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Youth Drinking in Decline

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wellcome

Youth Drinking in Decline

Funding

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Executive Summary

Background

Young people in England are drinking less. Evidence from multiple surveys shows a consistent pattern over 10-15 years of reduced participation in drinking, reduced consumption levels among drinkers, reduced prevalence of drunkenness and less positive attitudes towards alcohol. Similar changes are seen across the UK, Europe, North America and Australasia. The downward trends are also not limited to alcohol. Declines are also seen in smoking and illicit drug use among young people.

This report launches a new four-year study funded by the Wellcome Trust, which aims to examine the patterns and causes of the decline in youth drinking. In this first publication, we bring together data from two long-running, nationally-representative surveys, the 1988-2016 Smoking Drinking and Drug Use amongst Young People in England surveys (SDD) and the 2001-2016 Health Surveys for England (HSE), to present the most comprehensive picture to date of the downturn in alcohol use among young people aged 8 to 24.

Results

The report's findings show that the prevalence of drinking has declined markedly across all age groups. The proportion of 8-12 year-olds who have ever had an alcoholic drink fell from 25% in 2002 to 4% in 2016, with a concurrent fall among 11-15 year-olds from 61% in 2003 to 38% in 2014, when the last comparable data were collected. Among 16-17 year-olds, the proportion who reported drinking nowadays fell from 88% in 2001 to 65% in 2016 and the decline over the same time period for 16-24 year-olds was from 90% to 78%.

Those young people who do drink are starting to do so at a later age. Among 11-15 year-old drinkers, the mean age at first drink increased from 11.4 in 2004 to 12.6 in 2014, while for 16-17 year-old drinkers it increased from 13.6 in 2001 to 14.8 in 2016.

Younger drinkers are also consuming alcohol less often and in smaller quantities. Between 2003 and 2016, the proportion of 11-15 year-old drinkers who had consumed alcohol in the last week fell from 41% to 19%. Among 16-17 year-old drinkers, the decline was from 58% to 39%, while for 16-24 year-olds it was from 75% to 60%. Changes in the amount drunk are obscured by changes to the survey methods over time but, for example, the proportion of 16-17 year-olds who, in the last week, exceeded the binge drinking thresholds of six units on one day for women and eight units on one day for men fell from 30% in 2002 to 6% in 2016.

Attempts by 11-15 year-old drinkers to purchase alcohol are uncommon across all years. Just 17% had attempted to do so in the last four weeks in 2004, falling to 11% in 2016. However, among those who made attempts, the proportion attempting purchases from a pub in the last four weeks fell from 48% in 2004 to 24% in 2016. In contrast, the proportion attempting purchases from a shop fell only slightly from 63% to 57%.

Other sources of alcohol remained relatively unchanged over time with between 38% and 45% of 11-15 year-old drinkers given alcohol by their parents, approximately 12-15% given alcohol by their siblings and 15-20% given alcohol by another relative. There was, however, a drop in the proportion of 11-15 year-old drinkers given alcohol by friends, from 47% in 2010 to 36% in 2016.

Alongside declines in youth drinking, the proportion of 11-15 year-olds who had ever tried smoking fell from 43% in 1998 to 17% in 2016, while the proportion who had ever tried cannabis fell from 18% in 2001 to 11% in 2016.

Discussion

The reasons for the decline in youth drinking in England are unclear at this time as the available evidence is not sufficiently robust or extensive to permit firm conclusions. The same is true for the decline in other countries. Possible explanations include economic factors, immigration from non-drinking cultures, the rise of internet-based technologies, shifts in parenting, changing norms around drinking, improved enforcement of underage sales restrictions and improved child-well-being. Identifying which of these factors are playing a role is a key research priority.

The implications for public health of the decline in youth drinking are significant, both today and in the future. The hospital admission rate for alcohol-specific conditions among under-18s has fallen in line with consumption, as has the number of under-18s referred to specialist misuse services, although changes in the wider system of youth service provision may account for some of the latter trend. In the long-term, rates of alcohol-related chronic diseases, injury and alcohol dependence may also fall substantially if young people retain their reduced alcohol consumption into later adulthood. The potential scale, timing and distribution across social groups of such changes requires investigation to understand their impact on population health, health inequalities and the financial burden alcohol imposes on health services.

The implications for alcohol policy are less clear. The decline in youth drinking raises important questions about the direction of future alcohol policy. For example, will future youth drinking be spread across society or concentrated in specific high-risk groups, do the policy platforms of public, private and third sector organisations require updating and are new interventions needed to reinforce and perpetuate the positive trends? To date, there has been little public debate on these questions.

Our future work

The Wellcome Trust has funded our research team to undertake an extensive programme of mixed methods research and stakeholder engagement to help those within and outside public health to develop innovative responses to the decline in youth drinking. This includes further analysis of trends in surveys and new qualitative work to explore the position of alcohol in the wider lives and culture of recent generations of young people. This report provides a first step in that process.

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Introduction

Young people in England are drinking less. Evidence from multiple surveys shows a consistent pattern over 10-15 years of reduced participation in drinking, reduced consumption levels among drinkers, reduced prevalence of drunkenness and less positive attitudes towards alcohol.[1–3] The scale of change is such that some news outlets have labelled today's youth as 'the new puritans' and 'generation sensible'.[4–6] This stands in stark contrast to previous graphic news reports on binge drinking,[7–9] which generated widespread condemnation of youth excess by the public, news media and politicians.

These changes matter for public health today and in the future. Young people face particular risks from alcohol's intoxicating effects but also carry their drinking practices into later adulthood where they face increased risks of chronic disease.[10,11] As a result, the Global Burden of Disease study lists alcohol as the leading risk factor for global ill-health among 15-24 year-olds and the cause of 2.8 million deaths internationally across all age groups.[12,13] Beyond health, alcohol also contributes to a wide range of other social ills, including domestic violence, child abuse, other violent and non-violent crime, absenteeism, reduced productivity, and poor family and child well-being.[14]

In England, the decline in youth drinking is a recent phenomenon and levels of alcohol-related harm remain at high levels by contemporary standards. For example, 7,116 people died from conditions caused primarily by alcohol in 2016, a death rate that was 57% higher for men and 71% higher for women than in 1994, after accounting for changes in the size and age of the population.[15] That increase was due in large part to successive generations drinking more than their predecessors.[16] However, the emergence of a new, lighter drinking cohort of young people offers the potential over future decades for a reversal in the growth in alcohol-related harm as this cohort reaches middle-age, where the risk of alcohol-related death peaks.[17] Furthermore, if lower drinking levels continue in future youth cohorts, we may see a significant long-term shift in the health profile of the English population.

Similar declines in youth drinking are seen across many European nations, North America and Australasia.[18–20] Given the potential benefits for public health, researchers around the world are increasingly studying the changes to understand how they can be supported and sustained. That is the aim of a new four-year mixed-methods, Wellcome Trust-funded project led by the University of Sheffield that will provide the most detailed analysis to date of the nature and drivers of recent reductions in alcohol use among young people in England. This report is the first publication from that project. It brings together data from two long-running, nationally-representative surveys of young people in England, aged between 8 and 24, to present the most comprehensive picture to date of the country's decline in youth drinking.

Methods

This report uses data from the 1988-2016 Smoking, Drinking and Drug Use amongst Young People in England surveys (SDD) and the 2001-2016 Health Surveys for England (HSE). Brief methodological summaries are presented below with more detailed information available in previous publications from each study.[1,21]

Smoking, Drinking and Drug Use amongst Young People in England

The SDD is a paper-based survey carried out in schools under exam conditions. Data was collected in 25 of the years since 1988. In each survey year, schools in England are selected to participate using a multi-stage, stratified sampling method. The majority of schools are eligible to participate with only very small and special educational needs (SEN) schools excluded. The sampling method was changed slightly from 2010 onwards whereby schools were stratified by Strategic Health Authority in order to allow for more detailed examination of regional differences. However, in most respects the sampling method was identical to previous years and the data is comparable.[22] Participants aged between 11 and 15 are randomly selected within schools, resulting in the participation of approximately 35 children from each school across school years seven to eleven from the year 2000 onwards. Before this, fewer students from each school participated with an average of around 25 per school. The within-school sampling method changed in 2016 so that pupils were sampled in whole classes. Three mixed ability classes, one from years 7 and 8 and two from years 9, 10 and 11, were selected within each school. Until 1998, additional data were collected from schools in Wales and Scotland in some years but these data are not used in this report, which focuses on England. The resulting sample size for England varies between approximately 3,000 and 10,000 participants per survey year.

Pupils self-complete the SDD survey. Each survey includes a core section of questions focused on pupils' experience of smoking, drinking and drug use and retrospective week-long alcohol and cigarette diaries. The drinking diary measures the amount of different types of alcoholic drinks consumed in the previous seven days. Since 2000, the surveys have also included a selection of additional questions, with the focus of the survey shifting in alternate years between smoking and drinking (even-numbered years) and drug use (odd-numbered years).

Changes in the survey over time mean that some questions are not directly comparable across all survey years. Two changes are of particular significance. First, the wording of a key question around ever having tried alcohol was changed in 2016, meaning that the final year of data are not directly comparable with that from previous years.[1] Second, changes were made across all British national surveys in 2007 to account for shifts in the typical size and strength of alcoholic drink over times. As such, the alcohol units reported immediately pre and post 2007 are not directly comparable, although the long-term trend should be meaningful as the changes were made to reflect genuine shifts in behaviour.

[1] Between 1988 and 2014, pupils were asked "Have you ever had a proper alcoholic drink - a whole drink, not just a sip? Please don't count drinks labelled low alcohol". However, pre-survey cognitive testing in 2016 demonstrated that some respondents misunderstood this question and were unsure which drinks should be categorised as low alcohol options. As such, the sentence about discounting low alcohol beverages was dropped for the 2016 survey.

Health Survey for England

The HSE is a household survey carried out annually since 1991, although the analyses here are limited to data from 2001 onwards. In each year, multi-stage, stratified probability sampling is used to select a sample of households from the Postcode Address File. Each address in England has an equal chance of being selected. All adults in each household are interviewed alongside up to four children (up to two aged between two and 12 and up to two aged between 13 and 15), with children selected at random where necessary. The annual sample size varies between approximately 5,000 and 17,000 adults and 800 to 4,000 under-16s. This includes booster samples of certain populations in some years. For the purposes of this report we focus on the subsample of participants aged 8-24 years old.

Data is collected in a two stage process with an initial face-to-face interview and self-completion booklet (see below). This is followed by, if participants agree, a visit from a specially trained nurse in order to collect objective measurements such as blood pressure, waist and hip measurements and blood and saliva samples. Like the SDD, each survey includes core questions, such as those on participant's experience of alcohol and smoking, as well as health measurements, and additional modules on topics that vary from year to year.

Participants aged under 18 report their alcohol consumption in separate self-completion booklets for 8-12, 13-15 and 16-17 year-olds, with the number and content of questions varying between each age group. Most participants aged 18 and over report their alcohol consumption during the face-to-face interview, but some 18-24 year-olds are asked to do so using the same self-completion booklet as 16-17 year-olds. This occurs at the interviewer's discretion when they feel it would be difficult for the respondent to answer honestly due to the presence of another household member. The self-completion booklet for 16-17 year-olds replicates most questions from the face-to-face interview but there are some small differences, including questions in the booklet that are not included in the interview.

Results

Prevalence of pupils having ever tried alcohol

The prevalence of drinking declined markedly across all age groups (Figure 1). Among 8-12 year-olds, the proportion who report having ever had an alcoholic drink fell from 25% in 2002 to 4% in 2016, while a concurrent fall occurred for 11-15 year-olds from 61% in 2003 to 38% in 2014. A small increase in the percentage of 11-15 year-olds who report ever having drank alcohol from 37% in 2014 to 44% in 2016 is likely to be due in part to changes in the wording of the question (see above) and should be interpreted with caution. This is supported by the HSE data which shows no increase in the proportion of 8-12 and 13-15 year-olds who report having ever tried alcohol between 2015 and 2016 (Figure A).

The HSE asks those aged over 16 whether they drink alcohol at all nowadays, rather than whether they have ever done so. In line with trends among 8-15 year-olds, the proportion of 16-17 year-olds who report being drinkers declined steadily from 88% in 2001 to 65% in 2016 while for 16-24 year-olds the percentage who were drinkers fell from 90% to 78% over the same period.

Hereafter, 8-15 year-olds who have ever tried alcohol and 16-24 year-olds who drink nowadays are referred to as drinkers.

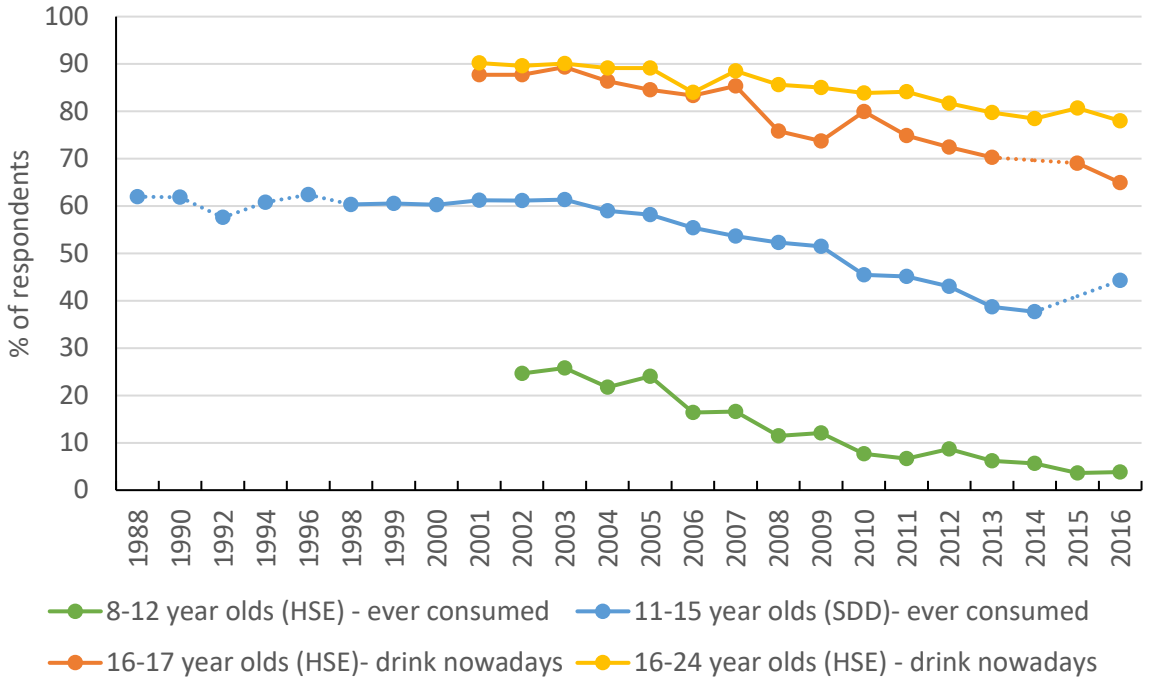

Figure 1: Proportion of 8-15 year-olds who have ever drunk alcohol and of 16-24 year-olds who drink nowadays by survey year.

Age of First Trying Alcohol

The average age at first drink rose over the time period (Figure 2). Between 2004 and 2014, the average age at which 11-15 year-old drinkers reported having their first alcoholic drink increased gradually from 11.4 in 2004 to 12.6 in 2014. As above, the decrease in average age of initiation in 2016 is likely to be due in part to changes to the questionnaire and should be interpreted with caution. There was a similar, albeit less consistent, increase in the age of initiation reported by 16-17 year-old drinkers, from 13.6 in 2001 to 14.8 in 2016.

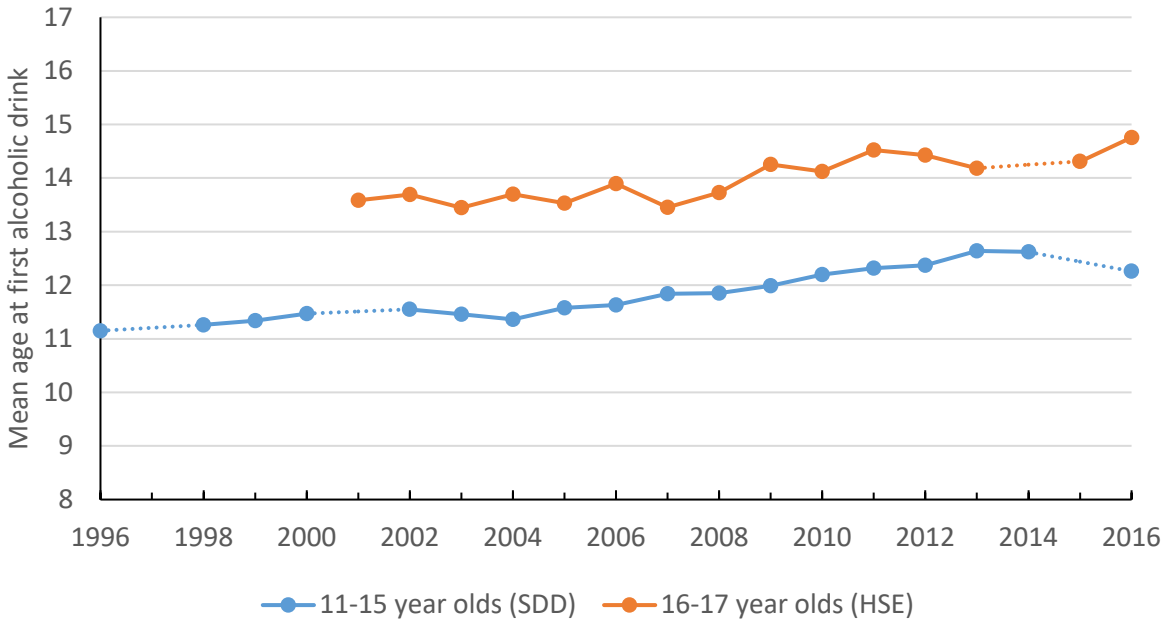

Figure 2: Mean age at first drink by survey year.

Drinking in the last week

The proportion of young drinkers who drank in the last week fell from the early 2000s onwards (Figure 3). The percentage of 11-15 year-old drinkers who consumed alcohol in the last week was stable between 2000 and 2003 but then declined consistently from 41% in 2003 to 19% in 2016. The percentage of 16-17-year-old drinkers who reported drinking in the last week also decreased between 2002 and 2016, from 63% to 39%, while the decline was from 76% to 60% among 16-24 year-olds.

Those young people who did drink in the last week typically consumed less over time (Figure 4), although changes in 2007 to the calculation of alcohol units in British surveys complicates this picture. The percentage of 11-15 year-olds who reported drinking more than seven units in the diary week, a threshold equivalent to half the adult low risk drinking guidelines, remained relatively stable between 2000 and 2006 at around 16%. After the measurement change, it fell from 18% in 2007 to 9% in 2016. For 16-17 year-olds, the proportion exceeding the binge drinking thresholds of six units for women and eight units for men on their heaviest drinking day in the last week also declined. Between 2002 and 2006, the proportion dropped from 30% to 17% and then reduced from 18% to 7% between 2007 and 2016. Among 16-24

year-olds, the proportion exceeding binge thresholds declined from 37% in 2002 to 28% in 2006 and then from 38% to in 2007 to 28% in 2016.

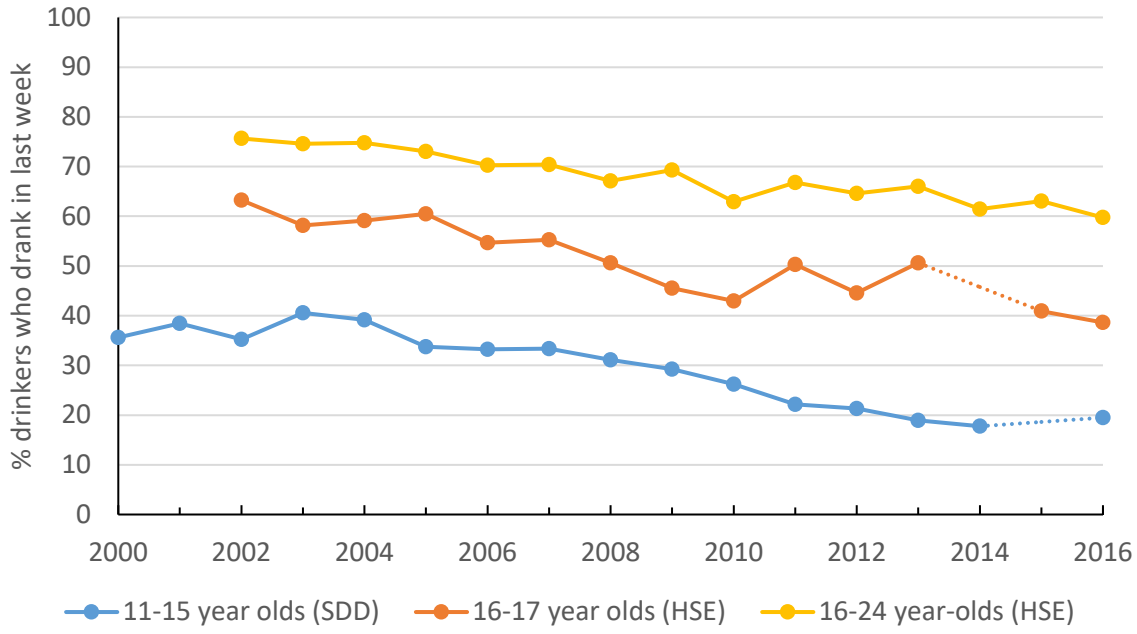

Figure 3: Proportion of drinkers who drank in last week.

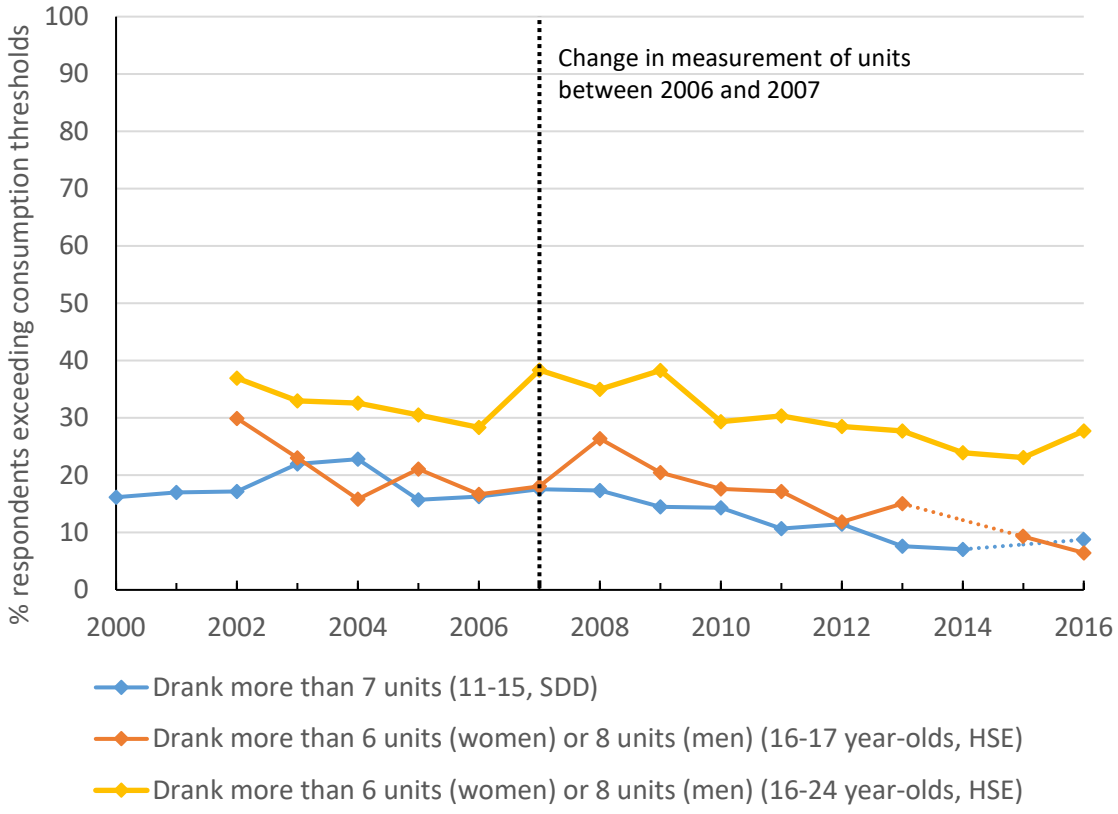

Figure 4: Proportion of drinkers who exceeded consumption thresholds in the past week by survey year.

Sources of Alcohol

Attempts by underage drinkers to buy alcohol also declined over time (Figure 5), although these are only recorded in alternate years in the SDD's survey of 11-15 year-olds. The proportion of drinkers in this age group who had attempted to buy alcohol in the last week fell from 17% in 2004 to 11% in 2016.

Among those attempting a purchase in the last four weeks, the proportion attempting to buy from a shop fell slightly, from 63% in 2004 to 57% in 2016, whereas the proportion attempting to buy from a pub fell from 49% in 2004 to 24% in 2016, with most of the latter decline occurring prior to 2010 (Figure 6).

Social supply of alcohol to 11-15 year-old drinkers was more stable over time (Figure 7). The proportion of drinkers given alcohol by parents remained between 37% and 45% over the study period, while the proportion given alcohol by friends fell slightly from 44% to 36%. Supply from relatives and siblings remained relatively unchanged at around 17-20% and 12-15% respectively. These trends mean parents are now a more common source of alcohol than friends although we do not know the contexts in which alcohol is supplied; for example, whether parents supply alcohol for consumption at the dinner table, at house parties or outside of the home.

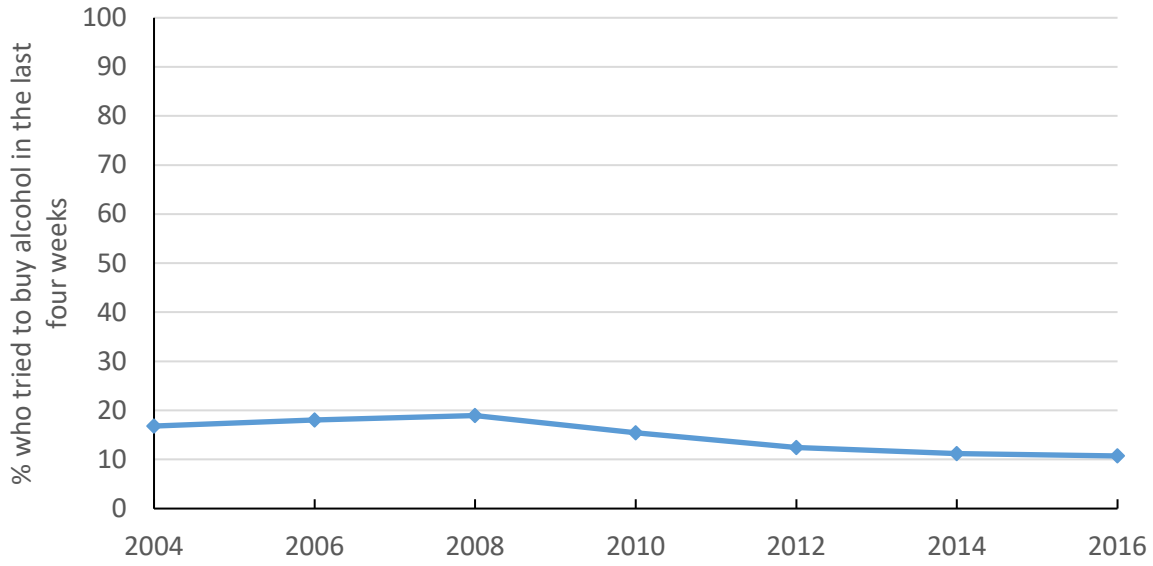

Figure 5: Proportion of 11-15 year-old drinkers who tried to buy alcohol in the last four weeks by survey year.

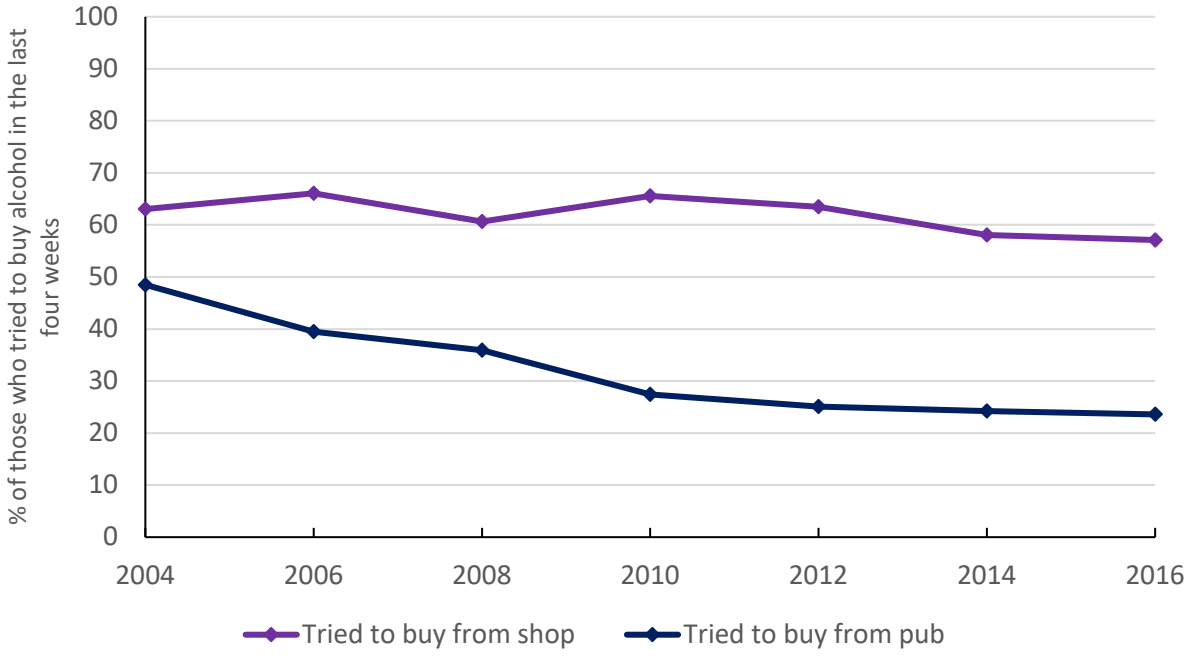

Figure 6: Proportion of 11-15 year-old drinkers who attempted to buy alcohol in the last four weeks attempting to buy at different outlet types by survey year.

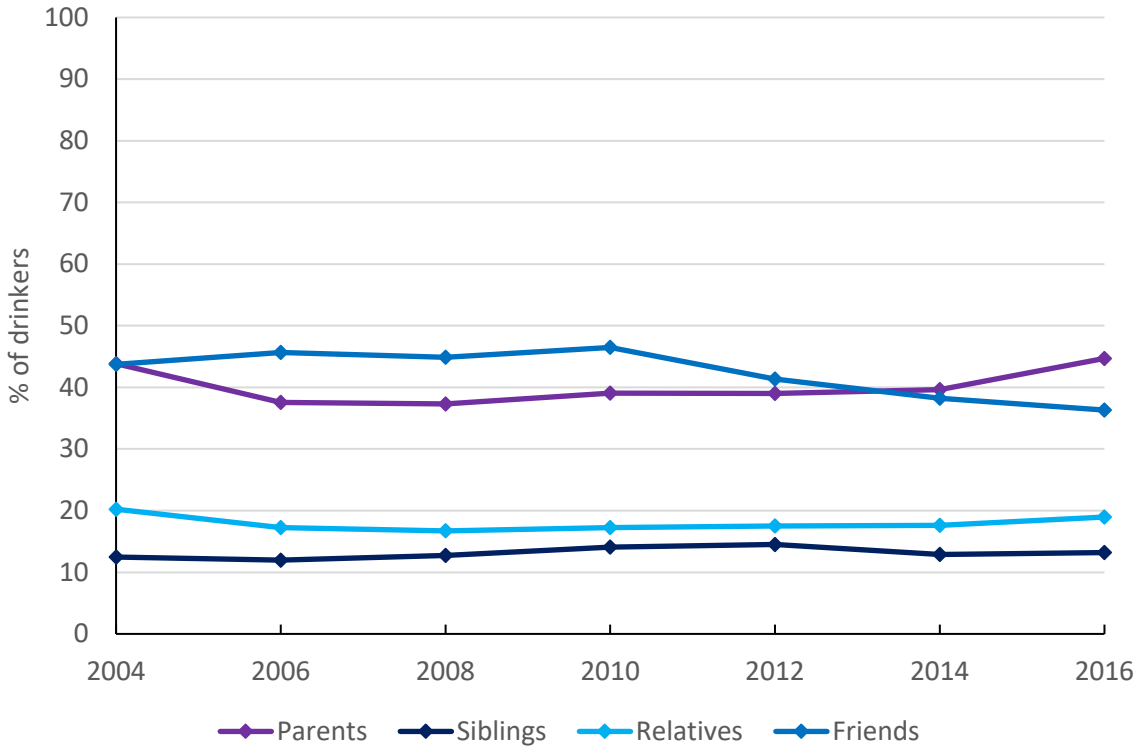

Figure 7: Proportion of 11-15 year-old drinkers given alcohol by different people by survey year.

Concurrent Declines in Smoking and Illicit Drug Use

Alongside the decline in alcohol use amongst 11-15 year-olds, there have been concurrent declines in smoking and illicit drug use (Figure 8). The percentage of pupils who reported having ever tried smoking declined from 40% in 1990 to 17% in 2016. The proportion of 11-15 year-olds who tried cannabis increased between 1998 and 2003 from 12% to 18% and then fell to 11% by 2016. While the decline in ever smoking began in the mid-1990s, the declines in ever trying alcohol or cannabis start at similar times in the early 2000s.

The age of initiation of all three behaviours also increased over this time period (Figure 9). The average age of first smoking a cigarette increased between 1996 and 2016 from 11.0 to 12.6, and is closely aligned with the age of first trying alcohol. Young people generally try cannabis later than smoking or drinking, with the average age of first cannabis use rising from 13.2 to 13.6 between 1999 and 2016. As the rise in age of drinking and smoking initiation is greater, the age gap between initiation of these behaviours and cannabis use closed over the time period of the surveys.

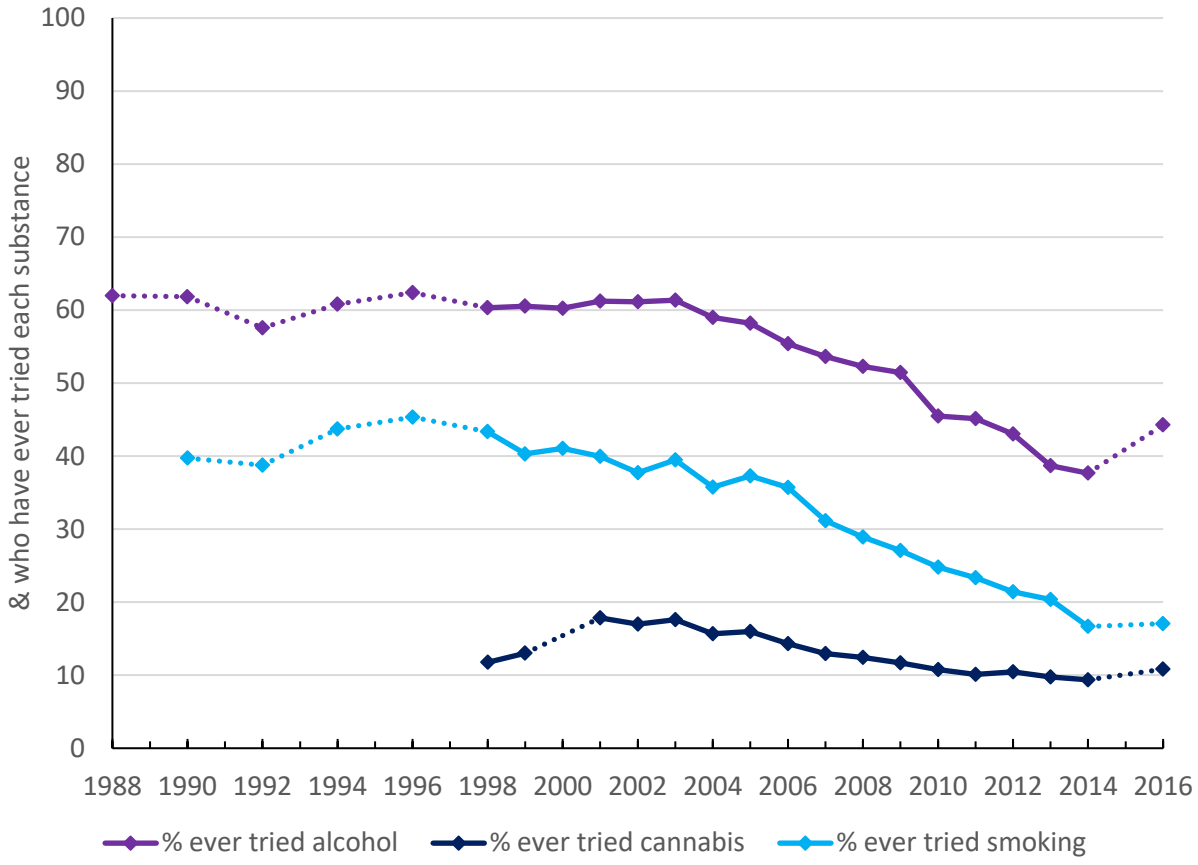

Figure 8: Proportion of 11-15 year-olds who have ever tried alcohol, cannabis or smoking by survey year.

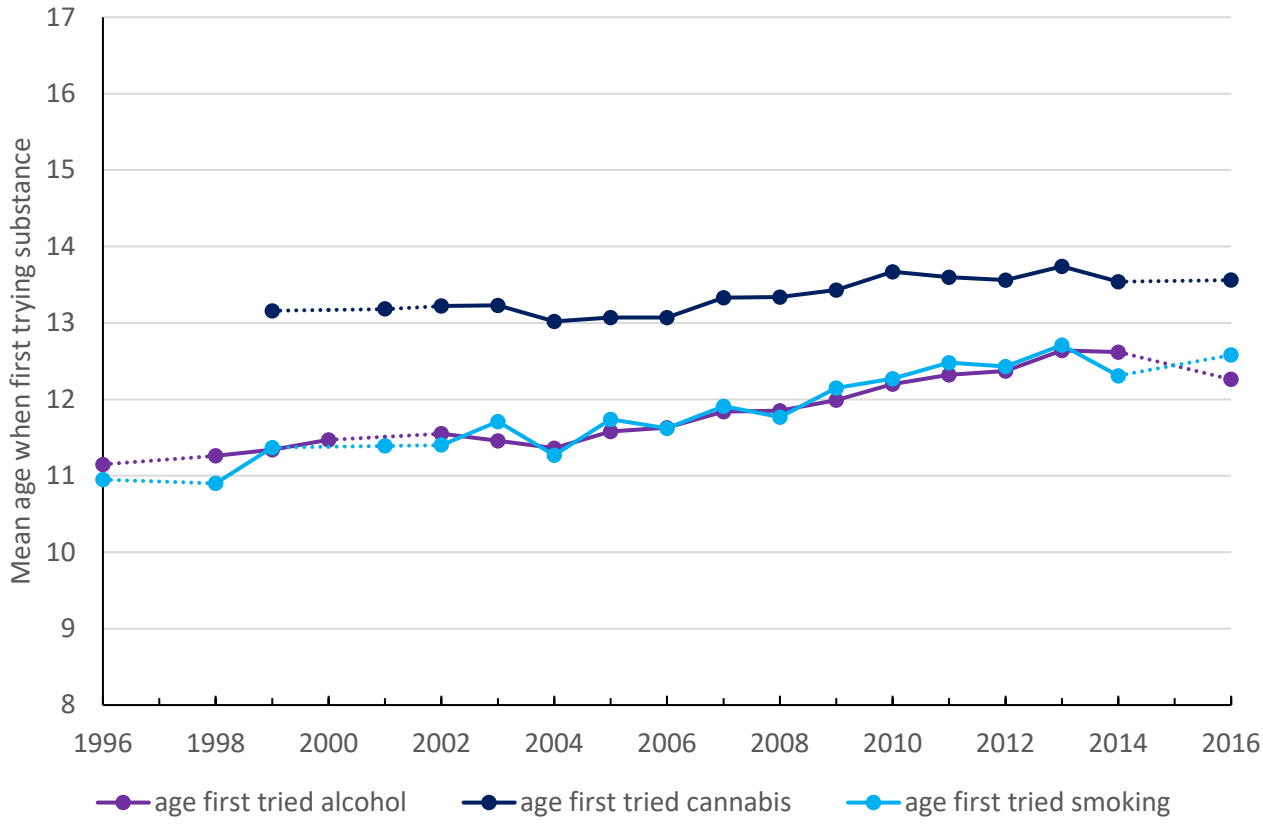

Figure 9: Mean age at which 11-15 year-olds first tried alcohol, cannabis or smoking by survey year.

Discussion

The evidence above shows a consistent picture starting in the early 2000s of declining youth engagement in alcohol use across all age groups. Young people are now less likely to drink, less likely to drink early and, if they do drink, they are less likely to drink heavily. There are few signs that these trends are stabilising or reversing. The SDD suggests drinking increased in 2016 among 11-15 year-olds but this upturn is likely to arise from changes in the survey methods, a view supported by a lack of similar trends among 8-12 and 13-15 year-olds within the 2016 HSE, which did not change its methods.

These findings align closely with those identified in data from other countries. In Great Britain, the Scottish Schools Adolescent Lifestyle and Substance Use Survey reports declines across most alcohol consumption measures for 13-15 year-olds,[23] while the Health Behaviour in School-aged Children study for Wales reports that 7% of 11-15 year-olds drank alcohol on a weekly basis in 2014 compared to 30% in 1998.[24] Beyond the UK, analyses of international data found declines in the prevalence of weekly drinking among 11-15 year-olds in 26 out of 28 high income countries.[25] Similarly, trend data from 25 countries present at all waves of the European School Survey Project on Alcohol and Other Drugs (ESPAD) show life time use of alcohol among 15-16 year-olds fell from 90% in 1999 to 81% in 2015, while current alcohol use fell from 63% to 47%.[20] As in England, youth smoking and drug use are also declining in some high income countries, although ESPAD data suggest trends in these other behaviours are less consistent across the different regions of Europe.[26]

One difference between the above evidence from England and that from other countries is the decline observed in young adult drinking. A recent review of the international literature on this topic found that most studies have examined only underage drinkers and, in the small number of studies where young adults were included in analyses, the downward trend was weaker or absent.[27] The English data presented here do not follow this trend, with a clear downturn seen among those aged 16 and over. More evidence is required to draw firm conclusions on this topic and to explain it, but it may be that a light drinking generation emerged earlier in countries such as England or that other countries are only seeing a delay in the initiation of drinking rather than a more fundamental generational shift.

On-going monitoring and interrogation of these positive trends is required to ensure that they are maintained and sustained, to identify any early signs of a reversal and to understand whether they are occurring at similar scales across different social groups. As youth drinking becomes an increasingly uncommon activity, the risk exists that underage drinking, like smoking, becomes concentrated in a small, high-risk population and exacerbates existing health and social inequalities.

Explaining the decline

There are many suggested explanations for the decline in youth drinking in England, the UK and internationally. A number of reports point to potential drivers such as economic factors, demographic shifts including immigration from non-drinking cultures, the rise of internet-based technologies, shifts in parenting behaviour, changing social norms, improved enforcement of underage sales restrictions and improved child well-being.[2] Other work has postulated that the experiences, behaviours and psychology of contemporary youth indicates the arrival of a new generation, succeeding Generation X and the Millennials.[28] Under this

narrative, the decline in alcohol use is entangled with youth culture more broadly and should not be examined in isolation.

To date, the available research is neither robust enough, nor extensive enough to draw firm conclusions on which of these suggestions are correct.[2,27,29] That said, it is certainly true that declining alcohol use is only one among many on-going, interlinked and often dramatic shifts in young people's lives. Unpicking cause and effect from coincidence and co-occurrence is a key research priority alongside deepening our understanding of how and why these changes intersect. A number of national and international research efforts are already underway, including our own. The international dimension is critical as the near-simultaneous decline in youth drinking across many countries suggests that explanations limited to a single country are likely to provide only a partial, if locally important, account.

Implications for alcohol-related harm

The short-term public health impact of the decline in youth drinking in England is seen in health data. Among under-18s, the crude hospital admission rate per 100,000 population for alcohol-specific conditions (i.e. those caused primarily by alcohol use) fell from 72.1 to 34.2 between 2006/7-2008/9 and 2014/5-2016/7,[30] due primarily to a reduction in admissions for intoxication.[31] Data from the National Drug Treatment Monitoring System also suggests a 32% decline in the number of under-18s attending specialist substance misuse services since 2008-09; however, the reduction in provision of general youth support services in England may mean that fewer young people are being referred to specialist substance misuse services rather than fewer requiring treatment.[32]

The longer-term impact of consumption reductions remains to be seen. However, the consistent declines in consumption across all youth age groups suggest young people are not simply delaying initiation of alcohol use or excess use and that there has been a sustained generational shift in drinking behaviour. If this persists into later adulthood, significant declines in alcohol-related chronic disease, injury and dependence may be anticipated, although the latter should be predicted more cautiously given its complex nature. The possible scale, timing and distribution across social groups of such changes requires investigation to understand their potential impacts on population health, health inequalities and financial burdens on health services, both from alcohol and from competing causes of morbidity and mortality.

Implications for alcohol policy

The implications for alcohol policy are less clear. Current alcohol policy in England is regarded by many public health actors as inadequate to the task of reducing alcohol consumption and alcohol-related harm.[33] It is argued to be overly focused on the passive provision of information and education, insufficiently supported by a robust regulatory environment and unduly influenced by alcohol industry organisations who seek to work in partnership with government and other public bodies.[34]

It is somewhat paradoxical therefore that many of the steep downward trends in youth drinking begin in or around 2004, the year that the first cross-governmental alcohol strategy was published, and then persisted following the publication of subsequent strategies in 2007 and 2012. Sweden and Finland saw similar unexpected trends where the decline in youth drinking accompanied a loosening of restrictive alcohol policies.[27] There are good reasons to

not attribute causal effects to such strategies, including the lack of evidence for the effectiveness of many of the policies within them, commensurate declines in countries without such strategies and the presence of other, more compelling, potential explanations such as those described above.

Nonetheless, the scale, duration and potential importance of the reduction in young people's alcohol use raises important questions about the strategic direction of future alcohol policy. This includes asking whether future youth drinking be spread across society or concentrated in specific high-risk groups, whether the policy platforms of public, private and third sector organisations require updating and if new interventions are needed to reinforce and perpetuate the positive trends. To date, there has been little public debate on these questions.

Our future work

The Wellcome Trust has funded our project to undertake an extensive programme of research and stakeholder engagement to explore these questions and help those within and outside public health to develop innovative answers.

We will undertake further analyses of the SDD, HSE and other survey data sources to identify which sociodemographic groups within the youth population are and are not reducing their alcohol consumption. We will also examine how reductions in alcohol use are connected to wider shifts in young people's health and leisure related activities. These analyses of survey data will be brought together with qualitative studies of four generations aged between 13 and 35, which will contribute to explaining the decline in youth drinking by understanding how the position of alcohol use within wider youth culture has changed over time and how these changes intersect with other generational shifts.

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Appendix

Tabulated data from Figures

Dashes denote missing data. HSE data before 2001 was not analysed, data was missing for the 8-12 year-olds in the 2001 HSE and in the 2014 HSE age was only provided as a grouped variable so data for 16-17 year olds could not be isolated. There was no SDD survey in 2015 due to funding issues.

Table A1: Proportion of 8-15 year olds who have ever drunk alcohol and of 16-24 year olds who drink nowadays by survey year.

Survey Year	8-12 year olds (HSE) - ever consumed (%)	N	11-15 year olds (SDD)- ever consumed (%)	N	16-17 year olds (HSE)- drink nowadays (%)	N	16-24 year olds (HSE) - drink nowadays (%)	N
1988	-	-	62.0	3,033	-	-	-	-
1990	-	-	61.8	3,084	-	-	-	-
1992	-	-	57.6	3,269	-	-	-	-
1994	-	-	60.8	3,018	-	-	-	-
1996	-	-	62.4	2,834	-	-	-	-
1998	-	-	60.3	4,664	-	-	-	-
1999	-	-	60.5	9,387	-	-	-	-
2000	-	-	60.3	7,055	-	-	-	-
2001	-	-	61.2	9,267	87.7	390	90.2	1,722
2002	24.6	2,457	61.1	9,737	87.7	927	89.6	3,537
2003	25.8	1,112	61.4	10,319	89.3	389	90.1	1,589
2004	21.7	487	59.0	9,616	86.4	168	89.2	619
2005	24.0	890	58.2	9,107	84.6	221	89.2	856
2006	16.4	2,301	55.4	8,104	83.3	353	84.0	1,384
2007	16.6	2,408	53.7	7,762	85.3	160	88.5	699
2008	11.4	2,336	52.3	7,719	75.8	405	85.6	1,640
2009	12.1	1,280	51.5	7,618	73.7	112	85.0	485
2010	7.7	1,643	45.5	7,204	80.0	202	83.9	817
2011	6.6	447	45.1	6,461	74.8	171	84.2	801

Survey Year	8-12 year olds (HSE) - ever consumed (%)	N	11-15 year olds (SDD)- ever consumed (%)	N	16-17 year olds (HSE)- drink nowadays (%)	N	16-24 year olds (HSE) - drink nowadays (%)	N
2012	8.7	1,046	43.0	7,478	72.5	302	81.7	1,574
2013	6.2	524	38.7	5,111	70.3	203	79.8	819
2014	5.7	489	37.7	6,084	-	-	78.5	737
2015	3.6	1,574	-	-	69.1	140	80.7	673
2016	3.8	493	44.3	11,819	64.9	158	78.0	690

Table A2: Mean age at first drink by survey year.

Survey Year	11-15 year olds (SDD)	N (11-15 year olds SDD)	16-17 year olds (HSE)	N (16-17 year olds HSE)
1996	11.2	1,751	-	-
1998	11.3	3,151	-	-
1999	11.3	5,570	-	-
2000	11.5	4,195	-	-
2001	-	-	13.6	332
2002	11.6	5,822	13.7	797
2003	11.5	6,187	13.4	341
2004	11.4	5,518	13.7	146
2005	11.6	5,163	13.5	184
2006	11.6	4,192	13.9	290
2007	11.8	4,030	13.5	124
2008	11.9	3,724	13.7	301
2009	12.0	3,810	14.3	83
2010	12.2	3,059	14.1	165
2011	12.3	2,869	14.5	126
2012	12.4	3,019	14.4	216
2013	12.6	1,894	14.2	142
2014	12.6	2,094	-	-
2015	-	-	14.3	92
2016	12.3	5,211	14.8	102

Table A3: Proportion of drinkers who drank in the last week

Survey Year	% 11-15 year olds (SDD)	N	% 16-17 year olds (HSE)	N	% 16-24 year-olds (HSE)	N
2000	35.6	4,227	-	-	-	-
2001	38.5	5,639	-	-	-	-
2002	35.2	5,846	63.2	789	75.7	3,101
2003	40.6	6,302	58.2	324	74.6	1,390
2004	39.1	5,628	59.1	134	74.8	539
2005	33.7	5,261	60.5	172	73.1	741
2006	33.2	4,278	54.7	274	70.2	1,135
2007	33.4	4,135	55.3	118	70.4	584
2008	31.1	3,796	50.6	272	67.1	1,327
2009	29.2	3,897	45.5	78	69.3	391
2010	26.2	3,084	43.0	147	62.9	668
2011	22.1	2,902	50.3	126	66.8	666
2012	21.3	3,055	44.6	218	64.6	1,282
2013	18.9	1,925	50.6	142	66.0	637
2014	17.8	2,087	-	-	61.4	583
2015	-	-	40.9	92	63.1	521
2016	19.5	5,253	38.6	102	59.7	526

Table A4: Proportion of drinkers who exceeded consumption thresholds in the past week by survey year

Survey Year	Drank more than 7 units (11-15, SDD, %)	Did not exceed binge threshold (11-15, SDD, %)	N	Drank more than 6 units (women) or 8 units (men) (16-17, HSE, %)	Did not exceed binge threshold (16-17, HSE, %)	N	Drank more than 6 units (women) or 8 units (men) (16-24, HSE, %)	Did not exceed binge threshold (16-24, HSE, %)	N
2000	16.2	19.4	3,934	-	-	-	-	-	-
2001	17.0	21.5	5,227	-	-	-	-	-	-
2002	17.2	18.0	5,415	29.9	33.3	789	36.9	38.7	3,101
2003	22.0	18.6	6,331	23.0	35.1	324	33.0	41.6	1,390
2004	22.8	16.3	5,672	15.8	43.3	134	32.6	42.2	539
2005	15.7	18.0	4,899	21.1	39.4	172	30.5	42.5	741
2006	16.3	17.0	3,970	16.7	38.0	274	28.4	41.9	1,135
2007	17.5	15.8	3,848	18.0	37.2	118	38.4	32.0	584
2008	17.4	13.8	3,574	26.4	24.2	272	35.0	32.1	1,327
2009	14.5	14.7	3,618	20.5	25.1	78	38.3	31.0	391
2010	14.3	11.9	2,932	17.6	25.4	147	29.3	33.6	668
2011	10.7	11.5	2,727	17.2	33.1	126	30.3	36.4	666
2012	11.5	9.9	2,916	11.9	32.7	218	28.5	36.1	1,282
2013	7.6	11.3	1,825	15.1	35.6	142	27.7	38.3	637
2014	7.1	10.7	2,199	-	-	-	23.9	37.5	583
2015	-	-	-	9.3	31.6	92	23.1	40.0	521
2016	8.8	10.7	4,981	6.5	32.2	102	27.7	32.0	526

Table A5: Proportion of 11-15 year old drinkers who tried to buy alcohol in the last 4 weeks by survey year.

Survey Year	Tried to buy in the last 4 weeks (%)	N
2004	16.8	5,582
2006	18.1	4,390
2008	19.0	3,963
2010	15.4	3,164
2012	12.4	3,122
2014	11.2	2,216
2016	10.7	2,619

Table A6: Proportion of 11-15 year olds who attempted to buy alcohol in the last 4 weeks attempting to buy at different outlet types by survey year.

Survey Year	Tried to buy from shop (%)	N	Tried to buy from pub (%)	N
2004	63.1	931	48.5	928
2006	66.1	787	39.5	778
2008	60.6	747	35.9	746
2010	65.6	480	27.4	477
2012	63.5	384	25.1	382
2014	58.1	245	24.2	239
2016	57.1	266	23.6	261

Table A7: Proportion of 11-15 year old drinkers given alcohol by different people by survey year

	Parents		Siblings		Relatives		Friends	
Year	**(%)**	**N**	**(%)**	**N**	**(%)**	**N**	**(%)**	**N**
2004	43.8	5,017	12.5	4,639	20.2	4,702	43.7	5,038
2006	37.6	3,906	12.0	3,675	17.2	3,713	45.6	3,978
2008	37.3	3,629	12.7	3,416	16.7	3,442	44.9	3,653
2010	39.1	2,880	14.1	2,653	17.2	2,662	46.5	2,898
2012	39.0	2,828	14.5	2,603	17.5	2,611	41.4	2,820
2014	39.6	1,969	12.9	1,832	17.6	1,827	38.3	1,991
2016	44.7	2,421	13.2	2,208	19.0	2,227	36.3	2,374

Table A8: Proportion of 11-15 year olds who have ever tried alcohol, cannabis or smoking by survey year

Survey Year	Ever tried alcohol (%)	N	Ever tried cannabis (%)	N	Ever tried smoking (%)	N
1988	62.0	3,033	-	-	-	-
1990	61.8	3,084	-	-	39.7	3,121
1992	57.6	3,269	-	-	38.8	3,295
1994	60.8	3,018	-	-	43.7	3,045
1996	62.4	2,834	-	-	45.3	2,854
1998	60.3	4,664	11.8	4,740	43.3	4,729
1999	60.5	9,387	13.0	9,274	40.3	9,370
2000	60.3	7,055	-	-	41.0	7,061
2001	61.2	9,267	17.9	8,424	40.0	9,277
2002	61.1	9,737	17.0	8,942	37.7	9,796
2003	61.4	10,319	17.6	9,450	39.5	10,260
2004	59.0	9,616	15.7	8,752	35.8	9,618
2005	58.2	9,107	16.0	8,266	37.3	9,092
2006	55.4	8,104	14.3	7,115	35.7	8,152
2007	53.7	7,762	13.0	6,992	31.1	7,738
2008	52.3	7,719	12.4	6,870	28.9	7,750
2009	51.5	7,618	11.7	6,883	27.1	7,612
2010	45.5	7,204	10.8	6,392	24.8	7,254
2011	45.1	6,461	10.1	5,729	23.3	6,446
2012	43.0	7,478	10.5	6,447	21.4	7,538
2013	38.7	5,111	9.8	4,428	20.4	5,121
2014	37.7	6,084	9.4	5,203	16.7	6,084
2016	44.3	11,819	10.8	10,482	17.1	11,897

Table A9: Mean age at which 11-15 year olds first tried alcohol, cannabis or smoking by survey year.

Survey Year	Age first tried alcohol	N	Age first tried cannabis	N	Age first tried smoking	N
1996	11.2	1,751	-	-	11.0	518
1998	11.3	3,151	-	-	10.9	955
1999	11.3	5,570	13.2	1,186	11.4	3,703
2000	11.5	4,195	-	-	11.4	1,111
2001	-	-	13.2	1,467	-	-
2002	11.6	5,822	13.2	1,483	11.4	1,378
2003	11.5	6,187	13.2	1,639	11.7	3,984
2004	11.4	5,518	13.0	1,356	11.3	1,141
2005	11.6	5,163	13.1	1,304	11.7	3,340
2006	11.6	4,192	13.1	1,004	11.6	968
2007	11.8	4,030	13.3	891	11.9	2,374
2008	11.9	3,724	13.3	832	11.8	746
2009	12.0	3,810	13.4	792	12.2	2,025
2010	12.2	3,059	13.7	653	12.3	598
2011	12.3	2,869	13.6	531	12.5	1,453
2012	12.4	3,019	13.6	642	12.4	492
2013	12.6	1,894	13.7	399	12.7	979
2014	12.6	2,094	13.5	452	12.4	265
2016	12.3	5,211	13.6	1,022	12.6	259

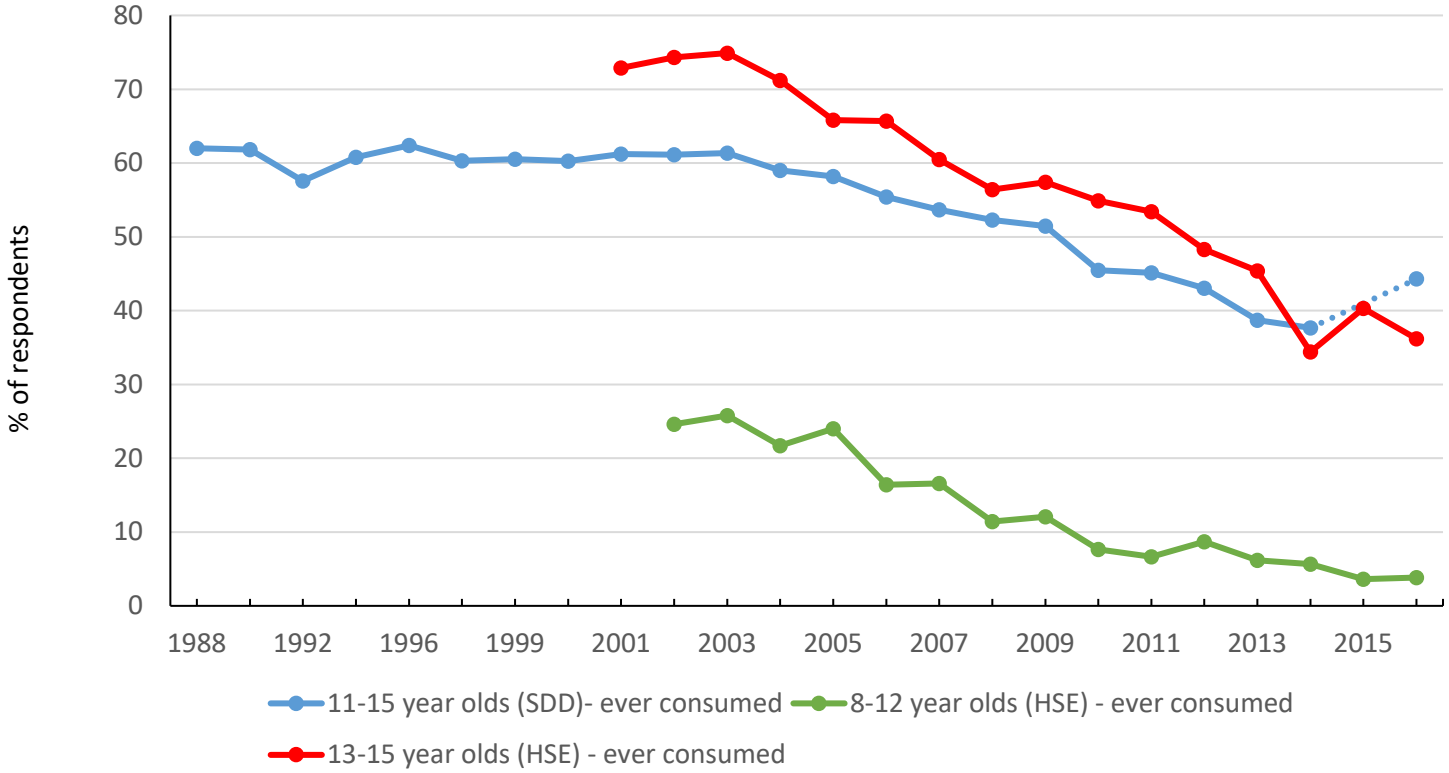

Figure A1; Comparison of the proportion of 11-15 year-olds (SDD) and 8-12 and 13-15 year-olds (HSE) who reported having ever tried alcohol.

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