

**Southeast & Islands Learning Collaborative
Unperfected Transcript**

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00:00:18.600 --> 00:00:34.959

Shaneeta Johnson: Good afternoon and welcome. I'm Dr. Shaneeta Johnson, Associate Dean and Vice President of the Meharry School of Global Health and Chair and Professor of Surgery at Meharry Medical College in Nashville, Tennessee. I also direct the Climate Health Fellowship at the Medical Society Consortium on Climate and Health.

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00:00:35.190 --> 00:00:50.639

Shaneeta Johnson: It has been a privilege to serve on the National Academy of Medicine's Action Collaborative on Achieving a Climate Resilient and sustainable health sector, and I'm glad to help lead this learning Collaborative Initiative to strengthen regional knowledge sharing and collaboration.

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Shaneeta Johnson: This Regional Learning Collaborative series was launched by the National Academy's Action Collaborative to spotlight valuable resources, state-based networks, tools, and educational opportunities, thereby ensuring that health professionals and others working at the intersection of climate and health have what they need to advance their work.

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Shaneeta Johnson: The goal is to disseminate and showcase innovative climate and health educational resources and training programs to accelerate the connection of health professionals, communities, and other stakeholders within and across regions in the U.S.

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Shaneeta Johnson: The National Academy is proud to partner with Columbia University's Global Consortium on Climate Change and Health Education to host these virtual webinars.

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Shaneeta Johnson: And I'd encourage all of you to engage with your fellow participants today. Ask questions, share what's working in your regions, and think about how you might put these resources to use.

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Shaneeta Johnson: Today marks our eighth and final regional webinar in this series, and we are turning our attention now to the Southeast and Islands regions.



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Shaneeta Johnson: It is my pleasure to introduce today's moderator.

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Shaneeta Johnson: Joanne Perodin is Vice President of Programs at the Clio Institute, and I will now turn it over to Joanne.

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00:02:11.690 --> 00:02:25.589

Joanne Perodin: Thank you, Dr. Johnson, and welcome, everyone. I'm Dr. Joanne Perodin, and as Dr. Johnson mentioned, I am the Vice President of Programs at the Clio Institute, headquartered in Miami, Florida.

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00:02:25.620 --> 00:02:39.309

Joanne Perodin: We are a non-profit organization dedicated to climate literacy, engagement, and advocacy. It's been an honor to serve as a regional lead for the National Academy of Medicine Southeast and Islands Learning Collaborative.

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00:02:39.380 --> 00:02:44.059

Joanne Perodin: And to moderate today's learning, Collaborative.

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Joanne Perodin: So next, I will,

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Joanne Perodin: share with you the amazing speakers that we have lined up for today. We have Dr. Alika

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00:02:55.420 --> 00:02:57.300

Joanne Perodin: Mauna Kaya.

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Joanne Perodin: Professor.

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Joanne Perodin: at John A. Burns School of Medicine at the University of Hawaii, and Dr. Ruben Juarez, Distinguished Professor of Health Economics, also at the University of Hawaii.

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00:03:11.320 --> 00:03:13.219

Joanne Perodin: Then we have Dr.



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00:03:13.480 --> 00:03:26.539

Joanne Perodin: Gredia Huerta Montanies, Adjunct Associate Professor at Icahn School of Medicine, New York, and Puerto Rico Clinicians for Climate Action.

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00:03:27.210 --> 00:03:30.420

Joanne Perodin: Valencia Gunder, founder and CEO.

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00:03:30.620 --> 00:03:32.050

Joanne Perodin: at the Smile Trust.

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00:03:32.830 --> 00:03:34.070

Joanne Perodin: Nikhil?

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00:03:34.860 --> 00:03:36.450

Joanne Perodin: Kothegal.

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00:03:36.860 --> 00:03:47.370

Joanne Perodin: At Climate... who's a Climate and Health Program Lead at the Occupational and Environmental Epidemiology Branch at the North Carolina Department of Health and Human Services.

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00:03:47.790 --> 00:03:51.380

Joanne Perodin: And lastly, Dr. Cheryl Holder, Executive Director.

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00:03:51.770 --> 00:03:54.319

Joanne Perodin: at the Florida Clinicians for Climate Action.

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00:03:55.610 --> 00:03:58.979

Joanne Perodin: Each speaker will have about 7 minutes to present.

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00:03:59.600 --> 00:04:19.080

Joanne Perodin: Speaker presentations will then be followed by a panel discussion, and we invite you from the audience to ask questions. Please, as we go through the presentations, use the chat feature if you want to drop comments, questions, and also use the Q&A feature if you would like to submit a question.

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00:04:22.310 --> 00:04:29.050

Joanne Perodin: All right, so let's begin with our first guest speakers, Dr.



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Joanne Perodin: Maunakea and Dr. Juarez.

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Ruben Juarez: Aloha, and mahalo for the opportunity to join. I'm Ruben Juarez, and together with Dr. Alika Maunakea, I collide the Maui Wildfire Exposure Study, or Maui West. And today, we want to share more than a set of findings. We want to share a model of climate health work that grew directly from Maui, beginning with community trust.

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Ruben Juarez: measure recovery broadly, return value to participants, connect people with care, and remain present for the long recovery. Next slide.

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00:05:09.680 --> 00:05:23.850

Alika Maunakea: So, as you may know, in August 2023, Maui experienced the worst natural disaster in the state's history, and the deadliest wildfire in the United States in more than a century. Lahaina and Kula sustained the highest exposure and structural damage.

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00:05:23.850 --> 00:05:29.920

Alika Maunakea: Thousands of structures were destroyed, neighborhoods were displaced, and critical infrastructure was lost almost overnight.

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00:05:29.940 --> 00:05:43.759

Alika Maunakea: But the most important point for this audience is not the scale of the destruction. This disaster struck a place already shaped by housing scarcity, limited healthcare access, and deep social inequities. And that context shaped every health outcome that followed.

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00:05:43.840 --> 00:05:48.070

Alika Maunakea: To understand the health impacts, we have to understand that baseline. Next slide, please.

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Alika Maunakea: Oh, previous one. Yeah, there you go. The Maui Wildfire Exposure Study, or MauiWAS, was created to measure health impacts that traditional disaster surveillance often misses.

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00:05:58.700 --> 00:06:15.450

Alika Maunakea: The most post-disaster health data come from emergency departments, hospitalizations, or insurance claims. Those data are important, but they only capture people who reach care. Many residents



experiencing respiratory symptoms, stress, displacement, or toxic exposure may never appear in those systems.

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00:06:15.450 --> 00:06:28.590

Alika Maunakea: So Mao West combines longitudinal surveys, biomonitoring, and in-person health screening. We assess respiratory, cardiovascular, metabolic, and mental health outcomes while also measuring exposure, housing instability, employment disruption.

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00:06:28.590 --> 00:06:43.860

Alika Maunakea: food security, social support, and access to care. Since January 2024, we have enrolled over 2,000 adults and children with annual follow-up. This gives us a community-based platform to understand not just the acute wildfire effects, but the longer arc of recovery.

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Alika Maunakea: Next slide, please.

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00:06:46.500 --> 00:07:05.360

Alika Maunakea: So our first lesson is that trust is health infrastructure. Maui West could not have been built by the university or healthcare system alone. It required affected residents, grassroots recovery groups, Native Hawaiian health organizations, clinicians, mental health professionals, researchers, government, funders, and health system partners.

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00:07:05.360 --> 00:07:10.380

Alika Maunakea: We brought screening into trusted community settings instead of expecting families to come to us.

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Alika Maunakea: That enabled us to reach people across Lahaina and Kula, the affected regions, as well as central Maui, South Maui, and other communities across the island.

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Alika Maunakea: That also included adults and children with different experiences of exposure and recovery.

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Alika Maunakea: This matters because, again, emergency room and hospitalization data capture only a fraction of the health burden. Community-based engagement helps reveal unmet needs among people who may be displaced, uninsured, disconnected from routine care, or reluctant to engage with unfamiliar institutions. Next slide, please.



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00:07:40.860 --> 00:07:58.400

Ruben Juarez: Longitudinal data allows to see change, not simply describe conditions at one moment. Among returning adults, employment increased by nearly 19 percentage points, housing security rose by more than 7 points, health insurance coverage improved, and reliance on temporary housing declined.

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Ruben Juarez: Those changes matter because housing, income, insurance, and social support are not background variables. They directly shape whether someone can manage a chronic illness, refill a prescription, attend an appointment, protect themselves from smoke, or obtain mental health care. These are meaningful signs of progress, but they do not mean recovery is complete.

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00:08:22.190 --> 00:08:38.169

Ruben Juarez: or evenly shared. Physical rebuilding, economic recovery, and human recovery follow different timelines. And this is why a climate health response must track social conditions alongside clinical outcomes. Next slide.

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00:08:41.570 --> 00:08:46.169

Ruben Juarez: The health data shows why long-term monitoring is necessary.

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Ruben Juarez: Among returning adults, nearly 45% experienced food insecurity, about 31% reported PTSD, or severe PTSD symptoms, and 31% had blood pressure readings meeting stage 2 screening criteria for hypertension.

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Ruben Juarez: These are screening findings, not diagnosis, and we should not attribute every abnormal result directly to a wildfire, but they are important clinical and public health signals.

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Ruben Juarez: We also see weakening social support and a larger proportion with lung function below what would be expected. The broader lesson here is that climate-related health effects rarely happen one at a time. Environmental exposures may occur alongside displacement.

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Ruben Juarez: Interrupted medications, financial threats, food insecurity, and loss of social connections. Measuring only smoke exposure.

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00:09:40.750 --> 00:09:56.189

Ruben Juarez: or only one clinical symptom misses much of the actual burden that happens in these disasters. This is why WyMaOS integrates environmental data, physical, mental, and socioeconomic information, and follows people over time. Next slide.

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00:09:59.440 --> 00:10:15.270

Ruben Juarez: You know, as a conclusion, malware is not a simple research study, it's a community-centered health response. We begin by listening and co-designing with affected communities. We then assess environmental, physical, mental, and social conditions together.

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Ruben Juarez: We return personal results, connect participants with available care, follow health over time, and translate evidence into community services and policy.

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Ruben Juarez: This model... this model can be adapted to other climate-vulnerable communities. First, listen and reach. Begin with trusted relationships that involve community partners. Second, assess and connect, measure environmental exposure together with physical

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00:10:43.030 --> 00:10:46.600

Ruben Juarez: mental and social health. Third.

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00:10:46.600 --> 00:11:11.380

Ruben Juarez: Follow and act. Health recovery continues long after the emergency ends. Longitudinal data can show why, what is improving, what is persistent, and where resources are still needed. And finally, our central lesson is simple. Trust is not an accessory to climate health work. Trust is health infrastructure, and it must be built before the next emergency.

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Ruben Juarez: Mahalo.

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00:11:17.670 --> 00:11:27.620

Joanne Perodin: Thank you, Doctor... Maunakea and Dr. Juarez. Now, we are moving on to Dr. Gredia Huerta-Montanez.



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00:11:30.400 --> 00:11:38.570

Gredia Huerta-Montanez: Thank you. It is an honor to share some of the work that we have been doing in Puerto Rico at the intersection of climate and health.

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Gredia Huerta-Montanez: Perhaps, I think, hearing our story, and I hope can bring you also hope, and encourage you to use your medical expertise to advance climate action in your own state. Next, please.

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Gredia Huerta-Montanez: Although small islands like ours contribute the least to greenhouse gas emissions, they bear a disproportionate burden from the effects of climate change. This table right here shows some of the best documented risks that make small islands especially vulnerable. In Puerto Rico, we see this burden

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Gredia Huerta-Montanez: firsthand, every day, in our patients, their families, and the communities we serve. For example, over the past 5 years, we have recorded some of the highest temperatures in our history.

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Gredia Huerta-Montanez: We have not fully recovered from Hurricanes Irma and Maria, two major hurricanes that struck the islands within a two-week period in 2017, causing morbidity, mortality, displacement, and severe damage of the infrastructure.

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Gredia Huerta-Montanez: Also, a recent food bank survey showed that 60% of our population is food insecure. And in 2024, after 11 years without a major outbreak, we experienced a dengue epidemic.

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Gredia Huerta-Montanez: These health risks are magnified by prevalent social determinants of health.

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Gredia Huerta-Montanez: Next slide, please.

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Gredia Huerta-Montanez: So after the hurricanes, Dr. Teresa Ramirez, an ophthalmologist, a close friend, an environmental champion, and I became increasingly concerned about climate inaction in Puerto Rico.



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Gredia Huerta-Montanez: And in 2020, with the support of Dr. Jerry Paulson, we convened the first meeting of Puerto Rico Clinicians for Climate Action, or PRCCA,

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Gredia Huerta-Montanez: Bringing together like-minded physicians from different specialties.

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Gredia Huerta-Montanez: In 2021, PRCCA affiliated to the Medical Society Consortium on Climate and Health, and we published the first medical declaration on climate change and health in Puerto Rico, outlining our concerns as physicians and calling for actions to adapt our healthcare system and vital infrastructures

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Gredia Huerta-Montanez: To the realities of climate change.

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Gredia Huerta-Montanez: So, 13 prominent medical organizations in Puerto Rico signed the declaration, and it was published in the press.

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Gredia Huerta-Montanez: In 2022, the Puerto Rico chapter of the American Academy of Pediatrics, or PRAP, became PRCCA's fiscal sponsor, establishing a strategic alliance that strengthened both organizations and expanded their collective impact.

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Gredia Huerta-Montanez: So, this collaboration contributed to PRAP's recognition with the American Academy of Pediatrics Small Chapter Award for its leadership in environmental health and climate action. Next slide, please.

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Gredia Huerta-Montanez: So, PRCCA has been focusing on collaboration.

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Gredia Huerta-Montanez: Climate and health education and advocacy, leveraging partnerships with academia, local and state and federal government agencies, and non-governmental organizations, many of which are listed here.



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Gredia Huerta-Montanez: And we have also participated in many local and national radio, press, and television interviews to educate people about the connections between climate, pollution, and health, and we have provided our expertise in public hearings. Next slide, please.

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Gredia Huerta-Montanez: So, PRCCA also spearheaded the integration of climate and health content into Puerto Rico's state medical school curriculum, resulting so far in more than 500 first-year medical students receiving 2 hours of climate and health education.

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Gredia Huerta-Montanez: BRCCA has served as keynote speakers at several medical conventions, reaching so far more than 400, practicing physicians and medical residents locally and internationally.

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Gredia Huerta-Montanez: In 2023, BRCCA helped train all nutritionists and personnel of the Women, Infants, and Children Week program in Puerto Rico, focusing on water and food security.

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Gredia Huerta-Montanez: In 2024, PRAB, drawing on BRCCA's expertise, created two ECHO programs.

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Gredia Huerta-Montanez: Each 6 months in duration, one in partnership with AmeriCares on hurricane preparedness for clinicians, and the second was led in collaboration with the Puerto Vector Control Unit, the CDC Dengue Branch, and the AAP,

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Gredia Huerta-Montanez: Focusing on dengue prevention and clinical management in children.

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Gredia Huerta-Montanez: Together, these programs added 17 hours of telementoring and reached 153 unique participants, including physicians, nurses, nurse practitioners, medical trainees, public health personnel, and health administrators.

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00:16:11.620 --> 00:16:23.959



Gredia Huerta-Montanez: Activities provided continuing medical education for participants, and also maintenance of certification points, and the Dengue Echo offered the opportunity to complete a QI project. Next, please.

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Gredia Huerta-Montanez: So, since July, we have been confronting yet another climate-related crisis. Record high temperatures and extremely low precipitation have led to drought conditions.

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Gredia Huerta-Montanez: This crisis... this water crisis has two major drivers, as you know, climate change is the obvious, but the second is the lack of maintenance of an outdated water infrastructure, which loses an estimated 50% of potable water during distribution.

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Gredia Huerta-Montanez: So this situation is causing significant motor shortages, and it's already impacting people's health and well-being.

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Gredia Huerta-Montanez: So, notably, power outages are a daily occurrence in some of the areas, including those where the water pumps are located, because the energy grid remains an outdated, fragile, centralized system, heavily reliant on imported fossil fuels.

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00:17:15.960 --> 00:17:28.210

Gredia Huerta-Montanez: So this is a textbook example that we like to mention, right? This is kind of the kind of example that we like to show clinicians when they're doing the health and climate training with us.

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00:17:28.210 --> 00:17:32.950

Gredia Huerta-Montanez: So this is a textbook example of climate... of a compound climate crisis impacting health.

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Gredia Huerta-Montanez: Next, please.

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Gredia Huerta-Montanez: So even before the water shortages began in Puerto Rico, PRCCA and PRAAP hosted a webinar on the prevention and clinical management of heat-related illness in children with the participation of 65 pediatricians.

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00:17:53.070 --> 00:18:03.050

Gredia Huerta-Montanez: As dry conditions worsened, pediatricians also identified the need for evidence-based materials to support conversations with families about keeping children safe.

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Gredia Huerta-Montanez: In response, PRAP reached out to the AAP Council on Environmental Health and Climate Change, and HealthyChildren.org from the AAP expedited the publication of this article, you can scan the QR code to see it, which provides valuable information and resources for families in both English and Spanish.

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Gredia Huerta-Montanez: So what began as a call to do more has evolved into a coalition that continues to lead efforts to educate physicians, healthcare professionals, and policy makers

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Gredia Huerta-Montanez: and the public about the effects of climate, change on health, while supporting climate adaptation efforts at every level. So I thank you for your attention, and I look forward to your questions. Thanks.

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00:18:49.290 --> 00:18:54.150

Joanne Perodin: Thank you, Dr. Huerta-Montanez, and next we have Valencia Gunder.

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00:18:58.510 --> 00:19:12.530

Valencia Gunder: Hello, everybody! Valencia Gunder, she, her pronouns, based here in Miami, Florida. I'm super excited to share with you all about the community... sorry, the Community Emergency Operations Center and the Freedom Lab.

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00:19:12.700 --> 00:19:18.959

Valencia Gunder: We call this our Liberation Laboratories, Grassroots Resilience Sanctuary Systems and Community Power.

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00:19:19.390 --> 00:19:22.190

Valencia Gunder: Next slide.

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00:19:23.930 --> 00:19:31.919

Valencia Gunder: So, as... We get into it, I just always like to explain to folks what the CEOC is.

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Valencia Gunder: And how we can,

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Valencia Gunder: you know, work together, and I just know a little bit of the history of what's going on. We are the Freedom Lab, a Community Emergency Operations Center, the CEOC, our deeply interconnected models for building Black-led resilience and liberation.

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00:19:49.550 --> 00:20:07.569

Valencia Gunder: The Freedom Lab, based in Liberty City, Miami, is the liberation laboratory that incubates healing justice, food sovereignty, political education, and health equity programs, serving as a home for grassroots organizations and a catalyst for systemic change. The CEOC, born out of this vision.

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Valencia Gunder: It's a coordinated disaster resilience network that mobilizes communities before, during, and after crises.

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Valencia Gunder: Together, they embody a shift from top-down, insufficient aid models toward grassroot-led, community-driven systems of care, with over \$7 million, mobilized, 1,700 trained responders, and now 170 hubs across the U.S, Caribbean, and now we have made it to

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00:20:35.200 --> 00:20:38.210

Valencia Gunder: DR Congo, this year, 2026.

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Valencia Gunder: This combined model proves that when communities lead their own response, they not only save lives in the moment, they build long-term systems of survival and self-determination.

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Valencia Gunder: we are... so, most folks know about the Smile Trust, but also Dade County Street Response, led by Dr. Army Henderson. We have started this...

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00:21:02.220 --> 00:21:09.309

Valencia Gunder: system together here in Miami. Actually, the first time we ever responded was 2017 in the face of Hurricane Irma.

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00:21:09.460 --> 00:21:18.120



Valencia Gunder: I showed up with my barbecue girl, and Dr. Arman showed up with his medical bag, and we have been moving together like that since.

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00:21:18.360 --> 00:21:24.849

Valencia Gunder: I also... would like, to go to the next slide, I'm sorry.

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00:21:26.370 --> 00:21:28.090

Valencia Gunder: Yeah, so our vision...

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Valencia Gunder: Our vision here is, we want to create these liberation labs. We call ours the Freedom Lab. We want different cities and communities to call it whatever they see fit, and they also be attached to our community emergency... Community Emergency Operations Center in 10 states. Right now, we are fully set up in 3 states.

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00:21:47.400 --> 00:21:51.840

Valencia Gunder: Although we work with organizations across, I think, close to 12 or 13 states.

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Valencia Gunder: all across the Caribbean islands, and now we are in the continent of Africa. We want our labs to be anchored in radical care, sanctuary systems, and grassroots power.

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00:22:02.970 --> 00:22:06.659

Valencia Gunder: Autonomy and self-sufficiency is a huge thing for us.

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00:22:06.820 --> 00:22:25.449

Valencia Gunder: hubs capable of generating revenue and sustaining themselves. So right now, at the Freedom Lab, we do not have any government resources. We fully function independently from the government, and it is built and guided by the leadership of grassroots organizations in these areas.

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00:22:25.790 --> 00:22:28.189

Valencia Gunder: Next slide, please.

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00:22:29.260 --> 00:22:44.129

Valencia Gunder: So the Freedom Lab, if you're ever in Miami, Florida, in Liberty City to be exact, please come by our Freedom Lab, our Liberation Laboratory. Right now, we house 8 grassroots organizations, and we incubate, like we said, healing justice.



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00:22:44.130 --> 00:22:59.050

Valencia Gunder: food sovereignty, political education, health equity programs. So most people think about us when it comes to crisis or disaster, but through the Freedom Lab model, we are actually responding to what people call stressors. So folks can come get support with housing.

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00:22:59.150 --> 00:23:03.029

Valencia Gunder: Bills, things like that, see a doctor, see a nurse, see a doula.

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00:23:03.170 --> 00:23:15.049

Valencia Gunder: all of those things every single day except for Sundays at the Freedom Lab, but during a disaster or a shock, we then set up bigger operations where we could support communities, large.

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00:23:15.140 --> 00:23:31.029

Valencia Gunder: Large communities and small ones, the biggest we ever reached was 50,000 households within 48 hours, all by grassroots organizers, and all by the people who live in the communities themselves.

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00:23:31.350 --> 00:23:43.620

Valencia Gunder: So, one word that we are switching from using is mutual aid over to sanctuary systems. Mutual aid has been loosely used just to get direct services to folks.

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Valencia Gunder: But we create sanctuary systems that will be long-living, long-lasting, and accessible to our community, regardless of language.

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00:23:51.720 --> 00:23:52.840

Valencia Gunder: gender.

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Valencia Gunder: immigration status, anything. Like, you don't have to have an address, you don't even have to have an ID to get our resources.

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00:24:00.080 --> 00:24:14.380

Valencia Gunder: Sometimes people are afraid to leave data, and that's okay. We still service our people, but fortunately, we have been able to get a lot of support from community, by leaning in on data projects, which you will learn about very, very soon.



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00:24:15.570 --> 00:24:17.380

Valencia Gunder: Next slide, please.

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00:24:18.150 --> 00:24:22.170

Valencia Gunder: The Smile Trust, so these are the organizations that are within...

137

00:24:22.240 --> 00:24:41.220

Valencia Gunder: the Freedom Lab right now, so you have the Smile Trust, which we do food security and education, climate justice, disaster preparedness, housing security, alternative care and systems. I am so sorry for all these typos, I was typing fast. Doctors Within Borders, free clinic and Urgent care, mobile crisis.

138

00:24:41.220 --> 00:24:51.659

Valencia Gunder: units, community health resources led by Dr. Army Henderson, the Village Fridge, free hot breakfast, microwavable meals, and groceries, 5 days.

139

00:24:51.820 --> 00:25:03.470

Valencia Gunder: Five days per week, led by Sharina Jones, Ladies of Hope Ministry, Transitional Housing and Programs for Formerly Incarcerated Women and Girls, led by Dr. Topeka Sam.

140

00:25:03.780 --> 00:25:10.680

Valencia Gunder: the Black Collective Community Organizing Leadership Development, Political Education, Black data, and electoral...

141

00:25:10.780 --> 00:25:26.290

Valencia Gunder: Organizing, led by myself, Alicia Gunder. I'm also the Executive Director of the Black Collective, and Black Men Build Community Organizing men and women circles, free physical health programs and political education, led by Ashley Toussaint and Maisha Bryant.

142

00:25:26.290 --> 00:25:38.749

Valencia Gunder: Right now, we work as a coalition within the Freedom Lab. Yes, every organization has their own goals, their own mission statement, but being a part of the Freedom Lab also requires you to be a part of our coalition.

143

00:25:38.750 --> 00:25:56.060

Valencia Gunder: One, it helps sustain each organization to be able to grow and have a safe place to do their work. Two, it also allows each one



of our members to be able to have access to other things that they may need that we do not offer within our individual organizations. And we also work together to build new systems

144

00:25:56.070 --> 00:25:58.779

Valencia Gunder: That everybody can use collectively.

145

00:25:59.070 --> 00:26:11.200

Valencia Gunder: So that is our Liberation Laboratory. We do have one office space, so if y'all know an organization, tell them to hit us up. We have an open space for folks there. Next up...

146

00:26:13.260 --> 00:26:17.640

Valencia Gunder: So, the CEOC, the Community Emergency Operations Center.

147

00:26:17.650 --> 00:26:27.350

Valencia Gunder: I just want to tell a quick joke. We actually did this as a protest against the government, here in Miami-Dade County.

148

00:26:27.350 --> 00:26:42.950

Valencia Gunder: the Emergency Management Center is called the Emergency Operations Center. So we were like, we're gonna build the Community Emergency Operations Center, because we have seen historically where the county and most governments do not respond to the most, vulnerable

149

00:26:42.950 --> 00:26:55.990

Valencia Gunder: communities first, and we decided to create something that will respond to those communities first. So we train, we prepare, we respond, and we advocate. All four of those things happen at the, CEOC.

150

00:26:56.050 --> 00:27:09.409

Valencia Gunder: And Joanne, I know, is on the call. Joanne has been there since almost day one. I made her in the office and thinking through things, and I'm really grateful for her leadership. Next slide.

151

00:27:11.850 --> 00:27:29.440

Valencia Gunder: So, wellness checks, disaster data collection, that's actually a program that Dr. Arman Henderson, through Dade County Street Response, actually, implemented for us. Through this process, we are able to support people with resources, all while collecting data, disaster data.

152

00:27:29.440 --> 00:27:39.249



Valencia Gunder: through our communities, over 250K collected throughout the U.S. This exercise is from 2022, so those numbers probably have tripled by now.

153

00:27:39.270 --> 00:27:44.769

Valencia Gunder: We do CERT trainings, community emergency response trainings. We have 40 organized and certified.

154

00:27:44.770 --> 00:28:08.350

Valencia Gunder: But now, in addition to that is another 65 folks who are certified. We also do disaster canvassing and phone banking. We reach out to folks. We also teach people how to respond to their community in shorter amount of times in the government in a safe and healthy way. Right here you see pictures of folks doing the CERT training. We actually do the CERT training through

155

00:28:08.420 --> 00:28:12.870

Valencia Gunder: Miami-Dade County, when they stand retired,

156

00:28:13.570 --> 00:28:24.249

Valencia Gunder: firefighters in to teach us and educate us, and, this is the first time they were able to do it in our community in Liberty City. Usually, you have to travel all the way

157

00:28:24.250 --> 00:28:39.010

Valencia Gunder: southwest in Miami-Dade County to a community called Doral to be able to do the training, but through our programming and support with the Climate Justice Alliance, we were able to host these trainings now in Liberty City, which is more accessible

158

00:28:39.010 --> 00:28:44.490

Valencia Gunder: For, under-resourced communities to have access to this training and certification.

159

00:28:44.720 --> 00:28:46.640

Valencia Gunder: Next.

160

00:28:48.770 --> 00:28:50.460

Valencia Gunder: So, Ready, Set, Prep.

161

00:28:50.830 --> 00:29:07.799

Valencia Gunder: So, one, you're going to learn today about our hurricane prep, but we also do winter prep for certain cities that we are in. So, one thing we know about under-resourced communities that prepare for



disaster season is not a priority because they're dealing with so many shocks and stresses already.

162

00:29:07.920 --> 00:29:15.060

Valencia Gunder: Like, you know, access to education and transportation and food and housing and things like that.

163

00:29:15.070 --> 00:29:26.830

Valencia Gunder: So, we decided to start doing hurricane kits. This is our first attempt at doing it back in 2020. We came up with these nice boxes to put these things in, but over time, we have definitely

164

00:29:26.830 --> 00:29:36.090

Valencia Gunder: Expanding what these look like. Now we have solar power radios, hand radios, solar power chargers, solar lights,

165

00:29:36.150 --> 00:29:37.780

Valencia Gunder: Heating and cooling..

166

00:29:37.970 --> 00:29:43.089

Valencia Gunder: Blankets, we also do thermometers and other medical things that we put inside of the box.

167

00:29:43.120 --> 00:30:04.870

Valencia Gunder: So the boxes look way different. We also switched from using boxes to, buckets, so they can reuse the actual container that they come in. We, actually do this to over 2,000 households a year here in Miami. We have trained community organizations in Guam, so they are now doing Ready, Set, Prep in Guam also.

168

00:30:04.870 --> 00:30:12.519

Valencia Gunder: In the face of, the typhoon season, and they have really, really did great work in partnership with the climate

169

00:30:12.550 --> 00:30:30.599

Valencia Gunder: with CJA and Miami Climate Alliance, we were able to train up the comrades in Guam, actually bringing them into Miami to learn. So shout out to all the great work that happened there. You'll see similar things happening around other types of disasters.

170

00:30:30.600 --> 00:30:34.579

Valencia Gunder: Like, for example, in the wintertime, we pass out

171



00:30:34.790 --> 00:30:51.310

Valencia Gunder: sleeping bags, and small heaters, and other materials that people need to be able to, prepare their homes and themselves for the winter months. And we also have, winter packages that we pass out to unsheltered folks,

172

00:30:52.950 --> 00:31:01.269

Valencia Gunder: to unsure folks in, our communities that we service. I know I'm running out of time, so I'm so sorry. Next slide.

173

00:31:02.690 --> 00:31:13.370

Valencia Gunder: Okay, so our response, and I'm gonna pause after these two slides. So, our response, our network goes so well with working with grassroots organizations, not just here in America, but across

174

00:31:13.370 --> 00:31:24.019

Valencia Gunder: lots of different countries and communities, so we, of course, focus here in America, but some of our international work, we started with the Bahamas Hurricane Dorian.

175

00:31:24.020 --> 00:31:48.320

Valencia Gunder: Next slide. We also did some work during an earthquake in Haiti in 2021. 300 tons of medical supplies actually made it to the southern point of Haiti, restocking hospitals, setting up triage centers, and sending 6 delegations of nurses into the country. And just recently, we were able to service 6,000 households with food, water, and some small medical support.

176

00:31:48.320 --> 00:31:56.690

Valencia Gunder: In DR Congo. And just this last, last, slide, and I'mma step back. If you switch over, one more, one more.

177

00:31:57.000 --> 00:32:12.040

Valencia Gunder: This is our outreach, right? So right now, we work with grassroots organizations in rural communities and urban communities across all these different places on the map, and this is just the beginning of our work. We look forward to doing more, and as we

178

00:32:12.550 --> 00:32:22.559

Valencia Gunder: scale the food and the other resources, we are scaling our medical support in these same areas at the same time. Thank y'all so much. Sorry for going over.

179

00:32:23.470 --> 00:32:24.520

Valencia Gunder: Thank you.



180

00:32:25.780 --> 00:32:33.169

Joanne Perodin: Thank you, Ms. Gunder. And now we are, moving to our next speaker, Nikhil Kothegal.

181

00:32:34.110 --> 00:32:49.789

Nikhil Kothegal: Hello, everyone. Yeah, I'm Nikhil Kotfko, I'm the Climate and Health Program Lead at the North Carolina Department of Health and Human Services, and I'm going to share today a presentation on modernizing heat alerts for sub-regional risk communication, North Carolina's heat health alert system.

182

00:32:50.430 --> 00:32:51.700

Nikhil Kothegal: Next slide, please.

183

00:32:53.880 --> 00:33:05.140

Nikhil Kothegal: So first, I just want to begin by providing some background on our heat health alert system, and for short, I'll refer to it as the HHAS, and describe the history of how it was developed. Next slide.

184

00:33:06.510 --> 00:33:19.829

Nikhil Kothegal: So, the NCDHHS Climate and Health Team operates the heat health alert system each summer from May 1st through September 30th to send emailed heat alerts when the heat index is projected to reach unhealthy levels.

185

00:33:19.880 --> 00:33:33.819

Nikhil Kothegal: We check the forecast for the upcoming 3-4 days, twice weekly, on Mondays and Thursdays, and subscribers can sign up using a REDCap survey where we ask them questions about who they serve and planned use of the alerts.

186

00:33:33.820 --> 00:33:45.170

Nikhil Kothegal: They can also select for which counties in North Carolina they want to receive heat alerts, and we have 100 counties in the state, so they can receive up to 100 counties, alerts for those counties. Next slide.

187

00:33:46.410 --> 00:33:53.579

Nikhil Kothegal: So I'm gonna explain a little bit of how we developed our heat health alert system and got to the point of where we are at now.

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00:33:53.580 --> 00:34:07.090



Nikhil Kothegal: So, our development of the system began in 2017. This is before I came on, when we conducted key informant interviews to assess community readiness for heat health programming, and began developing that with local partners.

189

00:34:07.310 --> 00:34:09.299

Nikhil Kothegal: In 2018, we launched

190

00:34:09.449 --> 00:34:28.459

Nikhil Kothegal: the alert system in four counties in eastern North Carolina, and we used a heat index of 100 degrees Fahrenheit as the threshold, but this system relied on partners to check forecasts and issue alerts themselves. So this is paired with a heat health educational curriculum, technical assistance and education and prevention resources for our partners.

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00:34:28.550 --> 00:34:39.850

Nikhil Kothegal: In 2022, we conducted a process evaluation of this system, and we found that social media was one of the only methods that was being used for alert distribution. We also...

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00:34:40.120 --> 00:34:43.000

Nikhil Kothegal: Found that alerts were distributed infrequently.

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00:34:43.380 --> 00:34:54.539

Nikhil Kothegal: during the summer, and that messaging content varied. So, based on these results and additional feedback from partners, we implemented an enhanced heat health alert system in 2023.

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00:34:54.620 --> 00:35:13.209

Nikhil Kothegal: We expanded that to include an additional 5th county where we had a new partner, and we developed new heat index thresholds that were based on historic climate data that was provided from our state's climate office, and we distributed message templates to help standardize messaging. We also took a more hands-on approach.

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00:35:13.300 --> 00:35:19.780

Nikhil Kothegal: With our team, checking the forecast and issuing alerts to partners, rather than vice versa.

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00:35:19.910 --> 00:35:21.609

Nikhil Kothegal: And then,

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00:35:22.210 --> 00:35:35.960



Nikhil Kothegal: After evaluating the 2023 system, we expanded the system statewide, so we were able to reach all 100 counties in 2024, and we also adopted new regional health-based

198

00:35:36.020 --> 00:35:42.690

Nikhil Kothegal: Heat index thresholds, and we opened registration to anyone in the state who wanted to receive emailed alerts.

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00:35:42.770 --> 00:35:54.860

Nikhil Kothegal: So users would sign up for alerts via an online survey, and they were assigned to one or more of the seven regional listservs, based on whichever county or counties, for which they had registered.

200

00:35:54.870 --> 00:36:03.359

Nikhil Kothegal: And when the heat index was forecasted to exceed the threshold in a specific region, we sent emailed heat alerts to users who signed up for that region.

201

00:36:04.440 --> 00:36:15.209

Nikhil Kothegal: In 2024, we conducted an evaluation of the system again, and incorporated new changes for the 2025 heat season, and that's, the system that we're using.

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00:36:15.330 --> 00:36:17.600

Nikhil Kothegal: now. So, next slide, please.

203

00:36:19.370 --> 00:36:24.450

Nikhil Kothegal: I'm just gonna share that, I'll go into some updates on the, on that,

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00:36:25.060 --> 00:36:39.369

Nikhil Kothegal: for the 2025 heat season, that were incorporated into the 2026 heat season, too. So, to revamp our HHAS in, for 2025, we collaborated with partners at the Duke Heat Policy Innovation Hub.

205

00:36:39.370 --> 00:36:49.669

Nikhil Kothegal: We adopted new regional groupings of counties based on similar weather patterns, and added a region for the foothills in western North Carolina. So when I came into the program.

206

00:36:49.670 --> 00:36:57.620

Nikhil Kothegal: We were using 7 regions that were administrative districts, so we revamped to group counties more based on these,



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00:36:57.620 --> 00:37:09.310

Nikhil Kothegal: kind of climate patterns. We also developed season-specific health-based heat index thresholds for the early, mid, and late summer heat season to better account for acclimatization throughout the summer.

208

00:37:09.310 --> 00:37:20.930

Nikhil Kothegal: These thresholds leveraged 15 years of North Carolina Emergency Department and mortality data to determine when each region experiences the sharpest increase in heat-related health burden.

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00:37:20.930 --> 00:37:29.139

Nikhil Kothegal: So, you can see that in the map here, but we have thresholds for each region that are different based on the timing of the summer.

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00:37:29.250 --> 00:37:35.399

Nikhil Kothegal: And that's the difference from the kind of static single threshold we had for our regions in the previous year.

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00:37:35.870 --> 00:37:44.119

Nikhil Kothegal: Additionally, we worked with partners and our field-based team member to increase awareness and expand the reach of our system.

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00:37:44.320 --> 00:37:45.609

Nikhil Kothegal: Next slide, please.

213

00:37:47.190 --> 00:38:04.009

Nikhil Kothegal: So I just wanted to show some results of internal validation of this update with the season-specific thresholds. So historic climate and heat-related illness data were used to compare the updated system with the seasonal thresholds to the earlier static threshold system.

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00:38:04.290 --> 00:38:12.320

Nikhil Kothegal: And the new seasonal system demonstrated superior event capture, achieving the highest sensitivity

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00:38:12.830 --> 00:38:22.260

Nikhil Kothegal: And this was a substantial improvement over that previous static system, and we only had a moderate trade-off in specificity.



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00:38:22.560 --> 00:38:23.840

Nikhil Kothegal: Next slide, please.

217

00:38:25.330 --> 00:38:35.880

Nikhil Kothegal: So I just want to provide now a little bit of information about how we're trying to assess the impacts of our heat health alert system, and ways that we're seeking to continue to make improvements. Next slide.

218

00:38:36.500 --> 00:38:54.519

Nikhil Kothegal: So, I'll state that every year we do an evaluation of the heat health alert system, and some... provide some data here on our most recent evaluation from 2025. So, based on evaluation data from our REDCap survey, we know that around 60% of our subscribers

219

00:38:54.520 --> 00:38:59.300

Nikhil Kothegal: Worked with or served one or more disproportionately impacted populations.

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00:38:59.300 --> 00:39:17.990

Nikhil Kothegal: And around 62% belong to populations that are disproportionately impacted by heat. Subscribers are often working in local health departments, other state agencies, and academia, and many of these subscribers report that they plan to share alerts with heat-susceptible populations.

221

00:39:17.990 --> 00:39:28.189

Nikhil Kothegal: And we've received a lot of testimony that the alerts are distributed on social media, like Facebook. Some health departments will put them over the radio, and we've,

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00:39:28.290 --> 00:39:34.079

Nikhil Kothegal: Heard that they're used to inform emergency management and local health departments for different heat planning purposes.

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00:39:34.380 --> 00:39:47.540

Nikhil Kothegal: I also want to note here, when we think about the impact, that it is challenging from an analytical way to assess causal association between our heat-held alert system and the alerts we're sending, and

224

00:39:47.540 --> 00:39:59.039



Nikhil Kothegal: and then the outcome of heat-related illness, but we're looking to build off of a previous analysis that was conducted by an EIS officer that sought to assess the impact of our alert system.

225

00:39:59.160 --> 00:40:00.420

Nikhil Kothegal: Next slide, please.

226

00:40:02.320 --> 00:40:17.289

Nikhil Kothegal: So, over the next year, our team will be continuing to make improvements to our HHAS, and there are a few key areas we'd like to address. So, first is increasing automation of the alert processes, so,

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00:40:17.520 --> 00:40:23.380

Nikhil Kothegal: it's just done more with coding and things like that than manual processes. Second,

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00:40:23.430 --> 00:40:39.560

Nikhil Kothegal: We know there's a limitation in referring and just using emailed alerts. For some populations, that's harder to access, so we're trying to find ways with data monetization practices at the state to incorporate text messaging to reach populations that may not use email.

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00:40:39.600 --> 00:40:48.560

Nikhil Kothegal: We're also looking to expand alert messaging content for specific populations that may be more impacted by heat, and we're improving

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00:40:48.560 --> 00:41:02.359

Nikhil Kothegal: targeted outreach to populations, specific sectors and regions, including agricultural and other outdoor workers, non-native English speakers, tribal governments, and other tribal organizations.

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00:41:02.510 --> 00:41:11.619

Nikhil Kothegal: And we've incorporated some of these changes already into our current summer's heat health alert system, but we're continuing to make improvements for next year, too.

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00:41:11.770 --> 00:41:13.019

Nikhil Kothegal: Next slide, please.

233

00:41:14.630 --> 00:41:28.450

Nikhil Kothegal: And then finally, I was asked to kind of provide some advice for any other individuals or organizations that might be looking



to implement a similar type of system. So, I'll just point out that numerous heat tools,

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00:41:28.450 --> 00:41:34.840

Nikhil Kothegal: like CDC's heat risk and CAL heat score, already exists, so I would just suggest first that

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00:41:34.840 --> 00:41:52.089

Nikhil Kothegal: If you're interested in this, like, working with local partners to assess their needs and gaps in coverage to determine what type of system may best fit your local context. And then in our case, we saw that we needed more standardization and consistency in our heat alert communications.

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00:41:52.150 --> 00:42:00.749

Nikhil Kothegal: But we also wanted to leverage the local surveillance data that's available from our state health department to inform the heat thresholds we developed.

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00:42:00.840 --> 00:42:06.119

Nikhil Kothegal: I... I've shared in the resources, I think they're coming through in the chat,

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00:42:06.350 --> 00:42:20.380

Nikhil Kothegal: a report on our heat health alert system, the history of it, and the methodology that was used to develop and validate these new season-specific thresholds. So, if you refer to the report, which is in this image here.

239

00:42:20.530 --> 00:42:35.949

Nikhil Kothegal: that will provide more information there, but I'll also share that our team has been continuing to work with a climatologist who was previously at Duke, Dr. Jordan Clark, and he was instrumental in modeling... in conducting the modeling to develop the thresholds.

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00:42:35.950 --> 00:42:48.650

Nikhil Kothegal: So we're still working with him, and he's helping us with continued improvements and assessing data. And we've been also working with other state health departments who are interested in developing this kind of program. So,

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00:42:49.030 --> 00:42:50.770

Nikhil Kothegal: Yeah. Next slide, please.

242



00:42:52.550 --> 00:43:06.879

Nikhil Kothegal: And I just wanted to share, there are some additional links that maybe aren't in the chat, but I've included the email for Courtney Williams, who's our program analyst, and she's the person who is conducting our evaluations of our heat health alert system. I've also included my email, so...

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00:43:06.880 --> 00:43:14.939

Nikhil Kothegal: there's a lot more things I wanted to get into, but we were limited in time, but if anyone wants to reach out, happy to talk with you, happy to put you in touch with Jordan.

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00:43:15.000 --> 00:43:19.800

Nikhil Kothegal: Clark, yeah, and I'll be around for questions later, so thank you very much, everyone.

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00:43:22.980 --> 00:43:27.610

Joanne Perodin: Thank you, Nikhil. And next, we have Dr. Holder.

246

00:43:27.880 --> 00:43:35.099

Cheryl Holder: Hi, thanks for being here, and these are amazing programs. With the next slide, I'll try and make up as much time and go as.

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00:43:35.100 --> 00:43:35.930

Ruben Juarez: That,

248

00:43:37.770 --> 00:43:39.319

Cheryl Holder: Are you able to hear me?

249

00:43:39.660 --> 00:43:49.240

Cheryl Holder: Yeah, I always start with Annamie, and she's how many times physicians, we're at the front line, our nurses, doctors, we see patients.

250

00:43:49.240 --> 00:44:10.910

Cheryl Holder: And how do we connect the dots? She was in for a refill, but she has all the classic problems that we see that has worsened in our warming planet. Multiple medications, multiple illnesses, but her real problem was social, not being able to pay her light bill. This is 2016, July 2016, 10 years ago.

251

00:44:11.080 --> 00:44:24.709



Cheryl Holder: And her... she lived in a condition of old housing, in a red-lined community, previously red-line community, lower wealth. These are the issues that I saw. And between... next slide.

252

00:44:25.630 --> 00:44:39.160

Cheryl Holder: And between 2016 to 2018, we started seeing more of these patients, and one of the organizations I'm with, the National Medical Association, did a review and saw physicians were seeing this problem, and

253

00:44:39.160 --> 00:44:54.080

Cheryl Holder: By 2018, we had a collaboration of National Medical Association, the Florida State Medical Association, which is an arm of the NMA in Florida, and the Medical Society Consortium on Climate and Health.

254

00:44:54.080 --> 00:45:07.470

Cheryl Holder: we had a conference in Tampa, and from that conference, we decided, and we looked together as a group, that let's move Florida, which is ground zero for so much of what's happening in our world.

255

00:45:07.630 --> 00:45:26.359

Cheryl Holder: to start the Florida Clinicians for Climate Action, looking with the ultimate vision that patients like Anna Mae would be prepared and ready, and having systems in place, and we are working to actively prevent the continued warming. Next slide.

256

00:45:27.010 --> 00:45:36.650

Cheryl Holder: We saw... we knew our mission was to get health professionals involved, because we knew we weren't as fully educated, because when I saw anime, I was scrambling to figure out

257

00:45:36.650 --> 00:46:00.609

Cheryl Holder: How do I get her light bill covered? What are the guidelines there? What's happening in our house? So many issues were there. How do we engage the professionals and our community to learn more about what's happening? Connect these dots faster, because so many patients were impacted. Then how do we integrate that knowledge into care, and then make it to action, to advocate for solutions? So we looked at

258

00:46:00.640 --> 00:46:16.709

Cheryl Holder: How do we do this nation, statewide, to engage and build that community of clinicians and volunteers who will do this work, and how to make education foundational for clinicians, education in undergraduate, in the graduate level.



259

00:46:16.710 --> 00:46:22.739

Cheryl Holder: in the community and working together, and then champion these equitable solutions. Next slide.

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00:46:24.270 --> 00:46:35.829

Cheryl Holder: So, we start with collaboration, and the foundation, how FCCA started, myself and Dr. Ankish Bonsai, who was very involved in the world,

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00:46:35.980 --> 00:46:55.329

Cheryl Holder: Health Association, in what we're doing in NAMA, what we're doing in Medical Society Consortium, in working together, and then understanding clearly, similar to how Valencia Gunder outlined how much in the Puerto Rican organization, we all look for partners, collaboration.

262

00:46:55.330 --> 00:47:01.709

Cheryl Holder: But FCCA, it did beyond looking for partners just to go out and educate, we looked

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00:47:01.710 --> 00:47:14.949

Cheryl Holder: for developing those partners, building the capacity within those partners to be able to understand the health impacts, understand how they're going to integrate this into their work. So we...

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00:47:14.950 --> 00:47:25.719

Cheryl Holder: evolved to identifying and filling these knowledge gaps and needs, and then building these skills and opportunities with all of our partners and all of our volunteers. Next slide.

265

00:47:27.990 --> 00:47:40.099

Cheryl Holder: These are just examples of all the group that we work towards getting... either we work directly, either we train people, or we get funding, or we get resources. Our funders are...

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00:47:40.100 --> 00:47:59.539

Cheryl Holder: foundations, our medical schools, every area. We work with Smile Trust. As a matter of fact, Dr. Armin Henderson is one of our board members. We work with Ani, who also one of our board members is from ANI. We work with every organization within most of the state that's working towards climate and health. Next slide.

267

00:48:00.440 --> 00:48:01.890



Cheryl Holder: We also...

268

00:48:02.070 --> 00:48:10.839

Cheryl Holder: understand the role. Again, in social determinants of health, structure, and understanding, if you're going to protect the animates of the world.

269

00:48:10.840 --> 00:48:34.329

Cheryl Holder: We have to look at how every aspect, where you live, where you work, where you play, your access to money and power, how do we get in those areas to integrate this work? So we are actively involved with the Miami-Dade government. When we're in Tampa, which we are, we work with the Tampa Bay government, Jacksonville, everywhere. We work with the organizations with the ultimate goal of informing, repairing, and protecting people.

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00:48:34.330 --> 00:48:45.370

Cheryl Holder: That's the Miami-Dade's plan, but essentially all the counties around Florida have a similar concept, and that's where we insert ourselves as FCCA. Next.

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00:48:47.250 --> 00:49:01.300

Cheryl Holder: data, data, data. We use data, we access the universities to help us manage the data. How... in one project that we did, we mapped all of the heat-vulnerable areas in Dade County, we

272

00:49:01.430 --> 00:49:15.159

Cheryl Holder: went and saw how we could educate the health systems and that, that work with the most vulnerable. We also responded in an urgent manner, in an equitable manner, by starting with the most vulnerable.

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00:49:15.160 --> 00:49:22.939

Cheryl Holder: And stabilizing their health, and bringing that information to those set of popu- to those set of clinicians, first and foremost.

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00:49:22.940 --> 00:49:26.530

Cheryl Holder: But we use data as the... way to...

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00:49:26.780 --> 00:49:37.090

Cheryl Holder: have the community understand why they're chosen, what's making them less prepared, what puts them at risk, and what is happening further. Next.

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00:49:38.880 --> 00:49:51.029

Cheryl Holder: And over the years, between 2018 to 2020, and with our steering committees, which was started by nurses and doctors and other health volunteers.

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00:49:51.030 --> 00:49:59.549

Cheryl Holder: policy folks were part of what we do. We developed our flagship program, which we call the Climate Health Outreach Team.

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00:49:59.880 --> 00:50:06.120

Cheryl Holder: The team gets trained in 3 hours in how to approach this

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00:50:06.680 --> 00:50:29.280

Cheryl Holder: climate change, how to understand the different health impacts, and how to teach and disseminate this information. And then have an understanding, because we use a lot of storytelling, understanding of what is moving their passion, what is linking them with the community, and why will they sustain this to take this work to the communities, and

280

00:50:29.280 --> 00:50:32.140

Cheryl Holder: integrated into care. Next slide.

281

00:50:33.670 --> 00:50:54.409

Cheryl Holder: when we look at how we're going to do the education, because that's foundation, of course we do the standard CMEs, we do the standard lunch and learns, on-site education, training programs, and we even developed a community practicum for medical students based on the Global Consortium of Education Five Code Competencies.

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00:50:54.410 --> 00:50:58.639

Cheryl Holder: And then we also use social media. Within all of these

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00:50:58.670 --> 00:51:08.060

Cheryl Holder: areas. The community and the physicians and the team gets developed to educate. They also then become... next... next slide.

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00:51:10.700 --> 00:51:32.270

Cheryl Holder: These are just some pictures of the team at work. We go into health centers, we go into parks, we go everywhere bringing the information. Many of the team members are community members, linked with nurses, link with doctors, linked with medical students. We use the trusted messenger to help strengthen the information that's delivered, and having the community always having a

285



00:51:32.550 --> 00:51:38.540

Cheryl Holder: certified, licensed clinician there to answer questions.
Next... next slide.

286

00:51:38.780 --> 00:51:46.029

Cheryl Holder: More work that we do, and we ended up working... moving this
towards doulas. Next slide.

287

00:51:46.970 --> 00:51:49.720

Cheryl Holder: The doula program.

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00:51:50.090 --> 00:51:57.599

Cheryl Holder: is one of our newest programs. Florida, as you know, is
very red. They've moved very much away from

289

00:51:58.990 --> 00:52:08.119

Cheryl Holder: Already at my 7 minutes. Moved very much away from doing
anything with the doctors and the hospitals, so we looked at doulas to
work in the maternal program. Next slide.

290

00:52:09.320 --> 00:52:12.640

Cheryl Holder: Advocacy, same thing, training. Next slide.

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00:52:13.430 --> 00:52:15.099

Cheryl Holder: And these are our results.

292

00:52:15.860 --> 00:52:26.719

Cheryl Holder: We've served a lot. We're from Jacksonville to Key West.
We do about 12 webinars a year, advocacy decks and op-eds, peer-reviewed
publications. We have research studies.

293

00:52:26.890 --> 00:52:36.129

Cheryl Holder: And we're constantly in media. We integrate with our
hospitals, we integrate with our other projects, we're on lots of boards,
and...

294

00:52:36.310 --> 00:52:37.540

Cheryl Holder: Next slide.

295

00:52:39.080 --> 00:52:41.679

Cheryl Holder: These are things from our doula. Next slide.

296



00:52:43.160 --> 00:52:46.160

Cheryl Holder: This is what we're facing. Next slide.

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00:52:46.730 --> 00:52:55.499

Cheryl Holder: Florida has heat, hurricane floods, so each of our projects, Shihab can take on each of these projects, whether it's flooding, hurricanes, heat, next.

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00:52:56.230 --> 00:53:10.310

Cheryl Holder: And so when we see our patient, which I saw about 5 years later, I was able to respond to his chronic kidney disease, get him better housing, get him resources, get him out of the sun from what was harming him.

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00:53:10.370 --> 00:53:20.850

Cheryl Holder: Because we did the process, educating, getting the resources, and protecting our patients and preparing him for the future. Thank you.

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00:53:23.980 --> 00:53:26.589

Joanne Perodin: Thank you, Dr. Holder.

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00:53:26.610 --> 00:53:33.609

Joanne Perodin: In the interest of time, I would like to remind all of our audience members to drop their questions.

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00:53:33.620 --> 00:53:46.989

Joanne Perodin: In the Q&A. I do see that some of them have already been submitted and answered, so thank you for that. And, if I could ask a question to,

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00:53:46.990 --> 00:53:57.830

Joanne Perodin: the panel, anyone can, answer that question. So we've heard about the importance of trust, Longitudinal studies,

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00:53:58.040 --> 00:54:13.370

Joanne Perodin: Moving away from terms like mutual aid and, embracing sanctuary systems, the impact of long-term recovery and dealing with multiple compounding crises.

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00:54:14.640 --> 00:54:21.040

Joanne Perodin: So if there are health professionals, interested in climate and health, what...



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00:54:21.400 --> 00:54:36.810

Joanne Perodin: what would be your recommendations based on your line of work, for them to identify where they can start, like, engaging, and what kind of call to action, would you,

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00:54:36.960 --> 00:54:38.000

Joanne Perodin: Share with them.

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00:54:38.950 --> 00:54:41.049

Joanne Perodin: And anyone can jump in for this one.

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00:54:43.240 --> 00:54:58.769

Cheryl Holder: As one of the doctors, there's so many clinicians with Climate Action out there now in the U.S. There are about 32, almost every state has some way of participating through the Clinicians of Climate Action. Most hospital systems

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00:54:58.770 --> 00:55:03.490

Cheryl Holder: If you're in... and most doctors are employed, they have sustainability.

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00:55:03.490 --> 00:55:23.100

Cheryl Holder: committees on most of them, and I give some opportunity there. There's Mom Clean Air Force, there's so many organizations, the climate alliances are now in most states. It's different than when I started over 10 years ago. I tell you, in the last 10 years, we've really seen an improvement. So every doctor now can find a way to participate.

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00:55:23.100 --> 00:55:25.629

Cheryl Holder: And they should. It's an emergency.

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00:55:28.390 --> 00:55:32.719

Gredia Huerta-Montanez: I would add that, when you are trying to figure out

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00:55:33.190 --> 00:55:44.439

Gredia Huerta-Montanez: how to start, to really, do that introspection and discernment, and identify what is needed in your communities.

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00:55:45.220 --> 00:55:50.380

Gredia Huerta-Montanez: Couple that with your talents, things that you like, your topics of interest, and



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00:55:50.460 --> 00:56:07.870

Gredia Huerta-Montanez: share this with other people. So, listening and sharing your experience, your interests, get to... with people that have similar interests, that helps, because they provide support, and then also, together, you can bring up, better and bigger ideas.

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00:56:07.870 --> 00:56:16.009

Gredia Huerta-Montanez: So Clinicians is the grade, Clinicians for Climate Action, and the Society Consortium for Climate and Health. It's... is outstanding.

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00:56:16.340 --> 00:56:28.529

Gredia Huerta-Montanez: provided us incredible support, and all these activities were... I just mentioned the ones that were related to education of clinicians per se, but we're doing so many activities with the communities also.

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00:56:28.530 --> 00:56:41.679

Gredia Huerta-Montanez: And that kind of gives you fuel to continue... the fuel to continue doing things, and... and being more creative, and inserting that into your day-to-day, because at the end, what we... what we want in our...

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00:56:41.680 --> 00:56:47.630

Gredia Huerta-Montanez: organization is to increase the physician's and the clinicians' capacity

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00:56:47.670 --> 00:57:06.059

Gredia Huerta-Montanez: to educate their patients, to bring this... to translate these signs into words that they can understand and that they can apply. And physicians are a very strong force, and their voice is still respected in society, so, they have that one-to-one

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00:57:06.060 --> 00:57:10.100

Gredia Huerta-Montanez: Moment with their patients, so it's a great opportunity.

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00:57:13.740 --> 00:57:17.349

Alika Maunakea: And I would just briefly add, I mean, we recognize that

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00:57:17.420 --> 00:57:30.109

Alika Maunakea: you know, climate-related disasters and people affected by that. This is a complex problem. No single sector obviously can



address that combined environmental, physical, mental, and social effects that it has.

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00:57:30.170 --> 00:57:46.199

Alika Maunakea: So with that said, I think it can be really daunting, but really recognizing the strengths within our communities that, you can partner with, identifying the champions there that understand the needs very well, have been historically,

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00:57:46.250 --> 00:57:52.990

Alika Maunakea: You know, involved in, representing community needs and advocating for, change.

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00:57:52.990 --> 00:58:13.000

Alika Maunakea: And recognizing them as assets in the community that can actually help with navigation, and adding your expertise and your knowledge, as well as your time and support to those organizations makes a big difference, especially in rural communities that just lack that kind of specialty services and care. So, you know, I would recommend

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00:58:13.160 --> 00:58:34.140

Alika Maunakea: Start locally, keeping it manageable, as well as identifying potentially a climate hazard that's affecting and relevant to your population that you serve in that community, and adding a few relevant questions into your workflow day-to-day, and identifying especially that trusted partner and organization that has deep-rooted connections and history.

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00:58:34.140 --> 00:58:35.529

Alika Maunakea: With that community.

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00:58:40.760 --> 00:58:43.680

Joanne Perodin: Thank you. Oh, go ahead, Valencia.

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00:58:43.680 --> 00:58:48.829

Valencia Gunder: No, I was just gonna add, like, as you all engage grassroots organizations in, like.

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00:58:48.830 --> 00:59:03.830

Valencia Gunder: vulnerable communities, understanding that they're not medical professionals, is very, very, good to remember. I'm not a medical professional, so I know even talking to Dr. Arman and a lot of the medical professionals that flow through the Freedom Lab.

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00:59:03.830 --> 00:59:13.570

Valencia Gunder: We are constantly asking them to, like, you know, break it down for us to understand that we have not been to medical school. A lot of the people you may engage may have never been to college.

334

00:59:13.570 --> 00:59:24.810

Valencia Gunder: So understanding when you're engaging and you're explaining things that not everybody are medical professionals, and that's super, super important, so more folks can have access to you all, and vice versa.

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00:59:29.350 --> 00:59:37.630

Joanne Perodin: Thank you all. So, starting locally, identifying what kind of climate action plans are,

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00:59:37.630 --> 00:59:51.570

Joanne Perodin: activated, sustainability measures, communication strategies, and modernization of communication framework, are some of the key highlights that I've heard from all of you.

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00:59:51.660 --> 01:00:00.899

Joanne Perodin: Now, unfortunately, we are at time, but before wrapping up, I would like to thank all of our guest speakers.

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01:00:00.900 --> 01:00:03.190

Joanne Perodin: For sharing

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01:00:03.190 --> 01:00:26.869

Joanne Perodin: your work with our audience, and I also would like to thank all audience members for joining us today. We've covered a lot of ground, and clearly we wish we had more time to continue with the conversations. So before wrapping up, there is a QR code that we invite you to scan and fill out a survey. Today's webinar

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01:00:26.960 --> 01:00:30.819

Joanne Perodin: Is recorded and will be available on the website.

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01:00:31.300 --> 01:00:48.770

Joanne Perodin: And I did see that some of you have asked that question, so yes, the content will be available to you. And lastly, I want to extend a huge thank you again to our amazing speakers, for sharing your expertise, and...

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01:00:48.950 --> 01:00:51.139



Joanne Perodin: All of you in the audience for...

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01:00:51.210 --> 01:01:11.149

Joanne Perodin: you know, sharing some of your time, energy, and the questions and comments that you've shared in the chat. We appreciate, your support, we appreciate you joining us today, and we look forward to seeing you at a future event, and wishing you a wonderful rest of the day.

344

01:01:15.050 --> 01:01:15.429

Nikhil Kothegal: Thank you.

345

01:01:15.430 --> 01:01:16.070

Alika Maunakea: Hello.