



Transcript:

Vaping: Evidence-based Prevention Efforts to Address Vaping Among Youth

Presenter: Chuck Klevgaard
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PRESENTER: Hello, everyone, and welcome. We're going to get started in just about a minute. So I'll give people a chance to get in and get settled. OK, hello, everyone, and welcome. Our webinar today is on Vaping-- Evidence-based Prevention Efforts to Address Vaping Among Youth. Our presenter today is Chuck Klevgaard. This webinar is brought to you by the Great Lakes PTTC and SAMHSA. The Great Lakes ATTC, MHTTC, and PTTC are funded by SAMHSA under the following cooperative agreements. The opinions expressed in this webinar are the views of the speaker, and do not necessarily reflect the official position of DHHS or SAMHSA. The PTTC believe that words matter, and uses affirming language that inspires hope. We use affirming language to promote the application of evidence-based and culturally informed practices.

We have a couple of housekeeping details today. If you are having technical issues, please individually message Kristina Spannbaauer or Stephanie Behlman in the chat section at the bottom of your screen, and they will be happy to help you. If you have any questions for our speaker today, please put them in the Q&A section, also at the bottom of the screen, and we'll respond to them during the presentation.

We will be using automated transcriptions for today's webinar. You'll be directed to a link, at the end of this presentation, to a very short survey. We would really appreciate it if you could take a few minutes to fill it out. It usually only takes about three minutes. And that's how we report back to SAMHSA. We are recording this session, and it will be available on our website in a couple of weeks, along with the PowerPoints and the resource guide.

Certificates of attendance will be sent out to all who attend the full session. And they can take about two weeks. They'll come via email.

If you would like to see what else we're up to, please follow us on social media. And if you're on our mailing list, look for our weekly updates in your email on Thursdays about what's coming up the following week.

And as I said, our speaker today is Chuck Klevgaard. Chuck delivers training and technical assistance to support substance misuse prevention throughout the Midwest. He has supported communities and health agencies as they



adopt evidence-based alcohol, opioid, and other substance misuse programs or policies. Chuck also serves as the prevention manager for the Great Lakes Prevention Technology Transfer Center. And we're excited to have you, Chuck. And I'm going to turn it over to you.

CHUCK KLEVGAAARD: All right, thank you, Ann. Good afternoon, everyone. Excited to be with you. I want to give you a quick overview about what we're going to cover. We're going to start with a quick history. I think that many of the changes I want to highlight, what's happened in the last year, year and a half in particular, are reliant on at least a basic understanding about where we came from, historically, prior to COVID.

So I'm going to share a little bit about what we've learned, and I think a fair amount of both research and legislation changes that happened during and post COVID, or if we think of yourself as being in the interim post COVID. And we'll look at evidence-based prevention and promising approaches in a couple of ways. I think it's common for those of us in the field to think of tobacco prevention, in particular, as largely based on what we learned from tobacco control in decades of work in lots of different community sectors and understanding those approaches. Many of what's considered effective approaches for vaping in particular really come from the field of tobacco control, and in some cases are adaptations, modifications, or at least using the sort of research and change levers that we've learned are effective to deal with tobacco use.

We're going to spend some time looking at cross-sector approaches as well, in terms of looking at how to do some community-wide issues. So here's that sort of fast-paced history. And as Ann mentioned a moment ago, you'll have this information in the slides. There's much more detail in them about this history. I think it's valuable to present in different settings, in particular if you're working with a community or group of folks who have been doing this work, to kind of share what we've learned and what's happened.

So e-cigarettes, it feels like they've been around a ton of time in the way that I've been doing prevention, but really they just entered the marketplace in 2007. It was an immediate response in the formation of the Center for Tobacco Products dealing with policy issues. The FDA originally got very involved in terms of creating some bans, dealing with the issues of flavoring, already, back then.

Sort of the PACT Act, I'm going to mention quickly, because it historically goes all the way back to 2009, is where it's first talked about in Congress, and then passed it in 2010. So it stands for Preventable All Cigarette Trafficking Act. So note that that is what's being relied on right now to make the change or put more teeth in the work that's happening at the federal level. So know that, again, this was Congress's work-- to try to create what the FDA deemed e-cigarettes as part of its jurisdiction was probably the biggest sort of impact of that early work.



So we know that, again, by 2013, between 2011 and 2013, we saw a 900% increase in e-cigarette use among middle- and high-school students. And again, sort of significant changes-- e-cigarettes became the most commonly used tobacco in the US by youth, again with 3.26 million using a flavored product. By the time we got to the end of that decade, in 2019, one in five high school students. Some early work, again, being done about the National Academy of Science's understanding the issues with regard to the potential of e-cigarette use and the transition to regular cigarette smoking.

So there's been a lot of studies, in particular in the end of 2018, 2019, 2020, and stuff that's even in prepublication, about what was that rapid uptake about. Overwhelmingly, the research that tends to focus on four areas-- three of them here, and I'll talk about that fourth one, where I think there's significant evidence-- the appeal of flavors, early on, in repeated studies, was part of why the uptake, why young people began using.

The technology itself was appealing in terms of not having to smoke. The ability to hide or mask what you're using, what you're carrying. Folks didn't recognize it. In particular, parents and schools didn't recognize these products. They were easily concealable and easily confused in terms of what they were.

The ease of access is overwhelmingly, again, one of those points that both is good news for us as well as bad news. I think that's where some of the early catching up happened at a very slow pace, in terms of being able to deal with access and retail kinds of issues, both online as well as others.

And then, finally, marketing. A lot of more current and recent research at the direct marketing of e-cigarettes and vaping products directly to a youth audience.

So we, again, get this. And I think it's important, as you think about making presentations and talking to your communities, to present this early history. Some of that work, again, was done by Jessica Barrington and Adam Leventhal. So you'll find lots of authors that talked about that. This one comes from the New England Journal of Medicine. All of those articles that I'm going to throw up there real quickly, that again have either come out in 2018, '19, or even '20 or '21, are all things that we're going to send you a list with active live links in it so that you can go get those PDFs yourself.

So don't feel like you have to write down the names of articles, or research, or even researchers. We'll give that all to you. So 50 years of tobacco can [AUDIO OUT] the evidence base that I think of for doing prevention comes from what we understand about sort of the early [AUDIO OUT] in the mid-'60s, there was a lot [INAUDIBLE] just a decade later, we were clear that we can absolutely [AUDIO OUT] have a significant impact.



So the smoking rate, again, in the US, was slashed [INAUDIBLE] prevention [AUDIO OUT] campaigns with lots of solid evidence—

--state Master Settlement Agreement. You might disagree about how those settlement dollars were used. But I think the settlement itself had major impact on folks' understanding. It provided a platform to have a public health-related conversation about tobacco in a big way. And things started to shift even more when we passed the Family Smoking Prevention Tobacco Control Act. So again, sort of looking at some comprehensive authority to regulate these products and to give some teeth to that earlier legislation.

So what's happened more recently? So this is the last, 2019, preventing online sales, the PACT Act. Got some teeth in it, because it clarified some of these more modern products, so anything that can be used to vape, any liquid or oil. So that "any" and "anything" language changed the landscape for folks in the industry.

By the time we got to 2020, we again saw changes in that legislation. The Preventing All Cigarette Trafficking Act now sort of dealing with any of the sales of electronic nicotine, or ENDS, in that case. Again, another change to the field. The major impact of this legislation as we got into 2020 and '21 is that it instructed the Postal Service to create regulations prohibiting shipment through the US Mail to residential addresses.

So we know that early access for young people certainly was about being able to just go to a 7-Eleven or a vaping store. There were very little regulations on who could purchase, and how these products were thought of, and how they might be regulated. There was a real lag in that early role that the FDA took in being able to both have some level of what's going on locally - so getting states on board, getting regulators on board at the most local levels took a very long time. So this legislation is significant.

So already, as this was being written and discussed in Congress, the bigger sort of mailing industry all decided to get on board. So the Fedexes of the world did this before they were ever going to be required to. They stopped shipping tobacco any form of tobacco products, in particular vaping products, to young people.

So this is good news. So when I said this sort of dramatic decline, when people express great concern about losses, you can see, again, from the sort of 1975 through '95, dramatic reductions in use, looking at 12th grade, last 30 days as being the number. And then, in 2015, again, it started tracking any vaping products at that time.

So around 2010, depending on what survey you're looking at-- this one's coming from Monitoring the Future in this case. We saw even some declines before COVID. But again, then, a rapid increase that happened between 2015 and 2019, all the way into 2020. So those two little tiny marks down are really



what we saw happening in with the onset of COVID and lockdown. We'll talk about that in a minute.

So this first study, we're looking at the Michigan Institute for Social Research, what's more familiar to all of you as Monitoring the Future or MTF. So know that most data, whether we're talking about this kind of data or any kinds of public health data experienced a major disruption when COVID started, because of lockdown. So if you were surveying kids, especially in a school setting, that went out the window. And the same thing happened to this study.

So they're first to say that these numbers reflect a more conservative position that they took, that things leveled off, or that this sort of dramatic increase halted. I think that that's language you would see when those folks are talking about what they think happened during COVID, is that the increase was halted.

More typically, I think, another source that we're familiar with is the National Youth Tobacco Survey. This comes-- and again, this is a supplemental data report showing a much more significant decline, both with high school and middle school 1.8 million fewer users since the prior year. And again, you see significant drops, both in high school and middle.

So again, I think there's some conservatism here, I think, in terms of being able to say that those drops are dramatic, going all the way back to understanding, again, the significant numbers that are still using are still very much a concern. And then, when I talk to you about what I think, from the research, what drove that decline, I think you'll feel both good and anxious about that. This data coming from MMWR. So and that's another document we'll share with you.

So in 2020, CDC got behind that particular study and started releasing this information, with the concern still that 3.6 million youth still using, and that there was a notable uptick in disposable e-cigarettes. And again, sort of a weird transition in that that had become less popular, and then became much more.

So again, more than 8 out of 10 current youth e-cigarette users were using flavored cigarettes still at that point. So again, now, as we move into COVID and post COVID, you see the reductions are significant compared with the 20% high school, again, compared with 27.5%. So that's definitely significant in terms of those reductions.

And then data collected between January and March of 2020 that substantial declines may have occurred even prior to COVID. So we can't attribute the whole thing to stay-at-home orders. But there's also been some research, again, by Gaiha, and Burden, and others, to better understand what young people tell us happened.



So if they did, in fact, change their using behavior during COVID, what drove that? One of the biggest, strongest factors is that they were at home and parents would know. So that, again, was one of the most significant findings in that study, is that that use was driven by parents. So again, a full 15% of young people reported that that was the reason that they either cut down or stopped using altogether.

Now, this was a relatively small study. So there's still more that we're learning and there's still stuff in publication. But I think this is at least an early glance about why did this change happen. A lot of young people talking about not being able to obtain products. This requires us to go back and look at how did they originally obtain products and how accessible were they. And online was part of that and delivery was part of that. So you're hearing some things have been put in place since. But during COVID, in particular in the early months of COVID, there were a lot of difficulties that folks had being able to get out of the house, let alone go to a vaping shop and be able to have a place where they were at least 10 feet away from a parent.

So this particular study looked at health consequences from the standpoint of lungs in particular, and saw a dramatic number of young people, again, reporting the issues or concerns about lungs, and in particular, the research that was coming out about both nicotine and THC and vaping in terms of some lung issues. And again, that stuff, I'll mention to you, where you can learn more about that.

But overwhelmingly, these three factors are what showed up most often in this research that looked at why the decline, from the standpoint of reasons given by young people. This is another Journal of American Medicine document you can get to better understand. The numbers are much more complete in here. So everything I just said is going to be more detailed in there.

Sort of breaking down this issue-- and I don't expect that you can fully read this if you're looking at this on a small screen. I share it with you just to see that the level of detail in some of that research is really helpful. So when young people said why it's hard to get e-cigarettes-- and again, this was both from the middle of COVID as well as towards the end, more recently-- that they can't go to a grocery store, gas station, shipping times. And again, we'll see differences there, with shipping issues, in the very near future. Couldn't go to a vape shop. My product's not available online. It's more expensive. Restrictions on the number I can buy.

Reasons why it's easy. And so I think it's important, always, to look at both sides, in terms of those that we're still using and who did not change their use in particular, most popular reasons why it was easy to get is that vape shop dealers delivered. In this case, it delivered it to my friend and that was my source. I think, as you look at sources of vaping, borrowing is a very significant issue with young people. So it's not necessarily that I need to get it,



I need to know somebody who gets it or I need the person who I get it from to get it.

I switched to buying online is something that happened pretty dramatically, in particular with young adults. It's cheaper. My parents vape.

So this article, again, sort of breaks that down even further for us in terms of understanding what happened during COVID and where folks get it and where they don't.

So I want to start engaging you in terms of I think this piece of learning that happened during COVID is really significant for us in prevention. So if the decline-- and again, that really good news that we saw significant numbers of young people stop or change their use because of these three reasons, which of them do you think has implications for prevention? Yeah, parents. Parents would know. Does that have implications for us? Can't get products. Are there implications or things we should consider for prevention there? Or health consequences more generally, or this issue about lung impact.

Lots of folks starting out with one, and then adding a second, and then going to "all of the above." So taking a look again, I see the most popular response here is "all of the above." And I would strongly agree with you all about that. We can close that poll out. Oops.

And let me talk a little bit about that for a moment. So "at home, parents would know," we know, from standing understanding about evidence-based practice, marketing/communication campaigns work with regard to campaign. Parent disapproval works. We know that, with this, the early stages of a vaping, parent recognition was low. Parent concern was low, because the vaping industry, and particularly on the tobacco industry side, made it sound like vaping was far safer.

And so there was misinformation as well. Whereas I think parents are much more attuned. But I think that the idea that one of the things young people told us in these studies was that parents would find out. The "parents would know" has to deal with that recognition, but it also has to do with the lockdown. So if, in fact, all of the young people who wanted to continue to use, or stopped because they knew that their parents were five feet away, are now back out into our communities. They're going out, this summer, into park districts. And they'll be back in school in the fall. So the gains that we had there, unless we can hold them, we could potentially lose much of that ground.

So the "can't get products" is a mixed bag. You heard me say earlier that I think the PACT legislation is going to help. But I think that most of what we understand about policy and regulation, the enforcement of it happens locally. So the federal legislation doesn't have the teeth or the manpower behind enforcement. Unless that's done at the state and local and agency and institution level, at the community level, we're in trouble.



So the idea about "can't get products" is something that, again, we could lose ground there. We have the legislation in place that's moving in the right direction. But again, we have to shore that up. And I'll talk about ways to do that in a moment.

Finally, that issue of health consequences, lots of good information about that that's come forward. So perception of harm-- here's some of what those gains look like in terms of 10th and 12th graders who perceived great harm from occasional regular nicotine vaping. You can see that harm went up, in both cases, from 2018 all the way to 2022. So I want to say, too, that this issue about lungs came up more recently in a couple of studies. And I think they're now saying that issue is going away in terms of evolving. So I'll talk a little bit about how to keep the pressure on around health consequences, and where to find the best, most current information on that.

So those are some of the gains that we've put in place that happened before COVID, but that we want to keep those lines moving in the right direction. Again, that sort of information is in the Richard Meech article that's really helpful. Three things that I think are important to emphasize in terms of the research, at the community level, is certainly still driving home this issue about addiction is really key. Young people still care about that, as well as young adults, in terms of making sure that they understand the most current information about the developing brain.

I think that, while we spend a lot of time on the underage drinking side talking about developmental issues in the brain, I think that there were different avenues that we need to take with regard to getting that message out. So the important issue there is messaging and the messenger. So think about certainly educating parents on the developing brain issues, but thinking about using social media and different platforms to get information out, as well as different messengers.

And then a lot of the information about different chemicals is showing a great deal of promise in terms of all the different chemicals that are involved in both vaping technologies as well as aerosol kinds of issues, in terms of what's there, keeping the pressure on about making sure the whole community understands those. There's some great articles, again, that have been published in more recent years about harmful effects, in particular with young people, that I think you can rely on, and a couple of great sources that you might be already familiar with, which I'll remind you about at the end.

So finally, then, who continued to use also sheds some light on some things that are really important for us to pay attention to. So young people with more frequent e-cigarette use, certainly higher nicotine dependence, were more likely to continue vaping during the pandemic. The implication of that, to me, is, really strongly, that we have to continue to develop and implement strategies to work with addiction whether that means novel approaches--



again, using social media, virtual reality, text messaging, all the different ways that we think about cessation and where we have not caught the attention of enough young people with cessation programming. So know that that has to be part of a comprehensive approach. Young people, not just because of their own addiction and the health consequences there, but as we think about community norms and beginning to change community attitudes about this issue, and the danger with addiction, as well as the sort of problems, there's a lot that goes a long way to kind of treat the whole community in terms of where folks are on that continuum.

Finally, there's been a lot published recently, just in the last year, about examples of vaping cessation programs and their potential effectiveness, in particular with young adults. So this is, again, just an example of a Graham article that came out just this year about looking at the continued effectiveness of those kinds of interventions that focus on folks who already have nicotine addictions.

The different product stuff-- so I'm thinking about encouraging folks to pay attention to the presentations you're making and how you're using language about first, second, third generation, fourth generation, keeping the most current imagery out there for vaping products, in particular referring to what's popular where you are locally, where you are regionally as well. So we know that the last device to enter the field is still in the process of getting FDA clearance. And that is IQOS, what you see on the bottom right there. Know that that, largely, is what's considered an HTP, which is a Heated Tobacco Product.

It's a new delivery system. I would say it's in direct response from the industry to try to deal with regulation. And it's important to look both state, local, nationally, at school-district level, and determine if the language that's being used in regulation and policy refers to liquids. This doesn't rely on liquids. This is much more of a technology that heats but does not burn, and doesn't rely on liquids and vaping. So this is, again, going to require us to go back and review policy, in as many places as we have it, to think about that.

So the Truth Initiative has published a great deal about what we would think of as HTPs, or IQOS more directly. Six things to know, for example, is that it's still at premarket approval. The FDA has not cleared it. So it does have to approve its messaging it intends to use. And that's made its way partway through that process. It uses a heat technology rather than burn or fire. It's not proven safer.

So the claims that they want to make and are early-- making in places in the country where IQOS is already out there, some of the claims need to be considered with skepticism. The worry is that this might appeal to you as you look at it. It does look more sophisticated, kind of clever, would be easy to conceal. So all of the reasons that the original devices were appealing to young people, this may have that same appeal. And it may skirt regulation,



depending on where you are. So that's the major points about recognizing some of the issues.

So in 2020, SAMHSA published Reducing Vaping Among Youth and Young Adults. And so many of you may have seen this document. I'll talk about what's in there and how it's organized. And in particular, some of what we think are outlined in this document that present challenges to us in prevention that kind of frame how we think about evidence-based practices in a couple of ways.

So first of all, the issue of access-- again, we've talked about that already. But know that that's a major avenue that we need to work in. And some of us may not be sort of fully up to speed on how to deal with access and availability of vaping products. I give you an overview about where the federal legislation is heading. But in terms of locally, there's some ways in which we need to be really clear what's happening in my town, in my state, in my school district. So that presents a challenge to us if we're not already working on access and availability.

And again, keeping in mind that access, with young people, a lot of it is borrowing. It isn't their own direct access. That there's a careful assessment about different ways that people access vaping products.

Vaping in public places-- lots of laws relying on smoke-free environment laws. And in some cases, vape- and smoke-free environments is presenting challenges legally. And I think, as vaping first took off in Chicago, where I live, it was not uncommon to see people vaping in public transportation. And while the policy changed, there wasn't an enforcement element there. And folks didn't recognize that that was still smoking and that it's still prohibited.

So I think there's a lot of challenges around vaping in public places. Thinking about vaping policy near schools, and in institutions, in health settings, all the different sort of avenues for considering where should there be policy that's considered public places that vaping should not happen.

Marketing presents some challenges in that same way, that there's still a ton of marketing aimed directly at youth. A lot of it is about normalizing behavior. Overwhelmingly, I think-- again, this is sort of an interesting thing that happened that is troubling for those of us in prevention-- a lot of the industry, on the vaping side, took advantage of marketing during COVID about stay home and stay safe. And so they also sort of distributed products, along with toilet paper, in the early part of the pandemic. They would send you a mask if you would buy their product. So you all remember how desperate we were, in those early days, to be able to get your hands on things that you needed. And that sort of incentive really was very despicable, from where I sit, in terms of using that on young people. So know that that happened. And we're still dealing with the ramifications of marketing and the ongoing work that will happen with marketing.



So that new heat device still hasn't cleared all of the marketing pieces. But we'll know, in the next year, this approach and how they're going to frame selling their new device. And keep an eye on that. Because again, it'll present marketing challenges to us in the same way. And we'll have to do counter-marketing or corrective framing, messaging. So cultural and peer issues-- sort of mentioned some of that already, understanding not just peer pressure but normative kinds of issues that happen. Much of what the industry is presenting with vaping is that it's normative, that it's safer, and that it's, in fact, something that cool people do. So in the same way that that's not unfamiliar to us in tobacco prevention.

But in terms of the issues of perceptions of vaping as low risk are still very much part of the battle. I think that it's less harmful, better, cheaper is still messaging that's out there. And no tar and carbon monoxide. Again, no mention of all those other harmful chemicals in there. But they pick one or two things that vaping liquids don't have. And that it's a harmless alternative is still, I think, widely thought to be misinformation that's still out there.

Then the regulatory environment, which we've spent a lot of time talking about as well. Products do have to be reviewed and authorized by the FDA. But again, there needs to be local enforcement and teeth in that. And the THC issue is even more complicated with regard to that. During COVID, I think that most studies suggest that THC held firm, meaning that we did not see dramatic reductions, overall, in marijuana use.

Early in the pandemic, there were certainly increases, in part due to boredom. And then, later in the pandemic, more regular use associated with loss of job or using to deal with grief, or using to deal with more anxiety, frustration, sadness, or even economic issues that rained down on folks. Now, that sort of use is much more problematic with regard to addiction. So we know that that's still an issue.

So that's the frame for what SAMHSA did with this issue. And I'll talk quickly, and then we'll talk about examples. Let's do the poll first. So when we think about these areas where interventions live, how many of you-- just indicate where you're doing prevention already. This is where we're going to present some different kinds of evidence-based practices. And we want to see where you folks are doing the most work. Is it with schools? How many folks are working with retailers already?

Awesome. Seeing big numbers. Let's acknowledge where this work is happening and where we might do more. So let's close the poll.

Schools, overwhelmingly, biggest numbers there, not surprisingly, that we think of evidence-based practice in schools not just from the standpoint of curriculum but in terms of sort of overall school approaches, in particular even social-emotional learning showing some promise in some cases. We'll talk



about some examples in each area in just a moment. But seeing, again, a fair amount of work directly with youth, parents, through a coalition, some community-level work. Cool.

So where we need to do more, probably-- again, and it's something we've already hinted at-- is with retailers and individuals. So we'll talk about significant kinds of work that you all can do in each of those areas.

So let me talk a little bit about the guide itself before we move into this next section. So the guide that SAMHSA put together is largely organized in five ways. It presents an issue brief that talks about those challenges that we just covered. It looks at the research, in particular researched evidence-based programs. It provides a guide for selecting and implementing those, as well as examples of policy and programs. And then some resources for evaluation. So the guide is much more in it than just as a listing of programs.

So examples of individual-level interventions that are emphasized there. And again, this guide, keeping in mind, was based on work that was done in 2018 and 2019, and then was published in 2020. So at the individual level, the biggest sort of interventions that were out there then were smokeSCREEN and This is Quitting, and again, both highlighted in there in terms of how you can implement, what they're effective to do. The only school-based level intervention at that time that was listed in there was Catch my Breath. Again, we did some work on that at the Great Lakes PTTC, right as that initial research came out. Even prior to the SAMHSA document, we were talking about Catch my Breath.

There's been some additional evaluation that's been done since then. A lot of what they highlight in this work is media campaigns and policies in particular that have shown a lot of promise. The other evidence-based document that I think is valuable comes out of Ontario. So SAMHSA did this work looking at collections of what we understand meet the criteria for evidence-based. Ontario took a look at it from the standpoint of whether it meets a strict, rigorous criteria for becoming evidence-based, or even are there promising programs. It's showing, from early evaluations, that there's impact. So they looked at a number of areas.

So Ontario has a document which we can, again, provide to you, that looked at school-based programs, but it also looked at community, public education, health care provider programs, aerosol-free policies, it looked at age restrictions, flavor restrictions, advertising/promotion restrictions, along with labeling and health warnings and their impact, and then safety requirements.

So additional stuff at the school-based level that they encouraged folks to look at through that document was the Tobacco Prevention Toolkit. And again, some of you already know about that because we've talked about it before. That comes from Stanford University. Again, for the population of middle and high school. It's an intervention delivered by educators. It primarily was



focused on tobacco, but it now has a heavy emphasis on e-cigarettes and vaping.

They also highlight a couple of scholastic programs, one called Get Smart About Tobacco and E-cigarettes, What You Need to Know, which is a guide for teachers. So it provides and arms educators who work in health education or in any setting where there is an opportunity to talk to young people what they should understand about these issues.

There are also vaping and Juuling lessons plans that came from the Physician Advocacy Network, again, curriculum for teachers that has been tested in a number of environments. Now, we know that much of the early legislative work was targeting Juul. So if you see articles showing dramatic reductions in the use of Juul, sadly, I think that most of that research also now points to that there were just substitutions of products, that different brands replaced that Juul use.

So we don't know that Juul becoming-- they were initially the biggest player on the block, and now that they have less of that market is probably a way of understanding that. So just a caution about anything that targets a brand, specifically, as that stuff ebbs and flows. Lots of information in that guide about public education, in particular smokeSCREEN, which we knew about before, which is a video game focused on decision-making that came out of Yale University Center for Health & Learning.

The FDA'S own campaign has been through more rigorous evaluation in terms of the real cost youth e-cigarette prevention, again, that FDA work, was really focused early on debunking myths, providing materials for use in high schools. Some additional stuff that's come out, Seattle and King County Public Health has done a program called Escape the Vape, which is an online website, again marketing specifically to youth and children. Another is Tempe Union High School District, Vanish the Vape. Folks that have the resources that have done some rigorous evaluation are there.

Lots of community-based interventions. Again, we know about the few that showed up in that SAMHSA document. But just evaluating, this is Quitting, and Become an Ex, and the X Program, all things that are listed on the Truth Initiative site. So you can find evidence-based practices in a variety of places. It's not just SAMHSA. But there are a number of registries that list evidence-based programs that are in this country in addition to Ontario. And the Truth Initiative is one of those.

So that's, again, a collection. And I'm not going into detail on any one of them, simply because I think that there are-- I'll send you those documents. And I want to have you think more broadly and comprehensively about this current landscape that we find ourselves in. There are also a whole list of programs that are more coming out of different states. California's Department of Health



did a specific intervention that's focused on flavors, which, again, we know still remains important in that same way.

So as we move into this next section, then, we've looked at where you're engaging folks. I want to mention a couple of-- again, our history in tobacco prevention suggests that we think about this in a number of different ways. So even looking at retailer density, those of you that said you may not have been dealing as much with retail, looking at training and education of retailers certainly hasn't been studied as much. But we know, from early tobacco-control evidence, that-- think of all the ways to work with retailers from a tobacco-control standpoint. Just looking at density, I think that there's been a lot more we've learned in recent years about limiting the number of licenses for vaping shops.

I can tell you, some parts of neighborhoods that I'm in in Chicago, there might be three vape shops on one block. So looking at the minimum distance between stores is a way of looking at local policy ordinance issues. Limiting retailers relative to population size, meaning there can only be retailers for this many thousands of people. And then restricting where they can be. All avenues.

So you may have one of these. You might have two or three. Think about ways to add and keeping the pressure on about dealing with density. So we know that density can lead to normative assumptions that vaping is a cool or OK thing. If there's one on every block and young people see it everywhere, it has an impact on attitudes and perceptions and it becomes more normative.

Thinking about licensing and zoning, licensing is really looking at the issues we just talked about, regulating directly, with businesses, the number of vaping retailers. Thinking about zoning is another avenue that has shown a great deal of promise in terms of looking at creating guides about where these businesses can exist and where they cannot. So you'll see information in that SAMHSA guide about both licensing and zoning as evidence-based practices with regard to vaping along the way.

In terms of, if I don't know what's going on in my state, there's lots of great places to look that up. Certainly the Public Health Law Center maintains a great site with regard to being able to look at states that are looking at issues around product packaging, looking at youth access specifically, at laws about specific retail zoning laws. So if you want to look up your own state, this is a great place to do that. And they also, then, publish a lot of resources, a Policy Playbook for E-cigarettes, in terms of how to think about all of the different policies that you have. Clearly tax is probably one of the most important policies to consider. We learned that early on, with alcohol, that price matters in particular. The populations that are most price-sensitive are young people and young adults.



So want to move into this. And leaving enough time for Q&A, I want to think about this one more angle about evidence-based practice, thinking about the different sectors that you might work with or the different approaches and how to categorize them in some ways that help you do some assessment about-- "am I working with the right populations?" was the question earlier. So this one might be thinking about working with the right segments in the community. So just, again, as a snapshot of examples of things that folks are doing in education. It's everything from curriculum, staff training, community awareness, and policy at the education level, are major areas to make sure that you shore up at the local level.

I also want to put a word out about curriculum. I think that, again, because that list is so short in terms of what are evidence-based programs that can be in schools, know that there was a lot of work being done, prior to COVID, by the bigger, more popular, more used curriculum, everything from Botvin LifeSkills to wellness-focused curriculum, that had developed and implemented vaping-specific either modules, or components, or emphasis within their existing curriculum. And major disruption when COVID happens. So I know of at least three of those big sort of program developers that had already been implementing and testing their product, their particular program, to determine if it was effective with vaping. And then the disruption of COVID threw a wrench in their evaluation. So know that you should ask for that research. So if your school district is really sold on and been using a specific program or curriculum, don't assume that they haven't thought about vaping or added a component or added some approach within their program, and that they probably haven't published that research because it got disrupted. But you can ask for it. So I think, in some cases, they are disseminating research on a request-for-it basis, and waiting publications. There's always a lag in getting that published. And we know, again, there's even a greater lag because of COVID.

So public education, lots of social media, earned media, mass media, online courses, doing op-eds. All that information that we presented on the front end, I think, has changed so much. It's evolved. So I think some folks think they understand some of the harms associated with vaping, whereas they may not. Looking at labeling issues in terms of health effects or addiction is primary in terms of making sure that those issues are in place. Looking at cancer. Making sure the messaging is that this is not a safe alternative. Thinking about other issues that young people care about. Tooth loss and gum disease is being used in some places.

A lot of work for local government. And again, thinking about cessation, motivational interviewing, policy, pricing, advertising, everything we've covered already. Thinking about age-specific strategies-- age to be in outlets, minimum-purchase kinds of issues, of course have a flavor ban. There's really a lot of great resources about model ordinances to ban flavors. The federal government has done that, but so have many states, at this point, in terms of specific kinds of flavor bans. So have communities and cities.



So that work is happening on all levels, and needs to be on all levels. Because remember, the federal government doesn't have the teeth and the enforcement, that that has to happen locally. So when there's a local version or a state version of a federal law, it creates the opportunity to have a public health conversation. But more importantly, it creates the arm of enforcement. So thinking about advertising bans in terms of youth-targeted advertising, point-of-sale advertising. Just as with tobacco, all of these same things are important to pay attention with vaping. Minority-targeted, the display of products, all of that, are things that you can be doing in that cluster of strategies. Thinking about prohibiting vaping with regard to proximity, which we already talked about-- public places, hospital, playgrounds, sports arenas. And finally, what's the health care role? And again, there was even an evidence-based program in that Ontario guide, which we'll send you, that that talked about an evidence-based practice for physicians in terms of talking points about tobacco and vaping-specific, showing a great deal of promise. Tobacco-free futures, adding screening questions, referral for cessation, are all things that, again, health care providers can do, along with patient education and family education.

So at this point, this is not a comprehensive list by any means. But want to show you that, again, when you start looking at all of what we understand from tobacco control, from these evidence-based guides, and again, what's coming out as systematic reviews of evidence-based approaches for vaping, there's lots that can happen in Anytown, USA, where you live.

So type in the chat which segment that you feel like you could be doing more with. So when you look at this list-- you might even think of a different segment-- but type in the chat which segment jumps out at you, saying, yeah, I don't think we were doing much with health care. Maybe we could be doing more there. So type which segment, in the community, you think you could do more in.

PRESENTER: Chuck, there's advertising bans, education, referral for cessation, advertising ban, tooth loss and gum disease, health care, advertising ban, advertising for sure, health care definitely, health care, health care, health care, public ed, prohibit vaping, parenting outreach, community awareness, local governments, advertising bans, education and health care, health care and working with the physicians, local government, advertising bans, family education, the challenges of prevention strategies and the influence of lobbies, advertising bans, public parent outreach, advertising bans.

CHUCK KLEVGAARD: [CHUCKLES] Awesome.

PRESENTER: I'm seeing a clear winner.



CHUCK KLEVGAARD: I would say a couple of, for sure. Emerging issues in terms of thinking about health care. You know, early on, there was a lot of research about credible messengers. I mentioned that earlier. Physicians and health care providers are considered much more credible messengers to young people even than educators in some of that research, even more credible messengers than parents. So depending on the relationship that young adults or people have with their health care provider, they're considered one of the most critical and essential messengers from the point of view of the audience receiving that.

So good to hear. Again, I assume that that means you have all of these other segments already kind of in place and working on.

So I do want to pause for some questions if there's stuff. Ann, you can let me know if there's any sitting in the Q&A pod. We can take some take some time there. And then I want to remind folks about a few resources before we close out.

PRESENTER: Sure, thanks. We did have a question, early on, when you were talking about that lung impact, is that what about the impact that vaping has on the lungs, especially during COVID?

CHUCK KLEVGAARD: I would say there's a couple of great resources that I'll point to in a moment in terms of EVALI, in terms of what that lung outbreak was, and where you can learn more about that, in particular the messaging about how to make sure people understand that lung issue. That research article I posted is going to be much more academic. And that will be helpful in terms of helping you to articulate messaging.

The Truth Initiative has great stuff. So does Boston University has a whole site dedicated to messaging around lung issues and other health consequences from vaping. So I'll show you where they were to get that.

PRESENTER: Great. Thank you. Another question, or more of a comment. There seems to be a visible slowdown in vaping on the East Coast. Is that true in other regions?

CHUCK KLEVGAARD: We think so. If you're referencing a slowdown in terms of a decline in use, we think that that's pretty widespread around the whole country. And there's certainly regional variation there for sure. But as young people get back out there and begin mixing with groups of people who continue to use, or that availability and access issue becomes not so much of a driver, of the "can't get it anymore." So if there were young people who stopped using because of being home so much or that they couldn't get what they were trying to get, we think that that decline will potentially go away and it will turn about the other direction again.



So yeah, I think, if you're referencing a decline, it's pretty widespread. Again, some folks are more conservative. That Monitoring the Future study is much more conservative to say that there are sharp declines. They would have instead worded it as a halt in the upward escalation of youth. So I think this slowdown is happening everywhere.

PRESENTER: Great. Thank you. Someone asked if there's a known timetable for the next-gen machines to debut. I know they're being reviewed.

CHUCK KLEVGAARD: In terms of the heated product devices, you can watch it in C-SPAN. It's not reported in the general news. It doesn't seem like a hot topic enough in terms of what the FDA is doing.

Following the FDA's site directly, however, is the most efficient way to figure out where those products are headed in terms of their approval. And I'll show you a few more places where you can track legislation that relates to that that may be being developed within states.

So some of those products are out there already. So to say that the FDA hasn't cleared them does not mean that they're not being disseminated or distributed or sold, it simply means that they haven't met FDA approval is all that really means, or full approval.

I think the time frame will be relatively rapid because there's a great deal of concern in the current administration about this issue. They've been clear that they want to continue the momentum to both strengthen the FDA as well as add additional arms of enforcement and teeth to that legislation. So their modification to the PACT Act so quickly in this new administration, I see as promising that they're going to both move through the FDA faster and they're also going to put more teeth behind that legislation, I hope. My predictions. [CHUCKLES] [INAUDIBLE].

PRESENTER: Thank you. Someone asked if you could speak about the reality that business is immoral by nature, and health advocates must overcome this and community-held viewpoints by local governments.

CHUCK KLEVGAARD: You know, I think that I would agree with the impact of businesses having such a-- in some cases, not all businesses, I don't think we can invite them as an entire group-- but in general, that their primary interest is profit, their interest is staying afloat. And some of what happened, as I described using the word despicable, was it wasn't an intentional indictment of the whole industry. I think that the idea of selling products when you have an audience that was captive, and trying to tie it to something they need or using misinformation has been around for a really long time. The early work of tobacco control was to correct misperceptions.

And some of that work can happen through product placement. So depending on the type of business, look for the policy that's going to impact at the most



direct, local level. And that might be the product placement level, where and how they can advertise what they can put on their counter, and thinking about that through the lens of the type of business they are.

I would agree that the regulation and ordinance, at the community level, needs to be specific to the type of business. Because again, you don't know that they have the community's best interest at heart. They might. But they probably far more likely have success in the business itself as being the major driver.

PRESENTER: Right. Thank you. We have a couple of more questions. And then I know you wanted to leave a bit of time. If we do not answer all of these questions, we will get the answers in writing. And they will also be on the website when we put all of the other materials up.

So I think we probably have time for one more. Do you believe that there will be a major decline in smoking and vaping if menthol flavoring is banned?

CHUCK KLEVGAARD: I think that depends. As we know, the bigger players in that conversation with regard to menthol bans, if the menthol bans apply to only specific kinds of tobacco products, I don't think we'll get there all the way. Right now, Philip Morris is looking at a heat product, similar to IQOS, that introduces menthol there. And so if the menthol ban doesn't extend to all of these different devices and delivery mechanisms, and menthol can stay on the market somehow, I think we may continue to see people shift in terms of the products or devices they use.

So I would say I hope so, if a menthol ban could get us part of the way. But I think it has to extend to all of these different, rapidly evolving delivery mechanisms. [CHUCKLES]

PRESENTER: OK. Yeah, well, that's true. I mean, they seem to-- we play catch-up often. So do I know you wanted to talk about resources. And we'll go through those quickly.

CHUCK KLEVGAARD: Yeah, real quickly pointing you all to some things that I have mentioned multiple times. Certainly use the TTC website itself. The ATTC and PTTC networks have begun to consolidate stuff because there was so much being done around the country. So you see, for example, here in the Great Lakes, I know we did Vaping Health Effects and Catch My Breath. We did another piece on education versus punishment and deferred citation. So look at all of these highlights. There's a whole lot more than just that on this. And this is, again, the PTTCNetwork.org/centers/global-pttc/vaping-resources. We'll send these links to you all. This is that SAMHSA document, for those of you looking for it, you can easily Google it with that title and see it. And it is free, and you can download it as a PDF. Talking about minimum age. And it's a major, important note that, as states have put in that policy about age being 21, hugely significant for tobacco overall, but also a major win for



vaping as we move in a direction of 21 and minimum age laws, overwhelmingly.

This is that Interventions document that came out of Ontario. So if you're looking to Google it-- I'll send it to you if you email me-- but if you want to Google it, it's Interventions to Prevent Harms From Vaping.

A lot of ways to build your own presentations. Our original goal here was to kind of help folks have slides that you could use and just recreate or update. I'd be happy to do that at some point for those of you if you email me. But at the same time, you can, with the CDC site, be able to go in and get fact sheets, interactive maps, custom reports, lots of slide decks with stuff already on them. They update those pretty regularly. So as I mentioned, as products and devices change, they update those PowerPoint slides so that you don't have to create them. You can, again, create customized stuff.

This is those MMWR reports. Both the 2019 one shed a lot of light on understand your reasons for use, and the 2020 MMWR report, again, shares much more information about this decline and how to view it with caution. As I mentioned, those major drivers of this decline could all go away, in terms of if accessibility goes back, if marketing continues and evolves, and if, in fact, folks go back out into the community, that could change.

This is a great source in terms of action and policy guide that comes from the Truth Initiative. Really good fact sheets and infographics, which I think are helpful, not just for young adults to use infographics, but for most populations it's a good way to do messaging in terms of getting numbers and health risks out there. They did a great guide about this heat technology and looking at IQOS, in terms of understanding the launch of this newest electronic tobacco product. So I think the industry will continue to evolve. And the more we can learn about and understand these devices as they come on the market or move through that premarketing approval at the FDA, we should be in front of it and be ready with legislation that includes this new language.

PRESENTER: Fantastic. Thank you. I want to be very conscious of people's time. We appreciate your spending some time with us this afternoon. If we were not able to get to your question, we will have Chuck answer them in writing, and they will be part of what we put on our website. It usually takes about a week for us to get all of that up there.

You will also get a certificate of attendance. And that can take us seven to 10 days as well. You will get that via email. So again, I want to thank you all for your time, and especially thank you, Chuck, for your time and your expertise. So I wish everyone a safe and happy holiday weekend.