

Speaker 1 ([00:04](#)):

Welcome to "Prep Talk," the emergency management podcast. Find out what you need to know about preparedness. Get all the latest tips from experts in the field and learn what to do before the next disaster strikes from the Emergency Management Department in the city that never sleeps. Here are your hosts, Omar Bourne and Allison Pennisi.

Omar Bourne ([00:27](#)):

Hello everyone. Thank you for listening. I'm Omar Bourne.

Allison Pennisi ([00:31](#)):

And I'm Allison Pennisi, and you are our listeners and as always, we thank you for joining us. We want you to come back as often as you can. So, feel free to listen to "Prep Talk" on your favorite podcast provider. You can also follow us on social media, on our Twitter [@nycemergencymgt](#), Facebook, Instagram, and much more.

Omar Bourne ([00:49](#)):

The summer season officially begins in June, which means things are heating up, but prolonged exposure to the heat can be dangerous.

Allison Pennisi ([00:58](#)):

That's right, Omar. Extreme heat is considered the number one weather related killer according to the national weather service. So, how can people stay healthy and safe this summer, especially as we continue to respond to the COVID-19 pandemic. So, here to discuss how New York City is taking steps to prepare are Cari Olson, who is an assistant commissioner at the New York City Department of Health and Mental Hygiene. Cari, welcome to "Prep Talk."

Carolyn Olson ([01:24](#)):

Thank you, Allison and Omar for having me today and thank you for focusing on the importance of heat for New Yorkers' health.

Allison Pennisi ([01:31](#)):

We also have Kizzy Charles-Guzman, who is deputy director at the New York City mayor's office of resiliency. Welcome to "Prep Talk."

Kizzy Charles-Guzman ([01:39](#)):

Thank you so much, Allison, Omar. And thank you to your audience for listening and tuning in to hear us today.

Omar Bourne ([01:46](#)):

And we thank you both for being here to discuss this important topic. Let's get right into it. Can you explain what the health impacts of heat are and who is most vulnerable or affected by extreme heat?

Carolyn Olson ([02:00](#)):

So, we know that heat can... heat illness occurs when the body can't cool down and the most serious forms of heat illness are heat exhaustion and heat stroke. Heat stroke is something that happens when the body's temperature rises very quickly and this can rapidly lead to severe illness and also to death. And when we think about the symptoms, first of all, of course, being very hot. And then if individual's experiencing dizziness, nausea, hallucinations, those can be the signs that they may be experiencing heat stroke, and we would recommend that they call 911. We have additional information on our website around all of the different symptoms and encourage people to know them and be aware of how to keep themselves safe.

Carolyn Olson ([02:53](#)):

The other important thing about heat is knowing that chronic conditions that people already have, health conditions can be exacerbated by the heat. So, when the body is trying to keep cool, that can be very hard work. And this extra stress of the body trying to keep itself cool can then worsen other health conditions like heart or renal or lung disease. And that can result in those illnesses and conditions, worsening and causing more extreme illness or even death. So, it's really important for people to remember that the summer heat is not just uncomfortable, but it actually can be dangerous and to be aware of the signs and symptoms. Before I jump in and talk more about vulnerability in New York City at the population level to heat, I don't know Kizzy if you would have anything to add or Allison and Omar, if you have any questions.

Kizzy Charles-Guzman ([03:54](#)):

Well, before you jump into that, maybe I can describe a bit about neighborhood vulnerability for a second. I just wanted to share a couple of data points. So for one, back to the population piece, indoor temperatures can be up to 20 degrees higher than outdoor temperatures when people don't have air conditioner. So, a big piece of this of who's most vulnerable, it's really thinking about who has access to air conditioning in the city. What we do know on the neighborhood side is that our mortality rates are associated with poverty and poor housing quality. And what that means is that our heat vulnerability is not equally distributed across our neighborhoods. We have 3.4 million people living in high heat vulnerability census tracts, and we think that we have over 2 million New Yorkers that don't have access to in-home cooling.

Carolyn Olson ([04:51](#)):

Yeah. And this is Cari again, I would just underline that as well and emphasize that the urban heat island effect, which I know Kizzy can talk more about as well. We know that that makes our city warmer and that global warming from climate change is increasing the number of heat waves, both the length of them and the frequency. And so, we as a city need to be thinking about and preparing for this.

Carolyn Olson ([05:19](#)):

From our surveillance of heat related illness and death at the health department, we know that the risk of death during heat waves is actually the highest among our non-Latinx black New Yorkers, it's most common in low income communities. And the majority of deaths are happening to people who were exposed to heat while they were at home in a hot apartment where there was no air conditioning. And so, as Kizzy already said, a key factor here is access to air conditioning and this is an equity issue. Those who are most vulnerable to heat are people who don't have, or are not using their air conditioning perhaps because of cost concerns. And they have one or more other risk factors such as being older or having a chronic health condition.

Carolyn Olson ([06:12](#)):

So, I just think it's really important to underline, particularly in this time we are in now that the inequities that we're seeing, both in the COVID pandemic and around us in our social environment are also playing out in heat related illness and death. The racist systems and policies that have impacted opportunities and resources in our most vulnerable communities have in turn impacted the environmental and social factors that drive heat vulnerability. And at the health department, we've documented for example, that there is much lower access to air conditioning, which is so key in these communities, in low income communities. We see differences that are really dramatic where our poorest communities have up to 30% of residents living in homes without air conditioning, compared to only 1% of homes in our richest neighborhoods. So really thinking about, and want to emphasize that this is a question of equity, and we want to find ways for people to get cool, which the City is doing a lot of work toward.

Omar Bourne ([07:28](#)):

And I'm glad that you mentioned the City's initiatives to help fight this issue because the mayor recently announced the summer plan, which the City is working with vulnerable populations and these neighborhoods that you identified to provide air conditioners for the most at risk populations. And that will help with part of the equity and access issues that you talk about.

Allison Pennisi ([07:49](#)):

We're talking about equity in emergencies, and I want to direct this next question at Kizzy. Kizzy, you've said that air conditioning is not a luxury but a lifeline. So, what is the City doing to help residents this season?

Kizzy Charles-Guzman ([08:03](#)):

Thank you, Allison. I do want to highlight that in 2017, we launched Cool Neighborhoods NYC, which was \$106 million investment and comprehensive strategy to make communities cooler by significantly increasing our tree planting and street trees and parks, and also targeting our painting of reflective coatings on millions of square feet of rooftops. And what's interesting is that we did that in our most heat vulnerable neighborhoods. So, the idea is the same to what you just said, which is that environmental amenities are a lifeline and not a luxury that is reserved for high income neighborhoods.

Kizzy Charles-Guzman ([08:42](#)):

Together with the health department, we have worked to provide heat risk education and increasing social support networks through our Be-A-Buddy pilot program. And we're also enlisting home care agencies and community health organizations as partners in building community resiliency so that we can protect those that are most vulnerable to heat. We've also enacted legislation to require cool roofs and green roofs and new buildings and substantial renovations. So, I tell that to say that we've been working to cool our neighborhoods, to make our communities more resilient to climate change for a few years now.

Kizzy Charles-Guzman ([09:16](#)):

But as this summertime heat season approaches, and as Cari mentioned, the COVID-19 crisis and the climate crisis are just poised to interact in ways that could really be dangerous and cause additional loss of life, particularly in many low income black and brown communities that have already been devastated by the virus. So in May, we launched a \$55 million program to provide 74,000 air

conditioners to low income and vulnerable New Yorkers, especially seniors administer through our capable city agency partners. We're particularly glad that this effort is assigned with equity at its core, by focusing on public housing residents and those who are most economically and physically at risk to heat related illness and death.

Kizzy Charles-Guzman ([10:05](#)):

We are definitely hard at work now, installing these air conditioners. And as you can imagine, it is no small feat considering everything that's going on during these times. We're also working on expanding and refining our inventory of cooling centers with our emergency management colleagues, so that this summer we can maintain social distancing and allow people to access safety as they need during a heat emergency. And we are also assessing streets to target for the open streets program that is based on the heat vulnerability, open neighborhood, accessibility to parks and kind of big cover.

Kizzy Charles-Guzman ([10:41](#)):

So, basically we're just trying to find opportunities for New Yorkers to stay cool and safe, mostly indoors but also outdoors. And I would be remiss if I didn't mention that while our efforts to protect at risk New Yorkers from heat the summer are unprecedented. There was even more that should be done, particularly at the state level, expanding cooling assistance through the New York State heat program and providing summer utility bill assistance through the public service commission are two critical steps that should be undertaken without delay.

Omar Bourne ([11:14](#)):

All excellent points, and you mentioned COVID-19 and as you know, it continues to impact New York City and the rest of the nation. So, I want to ask how can a pandemic affect the way we prepare for and respond to a heat emergency? And are those who are most at risk of COVID-19 also most vulnerable for heat illness?

Carolyn Olson ([11:38](#)):

Very much. Yes. We know that the same populations that are at risk of severe COVID-19 complications are also at higher risk of heat related illness if they don't have access to air conditioning at home. So, those are older adults and those with chronic conditions like lung disease, heart disease, renal disease, also those who are obese. And so, as we're thinking about this intersection, or sort of colliding of risks of a heat event with the COVID pandemic, we are really trying to think about how can we balance COVID-19 transmission prevention measures with the need to make sure that people stay safe and cool.

Kizzy Charles-Guzman ([12:29](#)):

That is great, Cari. And I just want to address a piece of Omar's question about doing preparedness work during this pandemic. And just want to just highlight the role of community organizations, the role of the general public, the role of City employees, just all of us as humans in keeping each other safe as we have to stay indoors, as a lot of our outdoor cooling strategies are just simply less available. We need to find ways to communicate with each other and to keep each other safe by being a buddy. Basically checking on each other, checking on our clients, really thinking about ways to reach those that are most vulnerable via their trusted messengers.

Kizzy Charles-Guzman ([13:22](#)):

And often that does not have to be City government, often that is our community based organizations, our community health workers, our home health aides, our clergy and faith based organizations. And many more that play a role in how critical emergency preparedness information actually reaches those inside their apartments, right, inside their homes. And whether there's enough trust there and enough social cohesion both at the big community level, but also at the building level, at the family level, right, so that those messages resonate with the recipients and people actually can change behavior.

Kizzy Charles-Guzman ([14:03](#)):

I remember that my dad did not like air conditioner and even when I purchased one for him and had it install, he would always keep it off. So, it was really that extra phone call during periods of extreme heat to convince him to turn it on and to set it to 78 degrees so that he would be able to stay cool in his apartment during these heat waves. So again, helping to do that for each other, for our clients, for our friends and family, especially those that have those risk factors that Cari mentioned before. It's really critical parts of our tool and our arsenal as we deal with this pandemic and extreme heat events.

Allison Pennisi ([14:43](#)):

This goes back to what we say on nearly every episode of "Prep Talk," an emergency is a shared responsibility by working together with our agency partners, community based organizations, volunteers, neighbors, and our support networks. We can get through critical times like these. We are talking to Cari Olson and Kizzy Charles-Guzman. Up next, we will discuss the simple but critical steps New Yorkers can take to stay healthy and safe this summer. First here's a public service announcement from New York City health commissioner, Dr. Barbot.

Dr. Barbot ([15:15](#)):

Hi, New Yorkers. This is health commissioner, Dr. Oxiris Barbot with an urgent message. New Yorkers need to stay home to stop the spread of coronavirus. If you must go out for basics like groceries and medicine, practice social distancing and keep at least six feet of space between yourself and other people. Avoid crowds and again, put distance between yourself and others in line at the store and on the street. For alerts from the city text C-O-V-I-D, COVID to 692692.

Speaker 7 ([15:45](#)):

You're listening to "Prep Talk," the Emergency Management podcast.

Omar Bourne ([15:51](#)):

You're listening to "Prep Talk" and we are back. We're speaking with Cari Olson and Kizzy Charles-Guzman from the City of New York about extreme heat. Now, I want to talk about actions that people can take, as Allison said before the break, to stay healthy and safe before heat emergency. So, what can people do to make sure that they are safe during periods of extreme heat? Let's talk about homes and then when we look at reopening for New York City, let's talk about what businesses can do as well.

Kizzy Charles-Guzman ([16:23](#)):

Thanks Omar. I'm glad that you raised that and it's really important for us all to think about ways that we can both for ourselves and as we're reaching out to others, keep ourselves safe both indoors and outdoors during the extreme heat. I can't start without just reiterating the importance of air conditioning and making sure that we find relief from the heat for even a couple of hours in the day as possible. And it's also important to remember that when it's extremely hot out a fan alone may not be

enough to keep you cool in your apartment. And if you have it to use it with air conditioning on and when the windows are open. We also... in your home can close window shades and curtains to keep the sun out and the temperatures down. It's not a great time to do that big baking project or cook a huge meal in the middle of an extreme heat wave. So, try not to use your stove or your oven, unless you absolutely have to.

Kizzy Charles-Guzman ([17:24](#)):

You can take those cool showers but try to make the water tepid or cool, not freezing cold because sudden temperature changes could make you feel dizzy or sick. And then it's so important to drink lots of water and water really is the best. And in New York City, we have the champagne of water coming out of our taps and just make sure [crosstalk 00:17:47]-

Omar Bourne ([17:47](#)):

I like that.

Carolyn Olson ([17:48](#)):

... hydrated. And also even if you don't feel thirsty, it's still important to drink, particularly when you're feeling hot. Also good to avoid drinking lots of alcohol or caffeine or any beverages that have a lot of sugar in them. I also want to mention quickly outdoors as well. We are, of course, very focused on the risks that we know happens at home to people who don't have air conditioning, but we're all out and about as well or will be as the summer moves on.

Carolyn Olson ([18:22](#)):

So, it's important to remember that when [inaudible 00:18:25] to the weather and to heat advisories, and when one is in effect make sure to avoid doing really strenuous physical activity on those days. Again, drinking lots and lots of that water, stay in the shade and out of the direct sunlight, wear those light loose fitting clothes and a hat to help keep you cool. And I'd be remiss if I didn't mention and remind everyone to put their sunscreen on at least SPF of 15. And there are also many folks who work outdoors regularly and all of these things are just as important in those cases. So, even if we often feel that we know how to do our jobs and we can work outdoors and we're ready for anything, the heat can be very dangerous, and we want people to take these precautions.

Kizzy Charles-Guzman ([19:17](#)):

I will also add to all of Cari's excellent points that as we think about reopening, I also want to call on the business community to share the cool. And what that means is that we need to identify ways to truly be partners in heat resiliency. And we can do that in a few ways. One, if your building doesn't already have a cool roof, call us. Call 311, and ask how we can help you get a cool roof on your building. It is an excellent way to contribute to community cooling at the neighborhood level if we have fewer dark asphalt surfaces at the neighborhood scale, right? And you can do that either by cooling yourself, meaning just paint your roof white. It is currently required by City law. It is very cost-effective to do that, and you will see an efficiency and a savings in your electricity bills. If you are unable to cool yourself and you serve a social function, the city can help. So again, you can find information about this online, looking at the cool roofs program.

Kizzy Charles-Guzman ([20:27](#)):

Secondly, sharing the cool also means to not waste energy, especially during periods of extreme heat. And so, during the summer months, if your employees inside the building, or if your staff are sitting around with sweaters on, because that's how low your air conditioner is set to, crank it up so that we can actually support residents that are sitting and baking in their apartments, because they're concerned about electricity usage. So, what we want to do is to protect our electrical grid. Yes, as we pay attention to the public messaging and heat advisories during extreme heat. We want to protect our grid.

Kizzy Charles-Guzman ([21:11](#)):

But the most important thing is to be not wasting energy so that we can actually facilitate cooling for those that need it the most, leaving the lights on in our office buildings all day. It's not a great practice, we want to make sure that we have our energy system up and running to really protect the health of vulnerable New Yorkers by preventing power outages. So, I just wanted to put that in there that in reality, we all have a place to the role to play. An important role to play in heat resiliency and that starts by preventing our outages and sharing the cool with those that are most vulnerable.

Omar Bourne ([21:46](#)):

And these are excellent [inaudible 00:21:47] because as you said, when we get to other phases of reopening, this is great information for businesses to remember. And for our listeners, when we talk about extreme heat, I know we've been using that term a lot here on the podcast. I just want to remind you that we define extreme heat as two consecutive days with a heat index of 95 degrees or one day with the heat index of 100 degrees. So, when we talk about extreme heat, that's what we're referring to. And the heat index is actually the temperature and the humidity. I know I'm getting a little technical but I just wanted to explain for our listeners.

Carolyn Olson ([22:24](#)):

Or if I could add on that, I'd like to mention that New York City developed those cutoffs or those triggers for heat events based on our understanding of heat health in the city. And it's at those thresholds that analyses have shown that we see the greatest increases in heat related illness and death in the city, which is why the city mobilizes to really protect New Yorkers.

Omar Bourne ([22:52](#)):

Yes. Fantastic point. Thank you for that.

Allison Pennisi ([22:56](#)):

Some simple but critical steps you can take to stay prepared, protect your home from extreme heat. You can install high performance windows and sunshades. Check the condition of your air conditioning and ventilation systems, you can insulate your home. And as Kizzy mentioned, install a light colored roof to lower your building's internal temperature. Be sure to not only protect your home, but protect your health. Know the signs of heat related illness. Heat illness is very serious and prolonged exposure to the heat can be harmful and potentially fatal. Call 911, if you were someone who know show signs or symptoms of heat illness including headache, lightheadedness, muscle cramps, nausea, and vomiting. For our listeners in New York City, you can visit [NYC.gov/health](http://NYC.gov/health) and [NYC.gov/beattheheat](http://NYC.gov/beattheheat) or contact 311 for more tips and information. Kizzy and Cari, any final thoughts before we go to rapid response?

Carolyn Olson ([23:52](#)):

I would just say once again, to remind all New Yorkers to be a buddy this summer and make sure to check on your friends and neighbors. And also don't forget to turn on your air conditioning when we have that really hot weather.

Kizzy Charles-Guzman ([24:09](#)):

Thank you, Cari. And I just want to highlight that as the climate changes and all of our climate scientists project that New York City summers will get hotter and our heat waves will be longer, more intense and more frequent. The effects that we don't want to see in the city are increased mortality and increased illness, for sure, but also just highlighting that neighborhood and building characteristics really has an impact on heat-related health risks, right?

Kizzy Charles-Guzman ([24:41](#)):

So again, when we look at a map and a thermal imagery map of New York City, open space areas like prospect park and central park, our smaller parks, even our cemeteries are cooler and places like our airports and our roads and our highly dense neighborhoods are warmer. And so, what is really clear is that key drivers of heat impacts in New York City including our land use, like our pavements, our land cover. So that's our tree kind of be and our vegetation cover, traffic infrastructure and sources of what we call waste heat, which is equipment that is just breathing hot air onto the streets, right? And also our building materials and building heights, right? Dark glass facades, glass windows, all of that helps to concentrate heat.

Kizzy Charles-Guzman ([25:33](#)):

So, I just wanted to remind everyone that our decisions around each of these pieces matters. Don't idle your vehicle when you don't need to, because that waste heat from your car matters at the neighborhood scale. Or pave over your driveway, if you can help it because that amount of impervious surfaces matters at the neighborhood scale when it comes to heat impacts and so on. So, if you can help us all build a cooler city for the future, even though we are really working hard to make sure that the city is heat resilient today.

Omar Bourne ([26:09](#)):

And the reoccurring theme around what you just said is that our actions can impact and influence someone else's life. So, when we talk about being a buddy and looking out for our neighbors, we're not just talking about giving people a call or logging onto FaceTime or Skype or Zoom. We're talking about the actions that we can do that have an effect on how other people live. So, it's always good to remember to think about others because our actions can definitely have an impact. And I love that you said that, that was well said.

Kizzy Charles-Guzman ([26:42](#)):

Omar, thank you for that. And I just want to make one last plug that I should have said before, but taking care of our street trees is absolutely, absolutely an act of love for all New York City residents. It helps our neighborhood speak cooler. It creates shaded corridor so that people can be safe leaving their hot apartments and heading to a cooling center. So again, just planting a tree or keeping our street trees alive and well cared for is an act of love. It's all of our jobs. So thank you, New Yorkers for helping us do that.

Speaker 7 ([27:18](#)):

If you don't know, now you know. You're listening to "Prep Talk," the emergency management podcast. It's time for "Prep Talk" rapid response.

Allison Pennisi ([27:32](#)):

It is rapid response time and if you are a first time listener, it's simple. Omar and I will ask questions and our guests will give the first answer that comes to mind. What is the one emergency item you cannot live without?

Carolyn Olson ([27:45](#)):

So, both myself and my daughter have asthma. And so, it's really important to us to have our inhalers and making sure that our prescription is updated and that it doesn't get too low. And that we have on hand that medication in case we have an asthma or an asthma attack.

Kizzy Charles-Guzman ([28:07](#)):

New York City tap water is my emergency item, for sure. It is, as Cari mentioned, the champagne of waters and I cannot do without that. And I put it in my reusable water bottles, which are good for the environment and good for having my New York City tap water available at all times.

Omar Bourne ([28:26](#)):

I love it. I love it. I love it. I'm also a fan of the H2O. So, second question. What is your favorite way to keep cool? Kizzy let's start with you.

Kizzy Charles-Guzman ([28:39](#)):

I draw the blinds in my apartment. I turn my air conditioner to 78 degrees. I have a bowl of strawberry ice cream on the couch with my cat, and that is my go to my favorite way to [crosstalk 00:28:52].

Omar Bourne ([28:54](#)):

I love that. I love the ice cream. I like strawberry, but vanilla is my favorite but I like that, Kizzy. Cari, what about you? How are you going to top ice cream?

Carolyn Olson ([29:05](#)):

I would not dream of topping ice cream. I would just dream of eating it. And I will echo that I definitely get... turn that AC on at home and I'm going to steal the ice cream because my kids are going to enjoy it with me.

Omar Bourne ([29:20](#)):

Any particular favorite flavor?

Carolyn Olson ([29:22](#)):

Oh yeah. Our family definitely, we'll go chocolate all the way.

Allison Pennisi ([29:29](#)):

Some of the work you do in one word.

Kizzy Charles-Guzman ([29:32](#)):

Well, minus two words, I would say environmental justice.

Carolyn Olson ([29:36](#)):

And I'm going to go with two words as well, health equity.

Omar Bourne ([29:40](#)):

Thank you both. Both excellent answers and two words are allowed, it's okay. No problem with that. I want to thank you both for being on the show with us.

Allison Pennisi ([29:50](#)):

Another very important conversation here on "Prep Talk" about being prepared for extreme heat. To our listeners, keep in mind the simple but critical steps you can take to stay prepared this summer. Be cool, be a buddy, be informed.

Speaker 1 ([30:11](#)):

That's this episode of "Prep Talk." If you like what you heard, you can listen any time online or through your favorite RSS feed. Until next time, stay safe and prepared.