

Reducing Environmental Health Hazards

Steve Shuman: On today's webinar, we have Mercedes Gutierrez and Kimberly Clear-Sandor, who will officially introduce themselves. Take it away.

Kimberly Clear-Sandor: Thank you, Steve. Good afternoon. Good day to everybody, well, part of the day, depends on where you are. But we are so happy you're taking some time to spend this hour with us to talk about reducing environmental health hazards in early childhood settings. Every person in early childhood is affected by their exposure to pollutants and hazards in the environment, and we're going to take some time today to think about the important role child care health consultants can play in understanding environmental health and supporting early childhood programs to develop practices, and to recognize and reduce some impacts or exposures that may happen in those settings.

This webinar offers information about specific major environmental health issues and best practices for maintaining safe setting. Let's go ahead and introduce ourselves. My name is Kim Clear-Sandor as Steve said. I am a Training and Technical Assistance Associate with the National Center on Health, Behavioral Health, and Safety. I bring my years of experience in health care as well as a child care health consultant for many, many, many years working with programs to support healthy and safe environments for children and staff and families. I am so lucky to always be joined by my health consultant quarterly webinar series co-host, Mercedes.

Mercedes Gutierrez: Hi, everyone. My name is Mercedes Gutierrez. I am also a Senior Training and Technical Assistance Associate here with the National Center. I'm really excited to be here today. We really do love these quarterly webinars because we love to get a chance to talk to you all. I bring many years of experience in early childhood education. I've worked in Head Start programs as a health manager, and then I also have worked as a child care health consultant for early childhood programs. Excited to be here and talk to you all today.

Kim: Thank you, Mercedes. Mercedes, I do have a lot of chat boxes and some polls as we go around. We really encourage you to use the chat. It's so much fun to have this time together. You don't always get time together. Sometimes we do our work as a little island out there. Having so many folks on the line — we're up over 400, where they're doing the same work with the same objectives in mind. Please use that chat to share with each other as we go.

I just want to plug that resource list. It is a page and a half of wonderful resources. As Mercedes and I are going through a very specific section on environmental health today, environmental health is a really massive topic. I think you can take a deeper dive and explore different areas that may be of interest to you, and you'll find really nice resources to support you in that as you take a look at that handout.

Today, we're really going to talk about we always ground everything we do in the Child Care Health Consultant Competencies, we'll take a look at those in a moment. We're going to talk a little bit about why, the why. Why is it so important that we think about the environment when

we think about the health of children and staff in early childhood programs? Then we're going to talk about those strategies. What are the things you can do, what are the things you can work with your program to do to really minimize that impact of any hazards?

We have a really nice handout about what is a child care health consultant. We think this could be used. Sometimes when a health consultant is working with an early childhood program, they don't know what to do with their health consultant. They may not know all that a health consultant can bring to support their program. We'd love to just take a nod and let folks know that this resource is there. All of our work around health consultants at the National Center on Health, Behavioral Health, and safety goes from a place of best practices.

We realize that the variety across the country is a little bit like Baskin-Robbins ice creams, there's 50 different flavors. But the best practice is that a health consultant is a health professional with education and experience in child and community health, and they have specific training in the early care and education environment. In some states, regulations determine who can be a health consultant. In other states, they do not. But regardless, a health consultant is intended to work with the directors, the teachers, the families to really look at improving the overall quality of care.

We also have Child Care Health Consultant Competencies. These are taken from a place of best practice, and they are intended to be used by health consultants to take a look at, what is the state asking me to do, what am I allowed to do, and look at those specific areas that relate to you. It's also a great tool to support your own professional development, or to talk to a director or somebody else that you're working with in early childhood about all the things you potentially could do in early childhood.

They do have general areas of expertise, as well as subject matter areas of expertise. That red circle down there captures the environmental health competency. We'll go to the next slide and get to see, what does that competency really say. This competency describes how a health consultant can use their knowledge and expertise to address environmental health in their program, and that's the big topic of the competencies.

If you look at the application, it really describes different ways that health consultants can do this work. They can demonstrate an understanding of the effects of exposure to environmental health hazards on children's health, work with programs to coordinate environmental health assessment, and it goes right through all the different things. But you'll see environmental health can range from making sure that you're not picking toxic craft supplies to looking at lead in the pipes, lead in the soil, to looking at the outdoor air environment. It's a really big topic, and we're really focusing, today, on mitigating those outdoor environmental health hazards.

Why are children vulnerable? I think it's helpful when we think about why it's important that we think about these topics. It helps us to have conversations with folks in early childhood programs, and to get some of that buy-in and understanding about, why are we paying attention to environmental health. The first is that our little ones are growing really, really fast. That means their bodies are up taking nutrients, and water, and food so their cells can grow

and replicate, and they can get bigger. If they are up taking bad things, it's going to affect the way they're able to grow and develop.

That includes their developing organs. Their lungs, those lungs, they develop right through adolescence. Those respiratory hazards can really impact their lung development. Let's just think about the way little kids act. They spend a lot of time on the ground. They put dirty hands in their mouths. They chew on toys. They're not always great about washing their hands, even though we try.

But that's that motion and being down low. The hand to mouth brings a lot of toxics into the body. Being low to the ground, actually, environmental toxins settle low in that area. There's actually a higher concentration of toxins in the air and spaces lower to the ground. Thinking about all that stuff, it helps us understand why the little ones are vulnerable, and they're really dependent on their caregivers to recognize that vulnerability and create a safe space.

We talked a little bit about the breadth and depth of environmental health and environmental health hazards. I thought this illustration really clearly captured the different places to consider environmental health, and what environments impact someone's health. You can see at the center on the far well, the far left is the family. The environment the family is in, it's a home, an apartment building, the neighborhood, whatever it is, that's going to impact their health.

That home is in a bigger community, and they're in a bigger city, they're part of a country, and part of the world. It's not just one environment, there's a lot of different environments. But it's the environments where people spend the most amount of time which is going to be what's affecting their health. Again, as you think about this, we're talking about that environment that surrounds where someone's going to an early childhood program. Next slide.

As we think about the picture of the environment, and we think about the home, and where buildings are, we need to consider and acknowledge the social determinants of health. Those that have visited Mercedes and I on these quarterly webinar series know that we did a session about our social determinants of health and health equity. But as we talk about environmental health, we have to acknowledge the component of where you live, work, and play as part of your environment. Because those five areas are impacting 80% of your health outcomes.

As we talk about the different things today, just remember, it may show up differently depending on your program and where they are. There's two words that we felt we really needed to define because as we think about environmental equity, they often come up. The first word is environmental equity. That means that we are striving for equity when we are tackling climate change, the impact of those change, where everyone has equal access to different resources.

We talk about the word environmental justice, which is the fair treatment and meaningful involvement of all people, regardless of race, color, or origin, or income, with respect to the development, implementation, and enforcement of environmental laws, regulations, and

policies. Those are some of the pieces that are going on in your world, and where your programs are situated, and your families are, that might be impacting their health.

The next slide is a nice poster because it illustrates that concept in a nice way. It makes us pause and think about our role as health consultants, and how can we further mitigate the impact of environmental health as much as we can for the children and families that we're caring for. If you notice in the bottom left, they talk about children. Children have a higher risk of heat stroke and illness than adults do.

Communities of color. A community of color, or if a program is in a different kind of a community. It might be closer to a highway, or closer to industrial areas, and that could contaminate the water, contaminate the air. The people living there are at greater exposure risk, or have greater exposure, which increases their risk of having health impacts. Thinking about the environment as a whole, the air, the water, the ground, where you play, where you work, really impacts your health. I just want to set the stage of that before we dive into some of the different components. Next slide, please.

Keeping all that in mind, we're going to switch gears and look closely at the environmental hazards that might be in your area that could affect your program. This list is nowhere near exhaustive, but it just provides a basis of where we're going today in our conversation. Kate, if we can launch the poll. There we go. What environmental health hazards affect your area? You can just go ahead and select whichever one. Please note, on my screen, at least, there is a little gray bar, and you have to pull it down to see to see all the options on the poll. But we have extreme heat or cold, flooding, hurricanes, vector-borne illnesses, earthquakes, poor air quality, or other. I see some folks already.

Mercedes: I was going to say, there are people in the chat putting lead and hazardous waste sites as well.

Kim: I see Brittany is saying, we have been having forest fires in Eastern Kentucky and smelling the smoke all day. Wildfires, hazardous waste sites, excellent. Tornado, wildfires, lead. Lead, we are not talking about lead today. I encourage you to look at those resources that we shared. The more Mercedes and I dugged into this, we could have spent probably three hours today talking about all the different pieces. We did just narrow in on a very small scope today. But it looks like you could go – are you showing the results? Share those results. It looks like a lot of you do have many of the topics we're going to talk about today.

Extreme heat and cold being a big one, the poor air quality with wildfire and ozone, and flooding, and vector-borne illnesses are the top ones there. Thank you for filling that out. Next slide. This slide is another poster from the Environmental Protection Agency that really captures, in a picture kind of way. You can tell I'm a visual kind of girl the different environmental conditions that impact health and exposure may, in fact, increase your exposure to harmful substances.

Again, what is that outdoor environmental situation that's impacting health? Many parts of the country are seeing different kinds of weather. More heat, more cold, and the seasons are shifting a little bit. That could be impacting people's health in a different kind of way. We see air quality changing. We know that because of the wildfires and the different ozone levels. We are seeing lots of flooding happening, extreme heat, and infectious disease. Infectious disease can be part of the diseases carried by bugs as well as diseases carried after flooding and things like that. The environment, those pieces, really, can impact an individual's health.

Mercedes: We would be remiss not to talk about EPR&R as we talk about environmental health hazards. When you hear EPR&R, it's this big buzzword right now, and it really stands for emergency preparedness, response, and recovery. This is the process of taking steps to ensure that your early childhood program is safe before, during, and after an emergency. It involves assessing the environmental risk factors that are most likely to affect the safety of your facility, and the children, staff, and families that come to your facility, and it also involves finding those resources that help that you can access in the event of an emergency or a disaster.

Not all of the environmental health hazards will turn into an emergency or a disaster, but using this model of preparing and responding can help you plan strategies that will meet the unique needs of your program. We are going to take a closer look at some of these environmental health hazards, and as we go through them, we're going to talk about strategies to prepare and to respond to them.

The first environmental health hazard we want to touch on is extreme heat. I saw a lot of you in the poll, this is something that's really impacting all of you. Extreme heat is defined as summertime temperatures that are hotter, and/or humid than average. It really is dependent on where you live. We know down in Florida, we know some of the islands, Puerto Rico, it gets hot. But extreme heat is when one maybe an area in the Northeast that doesn't get that hot is now experiencing temperatures that are way above average.

Why do we need to talk about extreme heat? Well, extreme heat can really impact the health of the children in our programs. Children are not able to regulate their body temperature the same way that adults can, and they don't sweat as much, and that really limits their method to cool their bodies. They can overheat, and that can really affect their brain and heart. We know that the children in early childhood programs are in a crucial stage of development, and brain health is so important, and protecting their brain is important during this stage of development.

Children are prone to dehydration much more than adults are because they're a larger percent of their bodyweight is, in fact, water. Extreme heat can ultimately affect learning and school readiness, and how well heat is linked to poor cognitive function, it's linked to the inability to concentrate. It also affects their ability to have a good night's sleep, and we know sleep is important for our little ones. We ask that during the daily health check, right? How did they sleep last night?

If classrooms are hot, it may be distracting and unmotivating, and on those extremely hot days, children may miss or intentionally avoid schools because they're not air conditioned, or they're not cool enough to participate in. What are some strategies? We asked you to put in the chat now. Think about, what are some strategies that you all do in your programs to manage extreme heat for the children, for the staff? You can just type in the chat. It could be putting out extra water. I see them coming in now. Oh, they're so fast.

Kim: Little delay.

Mercedes: We have people cooling neck wraps, they love that. Help them cool down because it's like a little mini portable air conditioner when you make those little cool neck wraps. Shorter outside times, love that. Keeping extra water. Yes, keeping water on hand. Increasing water intake. Using the weather chart. I love when you guys talk in the chat because you guys basically do this all for us. This is perfect.

We remind you to keep an eye on the chat for yourselves because these webinars are so great, there's such a wealth of information among the attendees. Everybody's willing to share, so you'll be learning some tips and strategies from each other as well. I think you guys really have covered everything. Keeping in mind that strategy of EPR&R. Thinking about preparing for extreme heat, how could programs prepare for extreme heat?

Like you said in the chat, thinking about, planning for outdoor play spaces that have access to shade, bringing that extra water out, and reminding little ones to drink water because they don't have that regulation in place where they're just always going to ask for water, you have to set it out and urge them to drink water on a more frequent basis.

Creating a policy and a procedure that includes checking weather and adjusting activities accordingly. We speak a lot about policies and procedures throughout this presentation because we want you to have it written in and have a plan in place. You should also have a policy that includes a procedure for using sunscreen. In that policy, it should talk about consent, it should talk about whether or not you're having the parents put on the sunscreen, or if staff can put on the sunscreen, all of that needs to be spelled out in your policy and procedure.

You also want to take the time to train your staff on how to identify, and how to respond to some of those heat-related illnesses that come up in our little ones during this extreme heat. A child care health consultant, there's always ways and opportunities for you to work with families to help them understand some strategies at home. Because we know extreme heat isn't just happening while the kids are in the child care center, it's happening at home, too.

How do they avoid some of these heat-related illnesses that can come up? Being prepared with some of the resources. We're going to plug that resource list one more time. Check out the resource list. Being prepared with some resources and strategies for both staff and families is very important to prepare for extreme heat.

Coming back to this model, again, you want to have ways to respond to extreme heat as well. At times, have children with special health care needs within your class, you want to monitor those children and staff who are at an increased risk for some of these heat-related illnesses. Remember, please encourage children and staff to drink water often. Again, as I mentioned before, you can't wait till they say that they're thirsty, you really want to be pushing water as frequently as possible.

It's important to know the symptoms of those heat-related illnesses, and the right responses. If you know that the next day is going to be an extreme heat day, send out a reminder to families to dress their children with lightweight, loose-fitting clothes, and a little reminder to bring hats. We encourage you to spend less time outdoors during those times. A reminder that in extreme heat, it's very dangerous to leave children in parked cars, vans, or buses. We want to be extremely extra vigilant with our transportation policies and procedures during these times.

One resource that someone mentioned in the chat is the Child Care Weather Watch. This is a resource that should be written into your policy and procedure... that you're going to be checking this Child Care Weather Watch. Using it as a guide to see whether or not the conditions are safe to go outside and play. It's pretty self-explanatory. It has the easy-to-use colors, green, yellow, or red. Green meaning everything is safe and good to go outside. Yellow, we are, again, looking at our children and staff who are at increased risk and for signs of heat-related illnesses. Red is just stop. We want to transition to that indoor play or another option for our children and staff. Air quality.

Kim: I'm just going to say, Mercedes, the small print, all that small print on that slide, it really gives you some guidance on how you can modify your time, and extra things to be on the lookout for the littlest of children. It really does help you be intentional in that time and space no matter what it is at that time. If folks are trained with the knowledge about what to do and what to look for and they're ready for it, then it just gives you that kind of, "Today is what kind of a day?" Then they're able to go and do it. I'm a big fan of that chart.

Mercedes: Definitely. It's a great resource to have in your pocket. Air quality changes when there's an increase of airborne pollutants in the environment. This could be due to vehicle exhaust. It could be to wood stove emissions, industrial emissions, I saw that come up in the chat or the Q&A. Wildfire smoke came up a lot for you all. Dust, or even just the changes in the ozone. There can be other sources of pollution as well. All of these pose a health impact on our children. Thinking about the children in our program, we could have children with asthma or allergy, and changes in air quality can trigger those symptoms in the young ones.

It could also increase respiratory illnesses. It could increase the percentage of kids with asthma in your program if this is an ongoing air quality issue. Air quality issues that are happening in the moment can irritate eyes. We know that people who are exposed to poor air quality over a long time, it limits brain development. It can cause an increase in preterm and low birth weight, headaches, and, again, triggering a lot of those respiratory, coughing symptoms that you'll see in the young ones and adults in your program as well.

We want to give you a little scenario here and see how you all would react in this scenario. You're a preschool teacher, you're outside, the weather is warm, pleasant, and windy, and you notice a faint smell of smoke. At first you think it is a neighbor having a barbecue, but then you notice smoky air in the distance. What steps should your program take to reduce the impact of poor air quality on children and staff?

I know some of you in the chat have already spoke that wildfires are occurring in your area, so what are some things that maybe you can share that you're doing to reduce the impact of this poor air quality on the children and staff in your programs? Did you see anything in the chat, Kim? Relocate into the building. You're on mute, Kim. Not go outside. Come inside and close all windows. Stay inside. Go inside. Air purifiers.

Kim: See if the air quality index changed.

Mercedes: Yes. Thank you for bringing that up.

Kim: I like the close all fresh air intakes. That might not be something someone's thinking about.

Mercedes: We're going to talk about how you would prepare for this, and how you respond. I love the answers that are coming through the chat because they're thinking both ways. You're thinking, how could we prepare for this by doing some of these systemic changes? How do we respond immediately in the moment bringing these children back inside, making sure the building is sealed tight and we're not letting in that outside air? But all are great comments. Thank you for participating in the chat.

As someone mentioned, you want to have a policy in place that requires you to check that air quality index. I think a lot of programs, maybe on the West Coast, or maybe in California, are used to checking air quality index. I know for some of these programs in the Northeast, it was very new for us when the wildfire smoke started coming down recently. Air quality index is something that we all should be familiar with, and we all should be checking. With some of the changes in the environment and changes in the climate, it's just something that we should be more prepared for.

Having your policy in place that tells you to check the air quality index daily is a great way to start your day. Just knowing if it's safe for everyone to go outside. Also, planning alternative activities beforehand. This is, again, we're thinking in the mode of preparing where you want to think, what can you do in the case of, we know, we came in today, we know the air quality is bad, we know instead of going outside, we're going to do some indoor play, and we're going to set up some indoor areas for the children?

We suggest meeting with a consultant that specializes in heating, ventilation, and air conditioning. They can evaluate your system and give you suggestions on how to improve your indoor air quality. You, again, want to train staff for those air quality-related issues, respiratory issues, or trouble breathing. You want to work with families on what they can do at home

because what's happening at home, again, it could be happening in the center, it could cross over. You want to make sure that the children are safe in all the environments that they are in.

On the next slide, I just want to give you a resource here that we created at the National Center for Health, Behavioral Health, and Safety. This resource gives you tips for working with a ventilation consultant. Helps you with a resource to find them, to find a list of ventilation consultants, but also, how they can help improve the ventilation in your building. It's good to understand what you're asking them to do before asking them to come.

On this slide, we are also talking about ways to respond to changes in air quality. Like someone mentioned in the chat, you want to check, continue to check the air quality index, see if something has changed. Like the heat-related illnesses, we are watching those who are at risk. We're watching those children that we the children that we already know have respiratory illnesses. We're responding in the moment and closing all the doors and windows if there is a new change in the air quality and some smoke is coming in as in the scenario that we shared.

You can also run your AC unit with a high-efficiency filter or use a high-efficiency particulate absorbing room air purifier, that's also called a HEPA purifier. Avoid vigorous physical activity. We urge you to take a look at this tip sheet that helps you with choosing a ventilation consultant, and helping you understand how they can improve the ventilation within your program. The next resource is just what everyone was mentioning in the chat. If you don't know this resource, I would suggest you save it. It's very simple. It's a very simple link.

It's airnow.gov. You can put in your zip code, or your city, or your state, and it will give you a that barometer that's on the left there is what shows up on that landing page of, what's the air quality today? It guides you, again, in the same kind of scale as green, yellow, and red. But you see there's even more breakdown of the air quality basics there. This is a great resource to just check daily to know level set where you are with air quality at the beginning of the day. It helps you choose which strategies you're going to use for the day, and for the next day as well. Anything else,

Kim: Mercedes, you brought up about how on the West Coast, folks are used to the fires, and it was something new to think about how to respond in New England this past year. But the air quality has been on if you live in a city, and it's a hot day, you are used to seeing particulate matter create bad air quality, or the ozone creating bad air quality. I think it's important to always remember, there's bad air quality that you can see and smell, but there's a lot of things going on in the air that you may not be able to detect just by being outside.

Paying attention to what those numbers are is really important because our little kids have little airways. When they have asthma or something's bad in the air, it's going to trigger them. One of the things I learned about my air purifier that my husband got during the pandemic was that it had this special feature on there. I was like, press all the buttons. Make the air really clear. I learned that one of the buttons, actually, if you turned it on too frequently, it could create ozone in your own space.

Working with that heating, ventilation, and air conditioning consultant to learn about your systems, and understand how to run it, when to run it, and the safest way to run it is important. Especially with those air purifiers as well, read the directions. Don't just turn that thing on and think you're doing the best thing ever just because you pressed all the buttons. Take the time to really read the pamphlet on how to best use it. There's times to cycle it on and off, there's buttons you can press, and things like that. I just throw that out there from a little bit of a lesson learned before we talk about flooding.

Mercedes: Definitely.

Kim: Flooding, again, you may or may not be used to flooding or in a flood zone area. But people that aren't normally in flood zone areas have been experiencing flooding more frequently or experiencing the flooding or the impacts of flooding more frequently. This past summer, there was a huge rain up in the Vermont area. Vermont is not my neighbor. Where I live, there a couple states away.

All the water that rushed down actually came and polluted our waterways and we were miles and miles and miles and miles away. Thinking about flooding and how it may just show up when you may not have been expecting it, or it may not have been something that you've had to plan for before is something to begin thinking about. Why do we care about flooding and children? Children are at a high risk for those health problems. We talked about them being low to the ground, and growing really fast, their little immune systems aren't quite up to speed yet.

If they've come in contact with contaminated water or toxic chemicals that got moved through the dirt and the water in them, they can be much more impacted by that. They can get waterborne diseases. If they get bad diarrhea from something like that, they can get really, really sick, and dehydrated. The flood waters, if anyone's been involved in the flood waters, whether directly in your area or those waters coming into you, those waters are full of much stuff. Whether it's trees, or bottles and garbage, or whatever, it's all getting carried to different places. Those hazardous materials can be there, and we don't want children to spend time in those flood waters after a flood. There's just a lot of chemicals and potential hazards in there.

What else happens after there's water? Molds, mold can grow. It can grow on the walls. It can grow on surfaces. It gets into nooks and crannies that all that water can get into. Mold triggers asthma. It can create allergic reactions. It can create skin problems. Mold can happen. Again, you may not even know it's there if it's behind a wall or something. We need to really think about how that might impact you.

Families in programs building itself after a flood can get displaced. Maybe you can't stay there anymore because of everything that's happened there. Let's not forget the mental health impacts of any of these things that we're talking about today. If you have to if you're having a flood and there's fear, there's worry, there's displacement, there's less access to food and water, that's going to be hard for children, hard for adults, too, because there's just a lot to figure out, there's a lot of disruptions to their daily routine, and it's really important to try and keep that in mind as you are understanding the impact of a flood.

In the same fashion that Mercedes was talking about the different impacts, we have the preparing side and the responding side. The beauty about the preparing side is that many of these things are things you can do on a regular basis, and do as other part of your work. It's great because they can become just part of your daily routine. Flooding preparing, we're talking about really working. You'll do this with your EPR&R preparation, finding those community evacuation routes, making sure the local folks know that your child care program is there, know any special needs that you have in that program so that they can support you during an emergency.

Making sure that you have those contact information for children and families is important. Thinking about where you're going to put your supplies. Because when you create your storage and your supply room, create them with different things in mind. One of them you might be thinking about vermin, and mice, and things like that, well, think about flooding. If this area floods, how am I going to make sure that I have access to the things that I need, and that they're going to be usable when I need them.

Planning for access to clean drinking water, I think, is such a critical piece, and it's overwhelming when you think about an early childhood program. But coming up with a plan on how you're going to have access to clean water, and making sure whatever you're doing for that stays up to date, doesn't expire, and is accessible. Our last thing about do not store essential items in a basement. You might think of a basement as a great place to put things you're not using all the time, but if it's something you're going to need in a flood, that area may be totally inaccessible or wet. just keep that in mind, some things that you might do.

As a matter, of course, in your own home, it's not going to really set you up the best for a response to floodwaters. Our response goes back to what we were talking about on the last slide, which is really knowing that you could be exposed to a lot of chemicals. Making sure that kids aren't playing in the water, you're not spending time in that water. Approach tap water very carefully. Figure out who listen to your local folks about what you can and cannot do with safe tap water, and their recommendations for managing water to make sure it is safe.

We always recommend using those experts, and experts to assess the safety of the facility after a flood. Only an expert should really go into an area that has been flooded, evaluate it for mold, and all those other things. You really need an expert that can do those things because you don't want to risk any contamination. Anything you want to add there, Mercedes?

Mercedes: No, I think you covered it.

Kim: I just want to say one more thing about when adults are working in those flooded areas, they do always recommend that they wear appropriate personal protective equipment, that old PPE word. But they do have it so that you can protect yourself from those chemicals, too.

Vector-borne illnesses. I always think it's so funny. It's such a non-plain language way to talk about some of these things. Our vector-borne illnesses are illnesses that can be carried by something and infect an individual. Let's do a quick poll and see what folks may or may not

know about vector-borne illnesses in their area. we have a couple in our area. We call it EEE, the Eastern equine encephalitis, ehrlichiosis, West Nile, I can never say that one, Mercedes.

Mercedes: Chikungunya.

Kim: There you go. You have dengue fever, Lyme disease, Zika, and other things. Lyme disease is bad in North Carolina. I'm sorry, Sarah. I live in Connecticut, where Lyme was first discovered, about 10 miles from Lyme, Connecticut, and it is not a fun illness. has been rampant here in the past two years as well, and places we just didn't see as much of it, we're just seeing so much. I see Rocky Mountain spotted fever, too. We have a lot of West Nile and Lyme disease. We have some Zika, dengue. We're seeing oh, I should you can end the poll and show the results. Sorry, I forgot you couldn't see them.

You can see that coming in. There's a lot of that Lyme disease, which is from a tick, the little, little, little bitty tick is very hard to see, West Nile virus, and all the others there. There's a lot of little ones, and they tend to cycle. It may not be there all the time, but this year or that year, some of them may come up. The seasons and these viruses can be spread by ticks. They can be spread by insects, or mosquitoes, and we're seeing a lot of the longer warm seasons, and the shorter cold seasons, and they believe that that's impacting the sheer number there because that creates that change in temperature.

These insects carry the diseases. The insects that carry vector-borne disease are Lyme disease, Zika, dengue, and the reason they think that the temperature's impacting it so much is because it changes the habitat where they grow. If you have a lot more rain, and water, and warm temperatures, the mosquitoes love to lay their eggs in any little bit of standing water. You can have a lot more of those mosquitoes. The ticks, they love to hang out in moist areas like under the leaves, and in ground cover, and things like that, and even your pets can bring them into the house.

They're tiny, they're hard to see, and you could get a lot of insect bites but not know whether or not it's actually carrying one of those diseases. But our children are really susceptible to them because, again, their immune systems are developing, and their ability to respond to that virus is a little bit different. Preparing and responding, it goes back, again, to setting up those policies and procedures, and being ready in case you're told that there is a high amount of vector-borne illness in your area.

The whole idea is, really, you want to not get bit. Don't get bit by one of these things. Because if you don't get bit, hopefully you won't get the disease. In terms of ticks, sometimes it's the amount of time the tick actually spends connected to your body. Like in Lyme disease, it has to be connected for 24 to 48 hours, they say, to totally transmit the disease. Thinking about that ahead of time, and how your early childhood program can try your best to diminish the exposure to these vectors is really important.

Insect repellent. Should you use it? Shouldn't you use it? Talk to your local health department. Caring for Our Children, which is on our resource list, has a really great policy about insect repellent, and when and how to go about using it, who can use it. I always just like to remind people that we don't use the spray, that's the aerosol kind of spray. We really want to use it limited. It is not something you want to use every single day. Be very thoughtful about when to do it. Your local health departments are great letting you know what's in the area. They'll let you know it's West Nile in the area, it's EEE in the area. They often give recommendations, which are really helpful, but those are things you can put in your policy.

If you have a mosquito-borne illness, you're not going to go out at dawn and dusk. You're going to avoid water areas. You're going to be proactive in eliminating any standing water around your building. You're going to be proactive in eliminating ground cover in your area so that ticks and mosquitoes and things like that can't grow. If it is in your area, you can see I did talk about those things, avoiding play, considering using insect repellent, and checking for ticks when you come inside. Remember, they like to hide behind the ears, the back of the neck, around the ankles. They're just little things that sneak in into places.

Mercedes: Yeah. You had someone in the chat sharing where to check ticks, too, around the hairline, behind the ears, great.

Kim: Always follow your first aid training on best practices to remove a tick. There's a lot of common myths or ways out there that people talk about to remove a tick, but I really encourage you to look at what are those best practices for tick removal. Do you need to save the tick? Send it home with a parent so they can get it checked. Things like that. A lot to flesh out there and include in a policy and training with your staff.

We covered a lot of ground today. I love that you've all been able to share much in the chat. I know that when you're in many different regions across the country, your experience and interaction with some of these different environmental health hazards are so different. Some of you have been dealing with some of them a lot longer than others, in that sharing in the chat, you're really able to get such a good what do you call it, strategies from each other.

We hope that today some of the takeaways are that you can have a conversation with those in your program about how important it is to think about environmental health because our young children are really impacted by what's going on in that environment. Make a plan. Regularly check for environmental hazards and be prepared to find the hazard and respond to the hazard. Ongoing check the air quality every day. Guess what, when it's bad, you're going to know, and you're going to know exactly what to do.

Check the temperature every day, you're going to know what to do, and how to do it. Those things, those repetitive things really help to keep that promotion of health front and center and make it just a part of the way you approach keeping your children and your program healthy and safe. Regularly check for those environmental hazards and use your local and other resources to support your planning and response.

I can't say enough about during the pandemic, a lot of folks connected to their local resources more than they had in the past, and I continue I encourage you to continue that relationship, obviously, for infectious disease, but also for some of these other hazards as well. They know that these are in your community, and those local resources often have a great approach to addressing them.

The next slide does show you the Caring for Our Children Online Standards Database. This is a collection of standards that are voluntary that demonstrate the best knowledge and resources that we have on different things that could come up in early childhood programs. There's actually a whole special collection, which means that someone went through the 700-plus standards and said, these are the ones that relate to environmental health.

As we talked very narrowly today about the impact of the outdoor environment on environmental health, we acknowledge the fact that the field of environmental health is so much bigger. I encourage you to check out this resource because there's just so much more that we can begin to think about and doing for environmental health. Thank you for being with

us today and sharing so beautifully in the chat with each other. We learn so much from you, and we're so inspired by all the work that you're doing. I'd just like to do a shout-out to our team back there behind the scenes making sure today runs smoothly. I'll turn it back to you, Steve.

Steve: Thank you, Kim. Thank you, Mercedes. Great information. Based on the questions and comments in the chat, I think people took away a lot. This is one of the many ways you can complete the evaluation and access your certificate. There's a QR code, there's a URL. Livia is putting the URL into the chat.

The evaluation will also pop up when the webinar platform closes and will be included in the follow-up email that will go to everybody that registered, whether you attended or not, and you'll be able to access the evaluation, the handout copy of the slides, and the certificate. We have a monthly resource list that you can subscribe to, so here's the URL for that. next slide, Mercedes. We have active social media accounts with lots of resources, shared new resources, resources that you may have forgotten about. I can't tell you how important the My Peers Child Care Health Consultant Community, and the Health, Safety, and Wellness Community can be to helping you and your colleagues ask questions, share resources, explore new ideas through social media. Next slide.

This is how you reach us. If you have any other questions, if you have any difficulty with anything from today, you can write to us at health@ecetta.info. All of our resources that we've created as the National Center live on the ECLKC at that URL. We can't thank you enough. Please evaluate this session so we can continue to make sessions that are meaningful to you and your roles. Thank you, Melissa, and Kate, and Olivia, and especially Mercedes and Kim. And to each of you, have a wonderful, and safe, and healthy day.

Kim: Bye, everyone.