

Pathways to Improving Children’s Oral Health Using Silver Diamine Fluoride

Recorded May 20, 2020

Chris Talbot:

Hello, everyone, and thank you for attending today's first webinar in the Advanced Prevention and Reducing Childhood Caries in Medicaid and CHIP Learning Collaborative. Today's webinar is titled, “Pathways to Improving Children's Oral Health Using Silver Diamine Fluoride.” My name is Chris Talbot, and I'll be your technical host for today's event.

Before we would begin, I wanted to cover a couple of housekeeping items. All participants logged into our session currently have their phone lines muted. Please do not attempt to unmute your phone line during today's event. We welcome audience questions throughout today's event using the Q&A pod. We'll have several times throughout today's event when we will have presenters respond to those audience questions. If you have any technical difficulties, please use the chat pod on the right-hand side of your console to contact me directly for assistance. Please make sure you select my name, Chris Talbot, as the host in the “Send To” field when sending the chat.

Finally, I do want to let you know that today's session is being recorded for those attendees that could not join us. At this point, I'd like to turn things over to Andy Snyder from CMCS for the start of our event. Andy, you now have the floor.

Andy Snyder:

Thanks so much, Chris, and good afternoon everyone. I am very pleased to welcome you to today's webinar and to our first offering in our Advancing Prevention and Reducing Childhood Caries in Medicaid and CHIP Learning Collaborative. I lead activities for CMCS' children's oral health initiative, which seeks to improve the percentage of kids getting appropriate preventive dental care. And we are really excited to launch this technical support opportunity with a webinar about a treatment modality that is really top of mind for a lot of folks working in the dental space right now, silver diamine fluoride, which many states have begun reimbursing for their Medicaid programs and states are kind of taking another look at as we think about delivering appropriate care to kids in the new circumstances that we find ourselves as a result of the COVID-19 pandemic.

So, today what we're going to do is provide an overview of kind of the state-of-play and evidence for silver diamine fluoride and then talk specifically about some state examples of how Medicaid agencies are thinking about this in the context of their program. And then, we'll move on to a facilitated discussion in Q&A.

So, today you're going to hear from a great group of panelists, including Dr. Scott Tomar, Associate Dean for Prevention and Public Health Science at the University of Illinois at Chicago College of Dentistry; Kellie Skenandore, who is a Dental Program Manager at the Oregon Health Authority; Dr. Bruce Austin, who's the Former Statewide Dental Director of the Oregon Health Authority and is now Regional Dental Director at Capital Dental Care; Dr. Zachary Hairston, who is a Dental Consultant at the Virginia

Department of Medical Assistance Services; and Dr. Joe Zickafoose, who is a Senior Researcher at Mathematica.

Next slide, please. So, just to say a little bit about the learning collaborative that we're launching, the goal is to support state Medicaid oral health teams over two years to increase the use of fluoride treatments in a variety of modalities. Participating state means will have the opportunity to expand their knowledge of oral health policies, programs and practices, develop, implement and assess a data-driven quality improvement project, network with your peers, and advance your knowledge of and skills in quality improvement.

Go ahead to the next slide. So, our planned activities and timeline for learning collaborative events include webinars in the next couple of month; this one today on silver diamine fluoride, one, on fluoride varnish is for June 2020, which there will be a solicitation for soon, and then, a webinar to follow that, which is really an introductory webinar that will accompany the expression-of-interest form for this learning collaborative and technical support opportunity for state Medicaid agencies. Following that, we will select states for participation, and then, begin our affinity group work.

So, this is our planned timeline right now, but we realize that we are operating in a very changed environment from when we initially planned these activities. So, we really want to get a sense from our state Medicaid agency partners about whether this timeline still works for you and whether our planned activities are things that you can participate in. We'll have a couple opportunities during this webinar for you to provide feedback to us on that both in some polling questions we'll do later and in the evaluation. So, particularly for people who are in state Medicaid and CHIP agencies in the audience today, please be on the lookout for that and please do give us your feedback. It is very important as we plan our activities here. We want to make sure that it's responsive to your needs.

But now, let's turn to the meat of our programming today, and I will hand things over to Dr. Scott Tomar to tell us about silver diamine fluoride and Medicaid and public health use for dental caries control. Dr. Tomar?

Scott Tomar:

Okay. Thank you very much, Andy, and thank you all for being here. It's my pleasure to talk about silver diamine fluoride that is used in Medicaid and public health, and talk a little bit about how we've been using it in my institution.

Next slide, please. I have no financial interests to declare in this presentation.

Next slide. So, first of all, I'll talk a little bit about what silver diamine fluoride is, and I'll be using the abbreviation SDF throughout, what SDF does, how it works, a little bit on how to use it, and I will talk a bit about some of the regulatory issues around SDF, and finally, I'll talk about how it fits in with the state Medicaid programs.

Next slide. So, I'm excited about this topic, and we've been using this in our public health settings because I really do think that silver diamine fluoride is a game-changer in dental public health and in Medicaid. So, for one thing SDF arrests about 80% of dental caries region, or what we call, "tooth decay," when it's applied twice a year. We really have nothing else that comes close to that. There's some evidence that it provides several we call indirect prevention. So, we use it primarily to treat cavities, but there's some evidence that the high content of fluoride helps prevent cavities in other teeth that haven't yet been infected. It's very inexpensive for those, like, everything that we use we have to weigh the benefits unless

in this case, the benefits far outweigh any risks within or a pretty minimum, and we'll talk about that. It's very easy to use in the field settings. We've been using it for quite some time in preschool settings and WIC centers, places like that. It could be applied by dental hygienists, and we'll talk about the regulations that they vary by state, but it's something with training can be applied by members of the team other than the dentist. And as we said, we have been - in one analysis we found a great potential for saving funds in the state Medicaid programs.

Next slide, please. So, we have this paper come out last year, I'm working with a group of health economists from Georgia Tech to try to estimate the cost savings from using silver diamine fluoride. Essentially can it work? Can we prevent more expensive types of restorations of fillings, particularly in young children where we're mostly dealing with the baby teeth or what we call primary teeth, and you see my reference there, so, for those that want to read the full study. Well, the bottom line was that we estimated the averted restorative visits cost somewhere in the range of the \$100 to \$350 per visit. And even that claiming like from this and not anything else that silver diamine fluoride is a panacea. But certainly, for managing the pain in very young children it really has tremendous potential for not just managing disease, in a minimally invasive way, but in actually saving money and being far less traumatic to children. If we can control tooth decay with silver diamine fluoride, and I'll be talking about how it's applied, compared to traditional methods that we used to restore tooth decay in young children. It can tremendously reduce the cost of that care and the stress that it puts on the child and the family.

Next slide, please. So, what is SDF, silver diamine fluoride? So, with this bottom line it's a colorless liquid, although, recently one of the manufactures has added a white blue color to that just so you can see where it's being applied. It works primarily by arresting dental caries or tooth decay. As I mentioned, one of the side effects that's been seen, I should say, positive side effect has been seen in number of trials is that it also has a preventive effect for the rest of the teeth. And it's primary with patient one, how it was first marketed and how it's still currently approved is for treating dentin hypersensitivity, which is exactly the same indication for fluoride varnish that many folks may be familiar with. It's been around for a while. But it's also very effective for decreasing hypersensitivity.

Next slide, please. So, how does this work? So, unlike any other topical fluoride pertaining products that we have on the U.S. market, SDF kills bacteria, tooth decay or dental caries ultimately is a bacterial-mediated disease. It doesn't happen in the absence of bacteria. And the silver nitrate component in silver diamine fluoride is very potent for controlling bacteria. So, the only thing that we really have on the market like that that shows the bacteria that are responsible for tooth decay and it keeps those bacteria from reattaching to the tooth. And for those that are interested - there're microscopic pictures on the right side of that slide just showing how the application of silver diamine fluoride has dramatically reduced the number of bacterial colonies. And then, because it has a very high concentration of fluoride even though we use a small amount it's very high concentration, it also inhibits the destruction of tooth structure, the way that fluoride primarily works, those preventing remineralization of the structure and then promoting its remineralization. So, when a tooth that's been treated with the silver diamine fluoride is exposed to acids, it is far more resistant to loss of its mineral, and it can also promote and repair of that demineralized tooth surface.

And next slide, please. So, yeah, so how do we know that it works? Well, there's actually been right at this point dozens of clinical trials that have been done, quite a number of systematic reviews and even at least one systematic review of systematic reviews. So, this has been widely used in other countries. I'd say that the vast majority of the trials have been done by a group at the University of Hong Kong, but it's been used in other countries as well for quite a while, even though it's relatively new in the U.S. market, it's

only been around five years or so, but it's been widely used in other countries for a number of decades. Actually, the bottom-line conclusion from these trials I mean, they are incredibly consistent, and the SDF is highly effective in lessening tooth decay in children and in older adults. So, those are really the two primary populations in which this has been tested. And then, we can talk again about why that is, but in some ways they're similar considerations for when SDF is particularly effective for use and a great application for it, and it's really I'll tell you why is it possible for these two population groups with the very young and with the very old. And again, that outperforms pretty much anything else that we currently have available on the U.S. market for arresting decay.

And next slide, please. So, how do we use this systematically for what we call, "caries management," and I'd say again, I'm not saying that SDF is at anyway a panacea, but it certainly is one approach for caries management, it provides us an incredibly useful tool in our toolbox. I'll tell you it's a great choice when restoration with the tooth, you know, you're placing with a traditional filling or a crown may not be possible or feasible. So, for example, in infants and in children where they are what we call "pre-cooperative," they're really too young to be able to perform traditional restorative care without some type of behavioral management either through sedation or general anesthesia or something like that, this is actually a great option for those types of populations.

Using public health settings, again, we've been using it for some time now, because it provides both treatment, it prevents them at the same time, and easy to apply. We don't need any particular or special equipment, we just need to use our own portable tools and light, noninvasive, easy to apply; I mean, like everything else I mean, some training, but relatively minimal training compared to the more advanced types of approaches to managing tooth decay, and very inexpensive per tooth and per application.

And again, the caveat here, even though I think it's got great applications and we've been using it for some time now, it doesn't eliminate the need for follow-up. It really is not the kind of easy to apply ones and then never have to do it again. You do have to periodically see the patient, or go out to that site and do follow-up on it. And even though this is very effective for arresting decay, the tooth and depending on the type of cavity where it is, and it still need some type of restoration. So, if there's a hole in the tooth, this fully arrests the decay process. But it doesn't rebuild the missing part of the tooth. So, in such situations, we may still need to do some type of restoration.

Next slide, please. So, when would you use silver diamine fluoride? In particular people that are at extreme caries risk, lots of cavities to deal with particularly if it's more than could be dealt within one visit. It's a way to try to manage disease until you're able to do more definitive care. In certain situations where there's been challenges to the behavioral or medical management that would include special needs populations, very young children on its own. Lesions that are really difficult to treat, and I could take some of my colleagues that worked with older adults have been using this to treat decay or in root surfaces. The results of one recent case we've seen, she had a lower partial denture and needed to hold on to the last couple teeth to be able to keep that partial denture in her mouth, and had a big cavity that was going to be difficult if not impossible to get a good filling on there. And this was a way to conservatively keep that tooth - I mean, keep the decay on that tooth from gripping, so they can keep that tooth in place and functioning for that patient. Patients without access to care, that's why we're using it, where we're using it in public health settings, because also, most of the young children that we've been working with we really are the only access to care that they get. And where we've been using it in our clinics is for young patients who have been wait-listed for treatment in the OR. We now have a wait time down to about six months, but at one time we were well over a year. But even six-month emergencies do pop up.

And so, there's actually a great application to try to manage disease. And so, we can get more definitive care done.

Next slide, please. So, I already mentioned this. But yeah, we're now using it for young patients that are wait-listed for treating them in the operating room or under general anesthesia or sedation. We've been using it in community-based settings, like Head Start and Early Head Start Children, Early Learning Centers and WIC centers and the likes. We don't need lots of equipment to be able to use this in the field.

Next, please. So, this study - actually this paper will be coming out next month in Pediatric Dentistry. But we actually did a cohort study to see whether using silver diamine fluoride among the children who are wait-listed for treatment under general anesthesia or sedation, or can we reduce the incidents of emergencies, because again, they are now on the wait-list for more than six months on average. And so, you think about situation, you have a kid with a pretty advanced case of early childhood caries. If a child has a lot of cavities, we need to get them treated on general anesthesia suitable for six months. So, as a start the only thing we could really offer was fluoride varnish, which I say had relatively modest impact on reducing emergencies. Since we started using silver diamine fluoride, we've actually reduced the incidence of emergencies among these wait-listed children by about 80% from almost 20% of children who had emergencies pop up while they were on the waitlist to about 4%. And that's also from the system with earlier clinical trials now it's more about 80% of the lesions were arrested when we saw them at the follow-up visit.

Next slide, please. So, as I mentioned earlier other countries have been using silver diamine fluoride for many years. In fact, I first learned about it from a colleague from Brazil who had been using it back in the 1980s, and it has been used in Australia for decades. It's been used in Japan for probably 90 years for various applications. It's relatively new in the U.S. market, maybe five years. We currently have two FDA approved products in the U.S.: Advantage Arrest by Elevate Oral Care and a newer product called Riva Star by SDI Incorporated. Those are FDA cleared, but the primary indication of the standard approved currently is for dental hypersensitivity. And again, it's the exact same application that fluoride varnish has been approved even though we've been using fluoride varnish for caries prevention for quite a number of years now. There's really nothing wrong with using it off-label. There are many medications on the U.S. market that are used off-label, but its use for caries treatment is consistent - at least at this point in time is still considered an off-labeled use. And again, same as fluoride varnish.

Next, please. So, again, let's kind of simplify it, but how do you use it? Basically, you gently drive in the cavity and apply it two or more times a year. We see a reasonable rate of arrest even after once. But I'd say that the current best evidence we have is that they get higher arrest rates if you can apply it at least twice a year. And the frequency may vary, say every six months where we can, for children waitlisted for the OR we try to get them in every three months, that way this - just because again, they have pretty advanced disease. You don't need a lot of supplies, because what you see on there is a micro brush that most dental offices have. There's also a special applicator that the manufacturer of Advantage Arrest makes. So, we use that. We can use either a micro brush. And it's not really highly technical but like anything else does require some training.

And next slide, please. So, the one side effect and probably many people on this webinar have probably heard about this. And so, the biggest downside of silver diamine fluoride is that it stains decayed dentin, the level of the tooth underneath the enamel. So, if you look on the top two pictures, the picture on the left is before, and the right is after, it certainly has darkened the cavity on that tooth.

And then, on the bottom there's a cavity right above the gum line treated with silver diamine fluoride. a day later, it's a little bit darker. Then a week later, was a dark brown and black. And that's considered probably the biggest downside that we know of with silver diamine fluoride is that it does stain a decayed dentin. It does not stain non-decayed dentin. It does not stain enamel. It will actually stain soft tissue. I'll talk about some of the safety precautions that we have to use because of that.

And next slide, please. So then, how safe is this? They've been using silver diamine fluoride in Japan for many, many years. And so far no adverse reports have been reported from that country. Certainly, and any person that has a known silver allergy they could not use it because it is a silver containing product. What we call a relative contraindication is a situation where they would not use this in patients that have certain oral soft-tissue conditions, like stomatitis or ulcerative gingivitis, because it can be irritating to soft tissues in that situation. And again, one of the side effects is that if you get this on oral mucosa, the lining inside the mouth, it can create some small lesions that generally disappear, the cells turn over pretty quickly. So usually, it will disappear in 48 hours. But if you get it on skin, a patient's face or hands, it will stain black and that could take a week or more to completely go away.

Next slide, please. So, I already mentioned that the SDF has been cleared by the U.S. Food and Drug Administration primarily to treat tooth sensitivity. But there are steps on the way to change that invitation to include to use for prevention of dental caries, because the FDA has granted what was known as breakthrough therapy status at least for Advantage Arrest or for caries arrest. This really just facilitates being able to do the clinical trials to demonstrate efficacy. And this is to my knowledge the first dental drug or device to gain such status. So then, we really do not have anything else on the market like this, which is I think why the FDA was willing to grant that status.

And next slide, please. So, like as many other things the ability for dental hygienist to use this product in public health settings will vary by state. Some states treat it like other topical fluoride saying if it's a dental hygienist working in a public health setting is able to apply a topical fluoride without prior examination with diagnosis and referral by a dentist. The other states are allowing dental hygienists to use SDF in that manner. There's I know at least a one state that has explicitly excluded SDF used by a dental hygienist in public health settings. And I'd say the others have sort of fallen in between. There's a couple of states, including my former state of Florida, that's specifically changed the rules to explicitly allow dental hygienists to be able to apply SDF in public health settings.

And next slide, please. Although, there are ways that providers can be reimbursed for application of SDF. There's top three, CDT codes that the ADA's billing codes could be used for that. But that the first one is for topical application of fluoride. And then, SDF is in the type of topical fluoride application over desensitizing medicament. Again, that's the primary indication for which SDF is approved by the FDA. So, it could be built for that for unspecified preventive procedure. But several years ago, a specific to CDT code was adopted that particularly pertains to its use for caries management D1354. And I think that most people that are billing for either Medicaid or other third-party coverage are using that CDT code for it.

Next slide, please. So, as of the time when I put these slides together, and this may be changing rapidly, at least 35 states that we could identify have at least some coverage for that CDT code D1354 in their state Medicaid programs. I'd say the fees, I recently looked at this month or so ago. They're pretty much all over the map in terms of whether they are paid per tooth and had some limit on the number of applications from the applications per year or per lifetime. So, it's kind of all over the place. And you really have to check with your state to see what the level of reimbursement is. And again, similar to the

reimbursement is also the frequency of applications that are recovered. Most allow an application every six months, which I say it was consistent with our best available evidence. It was time and a number of them have limits on the lifetime number of applications for teeth.

And next slide, please. And so, just to summarize this, based on the best available evidence that we have most of it coming from randomized clinical trials, SDF seems to be very effective for arresting tooth decay. And there's at least some evidence that it also prevents decay in the primary teeth in the person's mouth. It's particularly useful for young children, older adults and individuals with behavioral challenges; it's pretty inexpensive per application depending on the form you use. It can range from less than a dollar to maybe as high as \$10 per application depending on what you use, do it by individual drops or use unit dosing, but that's either way, relatively inexpensive, minimal training needed, incredibly wide margin of safety and potentially cost saving to Medicaid programs. Like again, that's why I think it's a game changer.

Next slide, please. And with that, thank you very much. I've got my email address there, if anybody has questions after this seminar is over. Thank you.

Andy Snyder:

Great. Thanks so much, Dr. Tomar. And now, let's hear from some states. And we will start off by hearing from Oregon, and I'm going to turn it over now to Kellie Skenandore with the Oregon Health Authority. Kellie?

Chris Talbot:

Kellie, I believe your phone line may be muted.

Kellie Skenandore:

Thank you. I wanted to thank you for having me, and thank you for joining us today. I wanted to share with you how we came to silver diamine fluoride in Oregon.

Next slide, please. Oregon is a Medicaid expansion state. We have extensive dental coverage for adults and pregnant women. Much of Oregon is a rural or a frontier state, which adds to our access problems. So, a good portion of the state is considered a provider shortage area. The development of SDF occurred in Oregon from the leadership of Mike Shirtcliff, a doctor with Advantage Dental, who realized that we're not going to drill and fill our way out of overwhelming caries in our Medicaid population. So, the result of that was the SDF product Advantage Arrest by Elevate Oral Care.

Next slide, please. The State of Oregon has a very extensive scope of practice for hygienists along with Colorado. The application of SDF is considered a fluoride application. And this slide is a little bit out of date. We have since expanded scope of practice for hygienists and SDF application is included by statute. The current reimbursement rate for a single application of SDF is \$14.27. We allow two applications per tooth. We don't have a frequency limitation. So, that can be applied at any interval the clinician feels is appropriate. And the reimbursement was priced similar to fluoride application to keep it within the realm of reasonableness. Dr. Austin, did you have anything that you wanted to elaborate there?

Bruce Austin:

Yeah. This is Bruce Austin. I was the Statewide Dental Director when we initiated this coverage being the first state to offer it. And this was during the time when it wasn't as well known. There was some skepticism and concerns among the public and patients as well as providers. So, we were really careful when we drew up these rules and guidelines. We priced this reimbursement to be similar to fluoride just so at that time it wouldn't appear that we were attempting this over another treatment. We didn't want to price it similar to possibly a preventive restoration just because we didn't want to have any sign that we were attempting this instead of traditional restorative treatment. And we have had some good conversations this time with people who have concerns about it. We tailored our rules to keep that in mind. And we really haven't had any pushback since. Thanks, Kellie.

Kellie Skenandore:

No problem. Next slide, please. Barriers to SDF introduction, initially, faced opposition from dentists, dental groups and some dental care organizations of which we have many in Oregon nonprofit services. And they were basing their concerns on the fact that SDF might be an inferior treatment. It might create a two-tiered system of care in that it causes staining as we saw in the previous slides. And that reimbursing for SDF could seem to encourage SDF over more traditional treatment modalities.

Next slide, please. That didn't prove to be the case as we got more and more usage of SDF in the state. Practitioners and oral health groups became more comfortable with the effectiveness of SDF. It became more of a mainstream treatment modality. There were mainstream media articles and stories. Parents were provided with detailed consent forms. Accompanied by before and after photos, so that they could see that their child was not going to be "permanently disfigured" by black teeth, if you will. There was overwhelming acceptance by parents to realize the benefit of the traditional restorations for "Pre-cooperative children," a quote from Dr. Jeremy Horst.

Next slide, please. We have continued increase in claims under D1354. We do allow billing for that. And we can also accommodate billing with a straight fluoride application on the same day of service. We don't get pushback at this point in time. And it's become a widely accepted treatment modality within the state. So, we have found that we have had good success within Oregon. Thank you.

Andy Snyder:

Great. Thanks so much, Kellie. It is really great to hear from an early adopter. And let's hear now from another state, Dr. Zachary Hairston in Virginia. Dr. Hairston?

Zachary Hairston:

Good afternoon, everyone, and thanks Andy. Next slide, please. Our current Smiles for Children program has been in place since 2005. We affectionately call it "Smiles for Children." But the program also includes a limited benefit for adults and a very robust and comprehensive pregnant women benefit. 950,000 members on the left of this slide is now over a million. My initial conversations about fluoride varnish being applied in medical offices. And I'd like to call your attention to the middle right of this slide. 19% of children under age three were receiving fluoride varnish from physicians' offices when this data was collected, and non-dental providers were up 30%. I will revisit these numbers later on.

Next slide. A bit of background, the fluoride program began with a grant to the Virginia Department of Health as a fluoride mouth rinse and included some 30,000 children in schools. In 2009, the wisdom being as it is now, pediatricians may see toddler's two to three times and more before their first dental appointment. The Virginia Health Department then began a program to train physicians and their staff to administer fluoride varnish on six months up to three-year olds, and the program was funded by the state Medicaid program. An important milestone was achieved in 2013 and CPT code as you see here, 99188 was established. The Board of Dentistry, the AMA and the Department of Health worked to establish this code as a direct reimbursement for physicians.

Next slide. You can see a year-over-year increase in the number of physicians and the number of medical claims. And physicians became very receptive when direct reimbursements became available. I spoke with one of the principals that's been with the program since the beginning. And she remains quite active. Training is done in office and online. The program is being taught to new physicians in the VCU medical school program and office trainings have gone from 75 to the physicians in 2011 to 870 physicians and staff over the last five years.

Next slide. This is a revisit to what I spoke about on the first slide. The percentage on the left has gone from 19% to 39% of children under age three, receiving fluoride varnish. And on the right, this percentage has gone from 30% to 85% of non-dental providers submitting claims.

Next slide. And this is the dentist now, and you can see the Smiles for Children program dentists are also performing at a high level.

Next slide. Moving to silver diamine now, Virginia began the benefit for silver diamine in October of 2017, and researchers point to this being, just as Dr. Tomar mentioned, an important addition to the dentist toolkit. What required a bit more study then was when to do the second application. And Virginia settled with the thinking that if the first application was performed on recall appointment, the next six month appointment is felt to be a little too long. And if definitive treatment was found to be in order, it could be done during that 90-day window, felt to be just about the right time. The last bullet retraction of silver diamine amount of definitive treatment is done at the risk of that sounding punitive, the idea was more to help providers be judicial and application be somewhat selective of their silver diamine candidates and give due consideration to all the reasons silver diamine might work.

Next slide. And this slide shows providers are in fact increasing usage year-over-year.

Next slide. After silver diamine had been in place for a while, I began calling providers asking for feedback. And I wasn't getting much negative feedback. So, I started asking in a contrarian way what has surprised them or what hasn't worked. And I'll go to bullet two, providers were doing everything right and speaking with the mom, signing consent forms, etcetera. The dad that didn't necessarily come to appointments was bothered with the discoloration. So, we try and make both parents aware. This is especially so to advise that a droplet can inadvertently get on skin mucosa. And bullet number four just as I've been mentioned, one of the parents were somewhat defensive in making sure her child wasn't receiving an inferior product. And they were somewhat put off because of definitive restoration wasn't done right away.

And lastly, this is not on the takeaway slide, but it is in respect to COVID. Virginia felt that in order to be proactive, we would relax the benefit limitations on silver diamine. We felt this ease of use and how it may be a convenient stopgap measure for the discomfort that it could be quite helpful for members and providers. We stayed with the two applications, but we removed the time benefit requirement between

applications and then the chargeback if definitive treatment is necessary on this silver diamine treated teeth. Thanks, Andy.

Andy Snyder:

Great. Thanks so much, Dr. Hairston. So, we are going to move now to a discussion and Q&A. And so, for that I'm going to turn it to Joe Zickafoose at Mathematica. Joe?

Joe Zickafoose:

Thanks so much, Andy. I really appreciate it. I would just like to say as a pediatrician myself it's always incredibly exciting to hear about silver diamine fluoride as an opportunity to take care of mainly kids that we struggle with getting access to a variety of oral healthcare needs. Before we launch into the discussion section, we did want to do a couple polling questions with the audience. In just a second, you'll see the poll open on the right-hand side of your screen. And you'll have 30 seconds to respond to each question. For our first question, please tell us which type of organization you represent. We're very interested to see what kind of folks are represented on the call today, and feel free to select all that apply.

So, you'll see that open up in the right-hand corner. And the poll will open now. When you make your selection, please be sure to hit the submit button on the lower right-hand side of the polling pod. So, there's about 10 seconds left before this poll closes. So, please be sure to hit the submit button when entering your response. And then, we'll show those responses in just a second here. Okay. So, the results from that first poll should be popping up on the screen here in just a second; maybe. There we go. All right, great.

So, we do have a good representation from state Medicaid and CHIP agencies. But we see a variety of other folks on the call today also, which is very helpful.

One more polling question. So, this next one is specifically for those representatives from Medicaid and CHIP agencies as Andy mentioned at the top of the call today. We have been in the process for many months in planning a technical assistance opportunity to support state agencies that are interested in the promotion of interventions, like silver diamine fluoride and fluoride varnish. However, we recognize that we live in a quite different world now than when we started planning these activities. So, we're interested in hearing what kind of modalities folks in state Medicaid and CHIP agencies feel like they have the bandwidth to participate in the coming months. So, if you could take a look, first you see just traditional webinars like we're doing today. The second option is the affinity group, which we have been planning to start later this summer, which would involve ongoing support for implementing a QI project on SDF or fluoride varnish in non-dental settings.

And then, other if you feel like you're interested in another modality, you can type your response in the Q&A pod. So, we'll go ahead and open that poll now. As I mentioned on the prior question, please feel free to choose any that apply for you and then hit the submit button in the lower hand corner. We're going to wrap in just a few seconds here. And then again, it'll take a couple seconds for the responses. Great, thank you all very much for that feedback, it's very helpful to see. And we will take that under advisement as we plan for our next steps.

So, with that in mind, we'll transition now into the discussion period. And the first that we would like to touch on is kind of the elephant in the room for most any discussions these days but particularly in any kind of healthcare setting. We received several pre-registration questions about the role of SDF in the

setting of the COVID-19 pandemic, particularly around movement in the field towards non-aerosol generating dentistry. And I'd like to point that question to Dr. Tomar first. And then, I believe Dr. Hairston had some comments about what they're seeing in Virginia.

Scott Tomar:

Yeah. I mean, from the report that went in the middle of this pandemic that I think SDF certainly has a main role that it could play and in fact has been playing during this, because it provides – an effective if not definitive way to manage the disease without generating aerosols. SDF does not require the use of a hand piece or the things that would typically generate an aerosol in a dental office. So now, what are some of the things that typically we're generating aerosol in dental office. And so, it's provided a nice conservative way have been for all of this, at least on a temporary basis going this pandemic.

Zachary Hairston:

And I would add its simplicity and ease of use, and in terms of preventing a non-emergent situation from becoming emergent situations; stepping up to stop non-emergency situations from becoming emergent.

Scott Tomar:

Absolutely. Well, that's right too. It's somewhat quite important that we have SDF at this point in our history, because until just a few years ago we really did not have anything that had this capability. So, yeah, it was the absolute case. Yes.

Joe Zickafoose:

Great. Thanks so much. And Ms. Skenandore and Dr. Austin, do you have any comments from the perspective in Oregon?

Kellie Skenandore:

I just want to concur with what both of the doctors had to say. I think with regard to Oregon it's allowed us to enable freeing up our ED's, keeping people out of the ED is imperative at this time. And this is a good means with which to aid in doing that. Dr. Austin, did you have anything?

Bruce Austin:

No. nothing else.

Joe Zickafoose:

Great. So, we received a number of questions in the pre-registration, and then also today, about the use of silver diamine fluoride in non-dental settings. So, I think Dr. Tomar, you referred to a couple of public health type settings. Could any of you comment on the kind of the logistics and policy considerations around silver diamine fluoride in non-dental settings? For example, what kind of providers can provide, can apply silver diamine fluoride? What are reasonable ways to track those applications? So that children or other individuals aren't getting duplicative treatments and thinking about ways to monitor for outcomes in non-dental settings.

Scott Tomar:

Sorry. Again, this is Scott Tomar. I can talk about how we can use it. So again, what the type of provider using it in public health settings, settings outside of the dental office will vary by state. In Florida where I spent the past 20 years, we got a chance in this state for the dentistry's rules to specifically allow a dental hygienist to apply it in what they call a health access settings which include things like public schools, early childhood centers, Head Start, WIC, things like that. So, we've had dental hygienist applying it in those settings for some time. And then, there was a question that came in about consent. We used a couple of different approaches to getting to some of those settings in the Head Start, when we first started. And as a matter of fact we still do it. And it was counseling, I believe it's within 30 days of admission. So generally, during the summer we would go to the local Head Start, we provided the dental exams for the incoming children. While we were there, we noticed an active caries region, we had the mother right there, we can actually show them what was going on, and if there are explicit consent to the treatment explain what benefits and side effects and so on, the consent rate there to do it. In settings where we don't want to plant there, we've actually developed a set of pamphlets and we've done a couple of different things. But we've got a set of easy-to-read materials to go home to the parents. And then, we would get there, the written kind of documentation of consent to be able to apply SDF. That said, we generally, did not use it on interior teeth without pretty explicit conversation with the parent. Generally, the staining on posterior or back teeth on your baby molars has not really been an issue at all, but before we ever do it on a front tooth, we would have a specific conversation. Overall, it's still incredibly well-accepted, but that's sort of our experience with it. I hope that covers the question.

Joe Zickafoose:

Great. Thanks so much, Dr. Tomar. Dr. Hairston, do you have any experience in Virginia with -

Zachary Hairston:

Yes. Yes. I'd like to comment here. I'd like to comment because as much of my conversation did in fact speak about fluoride varnish being done in physicians' offices that does not carry over to silver diamine being done in physicians' offices. And I think it should be that diagnosis of decay has to be done dentist and it can be done dental hygienist. And as such silver diamine should probably remain being done in dental offices as opposed to fluoride varnish allowed in physicians' offices.

Joe Zickafoose:

Great. That's very helpful to distinguish the professional roles between silver diamine fluoride and fluoride varnish. Ms. Skenandore and Dr. Austin, any thoughts on application in non-dental settings in Oregon?

Bruce Austin:

Yeah. I think the key is what Dr. Tomar said. It varies so much by state as to who is allowed to apply this. We're fortunate in Oregon like we said in our slides that our expanded practice dental hygienists have the largest scope of practice in the country with Colorado. So, it's been very useful in outreach and even school-based sealant programs. Some programs are able to apply SDF while they're out doing sealants. Others don't. It varies. But we're fortunate that they can do that in the outreach programs. So again, it just varies so much by state board regulations. But it's sure useful adjunct therapy to prevent problems while

we - once we identify them to try to get them into the treatment system and even provide the only treatment the tooth may need to keep it asymptomatic.

Joe Zickafoose:

Thank you very much. We've had a couple questions from audience members. I did want to let you know we are recording this webinar. And it will be available in addition to the slides directly on the Medicaid.gov webpage in a couple weeks. So, we just have a few minutes left. I think probably this last question that a good number of folks have asked variations on is related to the frequency of silver diamine fluoride reapplication. There are some questions about whether it needs to be reapplied regardless of the progression of the caries. And then also, how states are dealing with the trade-offs between coverage with the frequency of application. I think let me start with Dr. Tomar and thinking about how often silver diamine fluoride should be applied and what kind of reassessments should be happening.

Scott Tomar:

So, the best of all the evidence we have done with it, is it should be applied at least twice a year. Although, I can say that there's - we've had pretty good numbers of arrest with a single application. But it's certainly not a 100%. And even with reapplication it's probably in the 80-something percent range.

So unfortunately, there will still be some percentage of cavities that are not arrested even after two applications. We try them both within the clinic and informal settings we tried to have periodic follow-up on all the people that have been treated with SDF. If it's still arrested and - we define them by its feel, if it's still a dark color and hard to touch, we don't want to apply, because it wouldn't be harmful, but it really doesn't necessarily have to be reapplied. Often what we find is if you treat say six cavities, come back with four being arrested and maybe a couple that weren't - well, we're going to use a drop to re-treat the two that weren't arrested, might as well treat all the lesions. But if they were all arrested in six-month follow-up - there's no need to reapply. And as far as how long you do it will be again part of that. It will depend on the age and the circumstances, if they were waitlisted and are going to be getting more definitive treatment with crowns and so on in the OR. We would just reapply it until they get to that treatment. If it's a matter of preventing the progression of disease until the tooth falls out, again, it will depend on the child's age.

Joe Zickafoose:

Great. Thank you very much. So, we're at time. I want to point out this last slide here. If you've got any questions about this webinar the learning collaborative, the slide that showed previously has our TA mailbox. And then, as you close out the webinar, you'll also get some follow-up questions. Andy, did you have any wrap-up comments you like to share?

Andy Snyder:

I just want to say thank you very much to all of our presenters and to all of you for joining us today. Look forward to our next couple webinars, and for more information on learning collaborative coming soon.

Joe Zickafoose:

All right. Thank you all very much. Have a great day and stay safe.

Scott Tomar:

Thank you.

[End of Audio - 01:01:45]