Our first panel discussion, our first presenter would be Mitch Stripling. Mitch Stripling currently serves as the assistant commissioner for agency preparedness and response at the New York City Department of Health and Mental Hygiene where he manages units for planning, training exercises, risk analysis and evaluation among others. He has served in senior leadership roles across multiple citywide emergencies including Hurricane Sandy, H1N1, the Ebola crisis and the international epidemic of Zika virus. In 2017 and '18 he managed the Health Department's supportive deployments to Puerto Rico and the US Virgin Islands. His unit has developed nationally-recognized threat response guides for 21 high-risk scenarios that could impact New York City; a data-driven risk assessment methodology, a set of health equity-based recommendations for RCS and an evidence-driven all hazards planning database among other nationally recognized models. Prior to working in New York City, Mitch worked for the Florida Department of Health. There he helped plan and implement the response to six federally declared disasters including the 2004 record-breaking hurricane season and Florida's response in southern Mississippi after Hurricane Katrina.

Our second presenter on this panel, I'd like to introduce the honorable Dr. Rafael Rodriguez Mercado who is currently the secretary of the Department of Health of Puerto Rico in which he has charge in the mission to design and implement the public health policy as encompassed in the government platform of the current administration. His agenda is based on three strategic pillars: a patient-centered health system, fair and accessible health services, and emphasis on primary care and prevention. He serves as director for renowned intervascular surgery program and was chancellor of the medical sciences campus at the University of Puerto Rico. Prior to his current position, he was a professor of neurosurgery at the school of medicine and the director of intervascular surgery program at this institution. Dr. Mercado obtained a bachelor of science degree in chemistry and a doctor of medicine from the University of Puerto Rico. As a student he received the research and student awards as well as recognition of the House of Representatives in 1988. He completed his specialty in neurosurgery after seven years of training at the University of Puerto Rico school of medicine. Then he obtained a subspecialty in intervascular neurosurgery from the State University of New York in Buffalo New York. In September of 2017 he was appointed associate professor in surgery of uniformed services, University of Health Sciences of the Armed Forces of the United States.
With this appointment, he joined the faculty of this prestigious military university. Until then he had held the position of command surgeon of the United States Army Reserve in Puerto Rico.

He is currently attending physician as neurosurgeon at Walter Reed Medical Hospital and Brook Army Medical Center. And he wanted all of you to know that he's married to Wanda Santiago Penmentaro -- I hope I didn't say her last name wrong -- who is a medical technologist. And he is the proud father of a young university student Raphael. Our discussant for this morning's panel is Captain Renee Funk. Captain Funk currently serves as associate director for emergency management, office of director, National Center for Environmental Health, and HSDR here at CDC. Dr. Funk received her doctor of veterinary medicine from Iowa State University, her master's of public health in tropical medicine from Tulane University, and a master's of business administration from Georgia State University. She is a diplomat of the American College of Veterinary Preventative Medicine. Dr. Funk is a recognized expert in environmental and occupational health and emergency management. Her portfolio includes emergency management of chemical, radiological and natural disasters. Dr. Funk recently served as CDC's incident manager for the 2017 hurricane response. Please join me in welcoming Captain Funk, Dr. Mercado and Mitch Stripling for this first panel discussion. [ Applause ]

>> Okay. Good morning, everybody. >> Good morning. >> Somehow when you give those bios, you never actually think anybody's going to read all of it, you know what I mean? All right, I'm going to stand in between the two microphones. Is that how it works? I just want to make sure I have all the buttons right. Okay. I'm going to tell a personal story today which is a very limited story. And I feel right now that I'm in very distinguished company, so I want to make sure that it is heard in that sort of personal way. The reason I frame everything that way is that I work in New York City but I'm from South Georgia. And I have family that I know of that were on the wrong side of the Civil Rights movement deep into the 21st century. And that's why for me and for us in New York City, when we do this work, we talk about health equity and what health equity means. But when we do the work in New York now, we want to be clear that what we're talking about is structural racism. Okay? Health equity is a great set of intersections.
There are a lot of things that are in there about functional needs and access. But the point of the spear is the structures of power that we've created in this society that have institutionalized bias, right? And that's led to a set of structures that make emergency response more difficult and in some ways dangerous. And that's what I want to frame my talk around this morning. When you have a disaster, the disaster isn't caused by the hazard. It's caused by the people the hazard impacts, right? The last presentations did a great job of framing that. But those people are where they are because the society has sort of created the institutions that put them there, generally. And that's why when you are coming in as a representative of a government trying to help them, honestly trying to help them, and many heroes have worked in these responses, you are put back by that. That makes your work harder, because you're kind of fighting the system. Does that make sense? Okay. So it's important to start with the question, do our emergency responses make these inequities that we're talking about better or worse? We cannot assume that we're going to make them better. In a lot of ways we go in and sometimes they say the disaster after the disaster because the recovery efforts sometime creates issues that weren't there before. We have to be honest about that. And for us in New York City, this is a very personal story. This is not a story of me trying to come in and criticize other folks. When we did our Zika response at the beginning of 2016, we like every good public health worker institution out there started messaging for people to get tested. And so what you see here is the chart of our testing rates -- and I don't know if you can see the quartiles. But as soon as we put out the messaging, the first thing we did was we distributed messaging around the city. Hey, city, go get tested. Who got tested? Well, the people that got tested were the lowest-priority folks. They were the wealthy folks on the upper west side who were paranoid, who were not going to be traveling to Zika-impacted countries, right? And so we looked at that and that caused us to take a hard, deep breath. And there were two camps of folks inside of our public health incident command system, because we're talking about emergency management today. And one camp was, "Well, you know what? That's just the underlying inequities of the healthcare system, right? That's just our message is going out into the healthcare system. What can we do about it?"
And then there was the voice that said, "You know what? That is our problem."
And that's the voice that ultimately won.
And what you can see over there is that we did five months of concentrated, resource-intensive work with our highest-priority areas, the areas that would light up on the social vulnerability index.
The areas of people who were traveling to these countries but who also were lower poverty, who had lower rates of care.
And so when the summer hit, we were able to flip our narrative and the highest areas of testing were in large part the highest-priority quartiles.
But that took deep and intentional work and pushing of our commissioner for five months, because the incident command system that I am proud of, that I helped to build, pushed against that, right?
Because incident command is built on the idea of act, act, act, execute, execute, execute.
And if you execute unintentionally, you will make the issues worse.
Are you with me?
I want to see, because you get sleepy.
People get sleepy.
Okay. So it's important when you're working in incident command not to work from an equality frame, because if you're distributing resources equally, those who have less will continue to have less.
But to figure out and use these vulnerability tools to move towards an equity framework.
And everybody gets the box graphic.
I don't know why.
I don't know where this graphic came from, but for some reason the box graphic is the thing that knocks this into folks' heads.
So if we are not intentional, emergency responses will reinforce underlying structural racism.
I have seen it.
I've been doing this since 2004.
Every response that I've been part of that hasn't stopped and thought and refocused has reinforced structural racism.
You've written a paper four years later and you felt really bad about it, and now it's time to stop doing it.

So let me tell my personal story about my experience in the US Virgin Islands.
And the mission we did was very limited, small, one mission among many.
And there were so many heroes in that response.
And Captain Funk and her team were right there in the middle of it being heroic.
And I want to make sure that that's captured in the story I'm going to tell.
Because the thing to know about all of the territories that I want to make sure we say plainly in this space is that they operate in what's pretty much a
colonial framework. If you look at them, they have unfair CMS reimbursement rates, they have limited authority over all kinds of things. They are designed to be weak structures governmentally. Not empowered the way a state is. And so when you go into a place like that, the nature of the structures of power that you use is important, right? It speaks to the mission. So the experience that I have is the structures that we put in place as a nation -- well, first let me talk about -- I got a little ahead of myself. Our mission, right, was to go down and help the local health department to craft a recovery plan. Me and a team of five experts, we were working with the leaders of the health and medical infrastructure in the VI along with Natalie Grant and Captain Funk and a bunch of federal authorities to build and craft a recovery plan. That was our job. And we were approaching it from an empowerment framework. How do we empower locals to craft a plan and to grab it and run with it? So when you go to the Virgin Islands -- and we were living in the FEMA cruise ships. Everybody, if you deployed, you maybe lived in the FEMA cruise ships. And tactically I totally understand why you deploy a cruise ship into a harbor of a territory. Because where are you going to base, right? But at the same time, what do you create? You create a little fortress. You create a fortress, almost a militarized fortress with the American flag everywhere and uniforms everywhere. And then inside of an abandoned Radio Shack in a strip mall you build out a high-functioning, high-tech command center that is sequestered away from the life of the people. And then you build a command structure that is only accountable to itself, a federal command structure that to my point wasn't fully integrated with the local structures of power. What you are doing in some ways is you are recreating an authority of colonization in the space through emergency management. Does that make sense? You're creating a new power center and although you're maybe paying lip service to the idea that that power center is supporting the locals, what you're really doing is you're saying, "There's a new boss in town." And this is not to speak to the intent of any of the heroes who worked within that structure. This is not about personal intent. This is the way the structures that we are within kind
of create us and force us to act in ways that are uncomfortable and get in the way of our mission.
And for me the lesson was --
and this is us standing with Reuben Malloy
who is our handshake in the VI --
empowerment is not a great framework.
It smacks of a savior framework.
Who are we to empower you in your homes
to do the job you need to do?
Who are we to do that?
I heard so many responders in these situations --
and we sent assets to Puerto Rico, we sent assets
to the Virgin Islands and we sent assets to Florida,
we sent assets to Texas.
Only in Puerto Rican missions
and VI missions did I hear the locals called incompetent.

All the time, over drinks.
And I'm trying to be candid in the room.
"Why can't these folks get it together?"
And the reason is because they have been structurally deprived
of resources for 100 years.
They were created to be incompetent
because of the structural frameworks
that they are trapped within.

That's what I think about colonial frameworks.
And so this is some art in the Virgin Islands
that we were experiencing.
The thing we have to learn is how to fit our resources
which are so needed and our expertise which is so needed
within the spirit of a place in a way that acknowledges
that we are not the heroes in this situation.

And so when I came back to New York City, we had to wrestle
with these same things, because we have done the same thing.
We did the same thing in Sandy.
We did the same thing in H1N1.
We did the same thing in Ebola.
This is not a federal territory problem.
This is an emergency response problem.
And I wanted to wrestle with it.
I wanted to say, "All right, guys, sit down.
Let's fight the fight."
And so we went through internally.
GARE process -- the Government Alliance for Racial Equity.
I don't know if you guys know that group or not.
They have a tool that lets you sit down and look
at your processes and interrogate them
from an equity framework to see what you should do about it.
And so we went through a six-month intensive process
where we had focus groups with our incident command leaders,
incident command staff, our community workers,
surveys that went out.
And it turned out we were not as cool
as we thought we were, right?
That's why I want to be so clear about my own fallibility
and our process, right?
And especially as a person from my background speaking
about structural racism, I want to be so intentional about this.
But I want to give you practical stuff.
What was the problem we found?
Our community leaders felt that we
in New York City were not including them.
Locals complained to the feds all the time, "Well,
you're not including us," right?
The community said, "You're not including us.
You're telling us to go hand out fliers,
but you're not letting us strategize about how
to work in our communities."
So what we've done is we've actually brought the community
leaders into our ICS framework.
They're in the incident command system.
There's not a separate system.
There's not a separate bunch of meetings.
They are right in there with us.
Which is a dangerous and difficult way to do business.
People bring up spoilers, right?
But if you're going to make a unified framework,
it has to be that way.
We heard that, "Hey, Health Department, you were great
at advocating for racial justice right
up until the emergency alarms go off."
That's when you get scared.
Because you get in a room with the cops and the firefighters
and the emergency managers and everybody else and then you want
to say, "Yes, sir," and "No, sir,"
because the mayor is pounding on his desk
and he's saying, "Get the job done."
And if you're going to do this, you have to understand
that advocating for racial equity means that it is part
of your emergency response function.
When you are asked for an assessment of a disease
or a disaster and what the health impact is,
you'd better talk about racial equity
or you're not doing your job.
And so that is something that we have taken up this year.
Our staff of color within our Health Department felt really
alienated from the decision making process.
They said, "Look, we are from these communities.
We were from the West African communities during Ebola.
We were from Zika-impacted countries.
And you are not listening to us."
And so we have put in place objective criteria
for our ICS leadership.
We're trying not to choose our ICS leaders based on gut,
based on, "Oh, I think that person's the best person."
But let's have an objective pathway for it.
And we're trying to change the training of our leaders,
to not train them in emergency response, "Get it done,
get it done, get it done," only.
But to train them in humility and cultural sensitivity
and the art of listening.
And we've written into our accountability metrics
and our evaluation frameworks
that our incident commanders will be accountable
for advocating for racial equity both inside of our structures
and outside of our structures.
And finally, the final three things I guess I want
to give you.
We've tried to figure out how to build this idea
of intentional equity into our response systems.
Because when we've done it before, when we changed paths
for Zika, when we said during Ebola
that the police department couldn't be in charge
of monitoring the West African case contacts even though their
missing persons bureau wanted to have that job,
it was because our commissioner stood up.
And we needed to help make the system stand up.
So we're running right now our preparedness projects
through its own version of an equity analysis.
We are building a new vulnerability framework that's
based on the social vulnerability index
but includes a number of other racial equity calculations
that we can use to do neighborhood vulnerabilities.
And in particular we are changing the principles
and practices of our response system.
We are building into this system the idea
that emergency management is not a charity.
That is now what we are doing.
We are acting in solidarity with our fellow residents
who are having problems.
We are an agent of government.
That means we are working for them.
We are starting from a place of humility,
not heroism where the survivors are the heroes in the situation.
And we're trying to make emergency management more
of a community organizing framework
than a response framework.
Because emergency management is all about collaboration
and coordination, right?
That's what it's about.
And so those are the frameworks we want to begin on.
So we are making sure equity is part of our agendas,
that we're decentralizing decision-making
and we are trying to prioritize locals knowing
over our bosses knowing.
That's the hard one, right?
Getting information out to the locals before we tell
our bosses.
But that's where it's needed, right?
When you get information into those hands, we're there.
And we're trying never to develop a mission --
because what we want to do, we're smart folks.
We want to white board it.
"Tell me the problem.
I'm going to develop a mission."
We're trying never to develop a mission
without informed community participation.
Because as soon as you develop a mission and get feedback on it,
when you ask for feedback from the people
that are most impacted by a disaster, they're in the worst position to give it, right? They're in this state of shock. And so you can't do it like that. They're going to just say, "Thank you for being here. Whatever you want to do is fine." You have to do the mission development with those impacted communities. Whew. I'm going to take a breath. That was a little bit of a rant. And I saw five minutes and I was actually grateful. I was like, "I have five more minutes." I've never felt that way before. Usually I'm over time. So all of that is to say this.

It's all about the delta, right? In our responses we're always talking about the delta. What's the difference we're making? What is the change we're making? And the lesson I want to give to you as kind of an outside, okay, as a person speaking from structural racism, trying to own my role in that privilege, trying to do good intentionally, is that equity is not a moral force. I mean, it is. It's a moral choice; we need to do it. Equity is essential to the success metrics of a response. Because in a response, you're trying to recover from the emergency. You cannot do that effectively without a clear understanding of the role that especially racial equity plays in the frameworks you're doing. You're just going to fail. So you've got to do it or you're going to get called before Congress, you're going to get written up badly in the papers because you haven't thought about it. And the other point is, when you talk about building back better, you cannot do that without equity. Right? Building back better means building back equitably. It means using the disaster as a policy window to unpack the racial injustices that are present in that situation and that created the impacts to the disaster. And then using the power and force the disaster recovery brings to heal some of those inequities and put them on a path towards resolution. Because a more equitable community I guarantee you is a stronger and more resilient disaster — sorry, is a stronger, more resilient community when the next disaster hits. Purely as a matter of practice, we must integrate better equity frameworks into our emergency response protocols. Thank you. [ Applause ]
>> Good morning, and on behalf of the governor of Puerto Rico, Ricardo Rosello, and myself, thank you so much for what you did for Puerto Rico. There are a lot of faces that I remember from those days where Puerto Rico was struck by Hurricane Maria. And an excellent response. I am very proud of all of you. I am proud of being an American citizen and an American soldier too. So thank you so much, from the bottom of my heart. [ Applause ] I become very emotional because it was very difficult times for me. Well, let’s see how I move this here. Right? Good.
Before I start with what the CDC really did for Puerto Rico and they are doing for Puerto Rico, it's better to start to address how we stay healthy on the island. Because it's totally different from other states, from other territories. You have to remember that Puerto Rico has a population of 3.4 million. So just remember this is the same population more or less of the state of Connecticut. But in terms of healthcare, we don't have the same parity as Mississippi, which is the poorest state in the nation with more socioeconomic problems. That is something that makes it a little bit difficult to deal with the health system in the island. Knowing that most of the people in Puerto Rico are medically indigent. We have to recognize first when we deal with the health system, we have to understand the importance of health and the impact on communities and people with vulnerabilities. Also the importance of having a historic background about the development of the Department of Health throughout the years and were we go, where we started and where we go. Once we have that, we can establish public policy in order to address the social problems and health problems of the community. The health system in Puerto Rico is the responsibility of the government. So if something bad happens, they blame you.

So over the years it has been a big challenge in Puerto Rico to give quality healthcare. Why? You well know that Puerto Rico is under the control of an oversight board by the Congress because of the financial breakdown that happened many years ago. So that creates a challenge in terms of accessibility and recruitment of health professionals. Also, because all of the health professionals in Puerto Rico have the same preparation and qualification and come from academic institutions that are accredited with the same accreditations from the United States,
it's easy for any health professional in Puerto Rico to migrate to the United States. So that is causing a big problem in Puerto Rico because there is a big drain of health professionals in general in the island. So less health professionals, more challenges to offer services to the population. And also the increasing cost of the labor in delivering healthcare to people.

Well, the Puerto Rican economic model after 1960, that was a big year because that was when the private health insurance started on the island. Before that, all of the responsibility was addressed by the government. So it was like a universal health service where the government has the total responsibility of the population. And in 1960 they started private health insurance and that created a dual system that was administered by the government and a system of health insurance that took care of offering services to the population.

Some facts about the Puerto Rican health system, from 1820 to 1949 the government was responsible for the care of the population. 1916 to 1919, the commissioner was part of the governmental cabinet. I want to mention that 1898 was when the United States started to administer Puerto Rico. The healthcare was in the charge of army officers, medical officers of the army, to take care of the health system.

The law that established the Health Department in Puerto Rico was from 1912. So it was one of the first departments made in Puerto Rico by the American army physicians. And it was not until 1917 that there was the first Puerto Rican appointed as secretary of health. So you can see the development of the Health Department throughout the years. So now practically the health system involves this. The public sector serves approximately 55% of the population. And the private sector attends the other 45%.

We have different health reforms. The first reform was the unionization of the health system in the island, where they appoint seven regions with regional hospitals and primary, secondary and tertiary care. And for those that don't know about it, there was a [inaudible] that received a grant from the Rockefeller Foundation. And that's how the health system was built in Puerto Rico, have an organizational structure at the beginning. So many people don't know
that the Rockefeller Foundation was the one that put the money for it. And we have a second reform where the administration of the hospital went into private hands. And it was not until the early '90s when they make the health reform where the government hired American insurance to give services to the medical indigent population. From 60 hospitals that the government has, they sell it, and we only have seven hospitals. And this is named like the most social justice problem in Puerto Rico because people that -- we have a dual system where people that don't have private medical insurance have to go to government hospitals. They don't have any choice. Now the patient can go to any physician, to any private or government hospital to receive their health services. So that is a synopsis of the health system. Okay. So what makes Puerto Rico different in comparison with other territories? First, it's in the Caribbean. This is a seismic region so we are in a big threat of having earthquakes. That is something that we have to deal with. You know that we are also susceptible to Hurricanes and you name it. We can have tsunamis. We can have any major natural disaster that you can imagine. We have 78 municipalities, diverse topography and a connection with the Latin Americans. Because many people from Latin America come to Puerto Rico first before they come to the States. So it's like a bridge between Latin America and the United States. Okay, in terms of population, in 2017 there was 3.4 million people. We think that now there are like 3.3. A lot of people have migrated, especially during the months of July and December. This is the demographic of the people in Puerto Rico. And as you see, the level of poverty is 44.9%. So we are worse than Mississippi. And in terms of healthcare, Mississippi receives $5.3 billion for their Medicaid program. Puerto Rico only receives $1.8 billion from the federal government. So you can see that Mississippi has a population of 600,000 people in comparison with Puerto Rico that has 3.3 million. So that is a big problem for us. And as I mentioned before, 61% of the population is covered by the government insurance. Health professionals are leaving the island. The challenges that we have after Maria --
just imagine that you went to sleep on the 19th September 2017 and you wake up on the 20th of September of 1945. That was really what happened.
No communication, no power.
From 68 hospitals, we only know about 17 only.
And people from HHS and DOD took the lead to go to the distant places of the island to give us information about the condition of the hospitals and CDT's, center of diagnostics and treatment.
Can you imagine that?
No communication.
Roads are covered in debris, nobody knows anything about what happened.
We don't know anything.
We were completely blind.
In terms of healthcare and public system, we have big threats.
We established a campaign of immunization of influenza that we started in July.
We stopped it after Maria and we don't start it until October 9th of 2017.
And it was because of the help of the CDSI foundation, the Red Relief and other NGO's that helped us get vaccines.
Because all of the vaccines in the island were damaged because there was no power.
By that time we don't have any vaccines available.
Okay? So can you imagine how difficult it was?
And with all of that, we established the campaign.
For the first time in five years we prevent an epidemic outbreak of influenza in Puerto Rico with all of the bad things that happened.
So through that damage, you know, the limited response capabilities that we had.
Lesson learned is that when you have that problem, you have to go back to the basics and rearrange everything.
Because you have to establish from nothing.
There was nothing to give continuity.
So we went back to the basics and started from nothing.
So if not for the help of churches, the Department of Defense, we really would not have come back to what we have right now.
The lesson learned was that in the beginning, I think that for good or bad the military training that I had helped me to coordinate with the federal agencies in response.
And I think that when you are in an emergency, you have to work as a team.
There is no FEMA, there is no HHS, there is no CDC, there is no Puerto Rican Department.
There is only one health team.
One health team to bring people to normality and to save lives.
That was our mission in the beginning.
And one of the problems that people miss is that we first got Erma and between Erma and Maria there was a hurricane called Jose.
So the help that was sent from the United States to Puerto Rico had been delayed because Jose was
in the Atlantic Ocean.
So all of the help arrived after Maria.
So that was the delay in terms of their response.
We have to deal ourselves with the resources that we have for early response at the beginning.
With the collaboration of the CDC and HHS, they prepared these network mapping folks that later they're going to give you a presentation [inaudible]. It's there.
They worked with us from the beginning in the emergency of Maria.
And she's going to explain to you more about these too.
Also, the response from HHS helped us to make these Puerto Rican healthcare facilities, establish where we can practically.
We identify all of the health facilities, hospitals, CDT's [inaudible].
And we make a map that includes the type of facility, the patient capacity, generate means of communication, broadband, more facilities.
So they give us a clue of what we have before the emergency and where we can direct patients in case of an emergency.
This map is updated on a monthly basis so we have a good clue about what is the situation.
Also, this program, we get a readiness check 48 hours prior to a disaster.
We can raise a lot of things.
They have a rapid assignment tool and a comprehensive disaster assessment tool.

Also the implementation of CDC's supplementary recovery and mitigation projects that are already taking place. The community assessment is very important. It was performed by the CDC and by the Mental Health Demographic Registry. That was a big problem because the registry was before a manual feeding of the data. There are always going to be digitalized immunization programs. All of these things.
Okay, and now what the CDC does to help prepare.
So I think that the best thing about all of this is the teamwork.
They help us to -- in order to organize the federal office of the Department of Health, looking for grants to help us in the recruiting of the best professionals that can help us in the recovery of the Health Department. So there is a lot of initiative taking place at the same time. And also coordination with other federal agencies. I'm going to show you now some features of the hurricane. This was photo is from the International Space Station before and after Maria. So you can see that it was completely blacked out. Most of these lights that you see is by generators, all of them.
The picture speaks for them.

Maria is considered the worst disaster in the history of the United States.

So now that we are in the face of recovery, this is the bad thing about everything, is that the recovery and redesign, all of the projects for recovery in Puerto Rico, they are going to take between 5-15 years.

That's as bad as it was.

This was the public health sector trends during 2018. All of the problems that we are having. We were very lucky to count also with the NGO's. So now Commander Elizabeth Urban Barnwell is going to tell you something about how the C-Dart Demo works.

Thank you so much.

[ Applause ]

Hi, so I'm Elizabeth Urban Barnwell, the acting chief of the Environmental Epidemiology Branch in HSDR. And we provided technical assistance to Puerto Rico Department of Health for the development of the comprehensive disaster assessment and readiness tools program. And so I'm just going to show one small piece of this and it's the readiness check that was developed as part of the preparedness activities under the HHS recovery activities. So it is a short survey that can be sent out via web link to healthcare facilities all across the island. It can also be completed using our app. And it just contains a few simple questions, some specific general facility information. And then the geospatial capabilities of the app, so you can see the location of the facility that's completing the information. And then basic questions on communications, power, water and in current capabilities. And so once the information is completed and the facility sends the survey in, then the database is immediately populated and then the dashboard which shows the critical pieces of information is immediately populated as well. And you can see here the dashboard is blank. And then as soon as it's refreshed.

So the healthcare facilities have been -- the one that I just entered is showing up. And then as each of the facilities continues to enter their information, the dashboard continuously populates, and you can see the differences between hospitals. So the TES, the 330's, and then the dialysis centers all across the island. And I'll continue uploading.
as my colleague is entering data rapidly in the back. And so one great piece of this tool is that this information can be integrated across different agencies, and so you can get a very quick snapshot of critical pieces of information, both for preparedness and response. Which will allow the Department of Health to prioritize and to strategize deployment of their resources both pre- and post-disaster. And then for any of these pin drops on the map, you can just click on it and it brings up some critical pieces of information about that facility. Okay.

[ Applause ]

>> Thanks, Elizabeth and both the presenters. It was really my honor to get to deploy alongside of these two and the many staff in the Puerto Rico Department of Health and US Virgin Islands during the hurricane response in 2017. And I really echo Mitch's comment. So many times people would ask me about, "Well, why are things so terrible? Why is it taking so long for the recover down there?" And my response was always, "They've been chronically underfunded for decades." You know, they were hard-hit by these disasters, but that's only a small piece of the whole picture of why it's taking so long. And so I really appreciated your comments. For Dr. Rodriguez, you know, as I went to Puerto Rico many times -- I've lost track of how many times I've been there. I think maybe six or eight. I was really impressed by the staff in Puerto Rico Department of Health. They really had a heart for the vulnerable populations on the island and were immediately strategizing about how to reach the people in the mountains especially. And we were able to come alongside them and help support you in that. But really you all were the leading force on making sure that those folks were reached and that they had access to healthcare and all of the important things. And I also think about the community of Louisa. Immediately you all wanted to do a CSPER there and knew that that was a low SES area outside of San Juan and we were able to come alongside and support that as well. So I was just really impressed with you and your staff's focus on the vulnerable populations of your communities, and like you said, reaching out to the community leaders as well to reform our response throughout the time. One small thing I have instituted here is an issues of equity. You know, CDC often has the reputation of stealing the data and running and publishing, you know. And so I instituted immediately that a state
or local co-author had to be on every presentation, every publication that we publish coming out of the hurricane. And that's just a small piece of something that each of us can do for equity, to make sure that we're not leaving the people behind that really provided the information and really are the source of the information that we're able to share.

I'll take the prerogative of asking a few questions to the presenters and then I'll open it up to you all. Mitch, you spoke a lot about the response piece and equity. But I was wondering if you could talk a little bit more about recovery and equity. And maybe Dr. Rodriguez would like to too.

>> So there are two parts to this, because there are two parts of the story that I'm looking at, and one of them is the Maria response and our small part in that. And the other is within New York City. And you know, one thing I will note about response and recovery is that this question of EMAC support is very difficult in a recovery framework. You know, we went in, we were there for three weeks. So many people dropped in and out of these jurisdictions. Team after team, you know, here's a new face, that face is gone in three weeks. And it's hard to make a consistent sort of recovery pattern.

I often thought it would be great if there was a way to have local partnerships that lasted a long time. Like you know, I would have loved to make a handshake with part of any of the impacted areas that would last for six months so that you could really be partners in figuring out strategies for recovery.

The equity issue in recovery that we know more locally is recovery is really a process of letting go, right? At the end of the day, you want to get out of town and leave community leaders with something that is better than it was before. But I don't actually know how to do that right now. You know, one of my confusions federally when I got to the Virgin Islands was there were two separate incident command structures set up at the same time. One for response and one for recovery. They were going at the same pace and I never knew which one to talk to. Do I talk to the response structure? Who runs this or that issue? And so I really think that this issue of figuring out at the beginning your equity analysis, executing against those frameworks and keeping everybody on track to the same vision, that's really the important thing.

And I think the entire way we do missions is against that.
Because the missions are within subject matter expertise silos and they're for a limited amount of time. So everybody only cares about their mission. And so you lose this question of big picture vision. So if you could have a forward planning cell that was set aside for that, if it could include local mentors that have gone through disasters, you know, who can keep sort of a bright star ahead of you, I think that would help a lot. Because we get distracted mission to mission.

>> Did you want to add anything?
>> Yes. Well, we have a lot of experience. I think that the most important thing is teamwork. And you have to have a director of the objectives. You know, the thing is that sometimes they bring different federal agencies and everybody's asking you for things, giving you grants and all of that. And sometimes they collide the efforts. Because it's the same effort. And when two positive charges collide, they repel. So nothing happens.

[ Laughter ]

So you know what I mean, right? And it's happening anywhere. Even in the military, in the local government, federal government. So I think that everybody wants to help, but we need some director that organizes and puts the people together that they know all of the federal agencies and are trying to help -- like, "Okay, FEMA, what are you going to do? HHS, what are you going to do? CDC, okay." So you're going to do this, this, this and then you can be more effective. Also I think another lesson we learned during the natural disaster was the help of the NGO's. The NGO's eliminate a lot of red taping from the federal and local government because they have money, they can act immediately. They can buy things. And it was very interesting that it was the first time that they used a national disaster NGO and it works. The first vaccine that we received was from the NGO's, so we don't have to wait for the government to bring us the first batch of vaccine. And a lot of help that we received from different other local nonprofit organizations. I think that the thing is that we need to have a chairman of preparedness and response in general. That they take the lead of all of the efforts of the different agencies involved in natural disasters. That is my humble opinion.

>> Thanks.

And one more question for you, Dr. Rodriguez. You know, certainly we hope that a hurricane doesn't hit for a couple years.
You have time to recover.

>> I would resign.

[ Laughter ]

>> But I'm just wondering, based on what all we've learned from this experience and this recovery process, how do you think reaching the vulnerable populations will be different next time?

>> I think, as I mentioned before, we have a better interaction with community leaders. We visit the communities. We talk with the community leaders that they know really who is the person and people that really are in need. If they have some mental capacity, if they have other medical problems, we identify the population. And we know right now what are the ways that we have to act to that community if something bad happens. We know where the people are.

And I think that by default if we want to deal with natural disasters, we have to know the community that we are going to impact. And the only way that we can do it is by doing the assessments. Community assessments are very essential for preparedness and response. Because they let us know ahead how we are going to react after a disaster. I think that that is the most important lesson learned from me.

>> Great. Thanks.

And with that, I'll open it up to the audience for questions.

Judy, you're first.

>> Thank you so much. It's great to see you talk about this. I'm struck, Mitch, by your last comment when you said build back better. And I think that when we were working in the response to the hurricane, we wanted that. But we felt restricted by what we heard was FEMA's policy which was to build back the same. And when you start with a vulnerable situation, how do you suggest we overcome that? Is there something CDC can think about in its preparedness work to ensure that we're building back better instead of building back the same as per FEMA's requirements?

>> That's a big question. You know, building back the same is built into the Stafford Act, right? And so there have been a lot of debates about it in emergency management. I think that the strongest argument is actually something like building back the same is building back weaker. You know, whenever you say we're going to build it back the same way, the arguments that I saw start to change minds were something like,
"We've rebuilt the US Virgin Islands electrical infrastructure 17 times over the last 40 years." You know, when is that not cost effective? There are these bottom line kind of utilitarian efficiency arguments, cost saving things. So that's one way. I do think that -- I guess let me say two things. I wish there was a policy way that naturally took the lessons learned from a disaster and put them into a policy framework. So for instance, the CMS reimbursement thing which Dr. Rodriguez went back to the really, really deep inequities of territorial reimbursement. It's something that I think was alleviated temporarily in the Disaster Act. But there's still -- if I understand it -- a Territorial Health Act that has been sitting on the Congressional floor for years now, years and years, that really hasn't been able to get passed. So I think if there was a way for CDC to use its voice about public health risks and say, "You know, we can tell you that tobacco kills people. You know what else we can tell you? Next disaster these people are going to die because of the underlying healthcare systems, the bad electrical systems." I think that sort of advocacy over time, over a lengthy period of time, is what if you started it now would eventually pay off from a policy standpoint. And at the end of the day, you've also going to change the Stafford Act which is a whole different political football. >> And I would just add onto that that we had a hard time communicating with FEMA and other federal agencies to understand their mindset about building back is about buildings and structures. >> Right. >> And we are talking about public health programs, and so these are the staff people who are affected themselves and are victims of the disaster who are also still trying to reach out to the populations that they serve through their programs and trying to get those programs to back up. And that was a hard -- for some reason it was difficult for folks to understand. And I think it's partly just because the system is oriented towards, like you said, rebuilding infrastructure and buildings. But programs are harder to conceive of. >> Shawna? >> Yeah, thank you. This question maybe initially is for Mitch, although Dr. Rodriguez touched on it a little bit as he was wrapping up. But this is about when you mentioned incorporating community leaders into the ICS structure which is excellent.
And we've seen that start
to happen a little bit more and more.
You mentioned developing objective tools and mechanisms.
You also mentioned those impacted populations are often
at their most vulnerable and overwhelmed
when an emergency hits.
And there's potentially so many community leaders
in so many sectors and so many voices.
So where do you start, and what is your process?
And Dr. Rodriguez mentioned the community health assessments
to identify those stakeholders earlier.
But actually in the structure and in your response plans,
is it multiple liaisons?
Is it one person?
I mean, what does that sort of look like
and how do you determine who your community leaders are?
>> I think that the best partners
that we have are the NGO's.
The NGO's have been doing superb work in the communities.
So we are using the NGO's as liaisons
between the Puerto Rico Health Department
and the community leaders.
So we visit them together.
We make efforts, we make also health outreach to the region.
Now we are going to sign an MOU with the Army Reserve
in Puerto Rico and also with the Air Force,
that they will give outreach.
They're going to make outreach to those communities
and we are going to be involved with them, so they're going
to repair things there, cleaning roads.
And at the same time we are going to give medical services.
We are going to interview the communities.
And we are going to make like a surveillance -- so like a CSPR.
But with the help of the CDC, Health Department
and other NGO's and federal agencies.
The most important thing is I think that the secretary
of health in a territory
like Puerto Rico cannot be a secretary
of health while being in their office.
They have to be in contact with their people
because it's the only way
that you know the necessity, you know.
I think that always the government officials have
to live and suffer with the people.
They cannot be in office and not knowing what is going on.
And I think that in my preparation from where I come
from helped me a little bit more in order to understand how
to approach those problems.
So I hope that by the end of my tenure,
we can have a good analysis of the communities in Puerto Rico
and for the next emergency we know how to react and respond
in the area of Puerto Rico.
At the present moment, the most vulnerable area
in Puerto Rico is the mountain region.
It was the one that suffered direct hit,
winds up to 240 miles per hour.
So you can imagine the devastation.
You saw the pictures there.  
So I think that we identified the vulnerable.  
We focus there with the NGO's.  
The NGO's, once again, the NGO's are the nonprofit organizations,  
are partners of the Department of Health in that interval.  
So I think that that is the way we have  
to address the situation.  
>> And let me just add a couple --  
in terms of the mechanics of how we do it,  
we have what we call EPEC  
which is the Emergency Partner Engagement Council.  
And you know, there are sectors that were funded  
to reach the behavioral health sector,  
the social services sector across the 11 sectors.  
And then we had neighborhoods.  
We're a city of neighborhoods.  
So what we do is we have a matrix approach where we say,  
"Who works in each sectors?  
Who are the NGO's and the partners we have  
in these sectors?  
And then who are the community leaders in the neighborhood?"  
And then for an impact, we kind of put those together  
and we say, what sectors are impacted in which neighborhoods?  
And that begins the sort of formal partners.  
Now the trick though is the real art.  
And we haven't mastered this yet.  
You have to be able to go into your community and listen  
for the emergent leader.  
You know, who has emerged in this disaster  
that is a valid spokesperson?  
And then you have to not be afraid  
about letting them inside your tent.  
And that part is really making people --  
it's uncomfortable because that means they're going to come  
in from an advocacy perspective and they're going to want  
to speak truth to power  
to the system while it's trying to get its job done.  
And that slows you down a couple of ticks.  
My experience is you have to be really good  
at the listening and the drawing.  
If you start that relationship early, in a very short period  
of time, you're going to have a very productive partnership.  
But you do have to have senior leaders who are willing  
to sit there and just take heat for half an hour  
and take it honestly and listen.  
And that's hard to do.  
But if you have senior leaders that will take that heat,  
then it's much easier to build those partnerships during the  
disaster period.  
>> I think we have time for just one more question.  
Thanks.  
>> It's actually more of a comment.  
Thanks for both presentations.  
I just wanted to say that in listening to Mitch talk  
about the experiences in New York, it brought to mind  
for me some of my own experiences here at CDC,  
both serving during the Zika response as well as serving
as an evaluator for a recent exercise. Where I think that we missed opportunities
to take full advantage of the diversity that we have here at the agency in the task force where I was serving as an evaluator that I won't name. Where I observed that that had some real impacts on how the folks in the room were responding. And I think that if we had more diversity and could include more voices, it would have made a difference during that response. And I had real concerns that if that was an actual event, what that would mean for those vulnerable populations that were being discussed in the room while I was watching. So I really appreciate those comments. As well as the comment about some of your staff of color feeling alienated and feeling that their voices are not being heard when they are in the room. And I think that's something for CDC to think really hard about and see how we can make sure that we are both representing all of the populations that we serve as well as giving some of the staff of color an opportunity to get some of these experiences. That I think will help us as we go forward as folks retire and we need to bring new folks in. So I really appreciate hearing that. >> Craig, did you want to come back up? Oh, is there a question from IPTV? No.

>> Thank you. Very, very informative presentations and very good Q and A session. Okay, our ten-minute break has turned into a one-minute break. Just kidding. Let's take a very short five-minute break. We're just a few minutes behind schedule, and we'll come back and get started. Thank you. [ Applause ]