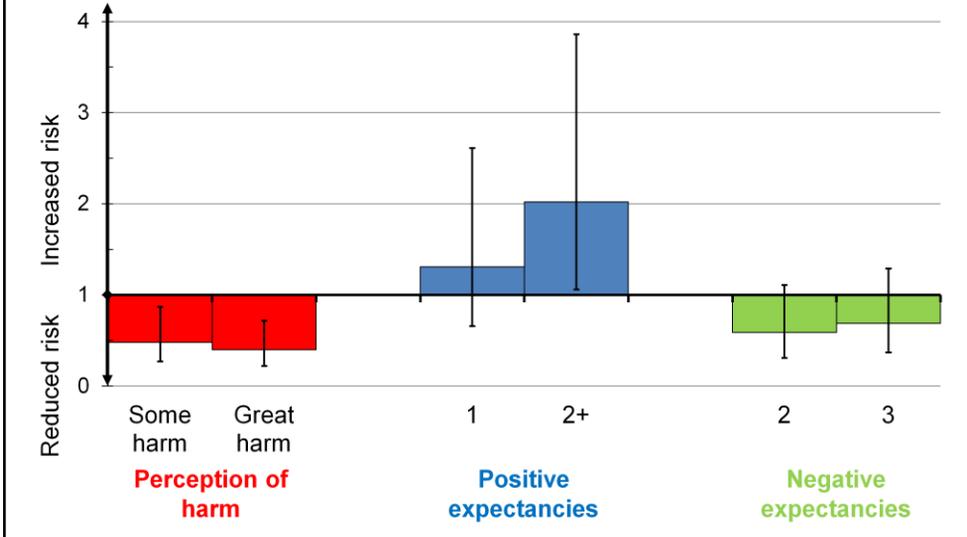
And we see a similar pattern of association when we look at drunkenness as the outcome. Many of these lines spanning the horizontal so they're not statistically significant but interestingly not having a close relationship between the mother and the child is quite strongly associated with an increased likelihood of reported drunkenness.

## Risk of cohort member ever drinking by perception of harm from 1-2 drinks daily, positive and negative expectancies



Now thinking about the cohort members' thoughts and attitudes towards alcohol, their perception of harm from daily drinking is quite key here. And you can see on this slide that with an increased perception of the likelihood of harm from daily drinking is associated with a reduced likelihood of ever drinking. And again on the right hand side there you see the same for negative expectancies, so with increasing negative expectancies, there are things like drinking gets in the way of homework, of relationships, if I was caught I would be punished by my parents, then that's also associated with reduced likelihood and more of those the cohort member has, the less likelihood to report drinking. And perhaps we would expect positive expectancies in the centre of this graph that the more of those positive expectancies that young people have around alcohol, the more likely they are to report drinking.

**Risk of cohort member drunkenness by perception of harm from 1-2 drinks daily, positive and negative expectancies**



And again for drunkenness similar patterns of association in relation to these perceptions of harm on the left and the positive and negative expectancies as we're going across the graph.

## Summary of findings

- Risky behaviours appear to cluster
- Mother's drinking was associated with the chance of 11 year olds ever having drunk, but not with the chance of them having been drunk
- Having friends who drank was linked to ever having drunk and having been drunk
- Supportive family relationships generally linked to reduced chance of drinking
- Increased awareness of harm associated with reduced chance of drinking and drunkenness
- Expectations towards alcohol linked to the likelihood of drinking and drunkenness

So trying to pull these findings together. Firstly, what we've seen is from the Millennium Cohort Study is a large nationally representative study of young people in the UK. These data are collected on 11,000 young people so we have a lot of statistical power to see associations with some degree of confidence and we're able to take account of these rich contextual factors in the young persons' lives. So we are able to factor in a whole bunch of things trying to tease out these associations. On the other hand the data is cross sectional, so we don't know which way the relationships are going. We can't tease out this idea of causal process at all from looking at cross sectional data. We can get a hit of what we think is going on and we can test that when we have longitudinal data available which we will be able to do for this study in a few months time when we have the data but we can't say anything really about the causal processes.

However, all of those caveats laid out, we can say that there appears to be this cluster in health behaviours. I showed you the high correlations between smoking, anti-social behaviours, truancy with drinking behaviours. Friends drinking was very strongly correlated with both heavy drinking and with reports of drunkenness. Mothers drinking behaviours seemed to correlate with ever drinking but not with drunkenness which is interesting. And fathers drinking appeared not to be associated with eleven year olds drinking at all.

Family relationships, there seems to be some suggestion that family relationships are important perhaps in shaping the drinking behaviours, perhaps with the sort of opportunities and the stresses and strains which might influence the experimentation

in various ways. But young people themselves, their perceptions around harm and their expectancies towards alcohol appear to play quite a powerful part in these associations in the expected way.

## Policy implications

- Clustering of behaviours lends support to holistic approaches
- Empowering young people to say 'no' regardless of the perceived benefits of drinking – more important with increasing peer influence through adolescence
- Intervening at multiple levels, including family and peer settings

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Trying to pull all that together in terms of what it might mean for policy and interventions: The fact that we see these strong cross-correlations between different behaviours perhaps lead us towards the holistic approach which has been shown in varying extents to be the most effective. So not just concentrating on alcohol but also looking at other behaviours that young people might experiment with and engage in. We see these associations with the perceptions of harm and the expectancies towards alcohol which might be able to be used as a lever or give policy makers a lever in terms of developing programmes to empower young people to say no. Perhaps regardless of the perceived benefits of alcohol which we'll talk about a bit more broadly during the rest of the seminar.

We see these different levels of association for both family and individual and peer factors influencing eleven year olds drinking. So suggesting that perhaps policies or interventions which come at alcohol reduction and harm in a multi-layered way rather than an individual or peer centred or family centred might prove to be most beneficial. And of course all of this within the kind of larger framework of marketing and advertising and age enforcement around alcohol is incredible important too.

## References

- Kelly Y, Goisis A, Sacker A, Cable N, Watt RG, Britton A. What influences 11-year-olds to drink? Findings from the Millennium Cohort Study. *BMC Public Health*, 2016 16:169. doi: 10.1186/s12889-016-2847-x
- Kelly Y, Britton A, Cable N, Sacker A, Watt RG. Drunkenness and heavy drinking among 11 year olds - findings from the UK Millennium Cohort Study. *Forthcoming*
- Blog: @childofourtime

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I'll finish there now by thanking my co-authors, Amanda Sacker and Noriko Cable. They're some of my co-authors on these two papers. And if you would like to find out more information about ICLS work and children and young people's health, please do visit our Child of our Time blog [<http://childofourtimeblog.org.uk/>] and you can also follow us on twitter [[@icls\\_info](https://twitter.com/icls_info)]. Thank you.



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Notes:

ICLS hosted a policy seminar on Alcohol and Health Policy Seminar at UCL in June 2016. The seminar was chaired by Richard Bartholomew, (former), Chief Research Officer, Children, Young People and Families Directorate, Department for Education and the presentations coordinated by Professor Amanda Sacker, ICLS Director.

Transcripts from this event, including this paper, have been made available via the ICLS Occasional Paper Series. This series allows for those who were not able to attend to read an account of the presentation. Other papers in the series include:

OP19.2 Taking a life course perspective – does previous drinking matter? Annie Britton

OP19.3 Is moderate drinking beneficial for health? The case of health-selection bias among non-drinkers. Linda Ng Fat

OP19.4 Alcohol consumption and cognitive function. Meena Kumari

Speaker: Yvonne Kelly Professor of Lifecourse Epidemiology, UCL & ICLS Associate Director.

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