

[00:00:06.930] - EH Nexus Host

Hello, everyone. Thank you for joining today's episode of Centers for Disease Control and Prevention, Environmental Health Nexus Podcast, where we talk about environmental health topics. We're joined today by Dr. Neil Muscatiello, Director of the Bureau of Environmental and Occupational Epidemiology at the New York State Department of Health. During this episode, we'll be talking about CDC's Climate-Ready States and Cities Initiative and how CDC supports their work in preventing climate effects on health using the Building Resilience Against Climate Effects framework, also known as BRACE.

[00:00:45.820] - Dr. Neil Muscatiello

I really appreciate the opportunity to be here.

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As an overview, CDC's Climate-Ready States and Cities Initiative is helping grant recipients from 11 jurisdictions use the BRACE framework. Health officials use BRACE to develop strategies and programs that help communities prepare for the health effects of climate change. BRACE uses a five step process. Step one, is to anticipate climate impacts and assess vulnerabilities. Step two, is to make a projection of the disease burden from these impacts and vulnerabilities. Step three, is to assess public health interventions that can help reduce this projected disease burden. Step four, is to develop and implement climate and health adaptation plan and Step five, is to evaluate the impact of these efforts and make improvements as needed. CDC's Climate-Ready States and Cities Initiative funded 18 state and local health departments in 2010 and 11 in 2021. Approximately 57.5 million people are projected to benefit over the course of the five-year grant. Dr. Muscatiello, can you tell us what New York State is currently working on as part of this initiative to increase climate resilience and promote positive health outcomes in communities within your jurisdiction?

[00:02:09.560] - Dr. Neil Muscatiello

There's certainly a lot going on in New York State. And the first thing I'd say is we're certainly appreciative to have the CRSCI funding. It supports a lot of the climate and health adaptation initiatives and activities that we work on. It's really the source of dedicated funding. At DOH, New York State Department of Health here, several of these follow that iterative BRACE process that you mentioned to assess vulnerabilities and public health risks of climate change and then seeking to implement adaptations to reduce those risks. And we certainly appreciate the ability it gives us as well to enhance partnerships, working with others to leverage our resources in that climate and health adaptation work. So broadly speaking, New York State is currently implementing provisions of what's called the Climate Leadership and Community Protection Act, which I'll refer to as the Climate Act, which is New York State's climate law that commits the state to significant actions to reduce greenhouse gas emissions. We're working towards achieving a benchmark of 40% below 1990 levels by 2030 and 85% below 1990 levels by 2050. And we've had staff working on the CRSCI project to have supported that work.

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For example, we had the opportunity to provide technical input and data to the Climate Justice Working Group, which was charged with developing criteria for identifying disadvantaged communities to ensure that those communities benefit from the state's transition to cleaner, greener sources of energy, reduced pollution, and cleaner air, as well as economic opportunity. We're also working as part of a multi-agency team to develop a New York State extreme heat action plan as well as a multi-agency adaptation plan. As part of this effort, we're using some of that work we've done as part of CRSCI

around heat vulnerability and providing access to cool spaces, for example, in that work. So that's a broad and quick snapshot at the state level. But we've also really been working to encourage local level climate and health adaptation action. So to that end, we've been building a great partnership with the New York State Association of County Health Officials. So in concert with the hour of the New York State Department of Health's Environmental Public Health Tracking Program, working with NACCHO; we've been trying to encourage local health departments to support climate and health priorities as part of their work. So this project has provided resources to LHDs,

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when I say project, I'm referring to the BRACE project, it has provided resources to LHDs to develop community partnerships for collaborations and address local level climate adaptation priorities. A big piece of that partnership was to implement a series of virtual workshops last fall of 2022, that brought local health department staff and their partners to the table to learn more about links between climate and health. So we did these as virtual workshops, as I mentioned, and the way we structured them was to hold a couple of opening plenary sessions followed by some topic specific workshops. In the plenary session, speakers updated participants on implementation of New York's climate law, provided tips on how to communicate about climate change, discussed connections between mental health and climate change, but also highlighted existing resources and programs that could help inform local climate and health adaptation work. So this is really a forum for local health departments, their local partners, state agency staff to share climate and health activities, help springboard future collaboration. Subsequently, in the topic specific workshops, we were able to provide time for local departments and their partners to meet individually and discuss some of their priorities. I thought it was really interesting to hear the work that's already going on.

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For example, we heard about a pilot project to increase awareness about the impacts of climate change on health in a primary care clinic setting that primarily serves vulnerable populations. We heard about another county's experience and lessons learned responding to two 500-year floods within five years. We heard from another county on some of their efforts to integrate climate and health adaptation work in rural communities. So coming out of those virtual workshops, we're now providing some additional technical assistance in funding a small number of projects to support local health department actions in climate and health. And that wouldn't be possible without the CRSCI funding. So examples of some of those efforts will include efforts to promote heat awareness advice to vulnerable populations, increase awareness and education around tick-borne illness, and encourage access to local foods. So there's a lot of work going on, but those are two main projects that we're busy with at this time.

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That's impressive. How has BRACE helped your jurisdiction make positive impacts within your community?

[00:07:44.660] - Dr. Neil Muscatiello

Yeah, that's a great question. So I think that BRACE framework, which is so much a part of the CRSCI funding, has helped us in thinking about where to prioritize our climate and health adaptation work where we've been able to move forward. And we've been able to move forward with that on a variety of fronts. It's rewarding to support work that evaluates health risks and identifies vulnerable populations, which then leads to the implementation of adaptations. So, for example, a few years ago, some of our BRACE staff's work was also supported by NASA to use remote sensing data and evaluation of heat health risks. This work showed the impacts of hot weather on New Yorkers for a number of different health outcomes. And subsequently, we partnered with the National Weather Service and using those results to justify the

lowering of thresholds at which National Weather Service issues heat warnings. As another example, we've had a good partnership with the New York State Office of Temporary and Disability Assistance as well to promote their Home Energy Assistance Program Cooling Benefit. That program provides a window air conditioning unit to lower income people who may also have medical conditions that could be exacerbated by heat.

[00:09:05.160] - Dr. Neil Muscatiello

So as the climate warms, we really feel like this type of program will be important from a health equity perspective to ensure that all people have access to a cool space during hot weather. We've really worked to promote that program to ensure that the cooling benefit is fully utilized. And in fact, we have seen demand for the program increase in recent years. So it's been rewarding work helping vulnerable populations access those services.

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I talked earlier about those virtual workshops. We were really pleased with the turnout of those workshops. Of the 58 counties, health departments in New York State, 45 attended at least one, and that included 226 individual attendees from local health departments or partner agencies. And we really recognized that local health department staff are busy and short staffed, and especially coming out of COVID where there is a lot of attrition. So we are delighted that so many people took the time out of their schedule to attend. And I think we saw that in that we had some momentum coming out of the workshops and saw that interest in the number of local health departments who participated in that subsequent mini grant program that we're now funding.

[00:10:32.320] - Dr. Neil Muscatiello

So again, it's rewarding to help promote climate health as a public health priority, not only at the state, but at the local and local government and community level. And then again, we're always working to find opportunities to promote what's going on in the area of climate and health in New York State. And just recently as part of an ongoing grand round series, our commissioner of health, Dr. James McDonald, moderated a session on climate and health. So the audience there was primarily clinical and health care providers, but it was an opportunity to discuss the climate law and highlight some ongoing work to assess climate impacts. We were also able to share some examples of the kinds of efforts we'd like to see in healthcare settings and promote awareness about their role in climate change, mitigation, and climate and health adaptation.

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What do you consider to be some of the key benefits that come from these efforts supported by CDC?

[00:11:35.810] - Dr. Neil Muscatiello

Well, as I've alluded to previously, this programmatic funding has provided DOH with the resources to do many of the activities I've mentioned. Particular, as you've heard previously and what I've already mentioned, it's supported the expansion of partnerships among a number of agencies and programs that are doing work that intersects with climate and health adaptation, and we wouldn't likely be able to do that without the support from CDC. I guess in addition to what I've mentioned earlier, I'd also highlight a partnership we've built with the New York State Department of Environmental Conservation's Climate Smart Communities Program. So that program encourages local health departments to take action around climate mitigation and adaptation with special recognition to those that demonstrate concrete action through a certification process. So New York State local government jurisdictions can actually become certified climate smart

communities, which means they're taking concrete action towards climate mitigation and adaptation. And some of the actions that communities can take as part of that certification process, directly or indirectly intersect with public health. So we've really worked to promote that integration for communities that are interested in climate smart community certification. I'll also mention that it's just the CDC support has enhanced our ability to partner within DOH and working with other programs internally.

[00:13:12.420] - Dr. Neil Muscatiello

So, for example, the workshops we held pulled staff from vector-borne disease and the drinking water programs to act as subject matter experts in some of our discussions. We've also worked with our Office of Public Health Practice on several topics. And one I'll mention is integrating some of our work into the DOH Prevention Agenda, which is the department's roadmap for public health improvement. So we had the opportunity to include some climate and health related tracking indicators in the program to track progress in that area. And as I mentioned, without CRSCI funding, we wouldn't be able to do all this work and wouldn't be as successful in our efforts to integrate climate and health adaptation among other programs.

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Can you share with us New York State's next steps, priorities, and any short and long-term goals?

[00:14:08.510] - Dr. Neil Muscatiello

Yeah, sure. It's really exciting to be part of New York State's overall effort to reduce greenhouse gas emissions. Unfortunately, as we know, even with these significant actions that are being taken, we're still going to experience the impacts of climate change into the future. So our priority continues to be focused on how the climate impact on public health and the steps we should be taking to minimize those health impacts looking into the future. So in the short term, we're going to certainly maintain the partnerships that we have. We look forward to continuing to work with the New York State Association and County Health Officials to support climate and health adaptation actions at the local level. We look forward to continuing to fund local climate adaptation activities and growing that mini grant program. But in addition, we're always seeking opportunities to increase climate and health awareness, and we hope to be able to host some more events featuring subject matter experts in the future. Longer term, we're looking to ... We've done a lot of work in the area of extreme heat, and we want to also be thinking more about other climate impacts like extreme weather and flooding.

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We know those significant weather events impact New Yorkers. In our state, that can range from impacts associated with sea level rise, but also flash flooding in inland areas. Just as we've used this funding support to help in moving adaptations around extreme heat forward we'd also like to use it to support additional adaptation activities around extreme weather. But more generally speaking, I guess I would just say we want resilient communities that are prepared to protect their most vulnerable populations during extreme heat or extreme weather. So it's important that we consider planning, I think, too, for the possibility of additional migration to New York by people from other places who are suffering severe impacts of climate change. And that'll certainly require a lot of additional thought and multi-agency approaches. But I think that could be more important in the coming years as well.

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Thank you, Dr. Muscatiello, Director of the Bureau of Environmental and Occupational Epidemiology at New York State Department of Health for joining with us today. And thank you for listening to today's episode of the Environmental Health Nexus Podcast. Stay tuned for our upcoming episodes where we'll continue to dive into all things environmental health.