

Conference Title: Immunizations

Moderator: Teresa McDonnell

Presenter: Tom McCleaf

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Teresa McDonnell: Good morning, everyone. We are going to go ahead and get started. We will have some people joining us. My name is Teresa McDonnell. I am the Outreach Operations Manager with the Pennsylvania Enrollment Assistance Program. Welcome to the Pennsylvania Enrollment Services Webinar Series. Today's webinar is on immunizations. Thank you for attending.

Before we begin, please know that the phones have been muted. If you have any questions, please type them directly into the chat box at the bottom right-hand side of your screen and we'll answer them at the end of the presentation. This call is being recorded. The slides and other related materials will be posted on www.enrollnow.net. And the slides will also be available after the webinar for download on the survey link that you receive. For those of you who have received the reminder email this morning, it also had the attachment of the presentation.

Now let's get started with the webinar. Our presenter today is Tom McCleaf. Tom is the Director at the Bureau of Immunizations within the Department of Health. He has worked for the Pennsylvania Department of Health for 14 years. For the last 2-1/2 years, he has served as the Director of the Health Department's Division of Immunizations.

We are very happy he could join us today to talk with us about this important topic. I will now turn it over to you, Tom.

Tom McCleaf: Good morning. Thank you very much. I hope everyone's having a great day and hopefully finding a way to stay warm on this very cold Pennsylvania day. Although, I hear tomorrow may be even colder.

So I'm excited to talk about the topic of immunizations and what we do here with the Immunization Program at the Pennsylvania Department of Health. It's actually a pretty broad subject, so I did want to narrow it down to a few key things both just to give a very general overview of the Immunization Program that we have here as well as storage and handling procedures, best practices for that. And then talking about what's actually going on out in the field; so the school immunization data we have and ongoing outbreaks throughout the state.

So with that, I'll go through the first slide here. The formal name of our group that we have through a CDC grant is the "Immunizations and Vaccines for Children Program". This is a federal grant award that the Department of Health gets. And I would point out that we cover 66 counties in the state of Pennsylvania because Philadelphia County is its own awardee. So there's actually 64 awardees across the United States from CDC and that includes island nations, Washington, D.C. and some cities that are broken out including Chicago, Houston, San Antonio and Philadelphia.

The impact for us here is that we do work with the Philadelphia program a lot. There's some areas where our program covers the state entirely because it's through the state Department of Health but there are areas where Philadelphia is an independent awardee from CDC.

A little overview of VFC which is again the Vaccines for Children Program. The Pennsylvania Department of Health has its Vaccines for Children Program which provides vaccines to children who do not have health insurance. Children who are insured but whose insurance does not cover their immunizations which is what we would consider underinsured are also eligible to receive these federally funded vaccines at the public sites which would include FQHCs (Federally Qualified Health Centers) and Rural Health Centers.

The goal of this federally funded program is to improve vaccine availability nationwide by providing vaccines at no cost to the VFC eligible children through both public and private providers. And at

any given point in a given year, again the Pennsylvania program being just the 66 counties, we have approximately 13 to 1,400 providers at any given time across the state. Now the City of Philadelphia that awarder, the County of Philadelphia, they have about 250 if I'm remembering correctly. So the full network across the state of Pennsylvania that would be about 16 or 1,700 providers.

Again the VFC supplies federal purchases vaccines free of charge to vaccinate and immunize the eligible children in public and private practices. Approximately 60% of US children could benefit from the VFC Program in one way or the other. So it is a very good program that covers a lot of the citizens. The vaccine is provided for anyone from birth through age 18, so up to the day before their 19th birthday. Someone would be eligible then for VFC if they meet the eligibility criteria.

And we're not just about the Vaccines for Children, of course, we also have several other programs that cover adults, adolescents as well as birth doses. For birth doses that would be the perinatal Hep B dose which needs to be given immediately following birth within the first 28 to 48 hours. So that would also be include through a program we call "Tot Tracks" which again would provide them free vaccine to the babies that need that.

Some examples of adolescents and adults that benefit from this, I'm not sure if anyone's familiar with the Pennsylvania Farm Show. The Department of Health has a booth there every year and we're known to have a free flu vaccine booth as part of the Department of Health booth every year. We give out approximately 2,500 doses of flu vaccines at that PA Farm Show on an annual basis.

Vaccines are available in those routine cases then but also through emergency preparedness situations. And we actually do a lot of practicing for that to make sure that when emergency situations happen, we are fully ready to go. Examples of when this has happened in the past actually if anyone remembers back to the H1N1 emergency a number of years back, we were heavily drawn upon at that point to assist with vaccine distribution at that time.

So I did want to cover with everybody some best practices again for vaccines storage and handling. So I'll start with that part now. Proper vaccine storage and handling is an important factor in preventing and eradicating vaccine-preventable diseases or VPDs. Proper storage and handling can result in nonviable vaccines which would result in patient revaccination being necessary, damage to the public's confidence in vaccines and significant financial losses.

Patients refusing vaccination would not be protected from disease and one concern that we have as well as if someone receives a dose and would require to be revaccinated and not get it and not be aware of it, they may then go through life assuming they have immunity but in reality do not. And then may put themselves in situations where they would not be protected but they assume they are.

On the financial aspect of it, it again points to if revaccination is necessary, insurance may not want to cover it so maybe an out of pocket expense. The whole issue with vaccine hesitancy and people being anti-vaccines, if vaccines weren't stored properly which leads to revaccination situations or other problems, it again, it decays the public's perception of the confidence that they would have in their vaccines.

So we want to make sure to store vaccines properly at all times. It's important to have one person designated and responsible for storing and handling vaccines and that they are properly trained. It's also very critical to have a backup for that person if they were unavailable. You need someone reliable then to cover for them as well. It's important to note the maximum and miniature temperatures that would be on a daily basis. Make sure everything is properly handled in a refrigerator or freezer. Some vaccines are refrigerated. Others are kept in the freezer. And just proper storage in general is very critical.

I'll go into that a little further here then. So one thing we'll talk about is the vaccine cold chain. That's not referring to the temperature outside, of course, which is very cold. But this is the cold chain of vaccines. Basically it's important that from when it's manufactured there when it's distributed, actually arrives at the provider facility when it stored and handled there up until the point of administration that the cold chain is maintained throughout. Vaccine quality is a shared responsibility from the time of manufacturing until the time of administration. Too much exposure to heat, cold or even slight at any step in the cold chain and damage the vaccine resulting in the loss of its potency.

The appearance of the vaccine is not an indicator that has been stored properly. You can look at a vaccine that's been stored perfectly in one it's been stored improperly, and they may appear identical. So visualization is not a good indicator of it. So it's critical to maintain the cold chain. This vaccine cold chain is a temperature-controlled environment used to maintain and distributed at optimal conditions throughout the process up until administration.

And again, an effective cold chain relies on well-trained staff, reliable equipment and monitoring equipment is accurate vaccine inventory and management. And what we talk about equipment, it would be both the materials for transport, storage and handling on-site, the refrigerator, the freezer as well as the equipment that's used to monitor the temperatures via a digital thermometer or what's termed a digital data logger.

And some of this equipment some people may have concerns can be expensive but to counter that I would say that if someone walks by and kicked the plug out of your refrigerator where you store your vaccines and all that vaccine has to be wasted. You could be talking about tens of hundreds of thousands of dollars of vaccines in that. So making sure to have the proper equipment and to always monitor and keep it in perfect working order is critical for that reason. It's a great investment because there is a lot of expense vaccine being stored on-house there.

Some best practices to cover, designated primary and a backup at the facility, oversee proper receipt and sort of vaccine delivery. One thing I would point out is that we actually do not have vaccine deliveries. Someone must either be there for it. It's not simply like an Amazon product or something like that being delivered. Someone has to sign for it and make sure that they take ownership then of the vaccine when it arrives. A lot of times we'll have our shipments come out to a provider site and if no one is there to sign for it, it will have to be taken back, again maintaining the cold chain. And then they'll contact staff here and say, you know, no one was there. Can we verify their hours? Because someone needs to be there to sign for it and maintain the cold chain. Get it into the fridge or freezer to keep that going then at that point.

You want to organize the vaccine within the storage unit properly. And I have some pictures of that coming up and will show how that's laid out then. Set up and maintain your temperature monitoring devices, again via a thermometer or a digital data logger. And I will note that CDC, effective the beginning 2018, has now mandated that digital data loggers be used. They are a bit pricier, of course, than standard thermometers but they do a lot more. Some of them even high-end models will send you a text, an alert or an email that your temperature is out of range or the sound alarms, things like that. So they do a lot more. And they are a continuous temperature monitoring device versus a thermometer which you can only see when you look at it at the time.

You want to check, and record your maximum and minimum temperatures at least once a day. Twice a day is preferred. Respond to any temperature excursions outside the acceptable range and the manufacturer's will make it known to you on a vaccine by vaccine basis what is the proper storage ranges for those. Again, properly order your vaccine and maintain all documentation both for the vaccines themselves and for the equipment. And something like a digital data logger needs recalibrated on an annual or biannual basis. So you want to keep all that information as well.

Additional points on vaccine storage and handling, vaccines should always be stored in the original packaging as light will cause a loss of vaccine potency. A lot of the high-end fridges you'll see are

the fridges specifically for pharmaceutical grade for storing vaccines will actually have open glass doors. So you want to keep the product in its original packaging and protected from the light.

And the reason you prefer an open indoor like that, a glass door that you can see through this you can easily see your vaccine without having to open the fridge door. A lot of times constantly opening and closing the refrigerator door if it's not to actually take the vaccine out will cause the temperature to change then. So you want to minimize that with see-through door. But also been keeping everything in its original packaging.

Food and beverages should never be stored in a unit with the vaccine. Now the one exception to that is placing water bottles on the top shelf on the floor in the door racks. Water bottles actually if properly set up will actually help maintain a steady temperature at the center of the unit which is where you'd want to be storing your vaccine product then.

When possible, you want to store the dilutant with the corresponding vaccine. And store each in a labeled container and again I'll have a couple pictures coming up here that will show that then. One other point I'll make is if other medications and biological products must be stored in the same unit as the vaccines, you'd never want to store these in the same container with the vaccines. You want to make sure everything is kept separate so you can monitor it but also then not to confuse what product you're looking at.

So here you see some pictures of power supply stickers that will be put around then. The one of the left is a sticker that you would post to say, you know, do not unplug. These warning signs would be at the outlets on storage units to alert staff not to unplug a unit. You don't want to quickly unplug the fridge and roll it somewhere else or something like that. Because once you do, the temperature is going to start to change and the vaccine could be wasted then.

You'd also want to label fuses and circuit breakers to alert staff or contractors not to alter the power supply. The issue with that, you might have a contractor working on the electrical or something like that and they might flip the breaker. In which case, the fridge is going to now be no longer running and the temperature is going to change.

It's ideally a best practice to only plug in one storage unit per outlet to avoid creating a fire hazard or triggering a safety switch flipping. It would turn off the power to your unit. It is also a best practice to use the safety lock plug at an outlet cover to prevent it from being unplugged accidentally. Extension cords and power strips are definitely not something that should be permitted.

Some best practices in vaccine storage. You want to place your vaccines in the center of the refrigerator. Again inside designated storage trays positioned two to three inches from the walls. This would be the space where the temperature would fluctuate the least. If your space is limited you want to label your shelves for each vaccine and arrange your trays in a neat orderly manner without the storage tray. To reduce errors, do not place similar looking vaccines next to each other in the storage unit. I would also say you don't want to place anything with similar sounding names.

One example would be something like DTAP for children or TDAP for teens and above. TDAP and DTAP their names sound very similar and if you go to grab one it could be very simple to kind of make a mistake on that. So you want those, you know, at opposite corners as far away as possible.

You also want to avoid storing on the top shelf near the cooler vent itself. This is the location that is likely to see the maximum allotted temperature during power outages. So it is best practice to not use that area then.

So here you see a picture of what we refer to then as a best practice set up of the refrigerator. You can see the vaccines are in trays that are clearly labeled. There are the water bottles in there.

These are water jugs that say do not drink because again anything that is stored in here you don't want food, beverages, things like that.

There is water there but it is not there for the purpose of drinking water. It is there to help regulate and maintain a steady temperature throughout the fridge. You can also see that each of the containers are moved apart from each other. And they are kept on the shelf more towards the center.

On the right there is also a picture then of one of the pharmaceutical grade refrigerators that I had mentioned earlier which would be a best option if available. And again it has the see through door so you don't need to open the door except when you are actually taking the vaccine out. But you can still see everything inside that you would be working with.

This again then is another picture then of a best practice set up of both a refrigerator, a freezer unit and then a combination refrigerator/freezer. One point you will see the top there they have X-ed out the freezer unit on a combo fridge/freezer. And that is because no vaccine should be stored in the freezer component of a combination unit.

So again you can see the picture there shows the temperature areas. Shows that the vaccine is not stored near the vents. The water bottles are stored in the door and on the bottom and the top shelf. And there is enough distance from the sides as well.

This next one is kind of an example of two things. Both when a vaccine is expired and of the difference between vaccines. It is actually not meant to be a picture but you can see on the left and on the right bin, the vaccines look very similar and you can say that one is out of range and it should be wasted but the other one is actually good viable condition.

Again so visualization is not an indicator that the vaccine is still good and viable. It is just a point though that when a vaccine says it is expired on 8/16/19 you can use it up to and including 8/16/19. But the day after you should no longer use it.

Now if vaccine would say 8/19 you can use that through August 31, 2019. But then starting September 1st not use it. So again it is critical to only use vaccine until when it is – before it is expired. If you have any questions or concerns with this definitely reach out to the manufacturer and they can assist you then.

This I will just mention briefly. Again I believe you are going to have the slideshow saved for you then and available to you so you will be able to – don't have to write these down now but you will be able to get to these links then. These are additional great resources. CDC has some excellent resources actually on storage and handling. And keys to both videos, tutorial Webinars you can take. Things of that nature.

And the IAC, the Immunization Action Coalition also has a lot of things on that as well. There is also a course called the Pink Book that CDC puts out and it has a chapter as well on proper storage and handling. It also has a chapter both through the Pink Book and then the Pink Book online training course on each type of vaccine that is available. I also have the address there for the Pennsylvania Immunization Program. If you would like to look through our materials further.

At this time I did want to cover again the statistics a little bit more. I want to start off with the school stuff and the cover ongoing outbreaks that we have going on here in the state. To start with the school stuff I will just say we did change the school regulations several years back. This went through it was vetted thoroughly and went through the legislative process. It took effect starting with the 2017-2018 school year.

And on the screen there I highlight some of the changes that went into effect. Probably the biggest one that kind of was a shock for people to adapt to the first year out was reducing the provisional period from eight months which is practically the entire school year to five days. Some people expressed concerned with the five days but that is what the regulations had to be changed to. So once that went into effect it is what we had to abide by. So that was a big change.

Another was clarifying the polio four doses. Adding a dose of MCV for 12th grade. And on that point prior to these changes going into effect we actually only collected kindergarten and 7th grade information. But now starting with the '17-'18 school year we also began having the schools collect kindergarten, 7th grade and 12th grade.

We also locked in the identifying period to December 1st to 31st. So across the state, all of the school districts will be reporting their information to us annually December 1st through 31st. And it is really important for us to kind of have that locked in time period. In years past, the time period for one reason or another would shift from time to time. What was collected would shift from year to year. It made it very hard for us to kind of look at trends across time because you weren't talking apples to apples. Now you were talking apples to oranges to grapes to lemons every year. So you couldn't say, you know, in this county we are looking at this rate and you know here is the trend over the last three or four years.

So starting with the '17-'18 year we really have locked in the times when we collected data, what data we collect and everything is very consistent. One thing to keep in mind with that though is while it is now apples to apples I kind of say it is kind of Granny Smith to McIntosh apples. Because the kindergarten data we collected last year, the kindergarten data we collect this year, the kindergarten data we collect next year are not completely synonymous because of course it is a different kindergarten class every year.

So it is just a much better visualization of where things are then trending through time. And I am going to show you some of the numbers here on the next few slides. One last point before I get into that though is the new regulations again were finalized in March of 2017. They were published in the Pennsylvania bulletin to become official at that time and they went into effect August 1, 2017.

So last school year was actually the first year where we had that. So now we are two years in and keep moving along here. Now we are actually collecting our third year of data with this year here 2019-2020 school year.

So with that I am able to then show you these trends and how these changes have occurred. So I will start off with kindergarten. So you see here kindergarten data for the State of Pennsylvania for the 2016-'17 school year, '17-'18 and '18-'19. And again we are now collecting as we speak the '19-'20, 2019-2020 data so we would have that available as well.

So some things you can notice then is with the change in the regulations starting with the 2017-2018 school year. A lot of the rates actually went up so it had a very positive effect which we were very happy to see. As an example there, DTAP went from 94.8 up to 97 and then 96.6 so actually saw and I think a nice increase there.

Polio is a bit of an anomaly that it was already very high and has kind of actually dropped a little bit. One that we are really happy about because of all the outbreaks around the state is MMR. You see there it went 93.7 up to 96.8 to 96.4. So it actually had a nice jump there. As did the Hepatitis B and the Varicella.

I will point out then also the 7th grade data which you can see there. Again 2016-2017, '17-'18 and '18-'19. And again you will notice for some of these you actually notice the jump. Not too much again because by 7th grade a lot of people actually have properly, gotten their immunizations. So they are up to date on a lot of things.

So you are not going to notice there nearly as much. The DTAP, Polio, MMR and Hep B and Varicella which is something you would start before kindergarten. And by the 7th grade they are already very high.

So now the rates have kind of stayed consistent there across the board which is good. But you will notice the TDAP and the Meningococcal the MCV had actually jumped quite a bit from the mid-80s to the mid-90s which is great to see.

I don't have on here anything for the 12th grade because again we just started collecting it relatively recently. But I would point out that the 12th grade data is very promising as well. We actually have some rates in the very high 90%. As an example, Polio having four doses or more actually has about a 98% coverage rate for immunity across the state. Something like DTAP is 98.1%. MMR, measles, mumps, rubella is 98.3%. So it is well above the – what we call the herd immunity level and is quite high actually. Kind of across the board, the Varicella, TDAP, they are all in the very high 90s so we are really happy with that for the 12th grade.

One area of concern which I will touch on is with these change in regulations we were kind of wondering how things would go with the exemptions. So you are aware in Pennsylvania we have three types of exemptions. It includes medical exemptions but also philosophical and religious exemptions as well.

So those are the three types that I break down there both by kindergarten and 7th grade. So while the rates have gone up for the coverage rates we have noticed unfortunately that the exemptions have gone up as well.

In kindergarten you will see there the medical exemptions. As you expect nothing changed for someone who qualified for a medical exemption. It stayed pretty level at 0.4, 0.5, 0.4. Same would be true with the 7th graders, 0.7, 0.8, 0.7 it stayed pretty level.

But then the religious and philosophical exemptions we did notice upticks after the new regulations went into effect. You see with the religious for kindergarten it went from 0.9 to 1.1 and 1.2. And for 7th grade from 1.1 to 1.4, 1.5. Maybe a little bit more alarming is the philosophical as well went up with 1.0 to 1.2 and 1.3. And then for 7th grade from 1.8 up to 2.1 and 2.0.

So there were increases in the exemptions people were taking. So it is something, you know, we are keeping an eye on and seeing if there are ways to kind of move that, you know, as best possible. People are of course entitled to select these exemptions. By the regulations everyone is entitled to that.

So we don't have an issue with that per se. But it is something that we are the department hopefully want to keep an eye on. Because again the more people that get vaccinated and have immunity, the better for their health and the health of everyone around them as well.

I did mention before about the MMR because that is probably in the papers, in the news, the things you will hear about them most are the measles and mumps outbreaks. Of course MMR, the measles, mumps, rubella covers that.

The mumps outbreaks while they have been numerous across the state haven't probably got nearly as much news as the measles outbreaks have. Probably the biggest mumps outbreaks anyone might have heard about would be at Temple. Temple University last school year had quite a large mumps outbreak and it was in the news quite a bit.

But measles has kind of been the one that is the popular one. I guess that is not the best way to say it but the more talked about, the more hot topic news coverage area.

So this chart then shows measles for the United States over the last ten years. And you'll see that in 2019 we have quite a large spike, up to 1,250 cases through the beginning of October. So the year's not even over at that point. You know, there's still three months to go and the number was at 1,250. And you can see how that compares to years past with 2014 being the anomaly because of certain outbreaks that a few of you may know about that happened in that year.

But it's not dramatic. And we're talking typically about 100, 200, 300 cases a year across the country. But here in 2019 we've had quite a large spike, up to, you know, 1,250 at this point. And CDC has noted that it will be putting out monthly numbers moving forward then at this point because it has kind of waned thank goodness.

This breakdown then shows the United States rates. And again does show that drop off, which we're very happy to see. Again there's kind of a spike there at the beginning of the year with the measles cases reported.

And if you went back to the previous slide you'll see here in the month of March, April that is close number to what we saw in years past, were now happening in the period of weeks in the country. These were primarily concentrated in the New York City, New York State area amongst a certain population subgroup up there. Majority of these cases were imported as well.

I did want to touch on the PA cases. Through this point in 2019, through the beginning of November, we have had 16 measles cases in PA. So we're not ourselves hit too hard by the outbreak of course. But it is a much higher rate than we would expect to see in Pennsylvania. In Pennsylvania in a given year we see four to five measles cases a year.

So having had 16 cases already this year we're looking at about 3 to 4 times a typical year will probably be occurring this year. So again we're used to seeing three, four, five cases. We've had 16. So it is alarming and a lot of staff at the department have helped get involved in making sure these cases are minimized as much as possible.

Again most of these cases if not all have been imported from other countries or other parts of the country. So they're not homegrown per se. But they all have had quick action from staff and it's really minimized the spread of that amongst Pennsylvanians which is really good to know then.

Another outbreak which has been going on which I did want to touch on is the Hepatitis A outbreak. This has been going on nationally across the country since the start of 2017. And since the start of the outbreaks there's been over 27,000 people across the United States who've had Hepatitis A infections. This has resulted in over 16,000 hospitalizations and through the most recent statistics approximately 275 deaths have occurred across the United States due to the Hepatitis A outbreak.

The people who are affected by it the most are - and what CDC classifies as the outbreak groups are homeless, drug use and especially IV drug use populations and MSM which is men who have sex with men. So these populations are the most affected by the outbreak and would be what's considered the outbreak definition.

It's interesting to note that the outbreaks tended to start in 2017 in the California area both, San Diego and other areas near that. But as you see there in grey, California now through its efforts is actually been able to say that its outbreak is officially over.

But the outbreak has been moving through the rest of the country. It is a very migrant, transient kind of infection. You see on the map there, Kentucky and a lot of the Appalachian areas have been hit pretty hard by it. And Pennsylvania has as well. And I'll go to the next slide in a second to kind of show you the Pennsylvania numbers.

But one thing I did want to touch on was just the number of people that are affected by this. We are seeing a lot of the same cases here that have been seen across the country with the homeless, drug use and MSM population. One thing to keep in mind too with the homeless, it's not necessarily the classic I guess you would call it definition of a homeless person of a person living on the street, you know, something like that. While that population is affected it's more of actually might be considered like a couch surfer type.

So someone who doesn't have a permanent address to call their home may be sleeping on a friend's couch, something like that. And a lot of these are comorbidities so it might be someone like that who then goes to a party where there's IV drug use and spreads it around.

So there have been a lot of outreach efforts to fight this. Unfortunately a lot of them in other states have not been very effective like Indiana, Ohio. But Pennsylvania has been trying a lot of outreach as well to prevent this. And hopefully if it doesn't prevent it, it will at least minimize it.

So this map shows Pennsylvania with the current information. And as you can see on here the data shows the Southeast has been the heavily – most heavily affected part of this. The City of Philadelphia actually has been hit the hardest of all. And in the news you might've heard about the Kensington area. It's a known area where there's a lot of homeless population, drug use population. It's definitely been the area with the most outreach. But it's also been the area hit the hardest by this then.

At this point through Pennsylvania we've seen approximately 645 cases of Hepatitis A. This has resulted in approximately 495 hospitalizations which is a 77% rate which is very high. And there – through today with our outbreak we've had nine deaths caused by the Hepatitis A outbreak across Pennsylvania.

To put this in perspective for you in Pennsylvania in the decade approximately before the outbreak reached us we'd see about 59, 60, 61 cases a year on average. So now we're seeing 645. So we're looking at 10 or 11 times our typical amount of Hepatitis A.

It has been noted that the numbers have been dropping in recent weeks, which is promising. But our epidemiologists think it may just be something like a hibernation with winter coming, the means of spreading it has stopped. So they're not able to say yet or not if we're seeing the end of the outbreak here. But even in our best weeks we're still having 10, 15 cases a week which is several months' worth in a good year. So even though it's better than it's been it's still a major problem amongst the state.

So I'd end by saying that's probably the biggest concerns we have is getting the vaccine out to the people as best possible, utilizing these programs that are available. And preventing these outbreaks which again we have numerous ones we're fighting at the same time across Pennsylvania. So hopefully with these efforts we can again prevent them or when they do happen minimize them as much as possible.

And with that, that's the last slide I have. But I'd be definitely willing to take any questions or any discussion points that anyone wanted to go over. I'd be happy to do that. You see on there the contact information for the Pennsylvania Department of Health 1-877-PA-HEALTH. And when you call that actually the number knows where you're calling from based on your area code and will link you to our State Health Centers and District Offices closest to you so you're not just always automatically routed to one receptionist in Harrisburg.

And I also put on there the number for the Division of Immunizations. That's our direct dial number so if there's any questions or concerns or anyone wants to talk to the staff here about a particular topic, they can call that number there and be routed to the person best able to help them.

But again I'd like to thank everyone for your attention and listening and be happy to take any questions.

Teresa McDonnell: Tom we'll give it a minute or two to see if anyone has any questions coming in.

Okay well I'm not seeing any questions come in. If you have any questions that you don't get answered that you think about as soon as you hang up please email me at Teresa S. McDonnell. That's T-E-R-E-S-A, S as in Sam, M-C-D-O-N-N-E-L-L @maximus.com and we will get those answered for you.

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For more information about our Upcoming Webinar Series for 2020 we will be posting that at the end of the year. Please visit www.enrollnow.net, under the heading of Meetings and News.

Thank you again Tom for conducting this wonderful webinar. Thank you everyone for your participation today and have a great day.

Tom McCleaf: Thank you. Teresa are you still on?

Teresa McDonnell: I am still on.

Tom McCleaf: I did see someone just send a question at the very end asking about exemptions. I'm not sure if everyone can still hear or it's just us.

Teresa McDonnell: It looks like there's a few, about 12 people on. I can also include it in the Minutes when I send out the transcript. Yes. I did see that come in right as we were concluding.

Question: So children that have the exemptions are allowed in school with no immunizations?

Tom McCleaf: They are. If someone has a medical or philosophical or religious exemption they're allocated in school without their immunizations. However if a medical or not a medical, I'm sorry. If an emergency situation would come up then the school would be able to exclude them. So they risk exclusion then if they are not immunized.

So as an example there's a school district in Eastern Pennsylvania right now that has mumps cases amongst teachers and students. And so the students who are not immunized are actually being excluded. So that would actually be the case then. When everything is fine and no one is – there's no health concerns, yes, they're allowed to be in school. But whenever there'd be a health concern then yes, they would be excluded then.

The school, you know, may also take other measures. But that's typically what they'll do then, they would exclude them at that time then.

Teresa McDonnell: Okay great, good to know.

Tom McCleaf: And one other point I would make on that I guess and I don't know. If you say it's going to be in the transcript then or if anyone is still on and hearing, I mean, you know, with schools or other places like that they have to follow that.

But the private business could choose its own rules. We've had questions come in about that where like a college or university, there might be a nursing school that requires their students to be vaccinated. If that's their choice then, then the person cannot attend. So someone who wants to

say go to nursing school must have certain vaccinations, must have history of that and proof of that immunization.

So if that would be the case, then they couldn't attend. It's a private organization. I guess my point on that would be that people have the right, they're completely able to elect to decline immunization. But then the places they may want to go are equally within their rights to say that's fine but you can't attend here. Schools of course don't have that except during the health situations that I mentioned.

Teresa McDonnell: Okay. Great, well I will make sure that I get that out to everyone.

Tom McCleaf: Okay great. And you have my contact information so I mean if you have any follow-up questions or anything like that in the days or weeks to come that people based on this have follow-up questions, I'd be happy to draft answers back to you then to provide to them.

Teresa McDonnell: Okay wonderful. Well thank you so much Tom.

Tom McCleaf: Thank you. Yes. It was a great experience. Thank you. I appreciate it.

Teresa McDonnell: And have a great day. And I'll be sending you information then on the webinar.

Tom McCleaf: Great, thank you very much. I appreciate it. Have a great day.

Teresa McDonnell: You too. Thanks.

Tom McCleaf: Bye.

Teresa McDonnell: Bye-bye.