

A school-based approach to vaping...the OurFutures Prevention Model

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SPEAKERS

Amy-Leigh Rowe, Annabelle Hawkins, Emma Devine

Emma Devine 00:00

So, just to start, good afternoon, everyone, welcome to our Positive Choices Webinar. My name is Dr. Emma Devine and I'm a researcher at the Matilda Centre for Research in Mental Health and Substance Use here at the University of Sydney. And I'm also the project manager for Positive Choices. So big welcome and thank you for joining us today. So we are all coming together from different parts of the country today. So I'd like to begin by acknowledging the traditional custodians of country throughout Australia, and their connection to land and water and community. So today, I'm currently on the land of the Gadigal people of the Eora Nation and I pay my respects to Elders past and present. And I further acknowledge the traditional owners of the land on which you are and pay my respects to their Elders past and present as well. I'd also like to acknowledge any Aboriginal and Torres Strait Islander people who are joining us today for the webinar, and welcome people to add into the chat from what lands they're joining us today as well. So a little bit of housekeeping. Before we go on to today's presentation, just a couple of things to be aware of. So as participants at this webinar, you are currently on what's called listen only mode. And what that means is that we can't see or hear you. If you are having any issues or having difficulty with sound, anything like that you can pop it into the chat. And we've got the wonderful Amelia Russell behind the scenes today helping us out with all things tech. So she will do our best to help in any way that she can. The webinar today is being recorded and it will be made available to you after the webinar and it will also be available on the Positive Choices website. And then finally, we do have a question and answer session at the end of today's webinar. So as we're going through the session today, if you do have questions, please feel free to pop them into the Q&A box, which you should be able to see on your zoom screen down the bottom, or I guess the top depending on how your layout is. But yeah, as we go feel free to pop anything in there. So just before we get into today's session, if you are new to Positive Choices, I'll just start with a quick overview. So Positive Choices is a website that provides access to trustworthy up to date and evidence based alcohol and other drug information as well as education resources. And they're targeted really for parents, school staff and students. So that whole school community perspective. Positive Choices is funded by the Australian Government Department of Health and Aged Care and it was developed by the Matilda Centre for Research in Mental Health and Substance Use here at the University of

Sydney in consultation with teachers, parents and students. Some examples of resources that we have on Positive Choices include factsheets, videos, webinars, games, and we also have classroom based drug prevention programmes that have been proven to reduce drug related harms. So I do encourage you to visit our website and have a look at some of those resources, if anything was of interest. So now on to today's webinar. So we are focusing on vaping. Today, we're really really excited to have Dr. Amy-Leigh Rowe and Annabelle Hawkins present for us today. So I'll start with little quick intros for them. So Dr. Rowe is a postdoctoral researcher at the Matilda Centre. And her current research focuses on the development and evaluation of preventive e-health interventions for young people. Amy is coordinating the our futures vaping study which they will speak about today, which is a large multi site RCT, or randomised controlled trial and it's also the first rigorous evaluation of a school based e cigarette prevention programme in Australia. Amy is also the lead consultant for the New South Wales Ministry of Health in developing their next wellbeing policy for young people. And then Annabelle Hawkins is a research assistant at the Matilda Centre. And Annabelle is coordinating the 'taking evidence based health and wellbeing programmes to scale' study, which is primarily focused on upscaling evidence based prevention programmes in secondary school context. So OurFutures and Preventure are two of those that you can also find through Positive Choices. All with the aim of reaching more students and better understanding what works for delivery of such prevention programmes in Australian contexts. Annabelle also works on the OurFutures vaping study, along with Amy as well. So thank you, Amy and Annabelle. We're really excited to have you and I'll hand over to you.

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Amy-Leigh Rowe 04:29

Thanks so much, Emma. I will just now share my screen and thank you also to Positive Choices for having us here today to present. So hi everyone. Can you all see my slides I think? Beautiful. So as Emma mentioned myself and my colleague Annabelle will be presenting today on a school based approach to vaping prevention, and also introducing you to the OurFutures prevention model. So just quickly to let everyone know that Annabelle and I do not have any conflicts of interest to declare and we have not received any funding from any tobacco, vape or pharmaceutical companies. Just a broad overview of what our webinar will cover today. So I'm going to start by giving you a brief background on the issue of adolescent vaping. And I'll include things like the current prevalence rates, and what we know at this point about the harms. I'll then cover some practical strategies for approaching vaping prevention at the individual level, before I cover what we know about school based prevention from two decades of research, and how we're now applying that knowledge to the issue of vaping prevention. I'll then hand over to Annabelle who will walk you through our extensive development and co-design of the OurFutures vaping programme, and Annabelle will introduce you to the final programme and tell you about our large cluster randomised control trial. And this type of rigorous evaluation is really what sets the OurFutures programmes apart. Importantly, Annabelle will also explain how you or your school can register for early access. So by way of background, I thought I would start with the complete basics, I'm sure that you're all familiar with the various names of electronic cigarettes. They're most commonly referred to as vapes, but you can also hear them referred to as e-cigs, mods, vape pens, e-hookah, JUUL and STIGs. And so in case you aren't aware, those last two are the brand names of some of the popular products. Vaping refers to the act of inhaling and exhaling an aerosol which is produced by an electronic cigarette. And you'll notice there that I've underlined aerosol and this is because one of the most common misconceptions about vaping is that it is just harmless water vapour. And this is of course incorrect. So it's one of those myths it's quite problematic because it really contributes to the lowered or inaccurate harm perception around vapes. So by definition, a

vapour is the gaseous state of something that is normally a liquid, whereas an aerosol is the suspension of tiny particles of a liquid and or solids within a gas. So what you can see there on the screen with the vape devices pictured, these are what are known as pod mods. They are the fourth or latest generation of vaping devices. And they're the ones that you commonly find in tobacconists and convenience stores. So these are usually prefilled. They are closed systems and are disposable. They have really sleek designs and bright colourful packaging, and they also come in a variety of fruity and lolly like flavours, which we know has a direct appeal to young people. We also know that these devices typically contain very high doses of nicotine, even when it's not indicated on the label. So then why is adolescent vaping a concern? Firstly, vaping is still a relatively new phenomenon. And research takes time. So we're still learning about a lot of the potential longer term harms. And we also have varying levels of evidence for the different harms that we are aware of at this point. However, I thought it might be useful for me to briefly summarise what we do know in this space. So we know that vaping poses a great risk for a young person to become addicted to nicotine. So when a person vapes, nicotine is able to reach the brain really quickly. And since the adolescent brain is still developing, it is much more susceptible to the effects of nicotine. So therefore, it's much quicker and easier for a young person to become addicted to nicotine than it is for an adult. Next we have the exposure to harmful chemicals. So in the aerosol, there are around 250, sometimes more, chemicals. And this includes volatile organic compounds, ultra fine particles, carcinogens, and heavy metals, all of which can be inhaled directly into the lungs. And it's important here to note that even though some of those chemicals have proven safe for ingestion, to date, none of them have proven safe for inhalation. Then on to the health risks. So we know that vaping poses a risk to respiratory health. There's something known as e cigarette and vaping associated lung injury or EVALI. We also know that it can cause irritation of the mouth and airways, as well as persistent coughing. There's some emerging evidence around cardiovascular health risks, including impacts on blood pressure, causing tachycardia, atrial fibrillation, myocardial infarction, and also chest pain. Poisoning and seizures can occur from inhaling too much nicotine or from the ingestion of the nicotine e liquid, burns and injuries can be caused by the e cigarette overheating and even exploding and also just using too much of a vape can lead to nausea and vomiting. Now what about mental health? So research suggests that there is an association between e cigarette use during adolescence and an increased risk of various mental health concerns. Although it's really important that I mentioned here that causality has not been established. So we cannot say that vaping causes mental health issues. And the reason for this is that we need more longitudinal research. So this is where we need to follow young people up over time, and then we can better understand this relationship. Nonetheless, we do still have evidence. And the findings that I presented here come from two recent reviews which have demonstrated associations between adolescent vaping and depression, suicidality, disordered eating, ADHD, conduct disorder, impulsivity, perceived stress, and also there is some limited and mixed evidence around an association between vaping and anxiety. We also know that nicotine can interfere with sleep patterns. So this can lead to disturbances in both the quality and duration of sleep. And we know it's well established that sleep is very crucial for overall mental health and well being. And then we also know that some young people use vaping as a form of self medication to cope with stress, anxiety or other emotional challenges. So it may not be that vaping is actually causing these mental health concerns. Rather, it may be used as a way to cope. However, this is quite problematic, because it can actually exacerbate these symptoms in the long term and lead to a dependence on nicotine. Now looking a little bit closer at the impacts of nicotine on the developing brain. So some of these include impacts on cognitive function. So including on learning, memory, and attention, we also know that it can cause changes to the actual brain structure, particularly in the regions that are associated with impulse control and reward processing. We can also see alterations to neurotransmitter levels. So chronic exposure can lead to dysregulation of

dopamine levels. And so dopamine is the neurotransmitter that is responsible for those feelings of pleasure and reward. So we know adolescent vaping is a concern, but how many young people are actually doing it. So our team recently explored this using data from our Health4Life study, and this is one of the largest school based prevention trials in Australia. It includes students from 70 schools across New South Wales, Western Australia, and Queensland. And through this work, we found that 26% of adolescents aged 14 to 17 had tried an e cigarette in their lifetime, 20% had done so within the last 12 months, 10% had used an e cigarette in the last 30 days, so this is what we call current use, And almost 6% were current regular users. So this means they had vaped within the past 30 days, and were also vaping more than weekly. We also found that the average age of first use was 14 years old, that boys and non binary participants were more likely than girls to be using an e cigarette. However, we did not find any differences based on remoteness, or socio economic status. And I've popped a QR code there. If you're interested in having a look at the actual publication on this. It's important for me to mention here as well that this data may not be nationally representative as it only involved three Australian states, and the majority of young people were living in a major city. However, it does still align with the recent ASSAD, the Australian secondary school students alcohol and drugs survey. This indicated that 24% of 12 to 15 year olds had vaped. So quite similar findings there. It's also important that we actually look at these trends over time. So this data that we've got presented here comes from the Department of Health and Aged Care report, which looked at current vaping, and current smoking in the Australian population aged 14 plus years. So the data were collected at six monthly intervals since 2018. And this was broken down by age groups, which are represented by the different coloured lines. So for our purposes, I'll get you to just focus in on the orange line as this represents the 14 to 17 year old age group. And the graph that you can see here is examining current vaping. So this is defined as having used an e cigarette within the past month. So you can see here that there's been a marked increase in current vape use, particularly since 2020. And by 2023, we're seeing 14.5% of 14 to 17 year olds, currently vaping. And that increase was also evident among the older adolescents. So the 18 to 24 year old age group, who showed the highest rates and they're represented by the grey line up the top there. Now let's look at the same thing. But for current tobacco use so defined as having used regular combustible cigarettes in the last 30 days. Again, focusing in on the orange line, which represents our 14 to 17 year old age group. You'll notice that rates were very, very low initially, but we're actually starting to see an increase in tobacco smoking among this youngest group, and it is coinciding with that 2020 period, and we're now sitting at about a 12.8% prevalence of current tobacco use. So this is a marked increase in a relatively short time and is concerning, given we know how harmful tobacco cigarette smoking is. This is also reflected in the statistics around dual use. So this is the term that we use to describe using both tobacco cigarettes and E cigarettes. And this was reported by nearly 11% of 14 to 17 year olds. Concerningly, the 14 to 17 year old age group was the most common age group to be JUUL users. Now, unfortunately, the evidence we have at this point doesn't allow us to understand whether vaping leads to smoking and the findings on that across the literature are mixed. But regardless, we want to point out that when we look at the harms of vaping alone, it is clear that efforts towards prevention are critical. So what can you do about this, as I mentioned earlier, I'm going to start by giving some advice at the individual level before I move into the broader area of school based prevention. So let's start here, because the first steps are really about open and honest communication. And we know it's definitely not easy to start a conversation with a young person about vaping. And there's certainly no foolproof method or magical solution. But we've put together some pointers to help guide you. So the first step is to gather as much information as you can about vaping because you want to equip yourself with the facts. And it's really important that you choose credible and reliable sources of information. So places like government websites, research institutions and dedicated organisations. I'll also give a little plug for Positive Choices here because it's such a great portal to guide people with

finding evidence based resources. Next, you want to also brainstorm the type of questions that the young person might ask you and how you'll answer those questions. This will help you to really confidently address their questions. Importantly, you want to approach the conversation from a place of non judgement. So try to understand things from the young person's perspective and really listen to them. We want you to avoid using scare tactics because we know that these aren't effective. During the conversation, you can correct any misconceptions about vaping. So the fact it's not harmless water vapour and also the fact that not everyone is doing it. Take this opportunity to set clear and consistent expectations about the use of vapes. Next, you can help them to practice refusal skills. So for many young people, they might not have been placed in a situation where they've had to refuse vapes, alcohol or other substances. So this means they might not have the dialogue around how to actually confidently say no and what to do in that situation. So practising this in a safe environment can better equip them when the time comes. You can also talk about sources of peer pressure and work together to strategize how they will handle this. During that conversation, it's also important that you promote healthy alternatives. So things like hobbies, sports and other activities. And of course, don't be afraid to seek professional help or guidance if you are worried about your young person. Now, it's important that you also know what to look out for as the signs of nicotine addiction. So some of the potential signs include vaping in class, frequent toilet breaks, inattention, irritability, fidgetiness, low mood and aggression. We recommend asking three simple questions to determine whether or not a young person is dependent on nicotine. So the first is how soon after you wake up, do you normally vape. If it's within 30 minutes, chances are they're dependent on nicotine. Then asking, do you vape when you're home alone or on your own? If the answer to this is yes, it is likely that they're dependent on nicotine. And the final question is, do you wake up to vape at night? If the answer is yes, again, likely dependent on nicotine. Now, in addition to the advice I outlined before about talking with a young person about vaping, if you find out your young person is vaping, or addicted to nicotine, we have a few extra pointers. So you want to take a strengths based approach. It's important to remind that young person of their good qualities and focus on empowering them rather than shaming them, it also helps to lead by example. So demonstrating those healthy behaviours yourself by being a nonsmoker and a non vaper. getting curious and non judgmental about their reasons for vaping is really important, because a young person who is vaping to self medicate is going to need very different support to a young person who is just doing it for fun socially. Try to also learn about their concerns about vaping or their concerns about quitting. It's likely that these are going to differ from yours as young people place much more emphasis on the immediate consequences rather than the long term consequences. It's also important to celebrate healthy choices. So reinforcing that positive behaviour by acknowledging and praising good decisions and praising them for taking care of their health and well being. And again, don't be afraid to seek professional help. We get asked quite a lot about the different types of support that are available for young people to quit vaping and there are a lot of different options and chances are you might need to engage with a combination of different services dependent on that particular young person's needs. So I've included some examples here. Excuse me. So the GP is a really good starting point, particularly if that young person is going to need nicotine replacement therapy or other prescription medications. Youth Mental Health services are also a good option. So for example, the Kids Helpline, psychologists and counsellors are really important supports, particularly if a young person is using vapes as a way to manage their mental health symptoms. They're also starting to emerge dedicated vaping cessation clinics. And the first one that we're aware of is one by one that is run by Professor Renee Bittoun at Ramsey Northside. I've included the number there in case anyone is interested. But I know that a lot of the different LHDs and the youth health services are starting to offer vaping cessation support for young people as well. You can also find the quitline. And there's also the My Quit Buddy app, which provides helpful tips and distractions to overcome cravings, tracking systems

to chart progress and facts to help you understand the health impacts. So at the moment, this app is specific to tobacco smoking, however, it is being upgraded, and will be released this year to include vaping as well. Now, this is far from an exhaustive list. But hopefully that helps give you a bit of a picture of where you can turn. Now let's zoom out a bit and take a look at the broader picture. How do we make an impact on a bigger scale. So my team and I work in the area of school based prevention, and we are really passionate about stopping these issues before they even begin. So we think school is the ideal location. And that is for a variety of reasons. So firstly, it's practical, young people are spending more than 25% of their waking lives there. It also allows us to get in at the time when they first start to experiment. It allows us to educate prior to that harmful exposure. And we can also tailor our messaging to those different developmental levels. So health education is happening anyway, which makes it the perfect opportunity to incorporate evidence based approaches. But of course, not all approaches to school based substance prevention are equal. And over the past few decades, there have been a number of reviews and meta analyses that have been conducted to try and tease out what are the critical components that are making one school based prevention programme more effective than another. And this has resulted in a set of effective principles of school based drug prevention. So we know that the most effective programmes are those with a clear evidence base and that are theory driven. Now let's just look at that a little bit closer in terms of what it means to be evidence based, because not all research is created equal. And the term evidence based gets thrown around quite a lot. So this pyramid here provides an overview of the different types of investigations and represents a ranking of their quality. At the bottom we have the weakest sources of evidence, and at the top of the pyramid, we have the strongest. So this means that evidence has been derived from the most rigorous evaluation types. We consider top tier evidence to be that of randomised controlled trials, as well as systematic reviews and meta analyses. So when we are assessing what works and what doesn't, we optimally rely on these top tiers of evidence. This is also how we evaluate our own programmes. And Annabelle will speak a bit more on that shortly. But for now, back to the list. So we also know that the most effective programmes are those that are developmentally appropriate and immediately relevant to students. So students are going to be much more interested in something that is going to affect them now, not something that's going to affect them in 20 years time. We know we have to get in early prior to harmful use. But this is also a careful balance because you don't want to get in so early that you start to spark the curiosity. Programmes are also most effective when they are part of a comprehensive health education curriculum. We know that using peer leaders increases the effects of a programme, but it's also important to keep teachers in a central role. We know that interactive teaching methods are much more engaging and that students prefer these to the traditional lecture style methods. And finally, we know that programmes that adopt a social influence or comprehensive approach to prevention are the most effective. So this involves providing young people with the information and facts on the harms, along with resistance skills, training and normative education to really challenge that view that everyone is doing it, which of course we know isn't true, even if it might seem like it. However, we also now know that so much is being asked of teachers, and that actually getting programmes into schools and delivered to young people is fraught with barriers. So these include things like a lack of resources, be it materials, time or money, adaption of programmes, which can undermine the program's efficacy, a lack of training for facilitation of programmes, schools opting for programmes that look good but aren't necessarily evidence based or effective, and also keeping the programme running over the long term. And I'm sure it comes as no surprise that poor implementation leads directly to poor outcomes. So we could clearly see that a new approach to prevention was needed, one that first adhered to the evidence base and had demonstrated its own efficacy through high quality research, one that overcame the barriers to implementation, one that improves student engagement, one that supported teachers and placed minimal burden on them. And it was

based on these effective principles that the OurFutures prevention model was developed. And this model has been tried and tested over the past two decades through the most rigorous research. So the OurFutures prevention model is universal, meaning it is designed for all students regardless of their level of risk. It adopts a comprehensive social influence and harm minimisation approach to prevention. And the core component of these programmes are the interactive online cartoon storyboards that allow us to deliver that peer-led messaging style. To date, the programmes have been trialled in eight large randomised controlled trials involving more than 21,000 students. And these have shown that the OurFutures programmes can prevent the uptake and reduce the harmful use of alcohol, cannabis, psychostimulants and emerging drugs during adolescence with lasting effects into early adulthood. So there are five modules that are now publicly available via the OurFutures Institute, which is our newly formed not for profit organisation. And to date, these programmes have reached more than 1300 schools. So our proposal was to take this very successful prevention model and apply it to the prevention of vaping. So we have created and are currently evaluating the OurFutures vaping prevention programme. And I'll now hand over to Annabelle who will tell you more about it.

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Annabelle Hawkins 27:23

Thank you, Amy. So yeah, I'm now going to walk through the development process of the OurFutures vaping programme. So to begin with, back in 2022, we brought together people with relevant expertise to form an expert advisory group. We then conducted a systematic review and meta analysis to understand what other school based preventative interventions were out there, and whether or not any of them were effective. We then went into the co-design phase and conducted focus groups and surveys to develop character profiles and the storyline for the module. We then took all of that information, went away to develop the intervention, we wrote scripts, mapped out our key prevention messages, and worked with an illustrator to bring it all to life. Finally, we took each lesson one by one back to students and teachers, and made refinements based on their feedback. So now I'll go into a little more detail about each of these steps. Starting with the systematic review. As I mentioned, we wanted to know what else was out there in terms of school based vaping prevention programmes, and whether or not any of them that were out there were actually effective. We found 11 in total, most of which were from the US, and none of which were from Australia. The evidence surrounding them was mixed. Some did successfully prevent the uptake of e-cigarette use over some of these had iatrogenic effects, meaning they actually caused harm. So the need remains for new scalable approaches that can be delivered with high fidelity to prevent e-cigarette use specifically within the unique Australian context. We've made the manuscript for this systematic review available via preprint. So if you're interested, you can go ahead and scan that QR code now. Now on to our co-design phase, we conducted focus groups with year nine students and these were geared towards the development of the characters and the storylines for the module. So here we were really interested in understanding more about vaping from the perspective of young people, so we could ensure that the stories, characters and scenarios we created, were realistic and actually resonated with the young people. These young people told us that peer pressure, curiosity and stress relief were some of the key reasons people their age would vape. On the other hand, they told us that an awareness of the harms of vaping, fear about becoming addicted and concerns with vaping interfering with their sport, were key reasons people their age would abstain from vaping. Unsurprisingly, they identified parties, the park and the school toilets as the most common locations for vaping. This information allowed us to go away and start to develop our characters and storyline for the module. One of the first tasks we undertook was profiling the key characters. A module has six main characters in addition to a narrator. So the young people were really clear on the profiles of people who vape

and gave us detailed descriptions down to exactly what clothes a vaper wears. They had identified three key personas, the first being the sporty cool guy who vapes to be part of the group, the second being the nerdy gamer who self medicates with a vape, and the third being the rebellious cool girl. We took all their information and we thought through each character's background, their personality traits, their strengths and weaknesses. We found images online that matched the descriptions that young people gave. And that led us to these character profiles that we then shared with our Illustrator. What you can see on the left here is the first version of our character lineup. We knew it needed some refining. So after many iterations and incorporating feedback from our team and young people in our networks, we arrived at this final character lineup. As you can see, in those refinements we've made the characters look younger, we've added jewellery for self expression, we've changed some of the clothing, we added our first non binary character and also increase the diversity of the body shapes. Our next challenge was looking at how we deliver something that's educational, but also engaging. So we had several brainstorming sessions to arrive at a comprehensive list of key prevention messages that we needed to get across. We then mapped these across key drama points to try and figure out how we wanted the story and education to unfold simultaneously. As I mentioned earlier, we then took the lessons one by one back to students, this time with year eight students as this was our target age group. As you can see, the first lesson was well received, but there was definitely still room for improvement. The students affirmed a lot of things about the cartoon that they felt worked well. For example, they thought that the gossiping and conversations were relatable, that the scenarios were realistic and believable. They love the diversity of the characters, and they felt that we presented peer pressure well and accurately. There were also a lot of points that they gave us about areas where we could improve. So for example, young people suggested updates to language to make it more in line with the way that they speak, they recommended changes to clothing. They really liked the host who narrates the story and wanted to see him incorporated more. And so we've done that, as you can see, in that top image, we started to superimpose the host over particular scenes to ensure he was more included in the whole story. They wanted less text to read, which was a real challenge for us. But we were able to depict things more visually and reduce the amount of text overall, they wanted more expression on character faces. And a big change that they expressed was they felt it wasn't realistic to have the fact based information coming from these young characters. So to get around this, we have the young characters speaking more generically, and supported the precise facts and statistics with these fact checks that you can see in that bottom image. And these also allow us to more easily update these facts as new statistics come out over time. So we've now had teachers and students review the entire module and have continued making refinements. So here you can see some the changes we've made in the top two images, you can see a change in the character clothing. And we've also made really subtle changes like in the bottom images, we change the colour of the characters lipstick. By the review of the final lesson 100% of young people rated it as good or very good, which we are very pleased with. So the final OurFutures vaping programme consists of 4, 40 minute lessons, which are ideally delivered one week apart during year seven or eight health education classes. Each lesson consists of a web based cartoon component completed individually by students in approximately 20 minutes, followed by an optional teacher facilitated activities. The programme adopts a harm minimisation and comprehensive social influence approach. This includes providing evidence based information about e-cigarettes and tobacco smoking, normative education to correct misperceptions of use and resistance skills training. So this is an overview of the key messaging across the full lessons. I won't go into detail about every point but as you can see, it's quite comprehensive. The programme also takes an integrated approach into addressing e-cigarette use and tobacco cigarette use. So although these are two distinct behaviours with unique characteristics, simultaneously targeting both behaviours by addressing core principles that have been effective in tobacco

and drug prevention is an efficient and cost effective strategy. So here's just a sneak preview at one of the scenes from the module. We currently don't have any audio on the cartoons but are in the process of adding voiceovers. So throughout the cartoon we also have quizzes and reflective activities to ensure student engagement comprehension and critical thinking. As you can see, some of these allow for free text responses, whereas others are multiple choice. We also provide student and teacher summaries which are fact sheets that summarise the lesson and reinforce the key content. Teachers are also given a PDF booklet containing a range of optional teacher facilitated activities, including quizzes, class discussions, role plays and worksheets. We provide guidance on the length of time each activity takes to help teachers choose which activities will work best for that class. Finally, the entire programme has been mapped across state and national curricula. And we provide these curriculum mapping documents to support teachers. Now, the thing that sets all OurFutures programmes apart is the fact that we conduct rigorous evaluation to determine the efficacy. We conduct what is known as a randomised controlled trial like Amy mentioned earlier, which is essentially the gold standard for evaluating a programme and being able to conclude that it will actually work to prevent young people from vaping. In our case, this looks like we have 40 schools and more than 5000 students participating across New South Wales Queensland and Western Australia. These are divided at the school level across the active control group where 20 of these schools just complete their regular health education as they normally would, and the intervention condition where those 20 schools receive the OurFutures vaping programme. The key thing we're interested in is whether or not the OurFutures vaping programme is more effective than health education as usual in preventing the uptake of e-cigarette use at the 12 month follow up. So this is our primary outcome. We're also collecting data and assessing a variety of other outcomes as you can see there in that purple section. This includes a range of other e cigarette and tobacco related variables, as well as mental health, stress, quality of life and resource use. In addition, students and teachers in the intervention group have completed an online questionnaire to evaluate the programme and allow us to understand how engaged students were and whether it was considered acceptable and easy to use. Teachers also complete a logbook so we can assess fidelity. So whether they implemented it as it was intended and what activities they chose to deliver. Website analytics provide us with objective data on the dose and timing of the intervention. Control school teachers have also completed a logbook to understand the amount and format of e cigarette and tobacco cigarette education delivered to their year seven and eight students. Now in terms of our timeline, here's an overview of the entire study. So all students in both the control and intervention groups complete online self report surveys on six occasions over three years in a supervised classroom setting. We're now approaching our 12 month follow up, which will occur in term two and three of this year. This is our primary time point which will allow us to determine the efficacy of the futures vaping programme and it's at this point we'll be able to commence an early release to the public. So the OurFutures Institute is a separate not for profit organisation who handle the dissemination of all of our publicly available programmes. They've set up an early access programme which is contingent on the programme demonstrating efficacy at 12 month follow up. If we do demonstrate that the programme is effective, then 250 schools will be able to access the OurFutures vaping programme around term four of this year. If you're interested in registering your interest for that early access programme, you can access the form via that QR code. And I'll just give you a moment to do that if you are interested. So in conclusion, this is the first rigorous evaluation of a school based eHealth preventative intervention targeting a cigarette use to occur in Australia. Without such an intervention, we risk undoing decades of effective tobacco control, and having young Australians use nicotine at higher rates than previous generations. If the programme is effective, the intervention will be able to be readily scaled by

the existing OurFutures plan. Finally, we just want to acknowledge our team of 23 investigators across six universities and our funding bodies, without whom none of this would be possible. So that's all for me. And I think now we'll head into Q&A.

E

Emma Devine 40:54

Wonderful, thank you so much, Amy. And Annabelle, it was really great to get that overview. You know, there's practical strategies for what adults, I guess it spans, you know, beyond schools, absolutely can do. And also, while you're out with the vaping trial, very exciting that we're coming up to those 12 months. And I'm sure a huge amount of work that has gone into it as well. So well done. And we are about to kick off a little Q&A session, we do have some time for some questions. So just encourage, we have got some through already, but just giving people a little moment to pop some into the Q&A box as well. And we will do our best to get through as many as we can. So just to kick us off. Let me just get it up. So we have a member of the audience who's reporting, that they're noticing a downward trend actually in students vaping at the moment, and are wondering whether this is something you've come across, is this unique, maybe to their school, or? And also, maybe why that could be happening if you feel comfortable speaking on that.

A

Amy-Leigh Rowe 42:01

Yeah, really interesting. So first of all, we don't yet have the data on that in terms of whether or not there is a downward trend, we are currently collecting it. So we will soon know that since we've been following our young people up over time. In terms of potential reasons for that there has been a really big push, both from the government and a lot of different organisations. And we've seen a lot of different initiatives kind of come out in the last six months or so. There's also we're noticing a bit of a trend on social media for anti vape use or that it's cooler not to vape. So while in the first instance, we were seeing social media used as a way to promote vaping, we're actually also seeing the opposite of that now as a way to discourage vape use by a lot of influencers. So yeah, I can't speak to whether or not that is actually what the data will tell us. But it's very interesting. And we will certainly know in a few months time whether that's the case. And we certainly hope that is the case as well.

E

Emma Devine 43:01

Yeah, that's great to hear that. I think it's the first time I've heard that messaging from a school that they are seeing sort of more positive trends. So that's really great to hear. Anyway. We've got a lot of questions come through just looking for a little bit more detail around the OurFutures vaping programme and maybe associated fees and costs to the school. So maybe you could speak a little bit more to that as well.

A

Amy-Leigh Rowe 43:26

Yeah. So as I mentioned, and I think Annabelle mentioned as well, the dissemination of our programmes now is all handled by the OurFutures Institute. So they're sort of a separate not for profit organisation. There is a fee for module access, it's based on a per student per module

fee. I'm not across the specifics. Essentially, if you fill out that registration form, they will get in touch with you and they will chat to you about your school's needs, how many students you have interested, and they will tailor a pricing package to that. I think they may be here as well in the webinar. I don't know if they can comment on the chat as well. With any more specifics, I think Ken the CEO and Risha the business manager? Yeah, cool.

E

Emma Devine 44:12

Yeah, I think maybe the the chat is set up such that they can only speak to us. But Amelia, will work her wonderful magic and will re-disseminate that back to everyone with the power of us as panellists. So great to have you both here as well. So Amelia, I'm sure that is all over that as well. And can maybe filter some of those questions as well. Wonderful. So do you have any information on where it is that students are acquiring vapes from?

A

Amy-Leigh Rowe 44:49

Yeah, so through our work, one of the most common ways that we were hearing about was via online via Snapchat, also by an older students or friends or siblings who are able to access them directly from tobacconist or convenience stores, of course, that is going to be a different situation with the new regulations this year. So we're still collecting that information to find out what that looks like in the context of the new regulations that essentially have started to ban disposable vapes and non therapeutic vapes. So yeah, we will find that out as, as the sort of study goes on.

E

Emma Devine 45:28

Yeah, I think that's one of the real traits in this sort of vaping space is that it's all happening so quickly. And, and we are, you know, finding things out as it happens, and sort of just doing our best in that space, for sure.

A

Amy-Leigh Rowe 45:41

Absolutely. Trying to keep up.

E

Emma Devine 45:46

So another question. Just going back, sorry, I should have tried to group all of the vaping programme questions together. But there was a question as well about whether you think there's utility, I know you're still collecting data on the trial, but to target those who are already vaping, as opposed to just the prevention side? Or do you think it is? Yeah, more tailored that way?

A

Amy-Leigh Rowe 46:10

Yeah, great question. So we focus in on that primary prevention. So we want to get in before young people are using. I don't know yet, in terms of our data, whether or not we've also been effective at stopping young people from vaping. There is a certain percentage that were vaping at baseline. So we will know at that 12 month follow up point, whether or not the programme was also effective in the area of vaping cessation, not just in terms of preventing those non users from ever vaping. But also, if we were able to prevent or stop young people who were vaping, from vaping. And we'll also be able to answer some of those questions around associations between vaping and tobacco use and things like that. So unfortunately, I don't have those answers yet, but we will in time.

E

Emma Devine 46:56

Yeah, it's all coming. It's a stay tuned moment.

A

Amy-Leigh Rowe 47:00

We're nearly there.

E

Emma Devine 47:02

Yeah, no, absolutely. You've done so much work. And it's so impressive how rigorously you've developed this programme is in such a good quick timeframe as well, that we can really get it out to schools, while it's still such a problem. So I am sorry, there's so many questions coming. And I'm just doing a little moment, make sure it's not one of the same have already answered. We are just getting some confirmation from the OurFutures Institute team that, yep, the next steps in terms of pricing are to fill out the registration form, and a team member will be in touch. So just confirming that as well down on this end. When they keep popping up it moves my place as well. All the chaos. We are getting some questions. I know, this is not something that we have a lot of research on here in Australia at all. But just to sort of acknowledge the comments coming through, because I know there was some articles released on it recently, but snus as sort of an alternative. It's been talked about quite a bit in, I think, the context of the new vaping regulations. And I guess I certainly haven't come across any good research in that space in Australia. Amy, I wouldn't be surprised if you hadn't as well.

A

Amy-Leigh Rowe 48:22

Yeah, unfortunately, not. There's, I mean, even just the vaping prevalence stuff, we're very limited on those really large scale nationally representative surveys, but I'm not even familiar with any smaller scale or work in that space. But just I guess to add about, one of the great things about our programme, is that we make it in such a way that we're able to update it as things change. So even though it's currently out there, under evaluation, my team and I are actually working to update to the latest regulations and the latest things that we're hearing and the latest things that we're finding out. So these programmes are not just sort of static, we keep updating them. And certainly if we find out that these smokeless tobacco products are becoming prevalent and are an issue, it's going to be quite easy for us to add in education around that into the existing programme.

E

Emma Devine 49:12

Yeah, great. So rest assured that are on their radar. There was a question then in relation to some of the prevalence research and data that you have, whether you had different demographics split into that. So was there a high percentage of Aboriginal youth in that data that you could speak to? Or was this more the aim is really maybe just that population level at this stage?

A

Amy-Leigh Rowe 49:44

Yeah, so our focus is universal prevention. So I can't speak to what our percentage of Aboriginal and Torres Strait Islander young people was. But maybe, if you are interested in that the Strong & Deadly Futures project which is Aboriginal and Torres Strait Islander focused and does have a vaping element as well. So that's sort of one of our sister programmes that the Matilda Centre, that might be a good place to look for that information.

E

Emma Devine 50:11

Yeah, absolutely. I know, they're doing some very exciting work in that space at the moment. So if you can't find the link, we're happy to send it through, just get in touch as well. There was also a lot of interest in those tips that you provided for talking to a young person about their e-cigarette use. And just a question on whether that's going to be sort of packaged together somewhere that parents can access or where to find more, I guess.

A

Amy-Leigh Rowe 50:42

Yeah, so we do have tips kind of scattered throughout the module as well. We don't currently have a parent version. But that is something that we are feeling a big push to create. So once we get through this next stage, and we have the evidence, we're certainly looking at creating something there, that would be a resource that's specifically for parents, we do have summary sheets, so in terms of the information that we provide, so all of that stuff around refusal skills, around building self efficacy, educating on harms, we have all of that in nice, neat summary sheets for parents, and also for teachers. But yeah, in terms of something that's specific to parents, we're still working on it.

E

Emma Devine 51:25

Yeah. And I guess it is, you know, you're you're very focused on their school programmes. And I will do a little shameless plug for Positive Choices here now, but we have recently released talking to your teen about e-cigarettes and vaping factsheet for parents. So a lot of the same tips that you were talking about, I think they're highly complementary, if that was something that people are wanting to have a look at, as well. While the OurFutures team are in development.

A Amy-Leigh Rowe 51:57
We appreciate that, Emma.

E Emma Devine 52:00
Wonderful. Just having a little look through.

A Annabelle Hawkins 52:04
While you're having a look, I just a comment that I wanted to comment on if that's okay. Um, someone said that they were surprised at some of the stereotypes that the young people reported about, like the cool sporty kid and the nerdy gamer. And I think I was definitely surprised as well, I think it speaks to the importance of working with young people in designing these programmes because I am not that old myself and I work with young people a lot. But even I was clearly a little out of touch in the reality of who is using these and my assumptions are a little bit off compared to the reality of what they're experiencing, which I think is another huge strength of these programmes is that getting youth involved is embedded in the process. So they're as relatable and real for the kids as possible.

A Amy-Leigh Rowe 52:49
Yeah, great point Annabelle.

E Emma Devine 52:53
Yeah, you can't understate the importance of co-design and hearing from people who are, you know, that lived experience perspective is really crucial. And and you and your team do it so well.

A Amy-Leigh Rowe 53:05
Yeah, thanks Emma. We're always finding out more about the way young people speak is always evolving, and all the different things that young people do. And it's always so surprising to us when we come away. And we're like, okay, we need to change that word. We need to change that clothing. We need to keep it all relevant. Yeah, it's an ever evolving space.

E Emma Devine 53:25
Yeah, an ongoing job. Perfect. I think we have time for one more question. Is there any evidence, or can you comment at all on information regarding sort of vapour for, you know, secondary vaping? I guess it's such a spoken about thing with smoking. I haven't come across very much in that space. So I wonder if you are able to comment more on it.

A

Amy-Leigh Rowe 53:57

Yeah, from what I understand the evidence is quite limited in that space. And this is not my area of expertise, but from what I have seen in the literature, there is some preliminary evidence around secondhand, the aerosol being in the air and increased risks to those people around them of nicotine addiction. So it comes back to the fact that it's an aerosol, not a vapour, so it's able to hold those particles in the air for longer. But certainly, if you compare that to secondhand smoking, it is, we're not seeing those same types of harms. But I imagine that there's plenty of experts working in this area, and we'll find lots more evidence on that in the years to come.

E

Emma Devine 54:40

Yeah, it's another one of those stay tuned, the research is ongoing spaces, I think. Yeah. But one a lot of people are certainly curious about and it will be interesting to see what what comes out for sure.

A

Amy-Leigh Rowe 54:52

Definitely.

E

Emma Devine 54:54

We are coming to the end of our time here today, unfortunately. Just to reiterate that if you did have a question that we didn't get to answer, really sorry, there were a lot coming through. But you are very welcome to email us through at info@positivechoices.org.au. So let me just get that up on the on the screen for you as well. Almost up on the screen. There it is. So if there was anything we didn't cover that you were still curious about today, please feel free to email us at Positive Choices. And we can direct your query appropriately. But otherwise, a huge thank you again to Amy and Annabelle, for running us through all of that really important and useful information today, we do really appreciate it. If you are looking to stay up to date on any future webinars that we might have, you can subscribe to our newsletter. And you can also follow us on Twitter and Facebook at the moment. There's a lot of thank yous coming through in the chat. So I encourage you to have a look at those as well. And just to emphasise again, that the recording and a copy of the slides will be available after this presentation as well. So it will come through to you as well so you can check anything that you'd like to have another look at. I think that was all from us today. So thank you again for everyone for joining and goodbye