

Deciding Who to Vaccinate and Storage and Handling Webinar Transcript

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Access the webinar recording at [Deciding Who to Vaccinate and Storage and Handling \(https://minnesota.webex.com/minnesota/ldr.php?RCID=ca784bfc705967d1c69677fe93d071d2\)](https://minnesota.webex.com/minnesota/ldr.php?RCID=ca784bfc705967d1c69677fe93d071d2).

Good afternoon, everyone and welcome to the second, session of the immunizations in long-term care facilities webinar series. Today's topic, topics plural are deciding who to vaccinate and storage and handling of vaccination. I am Tracy Schultz, and it will be moderating the call for today.

Just a couple of quick housekeeping issues before we get started. Um, just like last week, we are going to utilize the Q and A box to answer all questions. So, if you have a question, please use the Q and A. To find a Q and A box, go to the lower right corner of your screen and there's three dots next to the chat option, some people call them ellipses. Click on those ellipses for more features and you should be able to load the Q and A box on your screen. Um, we may address some of the questions directly in the Q, and A, others may be answered out loud during the question-and-answer section at the end of this call. All website URLs that are presented by our speakers will be put into the chat. So, if you're looking for a link to a website that has referenced as a resource, look for those in the chat, they will also be shared after the call when we post the recording and transcript of the recording on our website. And all URLs will be within that recording transcript. At the end of this session, prior to the Q and A session, we will also provide a survey link in the chat and this link after you complete the quick five question survey, you will receive one continuing education unit certificate for today. Again, this session is being recorded and recording and the transcript, transcripts will be provided after today's call on the immunizations and long-term care facilities website I will also put that link to that page for you in the chat [Immunizations in Long-term Care Facilities \(www.health.state.mn.us/people/immunize/hcp/ltc.html\)](http://www.health.state.mn.us/people/immunize/hcp/ltc.html). Also, on that page you will find, if you have not looked already, the link to the recording from last week's call. So, last week's call, the one that occurred on February 14, the recording is posted with the transcript as well as the link to the survey to obtain a. Please note that slides will not be shared. We will not be sharing the actual slides for this call, but you will have access to the recording and the transcript.

And without further ado, we're going to get into the agenda. There's a lot to discuss. So, we're going to talk about assessing immunization statuses of residents and staff, we're gonna do a little bit on hepatitis B, and then talk about the vaccine storage and handling. And then again, at the end, we will address some questions out loud, if there are any and/or they will be answered within the chat. If for some reason, your question is not addressed, we'll provide email addresses where you can send those questions at the end of today's call. All right, so we're going to hop right into it and I'm going to turn things over to Lizz Wenzel, who works with our MIIC program and she's going to talk to assessing immunization statuses of residence and staff, Lizz.

Thanks Tracy and Hi, everyone I am Lizz Wenzel, and I am the MIIC provider engagement coordinator within MDH. Now, in the first webinar we reviewed what vaccinations are recommended. So, now we'll discuss assessing the immunization status of your residence and later your staff to determine what is needed. Next slide, please.

So, long term care facilities in Minnesota, including skilled nursing facilities, and assisted living facilities are eligible to participate in the Minnesota immunization information connection also known as MIIC. MIIC is a statewide confidential system that stores electronic immunization records for clients, combining a person's immunizations into a single record even if the vaccines were given by different health care providers across Minnesota. Long term care facilities can use MIIC to support their immunization practice. With MIIC, you can look up a residence immunization history, reference the forecaster as a starting point for identifying recommended vaccinations for residents and report any vaccines your organization administers. Additional functionality within MIIC allows you to monitor immunization weights. The image on the right of the screen here is an example of a client's record within MIIC with the immunization history in the top portion, and the clinical decision support tool on the bottom, which forecast recommended vaccines for this client based on their age and immunization history. Data privacy and security are important, provider organizations, including long term care facilities can only look up immunization histories for individuals they provide services to. In practice, this means you can assess the immunization history for residents of your facility, but not staff. And so, we're going to touch on resources for assessing staff immunization history in a short bit here. But if your facility is not yet participated in MIIC, and you'd like to enroll or learn more, can visit our webpage here, [Participating in MIIC \(www.health.state.mn.us/people/immunize/miic/participate/index.html\)](http://www.health.state.mn.us/people/immunize/miic/participate/index.html) or email the MIIC helpdesk health.miichelp@state.mn.us. Participating facilities can reference our user guides to learn more about searching for and interpreting records and we host webinars twice a year that we can walk users through step by step, how to look up residents or any of the other MIIC functionality [Client Search and Printing Immunization Records \(www.health.state.mn.us/people/immunize/miic/train/clientsearch.html\)](http://www.health.state.mn.us/people/immunize/miic/train/clientsearch.html), [Interpreting a MIIC Vaccination Record \(www.health.state.mn.us/people/immunize/miic/train/interpret.html\)](http://www.health.state.mn.us/people/immunize/miic/train/interpret.html). Next slide.

So, a couple of things to know about looking up residents' immunization records and MIIC. So, MIIC was established in 2002 and as such MIIC immunization records for adults may be incomplete. For example, adults who may have received vaccinations in childhood or pre-2002, those immunization records may not be in MIIC. Additionally, your client may have multiple records in MIIC, if they've ever gone by a different name. So, make sure to search for your client by all known names, including nicknames or maiden names and if you do find multiple records for your client, go ahead, and send those MIIC IDs to the MIIC help desk, and we can take care of merging those records into one so that it's back down to one record for your client. Another thing to note is that immunizations administered outside of Minnesota, or those administered prior to 2002 may not be in MIIC. And so, to obtain record of some of those immunizations you or your client can request immunization records from all previous healthcare providers that your clients saw or contact schools, or colleges, or clients attended, or contact a previous employer in the case of any employer sponsored vaccine clinics. MIIC is Minnesota's immunization information system also known as an IIS and other states have their own IIS. So, if your client has ever received immunizations from outside of Minnesota, you can contact that state's IIS using the contacts provided by the CDC and they can help share that information back to you. Anytime you obtain a record of an immunization that your client received, and the immunization is not yet in MIIC, you are strongly encouraged to report that immunization to MIIC. Having more complete immunization data in MIIC helps ensure your client will receive the right immunizations at the right time in the future [CDC: Contacts for Immunization Records \(www.cdc.gov/vaccines/programs/iis/contacts-locate-records.html\)](http://www.cdc.gov/vaccines/programs/iis/contacts-locate-records.html),

Capturing Immunizations Not Currently in MIIC

www.health.state.mn.us/people/immunize/miic/train/captimm.pdf). Next slide.

MIIC does have additional functionality that allows you to assess immunization rates amongst residents within your facility. These aggregate reports can be used to monitor vaccination trends. To get started, you can create a list of all your residents and then use that list to generate an assessment report. An example of the assessment report is shown on the screen to the right here and please know, work is underway to update this assessment report to better reflect those current adult immunization recommendations [How to Use Lists in MIIC](http://www.health.state.mn.us/people/immunize/miic/train/uselists.html)

www.health.state.mn.us/people/immunize/miic/train/uselists.html), [Immunization Assessment](http://www.health.state.mn.us/people/immunize/miic/train/assess.html) www.health.state.mn.us/people/immunize/miic/train/assess.html). Next slide.

So, hopefully, but now you're thinking, wow, I cannot wait to go learn more about MIIC. It sounds like a great tool to use to assess the immunization status of our residents. What about our staff? So, who can use MIIC and for what purpose is informed by Minnesota's immunization data sharing law and the data use agreement for participating in MIIC. MIIC participating organizations are allowed to access MIIC records of people to whom they provide services. Accessing and employee's immunization history for employment verification or any other purposes is not an allowable use of MIIC under the MIIC data use agreement. Nor is such access authorized without consent under Minnesota's immunization data sharing law. Staff can obtain a copy of their immunization record to share with their employer. They have the option to contact their health care provider to request records or staff can access to their own MIIC record in one of two ways. The first is by downloading a mobile app called docket. The second is to submit a record request to the MIIC team at MDH. We're going to touch a bit more on each of these in the next slides, but you can also find detailed information on the find my immunization record webpage listed here [Find My Immunization Record](http://www.health.state.mn.us/people/immunize/miic/records.html)

www.health.state.mn.us/people/immunize/miic/records.html). Next slide.

All right so we said that first way is for staff to download the docket app [Docket \(https://docket.care/\)](https://docket.care/). Docket gives Minnesotans with a MIIC record an option to securely access their, or their child's immunization history in MIIC through a mobile app. This app can be used to view immunization records within the app, check what vaccines you may be due for now or those you may need in the future as well as share a PDF copy of your immunization record. And there's a couple screenshots of what that Docket app looks like shown on the right hand of the screen here. Next slide.

To get started with using Docket, you can download the free app from the Apple App Store, or Google Play, or you can go directly to Dockets website and download the app securely through there. You can learn more at the docket and MIIC immunization records webpage or access a one page PDF that outlines the three easy steps to access your immunization records within docket [Docket and MIIC Immunization Records](http://www.health.state.mn.us/people/immunize/miic/docket.html) www.health.state.mn.us/people/immunize/miic/docket.html), [How to Use Docket to Access Your or Your Family's MIIC Immunization Record](http://www.health.state.mn.us/people/immunize/miic/dockettip.pdf) www.health.state.mn.us/people/immunize/miic/dockettip.pdf). And then an example of what that PDF looks like is shown here. Next slide.

That other option, that second option for staff, is to request a PDF version of their MIIC record by submitting a MIIC immunization record request online. An example of the PDF report is displayed to the right and that PDF contains your immunization history, as known to MIIC, along with a list of immunizations that you may be due for. For more information about submitting a record request to

MIIC, including reviewing an FAQ document, you can visit the link here on the screen [MIIC Immunization Record Request \(https://redcap.health.state.mn.us/redcap/surveys/?s=FPMPPRFAWF\)](https://redcap.health.state.mn.us/redcap/surveys/?s=FPMPPRFAWF). Next slide.

One other resource we wanted to share with you all is the MIIC employee flu and covid-19 vaccination verification program. Now, this program allows MDH to collect consent to share flu and covid-19 immunization information with a person's employer. Employers must complete a short registration process to enroll in the program. Once approved the employer receives a link to the consent form that the employer can then share with all of their employees. Employees who wish to participate can complete the online consent form, which authorizes MDH to share flu and covid-19 immunization information back to their employer. After an employee consents the flu and covid-19 immunization information from their MIIC record is included in a report that the employer can then download from a secure application [Submit a Record Request to MIIC \(www.health.state.mn.us/people/immunize/miic/request.html\)](http://www.health.state.mn.us/people/immunize/miic/request.html). An employee's consent is time bound and once that consent form expires the employee's immunization information will not be included in the report available to the employer, unless that employee signs, another consent form. If you have any questions about this program, or would like to enroll, please email the MIIC employee vaccination verification program team, and we can help you out with that health.employervaccrequest@state.mn.us. And now I'm actually going to turn it on over to Caitlyn.

Good afternoon, my name is Caitlin Stehlin and I'm one of the clinical nurses in education and partnerships unit here at MDH. So, in webinar one, we talked about those vaccine recommendations for both adults and healthcare personnel. So, how do you know what immunizations and employee needs if they don't know what they've had? and Lizz just gave some great resources to get those immunization records. Um, for example, you can tell them about the Docket app, they can submit a MIIC request form for their immunization history, for covid-19 and flu records, maybe the employer participates in the MIIC employee verification program and records could be that way, and another option would be for them to contact their health care provider. So, once they receive those immunization records offer to review those with the employee. This is the time where you can really lay the foundation of importance of vaccination because you know what immunizations they need. Please take the time to educate, not only new employees, but current employees on the importance of staying up to date with immunizations, to not only protect themselves but also those that they care for. And now I'm going to pass it to Genny to talk about hepatitis B testing and vaccine recommendations. Thank you.

Thanks so much Caitlyn. Um, so I will be talking a little bit here about hepatitis B, uh, both testing and vaccine recommendations and focusing on both residents and staff. Um, so, if you go to the next slide or can I go to the next slide?

So, hepatitis B, vaccine and some of these. Sorry I want to take a quick step back and acknowledge that some of these recommendations are newer or have been revised over the last couple years. So, if you're feeling that this is the first time that you've heard it, that's entirely possible that it's, it's one of these newer recommendations, again there have been some changes in the last couple years here. So, hepatitis B vaccine is routinely recommended for adults between the ages of 18 to 59. So, that is definitely one of our more recent recommendations that we've seen come out at the national level. So, it is now recommended for anyone in that age group. Um, for residents that are over at that age, or, you know, under that age, really or folks who are 60+, we are looking at a recommendation that is risk based and so there we're going to focus on folks who are at higher risk of contracting hepatitis. B and I have

just a couple of those highlighted on this slide. This is not an exhaustive list, but some examples would be people who are born in regions of the world with higher disease prevalence. Um, and that's particularly going to be areas of Asia and Africa, again not an exhaustive list by any means. Individuals who are on hemodialysis would be another group or people with diabetes that's certainly a conversation to have, you know, with their health care provider, whether or not they're gonna be viewed as being at higher risk. And then I do wanna kind of point out is people with multiple sexual partners. So, that is something that sometimes gets overlooked in long term care settings, or other settings where we have a larger group of people who are living in a kind of congregate type setting. When we do see hepatitis B infections that are new infections as particularly in populations again where we see sort of this communal living, usually, that is the route of transmission, you know, especially if we've got a population that's outside the realm of being too concerned about things like pregnancy, or maybe, even having less concern whether it's warranted or not but less concern about things like STIs, sorry sexually transmitted infections. We do really want to keep in mind, you know, that that is still a risk, sexually transmitted infections and hepatitis B would be one of those. But hepatitis B is one of the few that can be prevented by vaccine. So, that's really an area to be thinking about in the realm of vaccination for residents. If we wanna do the next slide

Excuse me. So, this is an algorithm for how we determine whether or not we're going to be vaccinating. I'm sorry this is, um, whether or not, we're going to be, this says testing, but this is actually both a screening and vaccine. So, it really covers both pieces because they really do go hand in hand. If vaccine's going to be recommended, we want to make sure that the person doesn't have hepatitis B already or already have immunity. So, I'm not going to go through this in great depth, but really, just to kind of call out that there are resources when trying to figure out whether or not someone is going to be recommended to beginning hepatitis B vaccine or testing. So, this is a CDC resource and can be found, you know, if you're just Googling resources for hepatitis B vaccine and testing and we also can provide a link to that if needed. I'm going to go to the next slide.

So, continuing to kind of think about testing for residents, a newer recommendation is from CDC so recommending screening for all adults who are aged 18 and older, at least once in their lifetime. And so, this is generally not testing that an individual probably will have gotten at earlier points in their life, unless there was an indication for them to get that testing. So, some indications might be things like having noted risk factors, like multiple sexual partners or injection drug use, also all individuals who are pregnant should have been tested during pregnancy. Excuse me but that also depends on when pregnancy occurred, if it was predating some of those recommendations. So really, you know, when in doubt, you should just be offering screening or making sure that residents are able to get screened for hepatitis B by their care providers. The testing is a triple panel test and so that means that we're gonna be doing three tests for this testing. So, that includes the HBsAg, which is the hepatitis B surface antigen, the anti-HBs, which is a hepatitis B surface antibody and then the total anti-HBc, which is the hepatitis B total core antibody. So, if you're noticing that a lot of those use very similar words, you are not the only one. It is really difficult a lot of times to tell the tests apart, especially if it's not something that, you know, you're doing every single day. So, there are a lot of tools for understanding and interpreting those test results but those are the three that are recommended because it really gives a good picture of what someone's current hepatitis B status is. So, that's the one-time testing, and then for individuals who are at ongoing risk, the recommendation would be to have ongoing testing as well. Excuse me. So, a little bit of a high level of interpretation, I love to live in a black and white world when it comes from to hepatitis

that we really only have two options as we look at interpreting a test result. So, that's kind of what I focus on on this slide. But I also just want to acknowledge that there will be a lot of times where the testing comes back, and it doesn't make as much sense, or it wasn't what we were expecting to see. So, again, a lot of tools online to help interpret that, you also can always reach out to MDH and we're happy to help with interpreting test results and kind of helping to determine next steps. So, going through those three tests. The hepatitis B surface antigen, that test should be positive anyone with a current infection. And again, there's there's a little bit of a little footnotes here, but going to focus on, just sort of the high level for this slide here. The surface antibody should be positive in those with immunity. So, this is essentially a tighter test. Is somewhat immune to hepatitis B? And that can be either through previous vaccination or through previous infection. And if someone is, you know, that that immunity should be documented in MIIC so that we know that they don't need vaccine and so that's not offered to them because they have documented immunity. And then the last one, the total core antibody, that test is going to be positive in those who have current, so sorry, present, current or past infection. So, individuals who are, or have ever been infected with hepatitis B. So, together each of the tests, give us a little bit of a piece of the puzzle. And then all together really tells us the story of whether or not someone has infection, whether or not they've had infection, whether or not they're immune. It really gives us a lot of information to have those three tests done together. I'm going to go to the next slide.

So, when we jump to the world of staff, it is an OSHA requirement, which I'm not going to go into too much detail about because that is very much not my world, but the, it is an OSHA requirement that the hepatitis B vaccine series must be offered to all staff with potential for occupational exposure. And when we talk about occupational exposure, we're talking about occupational exposure to blood borne pathogens. The vaccine is not routinely recommended for those with a documented complete series. And so, this I think is another kind of gray area when it comes to the world of hepatitis B, is that you will potentially have a lot of folks who are matriculating into health care, and they have a documented vaccine series from childhood. And so, the question we often get is well, what do we do now? So we're going to get to that in the next slide in just a moment here, but also just want to call out that another piece of that OSHA requirement is that if a staff member refuses vaccine, then there is an actual, hepatitis B declinations statement and that again, OSHA, kind of things so it's found on their website, but we often get the question to, you know, well, what do I do if they, if they don't want to be vaccinated. So, there is an actual statement, and it kind of goes through the steps that should be followed by the facility of providing, you know, education and things like that around Hep B so, that person, you know, fully is able to make an educated decision on that. So, if you want to go to the next slide.

So, this is really where, you know, we kind of run into a little bit more of this gray area. So, there's always kind of this question of should we test before or after we vaccinate? Should we test it all? When do we test? How does that testing and that vaccine kind of work together to tell us a story? So, as I've said on previous slides and I will acknowledge again, hepatitis B serology is confusing. So, there's online tools for interpreting the results. And again, we're always here at MDH to go through that with you. Another piece that can be confusing is that the hepatitis B vaccine can cause a false positive surface antigen and a reminder that that surface antigen test is the test that tells us whether or not someone's infected. So, if someone's gotten vaccine, either the same day as their test, you know, before their test was done or, you know, last week or a couple weeks ago, that surface antigen test is not going to be as accurate. And if we see a positive test, it doesn't really give us all of our answers. So, you want to be

waiting to do any testing until it's been a month since the last hepatitis B vaccine dose. Otherwise, again, if you get a positive, you know, then you're kind of in that realm of wait what does this mean? Could it be a false positive and it's really just not going to give you a great answer. So, overall, my kind of messages, if you choose to test, particularly staff have a plan for what your next steps are going to be. We get a lot of calls from facilities where kind of what they've done is they had someone who came in and had a documented vaccine series, they tested the person, but the tigher was undetected, or was negative. And the question is well, what do we do now? And so I always encourage facilities, you know, know what your next steps are going to be based on the results. Um, obviously the, the warm fuzzy that we all want is to have that tigher test come back positive and just have that knowledge that we have immunity in that staff member, but really the reality with hepatitis B vaccine, the way I explain it is that essentially, when we vaccinate, vaccination and childhood is very, very protective against hepatitis B. There's a question in the chat about the pediatric hepatitis B vaccine versus adult hepatitis B vaccines. So, if someone was vaccinated in childhood, do they need to be vaccinated as an adult? And there's not a recommendation for any repeat vaccine for anyone just because they got pediatric, you know, pediatric is the time period, which, where we've vaccinated and there's no recommendation for adult vaccine or boosters or things like that once someone has a complete series on record. So, the hepatitis B vaccine, the way I explain it is that when you get the vaccine, you get a full series, essentially, you're providing the body with the blueprints needed in order to produce that antibody. Over time, you know, people are not exposed to hepatitis B generally day to day and then, or anything like that unless they, you know, potentially are living with someone with Hep B or have a sexual partner who has Hep B, they're just not having much exposure. So, that vaccine, we have the blueprints, but the amount of vaccine kind of wanes over time. Our body doesn't waste its time making those antibodies when there's no reason to. But then, when the system is challenged with hepatitis B, either through another dose of vaccine or through an exposure, then our body pulls out those blueprints, ramps up antibody production and we'll start making antibodies. So, there are times where you have folks who that antibody test comes back negative and that doesn't necessarily mean they're not immune. So, again, just having a plan based on the test results if you're going to be choosing to test, what are we going to do next if the test results are this way? What are we going to do next if the test results are that way? There will be sometimes where someone has a three-dose series, and they had that in childhood, and they would like another vaccine dose for their piece of mind or something like that, another vaccine series would not be recommended, but they could do something, you know, a middle ground might be something like giving a, it could be called a booster dose, our challenge dose of vaccine. And then again, if for their peace of mind, or, you know, the staff member's going to have a lot of potential for blood exposure just based on their role, or the individuals they're working with, you know, maybe for both the staff member and the facility peace of mind, you want to have a documented tigher on record. So, if there's ever a blood exposure, you know, you've got that piece figured out at least, and you don't have to be concerned about hepatitis B. So, if someone or the facility, you know, if everyone's kind of in that place of wanting to have more recent documentation of vaccine, or documentation of immunity or whatever it happens to be, that sort of middle ground would be to do one additional dose of vaccine and then test past a month later for antibody. Excuse me? So, as you can probably imagine with all of that, again, hepatitis B can be very, very confusing. We didn't dive too deeply into it. At MDH we're always happy to answer questions. I think I got both of the questions in the chat, but happy to take more at the, at the end. Um, but, yes, again, you know, that having that three dose series on record is all that is technically needed, and I also just lastly want to acknowledge, I've been saying three dose series, but there are actually now

hepatitis, hepatitis B vaccine that is a two dose series. So really, we're talking about having a complete vaccine series on file, you know, based on whatever product was used for that individual and that is all for me and I will pass it over to Nancy. Thank you.

Thanks Genny. So now we're going to kind of transition a little bit to talk about vaccine storage and handling. So, my name is Nancy Grimsrud. I'm one of the nurses that works in the vaccine for children's program. And again, it's a program, obviously, you don't have a lot of children at your facilities, but we do work with all of our clinics to store and handle their vaccine properly. So, we have a lot of clinical expertise about vaccine storage and handling.

Nancy, I think you muted yourself. Oh, sorry so, just, so, even though you aren't part of the vaccine for children's program, you know, we do have some best practices about at a store and handle vaccine. So, just kind of talking about what those best practices are and why they're important. Next slide.

So, why do we really look at vaccine storage and handling? And I think there's two really important pieces of this. One is that vaccines need to be stored at a proper temperature and if they're not in the proper temperature range, they may not work to protect people. The second is the vaccines, especially the vaccines, the new vaccines that we have now are very expensive. So, we want to make sure that we're storing them properly, so they work and that we're not wasting vaccine that is very pricey. Next slide.

So, the cold chain is what we call, you know, keeping the vaccines in that proper temperature for the whole life of the vaccine, between when it was manufactured, and when it actually gets administered. And that that team needs to stay in that proper temperature in order to make sure that it's effective at protecting people when we actually administer it. So, if vaccines get too cold, potentially that vaccine won't work, and that person would think that they're protected, but they're not. And obviously that's a worry when we're talking about exposure to other infectious diseases that we, you know, we don't want people to think they're protected and then end up getting. I'm getting an infectious disease because they really, the vaccine they got was not working. So, the cold chain is really an important piece of this that we want to make sure we're keeping that vaccine at the proper temperature, and if it's not at the proper temperature that we're responding appropriately and making sure that that vaccine is still good before we use it. And we'll talk more about this as we go live. Next slide.

And then, the other piece is the expense of the vaccine. So, this is just kind of that, you know, the manufacturer list price for, you know, private vaccine for people. And you can just notice that these newer vaccines that we have that have come out in the last few years, are really expensive. PCV20 is about 250 dollars a dose, the RSV vaccines are getting close to 300 dollars a dose. So, think about it, if you have a box of 10 doses of RSV vaccine, you could feasibly have, you know, 3000, dollars' worth of vaccine sitting in your refrigerator. So, that's another reason why we just really want to make sure that we're storing and handling our vaccines properly so that they're going to be effective. And, you know, things that some of the older vaccines that have been around for a long time, like influenza and Tdap are, you know, are a lot less expensive. But we still want them to work and protect people as we give them. But obviously, they don't cost nearly as much as the newer things like Shingrix and RSV vaccine. Next slide.

So, we're going to talk about safe vaccine storage and handling and I wanna kinda point out these two really good resources to you. One is the checklist for safe vaccine storage and handling that's on the

immunize that org website [Immunize.org: Checklist for Safe Vaccine Storage and Handling \(www.immunize.org/wp-content/uploads/catg.d/p3035.pdf\)](https://www.immunize.org/wp-content/uploads/catg.d/p3035.pdf). if you've not gone to immunize dot org, I really recommend, you know, it's got a ton of really good resources, it's got resources for parents or for families, and patients, it's got resources for staff, it's got just a wealth of information. So, it's a great place to go look for for information and we're going to we're gonna go through this checklist. So, so I think again, it's just a nice, you know, if you haven't had a vaccine program or you really want to make sure that your vaccine program is meeting those best practices, you know, here's a great place to start this checklist. And then the CDC vaccine storage and handling toolkit has all of the supporting information [CDC: Vaccine Storage and Handling Toolkit - January 2023 \(www.cdc.gov/vaccines/hcp/admin/storage/toolkit/storage-handling-toolkit.pdf\)](https://www.cdc.gov/vaccines/hcp/admin/storage/toolkit/storage-handling-toolkit.pdf). So, it's just, you know, it's a long document, it's 150 pages, but it's got a ton of really good information. So, if you're seeing something that talks about storage units, and you want more information, the storage and handling toolkit has a ton of supporting information that's gonna kind of work with this checklist if you, if you need more information about what they're talking about. So, you can, you can bookmark it and and go look at it online. Again, it's just a really good resource to know what's available.

So, let's go and look at those parts of the checklist. So, the first one is established storage and handling policies. And really for me, this means starting with a vaccine coordinator. So, vaccines are complicated. They're complicated in terms of, you know, what, about, you know, when to offer things, what people need, figuring out the schedules and all those kinds of things. But it's also complicated in terms of storage and handling and monitoring and paying attention to all those pieces. So, it really is helpful to have somebody whose primary responsibility is to know about vaccines and be the coordinator. And then I think it's really helpful to have a backup person, because we all go on vacation, we all take time off, we, you know, people may be sick, and they win the lottery and not come back to work. Any of those kinds you might want to just have, you know, you want to have a backup person. So, if your primary coordinator is gone, you have a way to continue on and somebody who knows what's going on with the program. So, contact information for those people so staff knows who to go to a, an issue, what those staff roles and responsibilities are, what kind of training you need to do with your staff about vaccines, proper storage, procedures for handling and then emergency situation. So, we're gonna go through all of these components. Next slide.

So, staff training and education. So, I think it's really important that people who handle or administer vaccines have some basic understanding of, you know, how to do that, what's important, what's important about monitoring temperatures, you know, administration. But then, even people who are peripherally involved, like, maybe who accept shipments or, you know, who get the vaccine that's dropped off by the courier at your site. So, again, depending upon how vaccine gets to you, making sure that those people who are handling vaccine know who to contact, who to let know that that you have vaccine and that it needs to be put away properly.

And there's, you know, training should be done when you have new staff, when you get a new vaccine when there's changes to the storage and handling guidelines, which for Covid was, you know, like, every other week for a while when they were first coming out. We were constantly communicating about new changes to storage and handling. For most of our vaccines, that's not true. Most of the time things are pretty stable once the vaccine is out on the commercial market, it's pretty much stored and handled the way that it is intended with, with relatively few changes. And then an annual refresher and competencies. So, again, you do competencies for your staff on many different levels, how to

administer, you know, if you're administering vaccines that should be part of your annual competencies. So, again, immunize dot org has a great skills checklist for staff. And I'd encourage you to go look at that as part of your annual competency program. And then a couple other really great resources, the CDC has a, it's called the pink book or the epidemiology of vaccine preventable diseases [CDC Pink Book: Epidemiology of Vaccine Preventable Diseases \(www.cdc.gov/vaccines/pubs/pinkbook/index.html\)](http://www.cdc.gov/vaccines/pubs/pinkbook/index.html). And it has a wonderful wealth of resource for people who are, you know, involved in the vaccine process. So, it's got information about immunology, about vaccine administration about storage and handling and then it's got a whole chapter on each disease and, you know, that vaccines prevent. It also got some great tools like foreign language translations, and, you know, precautions like what vaccines might have latex in them or other things that might be potential issues for, for patients. And then the CDC also has a wonderful webinar series called You Call the Shots and it's all about vaccine administration [CDC You Call the Shots: Vaccines Web-based Training Course \(www.cdc.gov/vaccines/ed/youcalltheshots.html\)](http://www.cdc.gov/vaccines/ed/youcalltheshots.html). And again, there's many different modules. So, you can kinda look at what modules are particular for your population, but it again, if you, you know, you can develop your own staff training program using some of these resources. I think there's a lot of really good resources out there available for staff education. Next slide.

So, managing your shipments and inventory. So, again, depending upon how you're getting your vaccines, whether you're getting them shipped directly from the manufacturer, whether you're getting them sent to you through one of the distribution sites, whether you're getting them from your local pharmacy or your system pharmacy, you want to have a method in place where you're, you know, when those vaccines come into your site that you're, the right person gets them, and they get put away at the proper temperature in a timely fashion, in a timely manner. You don't want vaccines sitting out on the corner, you don't, you know, for a day, you want them to be put away quickly. And so, you know, keeping track of what you're getting making sure that it's been in the proper range, making sure that you're putting the vaccine that expires first in the front and then keeping track, however you're tracking, you know, when you get vaccines in so that you always kind of know what's going in and what's coming, what's coming in and what's going on. And then, you know, people should do ideally a weekly, but at least a monthly inventory to make sure that, you know, you're keeping track of what vaccines you have. And again, depending upon how you're getting vaccines, if you're ordering them specifically for one person that's coming from your pharmacy, versus if you're storing a supply of in your unit, some of these policies and procedures are going to vary, depending upon your individual situation. Next slide.

So, proper storage equipment. So, I think, you know, this is one of the questions that we frequently get. Obviously, in an ideal world we like laboratory or pharmaceutical grade refrigerators because they have really good air circulation, they maintain really steady temps, they usually have a good way to organize within the unit that's easier than if you have a household unit. But we also recognize that household units can be used very effectively and, and can be, you know, a good option for people. We still request we still recommend that if you have a household unit, you use a standalone unit. So, just a fridge it just a freezer. Most of you probably aren't going to have a lot of frozen vaccines. So, you may not even need to be thinking about a freezer. So, you might just want to be thinking about a refrigerator. They make small, even household refrigerators that go under the counter. The one thing is make sure you're not putting it in a dormitory style unit. And so, what we mean by a dormitory style unit is a small refrigerator that's got the freezer on the inside. So many of you have probably seen them, at the top they have a little metal door and then there's a freezer compartment and the inside. Those units should never ever

be used for vaccine storage. The chance of freezing the vaccine that's in the refrigerator part of the unit is just too high. You're, you know, and so you don't ever want to use those to be storing vaccines. But you can get a small little under the counter refrigerator that does not have a freezer in the top. And those would be acceptable for storing vaccine in them. And then you just want to think about what else you have in there and, you know, and how much vaccine you might be getting. So, for most people, the largest inventory that you're gonna have is, you know, when, when you get flu vaccine in the in the, late summer. And so, you know, thinking about how much flu vaccine you might get all at one time and and that might help you decide how much room you actually need for your refrigerator. Next slide.

And then you want to make sure that you're, you know keeping good maintenance on your units. So, we do recommend doing a do not unplug sticker and a warning sticker on the circuit breaker, just to make sure that your refrigerator doesn't accidentally get unplugged or that they turn the circuit off for some particular reason, and those stickers are available on our website for printed immunization materials [Order Printed Immunization Materials \(www.health.state.mn.us/people/immunize/ordermat.html\)](http://www.health.state.mn.us/people/immunize/ordermat.html). So, it's, and Tracy put the link in the, in the chat. And I'm going to talk about a couple other things that are available through that website as well. All of those materials are at no cost to you and feel free to go in and order those and we can, we'll mail them out to, you. So, just a reminder about your units, you know, they should have regular maintenance, they should look at them and make sure that they're not, you know, not dirty, not dusty, that they're cleaning that they're looking at the seals. And then if you do need to adjust the temperature for one reason or another, just, you know, make sure you go slow, cautiously, monitor the temperature closely for a couple of days, go up another notch or down in another notch. Try not to make big swings in the temperature. I think that's where people get into trouble, they, they change it too much and then it goes it gets too cold or too warm and they run into, into trouble with that next slide.

So, maintaining the correct temperatures. So, refrigerator temps, we want between 2 and 8 degrees Celsius or 36 to 46 degrees Fahrenheit, and again you can measure and either Celsius or Fahrenheit. You know, most devices can do either one, you can change them, just be consistent. I, you know, I think it's really challenging if you're trying to measure your fridge in one and your freezer in another or you're trying to log them on on a paper record that has the wrong information. So, try and use the right um, the right documentation for with whether you're using Celsius or Fahrenheit. So, we always encourage people to use a calibrated device. So, that just means that that the device has been certified that it's accurate and measuring within a certain margin of error. Again, you know, we want to measure vaccine temperatures, but we want to make sure that we're monitoring the right thing. So, so you're going to want a calibrated device and then if you have a detachable probe, an alarm, a battery indicator, those things are also helpful for just kind of keeping track, but every device should have the current minimum and maximum temp. So, we'll talk a little bit about that on the next slide. And ideally, we're encouraging people to have data loggers, which not only measure the temperature, but record it so that we can go back and look at those temperatures. Next slide.

So data, that's the difference between data loggers and thermometers. So, data loggers, not only measure the temperature, but they continuously record it and sometimes it, it records it on the device and then you have to download the device onto your computer. Sometimes they have Wifi that can just automatically send that information to your computer. But the advantages of data loggers is then if you have an outer range temperature, we can go back and say it was out of range for this amount of time at this was the maximum temperature. So, it just gives us a lot of information that's really helpful if we're

looking at how long the vaccine was out of range and whether it's still good to use or not. At a minimum, people should have a minimum maximum thermometer. And basically, it's the thermometer that records the temperature of the unit right now and then it keeps track of what's the lowest temperature and the highest temperature during a specific period of time. And that might be a day, or it might be since you clear the memory last. And so, it depends upon what kind of thermometer you have. Most of them that look like this, the little white traceable ones, you have to clear the memory. So, we recommend that you record the daily min/max, and then clear the memory. And then every time you record it, you clear it after you record it. So, again, it just is a way to write down what's the lowest temperature that refrigerator's been and the maximum temperature that refrigerator's been since you last wrote down those numbers. And every device should have a cert, a certificate of calibration. So, if it's a, if it's a device that's meant to be monitoring vaccines, it should come with a certificate in the box with the device. We recommend that you keep those, and, you know, when that certificate expires, usually in every two to three years, we recommend that you get it recalibrated. Next slide.

So, the best practice is to write down what those daily temperatures are. Again, our best practices, at least once a day, writing down the minimum-maximum temperature with the date time and initials with the person who checks it. I think that's really helpful because then the person, if there's a problem or issue, or you have a question, you could go back and actually talk to the person who, who recorded that temperature and get more information. Our old templates have the twice a day temps on them. It's up to you, if you want to do that continuing twice a day. I do encourage people to look at what their templates have been to see if their refrigerator is trending up or down and then I encourage people to look at the refrigerator when they're looking at the temperatures to make sure it's not making noise, it's not, there's not a puddle on the floor, the door is getting closed all the way, all those kinds of things. So, these templates again are available on our printed materials, also available just to download and print yourself. If you want to print them yourself. And there are many other versions of temperature logs out there on the Internet. You know, on the CDC site on the immunize dot org site. So, if you feel like, you, you know, you want a different temperature log because it's easier, you know, there are many of them that are out there. But the really important messages act on how to range temperatures. So, if the range is two to eight degrees, and your thermometer says that it's one degree that's an out-of-range temperature and you shouldn't just write down one and then go on with your day. You should be saying, oh, one is less than two and we need to do something about this temperature. So next slide, we're going to talk about what those things are.

So, there's a couple of good resources for you. One is the protect your vaccines, this blue shot on your screen is actually a magnet that we have available again through our immunization materials. You can order this magnet that just goes on your refrigerator. I really encourage you to do that because it's got the right temperatures and then also what to do with your vaccines are out of range. The other one on the left-hand side is the CDC temperature excursion information, and it's got basically the same information, but just put in a little different format. So, we want to make sure we get the vaccines right back in the proper range. We want to mark them do not use. We want to gather information, which is going to be, you know, what was the maximum temperature, how long was it out of range. That's information that the vaccine manufacturers want to know, and they are the only ones who can tell you if the vaccines have been at the proper range. So, not your pharmacist, not, you know, not your, anybody have your other staff it's, you know, we have to call the vaccine manufacturers to get that information. And if you have questions about whether you should call, or if you, you know, they tell you something

that you don't understand, or you need some help with some of these storage and handling questions, you know, you can contact our program even though you're not part of the vaccine for children program, you know, we can still answer some basic questions about storage and handling. And then my last reminder is just too cold is worse than too warm. So, a lot of people think cold is better. Cold is not better. Cold is actually more harmful to your vaccines than being too warm. So, if you know, if you're starting to see your temperatures go down, once they get below 32 or below 0 degrees Celsius, chances are your vaccines are no good and you're gonna either have to re-vaccinate people if you use them or throw those vaccines away and order a new vaccine. Next slide.

So, store them correctly, know where they should go. Most of yours are going to go in the refrigerator. Probably, the only adult one that you use that goes in the freezer is Moderna, if you're using that. Don't flip food and drink in there, use some water bottles to keep the vaccine in the middle, store them in your original packaging, put the ones that expire first in the front. If you need some help organizing your fridge, there's labels on the CDC website you can print out. And most vaccines need to be protected from light. Next slide.

And then the last one is just a little bit about emergency action. And this is not patient emergency, this is if your power goes out, if your unit just quits working, you know, what are you going to do? So you wanna be able to pack your vaccines and move to another refrigerator, if the unit fails, you might just have to close the door and monitor it but, you know, you want to restore proper conditions. And if you need to move vaccine, have an idea about where you might move it. But don't use it until, you know, that it's viable. And then, on on the link here, we do have a worksheet for developing an emergency plan that's on our website. It's a billable form, you can just go in and type in it and then print it. I encourage you to do that, and then the CDC has a really good handout about how to pack your vaccine in a cooler using frozen water bottles and packing materials, if you need to move it to another site. And I think that is all I have about storage and handling. Thanks Tracy.

Thank you so much Nancy and thank you to all of our speakers today. We've got about five minutes left and it looks like all the questions that were in the Q and A have been answered. So, we will leave it at that. So, I'm going to put in the chat for you the link to complete the survey for today's session to access your CEUs for today's presentation, deciding who to vaccinate and storage and handling [Feb. 21 LTC Webinar Survey \(https://survey.vovici.com/se/56206EE32FC1D90A\)](https://survey.vovici.com/se/56206EE32FC1D90A). Just to note again, this activity is designed to meet the Minnesota board of nursing requirements for four continuing education units in total for the series, one for this webinar. However, each attendee is responsible for determining whether or not this activity will meet their requirements for acceptable continuing education. Please join us next week. Our next session will be on February 28 again at noon, and it will be best practices for vaccine administration, documentation, and billing. And again, I'm going to put also in the chat for you the session from last week has been posted so that is able to be shared and used for you and your staff for those who are not able to join us [Immunizations in Long-term Care Facilities \(www.health.state.mn.us/people/immunize/hcp/ltc.html\)](http://www.health.state.mn.us/people/immunize/hcp/ltc.html). Also included with that is the transcript and the survey to get the CEU if they do watch it online and today's session will also be posted in that same location once we've had a chance to go through that and edit. So, lastly, thank you for joining us and I will put in the chat all of these links to these wonderful email addresses. If you have questions that come up after the fact, because we hopefully answered all of them today on the call. But if you have a question related to vaccine, you can reach out to health.vanninesme@state.mn.us. If you have something about storage and handling, you can reach out to our wonderful MnVFC team at

health.mvfc@state.mn.us, any questions related to MIIC can go to the MIIC help desk at health.miichelp@state.mn.us. And then finally, if you had questions about the MIIC employer program, those can go to health.employervaccine@state.mn.us and again, those are there for you in the chat, and they will be included in the transcript. Thank you for your time. And enjoy the rest of your day.

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