

# Declines in youth drinking - an unexpected development

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## SPEAKERS

Emma Devine, Michael Livingston

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### **E** Emma Devine 00:00

Good afternoon, everyone. How are we? Welcome to our Positive Choices webinar today, we will just wait a minute or two and just let sort of people come in and join onto the Zoom before we get started today. Thank you, we've still got some people joining, we had a lot of interest in this webinar today, which was really great to see. And we're excited to have you all here today. We're still climbing a little bit. We'll just give it another minute and then we'll get started. Okay, so good afternoon, everyone. And a big welcome to the Positive Choices webinar series today. So my name is Dr. Emma Devine. And I work as a researcher at the Matilda Centre for Research in Mental Health and Substance Use at the University of Sydney. And in my role, I'm also the project manager for Positive Choices. So welcome, and thank you to our audience for joining us today. We're all coming together today from different parts of the country. So to begin, I'd like to start by acknowledging the traditional custodians of Country throughout Australia, and their connection to land, water and community. So I'm currently on the land of the Gadigal people of the Eora Nation and I pay my respects to Elder's past and present, I further acknowledge the traditional owners of the land on which you are on and pay my respects to their elders past and present. I would also like to acknowledge any Aboriginal and Torres Strait Islander people joining us for the webinar today. And if you would like to it be great to see where you're joining us from, and you can post it into the chat if you'd like to share. So before we get into today's presentation, I'm just going to start with a few housekeeping points. So the first is that as participants today, you're currently on listen only mode. And this means that we're not able to hear or to see you. We're also going to be recording this session, and it will be made available through the Positive Choices website, along with the slides, handouts, slide handouts, that will be emailed through to you as participants of this webinar as well. And finally, we will have a Q&A session at the end of the webinar. So as the session progresses, please feel free to add your questions to the Q&A box, or the chat as well, both of which should be found at the bottom of your screen. So I'll be keeping an eye on that as we go through and we'll be able to put some of those questions to Michael at the end. So if you're new to Positive Choices, I just want to give you a super quick introduction. So Positive Choices is a website that provides access to trustworthy, up to date, evidence based alcohol and other drug information, as well as educational resources that are suitable for parents, school staff and students. Positive

Choices is funded by the Australian Government Department of Health and Aged Care, and was developed by the Matilda Centre for Research in Mental Health and Substance Use at the University of Sydney. And we did this in consultation with teachers, parents and students as well. So making sure that the people who use the site were involved in its development. Some examples of resources that are housed on Positive Choices do include we've got learning resources, factsheets, videos, webinars, like the one we're doing today, we've got games, quick classroom activities, and one of our most popular resources, which are our classroom based drug prevention programmes that have all been proven to reduce drug related harms. So I encourage you to visit the website and have a look at some of these resources. If you'd like to, you can scan the QR code or the link will be posted in the chat as well. So, enough of that, and onto today's webinar. So today, we're going to be looking at youth drinking. And we're really excited to have Dr. Michael Livingston presenting for us today. So Michael is a quantitative alcohol researcher who has worked at the Centre for Alcohol Policy Research, the National Drug and Alcohol Research Centre, and now the National Drug Research Institute. And his work expands alcohol policy evaluation, alcohol epidemiology, survey methods, but he does have a particular focus on understanding population trends in drinking and harm. Michael has published more than 200 peer reviewed journal articles, and has contributed to policy and practice. And this includes his involvement in the most recent iteration of the Australian low risk drinking guidelines. So big thank you and welcome to Michael and I'll pass over to you.

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#### Michael Livingston 04:49

Thanks, Emma. Thanks for having me. It's lovely to be here. I'll start by sharing my screen. And I want to acknowledge that I'm on Wurundjeri Land of the Kulin Nation and also acknowledge elders past and present. Hopefully, that's all showing up nicely on the screen now. And I'll get started. So yes, today I'm talking about a big change we've seen in Australia and elsewhere around youth drinking practices. And really just running through some work that I've been involved in with various teams trying to understand what's happened and why it's happened and what it means for the future. If I can get the slides to move forward. And I want to acknowledge as I begin that this is work that has been done in teams by a lot of excellent other researchers and I'm I'm merely relaying it. This is this has been led by PhD students Rakhi Vashishtha and Gabe Caluzzi, have done lots of this work, Amy Pennay and Sarah Callinan from CAPR. Paul Dietze from NDRI, where I am now and some overseas colleagues from Sweden and the UK have been heavily involved in lots of this work it's been funded by a series of grants from the ARC and NHMRC and various other sources of money along the way. And I think we all we all know that alcohol consumption by young people is is a concern. And it's it's been a concern for a long time, it's been kind of normative practice, to throw all our best efforts to have minimum legal drinking ages of 18, or 21, or whichever, depending on which country you're in. It's it's been common practice for underage young people, for teenagers to drink alcohol, and to have problems from that, that drinking and just if you go back to the turn of the century, in many European countries, the vast, vast majority of 15 and 16 year olds were drinking and often drinking to the point of drunkenness. In Australia, the last survey we had before 2000, around half of 16 to 17 year olds were drinking in the last- had drank alcohol in the past 30 days before conducting the school survey. And this had been a kind of ongoing concern or kind of growing concern they've been they've been good data from school surveys and other sources that show that this was an increasing practice amongst teenagers, except maybe in the US where it'd kind of stabilised after they'd went through a whole complicated series of changes around their drinking age. But in many European countries, and in Australia, there was kind of growing concerns through the 90s, about underage drinking and harms from alcohol. And and and before I even I mean, the whole, this whole talk is about how things have

changed from that. But it's worth it's worth reiterating, that it still is a major public health issue. And that alcohol still is a huge contributor to the burden of disease for young people in Australia and elsewhere. And we know that drinking heavily as a teenager is both a risk in and of itself as a teenager, but also predictive of a range of later problems that linked to alcohol. So it's, it's it's been a major public health issue. And that was kind of, there are a series of editorials in journals around 2000, about this kind of worrying shift, and increase as kids move into more and more heavy drinking. And then something happens. And then if you look at data from Australia, from various surveys, from household surveys, and school surveys, you see here measures of drinking for teenagers of various ages just start declining and start declining quite steeply. So if you look at past year drinking for 14 to 17 year olds, it's dropped by more than half between 2001 in 2019, past week drinking in the school survey, the same, drops of more than 50% for these teenage populations in Australia. And if you look at other countries, not as quite as dramatic in the US, but still a pretty steady decline that really starts around then, there's a nice linear line plotted through this graph. But the decline really starts around 2000 and starts to fall away after a period of kind of stability. In the UK, again, pretty stable till about 2010. Drinking starts to drop on various measures in various age groups, whether it's ever consumed, whether it's a drink regularly, whether it's young teenagers, or old teenagers. In the Nordic countries in Sweden, Finland and Norway, we see drops almost as big as Australia. In fact, I think in Sweden, it's dropped by more so huge declines in self reports of drinking, this is heavy drinking, but the same pattern is evident on any drinking on all the measures that are kind of collected regularly. And then New Zealand again that's maybe a little bit later in New Zealand, but pretty steep declines here, again, we're talking about heavy drinking. This is just data that's been cobbled together from various surveys, but we see kind of almost at the same moment, consistent drops in drinking from a number of countries that have kind of historically worried about alcohol consumption, especially around young people. And that's the graphs I put together for this but Rakhi conducted a systematic review of the data from around 40 countries and found declines in youth drinking in almost every country of varying degrees and timings with clear kind of geographical differences. So the declines start the earliest and are the most dramatic in the Anglo kind of countries, New Zealand, Australia, the UK, Canada as well. And in in Northern Europe, in the Nordic countries, but then you sort of see smaller and slightly later declines in Western Europe. And quite small and quite recent declines in parts of eastern and southern Europe. But but across the high income world where we have kind of long run running time series of sort of adolescent 15 year old roughly, this is a kind of pretty remarkably common trend. In Australia, I mean, the first thing we sort of struck us was to try and figure out what is this a decline that has been concentrated among particularly young people? Is this about, you know, middle class kids being targeted well, by prevention and good parenting, and seeing a big decline in drinking? Is it about boys versus girls? Is it about different parts of the country. And on almost every measure, on every measure we can access, the trends are basically symmetrical. So this is kids living in the most disadvantaged and least disadvantaged neighbourhoods. And you can see declines are parallel for boys and girls declines are basically parallel. For urban, regional and rural, the levels are kind of different. And again, for kids from English speaking households, and non English speaking households, the levels are quite different, but the trends are parallel. So we've seen across all the different sort of obvious big demographic subgroups, we see this decline in youth drinking, from surveys. So it's, it's not a it's not a niche shift. It's a kind of widespread change in practices. And obviously, the key question is why what has caused this, I think, as much as we'd like to find that this was a great success of public health, it's not as clear cut in the way that tobacco, the tobacco story is. Tobacco decline started happening when we implement effective tobacco policies, we restrict marketing, we increase prices, we make it harder to purchase and use goes down. In the alcohol space there, there's not a, we'll get to the kind of specifics, but there aren't obvious policy interventions that have been implemented that have caused these declines. So there's a

whole bunch of theories that people have started to kind of work through that, why we might see this big drop in use drinking, and I've just listed a few here. The one that gets raised to me the most often is that, well, they're all using other substances. And we'll come to that later. But that's, that's the one that's kind of the most clearly not the case. There are a range of other theories people have about what might have caused this shift around family practices around perceptions of health and risk around the growth of online ways of interacting and living around policy around attitudes and potential kind of generational reactions against, you know, heavy drinking older generations. And almost as many people as you talk to, I, this is a conversation I end up having with taxi drivers and random people, I meet at meetings, and it's everyone who's got kids has opinions about what might be causing it, or is sceptical, that it's even really happening if their kids are not part of the group that have dropped their drinking. So to start this, this is kind of mostly work from one big ARC grant that we had. And the first thing we did was sort of try and review what evidence was there for these explanations, what given that by 2018, this had been identified in a lot of countries it was pretty well established that this was an ongoing behavioural shift. We thought we'd look and find what have people published about what might be causing this. And so Rakhi led a systematic reviews, again, and found really only a handful, 17 papers that fitted into our criteria of kind of looking explicitly for explanations for this decline, rather than just describing the decline. And they looked at a range of different reasons, usually one or two reasons at a time. Most, the most well studied were things around parenting, some work around policy has been done, as well as a few other areas. But even amongst the kind of, you know, there's five studies, Rakhi found that looked at how parenting practices might have driven these changes, but they were wildly diverse, some of them talked about, you know, specific alcohol measures in terms of like parental supply of alcohol or rules around alcohol. And some looked at much more general measures of parenting about relationship quality or communication or parental control. And most of them find something none of them sort of find definitive this shift in parenting practices has driven this whole decline in youth drinking, but most find some link between changes in parenting and some decline in drinking. The studies of policy impacts and we'll talk about some Australia ones in a minute, were generally fairly effective, generally fairly small and fairly specific. And the policies themselves were fairly specific. So I guess when we're looking at a behaviour like this, which has seemed to shift across 10-15 countries at the same time, the likelihood of it being linked to one particular policy change in Denmark or in Australia is pretty slim. So it's not surprising to me that we were unconvinced by the policy literature. There's almost no evidence. In fact, kind of the opposite evidence around substitution to other substances. Most where it's been looked at most countries have found similar or not as steep, but declines in illicit drug use for this, this cohort alongside the big declines in alcohol. And I'll show some Australian data in a few slides. We thought a bit about the financial crisis in the in the mid 2000s, potentially being behind this, that it was becoming, you know, for many countries 2007-8, there was economic disruption and potential reduced resources for things like alcohol purchasing. But the economic econometric studies that were conducted, tended to show that in fact, while overall drinking in the population tends to drop a bit when the economy goes backwards, youth drinking and youth heavy drinking probably increases more than it decreases. And certainly countries like Norway, and even Australia didn't really have a horrible time during the GFC. And they they showed some of the steepest decline. So it became less plausible that was the main reason. But in general, the picture was limited. The literature was pretty sketchy, mostly looking at one country at a time. So in Australia, we looked at Australian questions in Sweden they looked at Swedish questions. But given this as a behavioural shift that seems common, it kind of reduce, it reduces our ability to really conclude anything from from whether the literature was at that point. Recently, as Rakhi was submitting a thesis, she ran another search and added 10 more papers, and found again, a bit more. A few more studies that showed parenting practices mattered. And these were quite specific around alcohol provision. There was, there was a

couple of really quite good papers, including one of Rakhi's that I'll talk about that that looked at the question of whether the internet may be behind this and whether the growing ways of interacting via social media or via entertaining yourself, via things like games may have may have taken, reduced the kind of impetus for drinking, but we really couldn't find good evidence of that, the country level changes in gaming and internet use don't line up at all with a country level changes in drinking. Although there was an this is kind of an area I think needs to be worked on more carefully. There was evidence from a couple of European studies that it wasn't about an increase in online socialising, but it was about potentially a reduction in in face to face socialising, so kids in countries where face to face socialising had declined, where self reports from kids about how often do you hang out with your kids, with their friends, in person, where those have gone down, drinking had gone down more quickly. So a potential kind of link there with the internet, even if it's not as explicit as we imagined. And I think there's Yeah, that the evidence is kind of growing, that there's something about peers that peers are crucial to this, that they're having, having, light drinking friends, or socialising in ways with your peers where alcohol is not central, as has been kind of important for this. But even that kind of raises the question of, well, how how does that come to be that peer activities with 15 year olds are less alcohol centric than they once were. A couple more studies showing that substitution wasn't happening to other drugs. In another really good study from I think Finland that showed as Finnish alcohol taxes went up and then down, and then back up again, youth drinking just kept declining. So it didn't matter what they did to price drinking continued to fall for teenagers, while adult drinking moved in the way you'd expect when taxes went up drinking went down. And when taxes went down, drinking went up, but the youth trends kind of continued unaffected. And most of the work is still coming out of Norway, Sweden, and Finland, and then kind of growing work out of the UK, the US and Australia. There's one sociologist in the US, Jean Twenge, who has kind of got a broader thesis about kids putting off adult behaviours and she's written a book, which kind of compiles a bunch of data on things like alcohol consumption, but also getting jobs moving out of home driving, dating, sex and showing that in general, American teenagers are doing all of these things less and her kind of broader theory over it all is that it's a kind of avoidance of adulthood, which is potentially plausible, but also lines up very nicely. There was there was a bunch of papers in the 90s about kind of extended, that like kids were drinking and taking drugs in their late teens because they were avoiding adulthood, that was extended adolescence and kind of experiment. It's the same kind of reasoning was was applied to both increases and decreases in drinking. So it's, it doesn't really get to the fundamental reasons, I think potentially. So having done those reviews, we started doing some empirical work. And we ended up doing a mix of Australian specific study and some global comparative work, especially for the quantitative analysis of survey work. But alongside a bunch of survey analyses, we collected data from 50, light or non drinking teenagers in depth interview data. Gabe Caluzzi, his PhD was a series of long conversations with 16, 17, 18 year olds who either didn't drink or barely drank, to try and get their perspectives and I'll provide a bit of data from that at the end. And we looked at, we tried to look at these three, these sort of sorry, these five kind of key areas, which I'll again touch on each of them as we go through our results. The first thing we did there, Rakhi did at least was to try and look alongside the drinking trends at whether other behaviours that adolescents were involved in had changed. So were there changes in illicit drug use, were there changes in kind of broader health behaviours, there's the kind of a theory that this is all about kids trying to be healthier. And so we thought we should look at other health and risk behaviours as well. And also some stuff around mental health, which I'll briefly summarise. So she found fairly mixed, I mean, I think what what comes out of this study, which is just just kind of compiling existing trend data from various sources, is that behaviour that we would think of as kind of risky, or impulsive behaviour, things like crime, things like drug use, things like motor vehicle accidents, for underage kids have all gone down pretty steadily alongside drinking. So these kind of risk behaviours maybe, but that the broader

health behaviours like around diet and exercise, for example, have not moved in that direction. So it's not, if anything, it's not a shift towards being healthier, but it's a shift towards being kind of more cautious or less risky in some ways. There was some evidence from some survey data. And I think that's got stronger since this came out. That mental health for teenagers has gotten worse in this period. So you know, anxiety and depression has increased amongst this group, as drinking has gone down, which is not necessarily what we would have expected. There hasn't been big changes in kids' experience of school retention or employment, although our data on that was pretty poor. But it's, it's not, hadn't been marked shifts in that in this in this cohort that we've been able to identify. And some of, we didn't look at things like driving, but they, or moving out of home. But they've clearly moved in Australia in the same direction as they have in the US towards kids being less likely to get driver's licence, for example, and less likely to move out of home. But that, some of that is, is quite structural in some ways around economic concerns, it's much harder for a kid to move out and go to uni and live in their share house or a college than it used to be just from a financial perspective. But potentially, that's still part of the whole story, that there are these kind of delaying markers of adulthood being pushed back, you don't move out when you're 17. Now you move out when you're 25, you don't start to drive until you're in your 20s. Maybe there is a kind of broader delaying of adulthood. But I think the clear finding we found really was this kind of decline in risk behaviour. So you can see here, this is use of cannabis and it declines pretty steadily through the period kind of flattened out a bit at the end. This has inhalant use, sorry, this is inhalant use this is cannabis, they've both gone through a kind of pretty steep decline for the first half of the 2000s. And then some stability since then. And that that matches, from a school survey, that matches data from the National Drug Strategy Household Survey as well. So for all our obvious worries that declined in drinking would be driven by shifts to other substances. It doesn't seem to be borne out by the data that we can access and certainly other illicit drugs for this population of 15, 16 year olds, things like methamphetamines or ecstasy and related drugs are trivially small, there's they're not making up the kind of dramatic reduction in drinking that we've seen by shifts to those kinds of rarely used or rarely reported substances. Similar declines in crime, there's a good book that Don Weatherburn has just put out about the big decline in crime in Australia in the 2000s being driven mostly by a, kind of, reductions in this cohort's offending. So young people coming through are not getting involved in crime the way previous generations did, and some reductions in driving related injuries, for example. So those kind of immediate risk behaviours that, risk taking behaviours seem to have dropped alongside drinking. The next thing we looked at was whether any Australian specific policies may have contributed to this decline. And alcohol was a kind of hot topic in the 2000s. The first half, especially from a policy perspective, and especially around young people. So we, a paper that Rakhi didn't lead, but that was kind of around the edge of this project looked at whether the alcopops tax in 2008 may have helped drive this decline. We saw from the earlier graphs that use drinking was going down already, by 2008, so it certainly didn't kickstart it. But from what we can assess based on on data that, the survey data we had access to it potentially accelerated a little bit. So the the decline in drinking was helped along potentially by the increase in price of alcopops in 2008, which, which were a beverage that was targeted at this cohort. And then what we did look at in this project was secondary supply laws, which were, which are laws that basically make it illegal for you to supply alcohol to someone who's under 18, unless they're your child, or unless you had permission from their parents, and that, those laws had been in place in New South Wales, not forever, but for long longer than this, before the year 2000, since the 80s, I think. But most other states didn't have a law about that explicitly. And there were there were various incidents during the early part of the 2000s, where terrible things happened at parties where kids were given alcohol by other people's, other kids parents or by older brothers. And there was a kind of gradual implementation of these laws across Australian states basically over the 2000s. And that fits alongside what we've

seen in terms of changes in supply, so kids are less likely to get alcohol from adults than they used to be. And it let us look at whether those shifts in laws in different states may have helped to push those trends in the, so Victoria brought that law in before Queensland did the Victorian youth drinking trends start to drop more quickly than the Queensland one? And I won't go into the statistics of it all, but Rakhi ran a whole bunch of different models looking at whether the kids drank at all, how often they drank, where they got their alcohol from, and basically found nothing, that these secondary supply laws weren't dramatically impacting behaviour. And I think what we think is happening is that they're kind of a reflection of this change, there are a reflection of alcohol among teenagers becoming less acceptable and less normalised and that that kind of facilitates the implementation of laws like these, they kind of they were reflected this landscape changing rather than drive the big change in behaviour. And as I said, at the start, we didn't really expect policy to be key given that secondary supply laws in Australia probably don't affect anything in Sweden, or Finland or the UK. But we still thought we'd check with it, they'd been helpful in pushing it along. Having done those Australian analyses, we then moved some cross national work. And it's unfortunately quite difficult to find data that matches up well, from Australia, and a whole bunch of other countries. So we've ended up using European data for these, these two papers, which doesn't match up with the Australian school survey on the key measures, unfortunately, but it is a really great resource it has, has been running for 25 years across over 30 countries in Europe and collects data from 15 year olds every three or four years. And asks them a whole bunch of questions about both their drug and alcohol use, but then a good wide range of other factors that are relevant, so more detailed, and many surveys around things like parenting or things like leisure activities, and so forth. And surprisingly easy to access for researchers, which I was relieved at that. And again, very complicated and messy to model the statistics because you've got students in classrooms in countries over the years, but Rakhi, she's spent her PhD working through those challenges, and managed to publish a couple of papers on the data. Firstly, looking at parenting. And as I said earlier, her review had identified that parenting was, was potentially important. And we had good evidence from a bunch of other studies that practice, parenting practices had changed, we've known forever that parenting matters to youth drinking, but we also had data showing that parenting had changed in this period that parents had got and become less likely to supply alcohol to their to their kids were more, generally had had more strict rules in place around alcohol more generally, were more likely to be, to know where their kids were on the weekends. And generally, relationships have generally kind of increased inequality as measured in these studies. And there was a bit of like, we talked a lot about the kind of public discussion about alcohol and developing brain that really, I think did become a kind of widespread discourse in the early 2000s, that parents did become aware of the fact that, that alcohol as a 15 year old who was going to have potentially longer term impacts on their kids development, and potentially may have helped to push parenting practices in a more lighter drinking direction. Yes, and most of the studies that we've found showed some evidence that parenting mattered, but again, that had used a variety of measures and were mostly focused on you know, Swedish parenting or single parenting, sorry, single country parenting practices. So we had an opportunity to look at across these 30 countries. And we ended up with kind of two scales for the parents. And again, the items you rely on are what people put in surveys. And they're never perfect they've been, you know, someone decided in 1995 to collect this parenting scale. And you'd love if they'd collected a different one, but you might do with what you have. And they kind of ended up with two sets of items, one around supervision or control. So there was about three items, asking questions like, asking the kid questions like "would my parents know where I am in the evening?" Something about rules and something about supervision, I think. And then a couple of questions about quality of relationship. So "I can easily get warmth and caring for my mother and father". So these are all from the perspective of the child because that's who, that's who does the surveys. But they're are two scale, we think we call them quality and

control or supervision or something were the two kind of terms were used for the two summary measures, sorry, their right here supervision and quality. And we had data from 12 years where they had been collected well, across about 30 countries. And we looked at how did changes in those measures, correlate with changes in self reports of past months drinking. And I won't again, I won't sort of try and explain the modelling because it's, you know, I struggle to understand it. But basically, at the individual level for any given child, having more, parents who are more, higher levels of supervision, tended to mean that the drinking was lower. So that, that kind of, we knew that kind of already that that was, that's been the case, since the data has been collected. And parents who are more kind of aware of their children's whereabouts and practices tend to have lighter drinking kids. But looking at what had changed within countries, we didn't find that the changes in supervision were related to changes in drinking at a population level. We did find a small effect for relationship quality, so as parenting, as the child's perspective of kind of quality of parenting, or quality of relationship, improved drinking tended to decline. So some significant effect over time between countries of this kind of parental quality. But still, even in the final models, most of the decline in drinking wasn't explained. So parenting probably mattered a little bit, but doesn't, isn't the key driver of this practice, or at least these measures of parenting did not fully explain or come close to fully explain explaining the declining drinking that we saw across the European countries. We moved on after that, to look at internet and gaming because I think this has always been kind of my favourite potential theory, because it's international, timing feels roughly right that from the early 2000s onwards, this kind of grew and grew in importance for kids. It's, it's youth specific in a way that, if we're looking at - I should have said earlier, while all these trends in youth drinking are kind of similar, adult drinking doesn't match up at all, there's been no decline in adult drinking in Australia, except for young adults as they move, as the generations have moved through. Similarly, in Sweden and other countries, it's not, it's not a shift in drinking overall, it's definitely a shift in youth drinking and so that, the internet felt plausible as an explanation, because it probably does affect youth behaviour in ways that doesn't affect older generations behaviours. Especially the kind of social aspect. I mean, alcohol consumption for kids has always been a very social activity. And I think there is a growing, I mean, obviously, there's a growing amount of people's social lives that are playing out via the internet. And so we theorised that potentially kids were, simply had less time to drink because they were spending their time in other ways, you know, playing video games, being on social networks, in general, that this was just taking up extra, extra leisure time they had previously spent drinking was now spent by doing other forms of entertainment. Or more directly, I guess it was affecting the way social events played out. So there were less, kids are having less social face to face social experiences and more social interactions that didn't centre around alcohol. And there were a few studies at the point that Rakhi did this. In all these studies, were relying on fairly mediocre measures of internet and computer gaming, because things have changed so dramatically over 20 years that expecting surveys that ask the question in 2003, to have hit upon the question that makes sense in 2015 is asking a lot so that you are relying on fairly weak measures. The recent ESPAD surveys have wonderfully sophisticated measures, but we wanted to look at trends over time. So we're forced to use these kind of fairly crude measures about how often you use internet for leisure activities, how often you play computer games, and they have pretty crude scales from never to almost every day. And one of the problems is that by the end of this study period, kids are saying almost every day and almost all kids are saying almost every day to all these items. So it's not, it's not discriminating enough between different levels of use when we rely on these kind of broad scales. We also thought we'd try and use some more objective measures. So we use the some data from the World Bank about household internet access, which did grow pretty dramatically over this period. And use roughly the same data as the parenting paper. So 15 years or so, 30 odd countries. And we found nothing really, we found no longitudinal links between the amount of gaming or internet use



that kids reported and their drinking. In a country at a country level, we looked at them combined. So any kind of computer time, we looked at them separately gaming versus the internet. And with this, we found no significant relationship. And, as I said, I think the measurement is part of the problem here, we're not really capturing in a very nuanced way the way kids interact with the Internet. And even the idea that like social media time is separate to social time is kind of nonsensical, when we think about the lived experience of kids, social media happens at parties happens, like it's not, they're not separate, they're not the idea of simply substituting one for the other, it doesn't really make sense. So how we understand this, I think, needs a lot more thought. And maybe the surveys are never going to get us there, at least not not historical surveys. I think there is some, yeah, I will talk a bit more about the idea of how mobile phones and internet have kind of, relate to parenting as well. And parenting supervision, and self supervision, the idea that anything you do, or appear to do, anything you do might be captured or put online is, I think, not picked up in this study. But it's a relevant concern for kids and certainly came out in our qualitative data, which I'll briefly cover now. So this is Gabe Caluzzi's PhD. I'm much more on the quantitative side. So I'm second hand reporting this work where he spent many hours talking to young people about their experiences around, well just about their lives, and then explicitly about how alcohol did or didn't fit into their lives. And I'll briefly cover some of the key themes that he hit upon. And it was pretty clear for this group of fairly light or non drinking teenagers that health was important, that they did see health and risk, they did see alcohol as a real dangerous substance, they, you know, they talked about, I think this is the title of one of Gabe's papers. "No one associates alcohol with being in good health, I know it's not the best stuff for you." Kids talked about putting it off until they were older, because they weren't sure how it would help would affect them as teenagers. They try and keep themselves healthy. They know from the media and parents and stuff that your brain, they talked about the brain still developing. So there was this idea that, that came up again and again from kids that this was a substance that was bad for you. And they were not keen on that. There was a sense of wanting to avoid that risk. There was also and this was I mean, it doesn't explain why things have changed, but I thought it was kind of striking that these kids who don't drink, or barely drink, talked about sobriety being more authentic in a way that heavy drinking kids used to talk about drunkenness, being authentic, you're more your real self, if you're not drinking, like people say I know it eases social anxieties, makes it easier to communicate. But I'd rather be socialising as my true self, if that makes sense. Whereas you read old studies of heavy drinking teenagers and the opposite idea is there, that alcohol helps you be your true self that it breaks down these kind of barriers and opens you up to being more authentic. So it's a kind of, just struck me, it's fascinating how similar the arguments were that kids put for non drinking and drinking. But a real sense that peers were important, that having non drinking friends were, was really valuable to this group that they were, they were people they could be more intimate with, felt more supported by and had stronger, kind of real connections with. This is a bit about that surveillance aspect of social media, which I was talking about, the social media in general, this quote is about the information you kind of take in from the internet and from technology, you hear more about the problems of the world, about violence and sexual violence and people being hurt from alcohol. And this kid said "I don't focus on it, but I think I probably soak all that in", and this probably has internalised this message. But also, and this came up, in a lot of interviews, if someone posts something that you're drinking or that you've done and it gets to the wrong person, you get in trouble, the idea that what you do is surveilled and potentially never gone. Once you know, if you get a photo of you doing something ridiculous, that's that could be there forever, in ways you can't control that that comes out in conversations with this group as a worry. And I think it's probably, that probably wasn't the case in 2003 when this decline started, but it's certainly the case now that that's a concern that is reported by these kids. And and this is one that we're we're trying to work more into this idea of just just competing pressures and

priorities that kids have I feel too much pressure or have too much desire to do other things, to achieve other things that drinking gets in the way of. So this kid says "at this stage of my life, I have too many important things going on to waking up the next morning feeling sick, that can wait till I finish school. Like you go out on a Saturday night, if you drink too much, you wake up on Sunday and you feel sick, how are you going to do the study and all the stuff that you try that you have to do on Sunday? It seems a bit pointless to me at this point in time." And we had kids who played sports who had similar opinions, a lot of, this came up a lot this idea that you've just got too much going on as a teenager to waste time being drunk or hungover. Which I, yeah, I is sort of striking and it comes up in overseas work as well. We're doing a bit of comparative work with the UK and Sweden, qualitative interviews and kids there report similar things about this idea of needing to get all your kind of ducks in a row and have your schooling right, be volunteering, have a job, play sport, have your whole life kind of mapped out in front of you, and alcohol just kind of slows you down. So that's an area I think we need to understand more. And in some ways, I think potentially, this is just me speculating wildly, kind of ties back into some of the stuff around anxiety and mental health. There's a kind of pressure on these kids to achieve things that maybe wasn't there 20 years ago when he was 17. So quickly, try and sum up what we know. I mean, we started this project, hoping we would come up at the end with a "declining drinking was caused by this". And it's obviously not going to be as simple as we'd hoped, it's not going to be a single neat cause that has driven youth drinking down so sharply here and elsewhere. We think parenting matters, we don't think it is the whole story. And we're not still not quite sure what factors around parenting matter. There's definitely evidence, I didn't show it here, but from surveys there's clear evidence that Australian and other countries concerns about alcohol have grown and in the general population people are much more aware of alcohol as a risk, much more likely to report that, you know, a safe level of drinking is quite low. So there's some sense that in the population that health messages potentially started to permeate. And perhaps that that doesn't change established behaviours like maybe, maybe 40 year olds now are much more aware of the risks of drinking than 40 year olds used to be, but they've already established their drinking patterns. Whereas if that's, that might, it might be more influential for the health practice, health knowledge to have changed for people sort of still establishing how they drink or for parents as well, who I have some control over that. I think we need to do more work about pressures, about career pressures and social pressures and financial pressures. Particularly with respect to anxiety, as I said, we don't think there's going to be a simple study that shows the internet's been key, but I think it probably permeated its way through all the other explanations in some way, I just think it's inevitable, given how much it's changed the world and how central to young people's lives it is. And there is a lot of work we haven't done really about trying to understand why certain countries have different, we talk about this being a global trend, and it kind of is, but it varies a lot between countries and trying to figure out what might be behind that variation. And that kind of macro level is still to be done. We're also trying to figure out what this means for these groups of kids as they age. And all the work I've talked about today has been about kind of adolescents 15, 16, 17 year olds, we started to do some work. This is a very bright and ugly graph, but trying to see what happens to drinking in this cohort, as they age into kind of young adulthood, which is peak drinking age for Australians historically, and this is from a cohort study, which has a whole bunch of different birth years in it. And you can see the big gaps in drinking are at 15. They narrow to 18. But they kind of maintained as they age into the early 20s. And then similarly, from a repeated cross sectional data, another very ugly graph, big gaps in drinking at 15. Quite a bit smaller at 18. But still there, still seeing for cohorts born in the 90s and early 2000s, who are in their like late teens, early 20s. Drinking is lower as a 21 year old than for someone who was born in the 70s or early 80s. So there's likely to be some long lasting, beneficial impacts around reduced drinking across the life course for these cohorts, these, having reduced drinking at 15 looks like it's leading to reduce drinking later, later on,

which is what we'd expect. That's what we've shown from studies in the past. There was some evidence from Finland that that the differences there kind of washed away by the time the kids were 20. But it seems to be in Australia that we're seeing declines now in young adult drinking as this generation moves through. We don't really have a good sense that harm has declined sharply, which is kind of striking, given that we're talking about a reduction in more than 50% for teenage drinking in most measures and if you look at, harm is hard to measure precisely for various things like injuries, falls and violence. The attribution of alcohol is not straightforward. If someone comes into the ED with a broken arm because they get into a fight, we don't always know if alcohol was involved in that. And we have to make a bunch of assumptions usually. So there's not clear evidence at this point that, that harms from drinking have declined, which could mean either that our measurement of harms is not great. Or it could mean that our measurement of drinking is capturing the kind of, the less harmful end of the population, the proportion of kids who do surveys, which is the vast majority of kids, but maybe these harms are more, more kind of pointy, and then we need to worry about sub-populations that we're not capturing there. We want to do a whole bunch more work, looking at whether the demographic differences in drinking patterns are consistent internationally. So in Australia, as I said earlier, the decline seemed to be fairly consistent across demographic groups, that hadn't been looked at in many other countries yet. So we don't know for example, how socioeconomic status plays out in English or Swedish drinking. And we've done a bit of work cross nationally looking at young adult drinking. And those declines, like the declines in teenage drinking are much more consistent. So there are some, there are some quite marked global differences in whether the decline continues into adulthood, I think, that needs to be developed. As I said, some Finnish data suggests that the declining, they saw a very, very sharp 50% decline in teenagers drinking, but by early adulthood, the gaps between generations had narrowed again. I just clicked a whole bunch of buttons, sorry. And then a kind of key question, I guess, which we haven't got to yet in this study, and I think has barely been wrestled with very well. And the Matilda's done some good work actually, how COVID-19 plays out for this, this story, this has been a distinct shift in behaviour for young people. They've been through two years, kind of unimaginably different to teenagers from generations before them. And we have no sense of how it's gonna play out as they move through now. So whether kids who had been locked inside for two years, 18 and back in the world, and whether drinking shoots up again, or whether they react the other way. And it kind forces drinking down even further, we have no or very little data at this point to go on about the kind of whether the trend that we've seen up to 2019 will be maintained post COVID. And as I say, here, that there could be various reasons to think that it will move in either direction, either via increased supervision, less social interaction, but also kind of distress and boredom and the kind of the negative drivers and drinking could because COVID has obviously been very hard on these kids. So that's my big youth drinking spiel. Again, I want to reiterate that this was work mostly led by other people who I've worked, been lucky to work alongside. And I'm, hopefully have left enough time for some questions and discussions at the end of this. Thank you.

E

Emma Devine 48:09

Excellent. Thank you so much, Michael. That was really, really interesting. And I think that's mirrored in some of the questions that we're getting through already. So if you're ready for a couple, Yeah. And so one of the first questions we got was sort of a big picture question. So if we've been engaging in, you know, substance use alcohol use reduction efforts and methods for so many years, is this decline something that's very unexpected? Or is this sort of what we would expect to see based on what we've been doing for so many years now?

M

Michael Livingston 48:20

Yeah, sure. Yeah, it's a really good question. I think alcohol research, Alcohol Policy Research has tended to dismiss the effectiveness of those efforts, I think. So through the 80s and 90s there are a lot of studies that looked at how programmes around education and prevention for kids operated and there wasn't a lot of evidence that they changed behaviour in the short term. But it's much harder to assess whether they kind of change broader attitudes and perceptions in a way that in no individual kids behaviour changes, but the next generation don't start who would otherwise it started so I think, I think it's clear from the qualitative work and from survey data on perceptions of harm, that the population is much more worried about alcohol than they once were. And that has come about via public health work, so I think yes, but how and why is it not as obvious. With tobacco I guess you had these kind of series of levers all being pulled together. Alcohol you had probably the public education, and some of it and the school based stuff has been really developed really well, but you haven't had like tax policy changes or not many you haven't had reductions in advertising, which has probably expanded for most of these kids. So yeah, I think yes. So I think yes, we as a, as a society know a lot more about the risks from alcohol. And that's obviously helping to change behaviours for young people, but not for old people. That's interesting. I think that, that education has been crossed the population, but maybe established habits don't shift as easily as yet to be established habits.

E

Emma Devine 50:20

Yeah absolutely. I think it's really interesting how confined this is to sort of the younger people, it's not sort of across the board at all. And we've also got some questions around parenting. So it seemed, from what you were saying that parenting is where there's maybe the strongest evidence, even though it is still, you know, it's not explaining anything, by any, everything by any means. But can you speak a bit to what you think has changed about parenting that might be impacting the current young people?

M

Michael Livingston 50:50

Yeah, there's two kind of strands, I guess. And there's one of them comes out of what we just talked about, which I think is parents are much more aware now of the risks of drinking and much more likely to set kind of sensible rules about alcohol and less likely to supply and even if kids are going to drink they want to be supervised. I think, I think in general, there has shifted in a good direction. There's also some evidence from various countries that, that parenting, the parent child relationship is more kind of collaborative in some ways than it used to be less kind of authoritarian, I can't remember right language. And that seems to matter as well. Like there's not as much of a sense that teenagers are rebelling against their parents, because the kids and parents tend to have kind of less antagonistic, I mean, I'm sure, I don't have teenage kids. I'm sure it's still often very antagonistic. But I think in general, there's been a shift away from like, that model of parenting so that the idea of rebelling against that is probably reduced. I think that they seem to be the two main strands of explanation. But it's still pretty sketchy. What, what's done what, in terms of driving the youth drinking trends down?

E

Emma Devine 51:58

Yeah. Yeah, brilliant. Um, one question came through that I thought was really interesting, actually, was about the role of zero alcohol drinks. And whether you think this decline will change at all, I know people are quite worried about increases in overall consumption, again, because of sort of normalising drinking in situations where we wouldn't normally be doing it.

M

Michael Livingston 52:19

I haven't I really struggle to have a good answer, because I find it so interesting. I was at a conference recently, and someone was saying to me, but don't you think this will mean that we drink these things in places we would never have drunk alcohol before? And like, I don't know that that's really true as we drank non alcoholic beers at the conference lunch, which of course, we would never be drinking real beer at the conference line. So it's obviously true. And I'm, but at the same time, I think it's in some ways, and maybe not for kids, but for during COVID. This is a very, my personal story, I found having non alcoholic beers easily accessible made my drinking much easier to manage in COVID. I could have a beer, but not be drinking alcohol. And I think that's a common experience people who are trying to manage their own drinking. So whether they are good, net good or bad, I don't have a good answer to I think there's arguments in both directions. I think for kids, there is a concern that the branding and the products become ubiquitous before they're 18, that there's, you know, that the Heineken is everywhere. And I do think there are some concerns about how it plays out with teenagers and whether there's ways of managing that, because I think that products in general, probably had benefits as well. But it's so it's so early, it's been such a huge growth in the past three or five years. We just don't know yet.

E

Emma Devine 53:36

Yeah, no, it'll be exciting to see what sort of happens, and sort of the consequences of it. And I guess that sort of brings me into another couple of questions or an area of questions we've been getting in, which is so you mentioned, or you were speaking about how declines in alcohol is not being mirrored by increases in other substances. So we're not seeing young people, you know, smoking more cannabis or doing more of other substances? And is there any evidence around vaping in this space, because vaping is another big one that's very new as well, but is a quite a big concern to people.

M

Michael Livingston 54:16

And it is the one substance that's really increasing for teenagers like, it's much, it's grown in prevalence in many countries quite sharply, but quite recently, I guess, so it probably doesn't match up with this decline in drinking, which started in the early 2000s. Because it wasn't really a thing, but it's definitely taking up some space in the kind of substance world for kids now that that was, yeah, it's it is, it is a thing we haven't really looked at in this context, but it's clearly an important story for teenagers. And I don't know how it fits in with drinking. I'm not, I'm not even really sure, you know, if it's something that people do while they're drinking in a way that smoking is I haven't, I don't understand the vaping world enough to have a strong opinion but it's definitely a growing issue for teenagers.

E

Emma Devine 55:03

Yeah, absolutely. Another one where sort of time might tell exactly.

M

Michael Livingston 55:07

Yeah, exactly. The same kind of issue with zero alcohol beer, it's probably better than doing that than smoking. But a more teenager, it's growing so quickly. It's not just substituting for smoking at this point amongst teenagers. So it's, it's an open question.

E

Emma Devine 55:21

Absolutely. Thanks, Michael, something else we got quite a few or not quite a few. We got some questions, asking about gender differences and some of the trends that you were speaking about. So in alcohol consumption overall, and also in relation to internet as being an explainer. So when you're speaking about gaming, you know, there was some thoughts around, there's not necessarily a very equal gender divide in that activity. And it might be a more male typical activity.

M

Michael Livingston 55:50

Yeah, yeah, so for the gaming paper, we did look at that explicitly, like an interaction between sex and those, especially gaming measures, because that's clearly the case. And didn't show anything useful in terms of explaining drinking. Boys are much more likely to report spending a lot of, a lot of time gaming. But in terms of its relationship with drinking, there wasn't an obvious difference. And the drinking pattern, so it's interesting, in general, there's been a concern about girls and women's drinking, catching up to men's, in many countries, and certainly, amongst adult women that is, it's not true that they've caught up to me, but the gap has narrowed in the past 20 years. But for teenagers, it's always been pretty even at 15, the prevalence of drinking for boys and girls at 15 is, not always, as far as we have data has been fairly even. And that's still the case. Boys, when they drink probably drink more heavily. But from all, this is a long background, sorry, from what from all the survey data we have, the declines are pretty much symmetrical. So it's not like in Australia, at least it's not like boys are dropping more than girls, there is some evidence from overseas, that the decline is steeper for boys than girls in some of the European countries and certainly in young adults in Europe, that seems quite clear that young men's drinking is dropping in a way that young, women's is not but in teenagers, it's pretty consistent. That decline.

E

Emma Devine 56:45

We're not seeing those huge, it's pretty across the board.

M

Michael Livingston 57:21

Yeah, we really thought we'd find like some some way of explaining it that was you know, it's, I assumed it would be in the way that tobacco was it would be a socio economic thing. that you'd

see this being declined for well off kids, and a group being left behind. But it doesn't seem to be that which is I was really still scratching my head about.

E

Emma Devine 57:41

It does seem like there's still quite a few questions.

M

Michael Livingston 57:45

We took all the Australian Research Council's money, and we've come up with more questions and no answers. So I guess it's classic research, yet it goes quite how you expect.

E

Emma Devine 57:53

And it's a very complex issue as well, with lots of factors to be looking at. We might finish up on one now, we don't expect you to have the answer. But this is more about what do you think might happen? And what's your sort of hypothesis? So do you think that these trends will continue through adulthood? For young people, or

M

Michael Livingston 58:12

I think we'll, I think we will see population drinking in Australia continue to fall, as this cohort ages, I don't think the gap that we've seen, it's dropped by 50%, say for 15 year olds, I don't think that at 30 the gap will be 50%. But I think there will be a generation that goes through life, drinking less than my generation who was, I was at the start of this probably. So I do think we'll see a reduction in drinking that lasts through their life course. And that will affect the whole pop, as as they become the bulk of the kind of drinking population that will affect per capita consumption here. But there's this kind of theory in sociology that Robin Room and others have have put forward that it's all just, they call it long waves of alcohol consumption just a cycle that this this generation, there'll be a reaction against this generation and the next year at some point, it'll turn and then next generation will be heavy drinking like the baby boomers were I guess they were much heavier drinking than the pre war generations, because, for various reasons. So it could just cycle round and round and round. I don't it's not clear that it will be like tobacco, where we kind of expect it to kind of go down and stay down. Because we don't really know what caused it. I guess. We don't know what will cause it to swing back again. So it's um, yeah, I think for this generation, it will probably stick but I don't know that will stick forever.

E

Emma Devine 59:32

Yeah, got you.

M

Michael Livingston 59:33

How could I know that? Of course. No one knew this was gonna happen. Like we all pretend we can predict the future. But this was a surprise to us. And yeah.

E

Emma Devine 59:42

You're probably the one person who could give a very good guess to that though. So thank you for sharing that. Not to put you on the spot with that one as well. But just wanted to finish up by saying a huge thank you to you, Michael. This has been a really, really great webinar. There are people in the chat who agree with me, of course. So we're getting lots of positive, sort of thank yous and fantastics through as well. But I just wanted to thank everyone in our audience for coming today. And if you've got any feedback on the webinar or any questions that we unfortunately couldn't get to today, please feel free to email us through at [info@positivechoices.org.au](mailto:info@positivechoices.org.au). And you can also keep up to date with any future webinars that we might have on Facebook and Twitter. And just to say as well, no more slides just to thank you. Thanks so much, Michael.

M

Michael Livingston 1:00:30

Thanks Emma. Thanks, everyone. Bye.