1
00:00:09.770 --> 00:00:21.169
Teddie Potter: Welcome, everyone. I'm Dr. Teddy Potter, and I'm a clinical professor with the School of Nursing at the University of Minnesota, and I am delighted to welcome you to this

2
00:00:21.170 --> 00:00:31.059
Teddie Potter: regional session, the Midwest session. And today we're going to have several experts, speak, and I can hardly wait for you to meet them.

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00:00:31.060 --> 00:00:32.450
Teddie Potter: Next slide, please.

4
00:00:35.380 --> 00:00:38.439
Teddie Potter: And… next, please.

5
00:00:39.640 --> 00:00:49.869
Teddie Potter: So, all the states that are in this region are connected by water. Either the Great Lakes or the Mississippi River. We are a water people.

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00:00:50.020 --> 00:00:51.459
Teddie Potter: Next slide, please.

7
00:00:54.800 --> 00:01:11.549
Teddie Potter: And because of that, a lot of people think that the Midwest is the ideal place to move, because we're climate resilient. They think of us as having this abundant fresh water, which we do, large lakes that oftentimes act as sort of a natural air conditioner.

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00:01:11.550 --> 00:01:22.620
Teddie Potter: And, we're located inland, far from the coast. But let us tell you a little bit about the truth of what climate change is doing in our area. Next slide, please.

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00:01:22.900 --> 00:01:39.059
Teddie Potter: We have a lot of craziness happening. The jet stream goes right over the Midwest, so the fires that are burning in Canada, their forests, when their forests are on fire, our lungs are on fire. You can see this picture down the lower left, it shows the smoke carried right over Minnesota.

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00:01:39.060 --> 00:01:48.539
Teddie Potter: Our air quality in the summertime has been up in the 200s, 300s, and at one point it was even 800 in normal in northern Minnesota this summer.

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00:01:48.540 --> 00:02:01.479
Teddie Potter: Our winters are actually warming, which is kind of crazy, and now we've entered the ice belt, where there's a lot of motor vehicle accidents, people are slipping and falling on the ice, they're getting injured, head injuries, broken hips.

12
00:02:01.660 --> 00:02:23.849
Teddie Potter: And we had to rescue people who were out fishing on one of our northern lakes because the ice broke up prematurely. We're having vector changes. This is a picture of the limes, or the deer tick bite, in just my family alone. And then our farmers are really struggling because of changes in water patterns, increased droughts.

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00:02:23.850 --> 00:02:29.319
Teddie Potter: Heat episodes, crops are not growing, and because of that, farmers are at risk for suicide.

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00:02:29.320 --> 00:02:39.520
Teddie Potter: So, as much as we are a, area that people think are climate resilient, it's not the land that makes us resilient. Next slide, please.

15
00:02:40.390 --> 00:03:00.260
Teddie Potter: It's the relationships. We are a tight group of people, and our relationships and partnerships are what make us resilient. So I invite you to listen to the wisdom of the people that will follow. It is my pleasure to introduce Dr. Sheetal Rao, who will guide the rest of the conversation.

16
00:03:01.730 --> 00:03:17.580
Sheetal K. Rao,: Hi everyone, I'm Sheetal Kedgar-Rao. I'm an internal medicine physician on faculty at the University of Illinois Chicago, and I'm also the co-founder and chief health and engagement officer of Nords and Green Earth Foundation, which is a member of the NAM Climate Communities Network.

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00:03:17.730 --> 00:03:29.570

Sheetal K. Rao,: I'm very delighted today to introduce our speakers. We're going to start off with Helena Volzer, Senior Source Water Policy Manager with Alliance for the Great Lakes.

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00:03:29.790 --> 00:03:41.650
Sheetal K. Rao,: And then Ian Hughes, Director of the Office of Environmental Sustainability at Rush University Medical Center. Katie Wickman, volunteer and former board member at Healthy Climate Wisconsin.

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00:03:41.820 --> 00:03:51.230
Sheetal K. Rao,: Joe Bjorgaard, Senior Climate and Health Manager at the Climate Advocacy Lab, and a board member with Health Professionals for a Healthy Climate.

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00:03:51.930 --> 00:04:01.510
Sheetal K. Rao,: We also have with us Heidi Root, who is the Director and Associate Professor of the Climate Adaptation Partnership at the University of Minnesota.

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00:04:02.010 --> 00:04:17.469
Sheetal K. Rao,: Today, we're going to hear about some 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 United States. And with that, I will hand it off to Helena.

22
00:04:23.180 --> 00:04:39.070
Helena Volzer: Thanks so much for having me. I'm here to talk about a recent report that the Alliance issued back in August called A Finite Resource, which really puts the spotlight on how finite our Great Lakes really are, managing the growing water needs of data centers, critical minerals mining, and agriculture. Next slide, please.

23
00:04:39.490 --> 00:04:55.249
Helena Volzer: As you can tell right away from the title, we focus in on, kind of, three sources, or sectors, if you will, that are increasing the demand for water in our region. Data centers and other things like semiconductor chip manufacturing, quantum computing. We'll spend the most time talking about this, in fact.

24
00:04:55.250 --> 00:05:19.360
Helena Volzer: almost all of the time. But I would do want to point out that critical minerals mining and agriculture are also mentioned within the report. And just to highlight what Teddy said about agriculture, the

overlapping needs for water between data centers and agriculture are something we may begin to see increased conflict over, particularly groundwater resources. Both data centers and agriculture need more water in the summer when it's hot, and so we may see potential for conflict there.

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00:05:19.360 --> 00:05:20.320
Helena Volzer: Next slide.

26
00:05:22.340 --> 00:05:47.230
Helena Volzer: So this is just a map I like to start with to give folks an idea of where data centers are located throughout the Great Lakes region. They tend to cluster around these major metropolitan areas for access to things like energy transmission lines and high internet speeds. Just for reference, Illinois and Ohio, Illinois is 4, Ohio is 5 in the country in terms of the number of data centers, and you can very clearly see Data Center Alley there in Virginia is number one in the country. But the number doesn't tell us the whole story.

27
00:05:47.230 --> 00:05:51.039
Helena Volzer: story about the increasing demand for water. Next slide, please.

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00:05:51.720 --> 00:06:00.799
Helena Volzer: So what's really driving the demand for that is hyperscale data centers. These are much larger facilities than we've seen in the past, and that demand's being driven by the needs of generative AI.

29
00:06:00.800 --> 00:06:14.510
Helena Volzer: Generative AI requires vast data processing capabilities, and these facilities can use between 1 and 5 million gallons of water per day if they're using evaporative cooling. To put that in perspective, 1 MGD over a year is the same as 12,000 Americans.

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00:06:14.510 --> 00:06:29.740
Helena Volzer: The numbers I have here on a hyperscale… what is a hyperscale facility, there is no hard and fast definition of that, but, and many of the facilities we're seeing now are much, much larger than this… this floor that I have here of 10,000 square feet, 5,000 servers, 20 megawatts of load. Next slide.

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00:06:32.970 --> 00:06:51.659
Helena Volzer: So, data centers can use a variety of different cooling methods. If you're interested in this, you can find more in our report.

It's available on our website. Evaporative cooling has the most concern for us in terms of direct water use inside of a data center. This is where water's pushed through a membrane to bring down the temperature inside the server room, and it has the most consumptive use of water associated with it.

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00:06:51.660 --> 00:06:59.679
Helena Volzer: Liquid immersion and direct-to-chip involve exposing equipment directly to water, and that has some water quality questions associated with it when that water's discharged.

33
00:06:59.680 --> 00:07:15.410
Helena Volzer: And then closed loop is where we're really seeing a transition now to more systems coming online with this type of cooling. And this has lower water and energy needs, but there's an indirect water use component associated with data centers, because they are very large energy users, and we call that the water-energy nexus.

34
00:07:15.410 --> 00:07:29.700
Helena Volzer: And that increased water use at power plants, when we're talking about fossil fuel or nuclear power, also has the potential to increase consumptive use of water. And then finally, with air cooling, that's just the use of large fans and is really insufficient to support the needs of AI. Next slide, please.

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00:07:30.370 --> 00:07:54.179
Helena Volzer: So, one of the main findings of our report is that we really don't know what the water use footprint is of an individual data center. There are no water use reporting requirements where large-scale water users are hooked into municipal supplies. And this is particularly relevant for data centers because over 97% of data center operators are using municipal supplies. And because there is no requirement to do so, less than a third of data centers are even tracking their water use.

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00:07:54.180 --> 00:08:01.769
Helena Volzer: Again, I talked about the water-energy nexus, that also requires water, and right now we can't calculate how much of that's being driven by data centers.

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00:08:01.770 --> 00:08:10.189
Helena Volzer: And then finally, non-disclosure agreements common in economic development are really obscuring how much water and energy is proposed to be used at the outset of a project. Next slide, please.

38

00:08:11.150 --> 00:08:36.030
Helena Volzer: The Alliance got into this work because we have a long history of working on the Great Lakes Compact. It generally prohibits diversions of Great Lakes water out of the Great Lakes Basin, that is, transfers to a different watershed. There are some exceptions for that along the Great Lakes Basin line. But some of the other things it does are require states to manage their Great Lakes water use, to have conservation and efficiency goals and programs, and to establish common water use reporting protocols to a regional database so we can get a picture of water use throughout the region.

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00:08:36.030 --> 00:08:41.759
Helena Volzer: And I pulled this phrase out of the compact because it's the message that our report tries to send, and I think relevant for all of us.

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00:08:41.760 --> 00:08:48.300
Helena Volzer: Is that these programs were never meant to be static, they were meant to adjust to new demands and the potential impacts of cumulative effects and climate.

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Helena Volzer: Next slide.

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00:08:50.200 --> 00:09:03.610
Helena Volzer: So I want to briefly touch on why local solutions to this problem aren't enough, and our report really focuses on state-level solutions. There's really a threat to groundwater integrity here, based on this convergence of demand from all sectors and all states that we mentioned.

43
00:09:03.630 --> 00:09:20.570
Helena Volzer: And our groundwater laws are somewhat inadequate to allow the states to limit groundwater use before there's been some kind of adverse resource impact. In addition to that, we already have existing groundwater conflicts in the Great Lakes region, portions of southwest Michigan, the Central Sands region in Wisconsin, Little Rock Creek in Minnesota, and then,

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00:09:20.640 --> 00:09:28.899
Helena Volzer: just west of South Bend, Indiana, is the first case we've seen in the region where a AV battery plant and a data center is suspected to have impacted residents' wells.

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00:09:28.900 --> 00:09:43.089
Helena Volzer: Also, with the water-energy nexus we mentioned, you know, it's very difficult for a local community that's facing a data center proposal to factor in the increased consumptive use of water at a power plant that might be located outside of their community, so really tough to factor that in.

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00:09:43.090 --> 00:09:47.909
Helena Volzer: And then, state-level economic development corporations might make citing decisions without local input at all.

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00:09:47.910 --> 00:09:59.809
Helena Volzer: And what I'm increasingly seeing now is the use of local restrictions or temporary moratoria to kind of push the pause button on data center siting. And that might pit communities against one another that are better situated to enact those kinds of restrictions.

48
00:09:59.810 --> 00:10:13.559
Helena Volzer: And in addition to that, state legislatures might start to respond, and that's already started to happen. And I'll pick on Ohio, where I'm from, which has introduced some legislation that would severely limit not only local control, but state-level control over data center regulation. It would require a,

49
00:10:13.560 --> 00:10:22.819
Helena Volzer: compelling government interest, and that the regulation be narrowly tailored to that interest. So setting a really high bar for the state and local governments to actually enact any kind of regulation. Next slide.

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00:10:23.660 --> 00:10:30.530
Helena Volzer: So our report, for that reason, really focuses on solutions at the state level. What can the states be doing better to accommodate all of this demand?

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00:10:30.530 --> 00:10:55.160
Helena Volzer: The first one is regional planning studies that evaluate where water is available and where it's not, and Ohio, Illinois, and Indiana are three states that have started work on this area. But these kinds of studies need to be incorporated into ongoing conservation programs versus one-time, one-off studies, and they should really evaluate ecosystem and environmental needs as part of that demand calculation. How much water for fish populations, and how much to sustain groundwater flows? These need to be factored into the demand calculations.

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00:10:55.240 --> 00:11:03.130
Helena Volzer: And then the whole point of doing these studies is so that the economic development corporations and local governments can turn to them when they're citing and deciding where to locate these projects.

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00:11:03.130 --> 00:11:28.129
Helena Volzer: Transparency and accountability, both on the front end, in terms of public disclosure requirements and ongoing water use reporting requirements, are really necessary. I've also pointed out community benefit agreements, which are something that can be used to alleviate that transparency and bring the community into the decision-making process, and perhaps alleviate some of that pushback that people have seen against data centers. They could bring some kind of water resources benefit back to the community, be it in the form of a conservation

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00:11:28.130 --> 00:11:51.139
Helena Volzer: efficiency practice, committing to paying for water infrastructure, there's a lot of different ways those could be used. And then tax incentives and abatements. Every state in the Great Lakes region has enacted some kind of sales and use tax incentive to attract this industry, and while we generally think those could be pulled back on, there's also ways to connect them with water use. Michigan, for example, has said if you want to avail yourself of the tax credit, you must connect to where there's existing supplies.

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00:11:51.140 --> 00:11:54.730
Helena Volzer: To prevent the build-out of water infrastructure just to service data centers.

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00:11:54.730 --> 00:12:17.020
Helena Volzer: And then finally, conservation and efficiency standards that don't silo water and energy needs. Connecticut has a bill on this. But data centers don't have to use potable finished drinking water. They can recirculate water, they could co-locate with wastewater treatment plants, and then non-potable water is something that Ohio and Illinois, which have established chapters of a water reuse association, are starting to explore. What are the regulations that would need to accommodate that?

57
00:12:17.020 --> 00:12:18.140
Helena Volzer: Next slide.

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00:12:19.050 --> 00:12:36.619

Helena Volzer: And now, finally, the most important slide for all of you, how you can get more involved and learn more about the Alliance. Our website, greatlegs.org, there's a report, the report I just talked about, our fact sheet, and a more in-depth length webinar specifically on the data center issue. We also have a volunteer ambassador program.

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00:12:36.710 --> 00:13:01.630
Helena Volzer: That you can engage with, and you can subscribe to our newsletter for alerts and updates on what we're doing at the state level. I also want to point out that the Alliance does a lot of other work outside of water quantity issues. We also work on agricultural pollution, plastics pollution, water infrastructure, water affordability, invasive species, and so you can find more about that on our website as well. For forthcoming, I'm working on a toolkit for communities to engage in state-level advertising

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00:13:01.630 --> 00:13:18.919
Helena Volzer: So that will be something that we'll put out through that newsletter to provide an update when it is available. And then finally, just staying in touch with me, my email address is there on the slide, for ways that you can be involved. It's really helpful to connect with professionals such as yourselves when we're engaging on policy and considering what are the health impacts of some of these policies.

61
00:13:18.920 --> 00:13:21.990
Helena Volzer: So, thanks very much, and I'll turn it over to whoever's next.

62
00:13:23.580 --> 00:13:36.769
Sheetal K. Rao,: Thank you so much, Helena. We're going to move over to Ian, who's going to tell us about some of the great work going on at Rush. Just a reminder for any listeners who have questions, please put them in the Q&A, and we will get to them at the end.

63
00:13:39.100 --> 00:13:49.800
Ian Hughes: Thanks, Sheetals. Thanks, Helena. My name is Ian Hughes, I'm the Director of Rush University Medical Center's Office of Environmental Sustainability here in Chicago, Illinois. Next slide.

64
00:13:50.430 --> 00:14:02.830
Ian Hughes: I'm gonna kind of talk through some, from a high level, some of the really great things that we're doing that are kind of, we like to call it multi-solving, co-collaborating, things along those lines, just ways that we're addressing a variety of different issues.

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00:14:02.830 --> 00:14:24.959
Ian Hughes: And I'll start by kind of framing where Rush University Medical Center is. We're on the near west side of Chicago, as you can see in the picture on the right, within eyeshot of the beautiful skyline of downtown Chicago, just off 270, or sorry, 290. And we are situated in the Illinois Medical District and serve, a majority of our patients come from the near west side of Chicago.

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00:14:24.960 --> 00:14:28.829
Ian Hughes: Next slide. And I say that to help frame

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00:14:29.130 --> 00:14:39.129
Ian Hughes: two things that our community health equity and engagement and anchor mission teams have been focusing on for decades. They've been looking at the life exp…

68
00:14:40.620 --> 00:14:46.549
Ian Hughes: and wage gap that you see on the near west side of Chicago. So if you look at that image on the left-hand side, you see the loop over there with the 80.

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00:14:46.560 --> 00:14:57.610
Ian Hughes: kind of called out, and that's where all of our train lines kind of converge downtown. Predominantly wealthy, affluent, white neighborhoods for the most part, and they have a life expectancy of 80 years.

70
00:14:57.620 --> 00:15:11.130
Ian Hughes: You take the Blue Line train 6 stops to the west into East Garfield Park, and that drops by 14. I think that number is actually recently updated to 20 years less life expectancy. Similarly, on the income side of things.

71
00:15:11.130 --> 00:15:20.029
Ian Hughes: you see a county-wide annual wage of around $59,000, city of Chicago is $52,000, you get out to West Garfield Park.

72
00:15:20.030 --> 00:15:32.180
Ian Hughes: And that's less than half, right? So these social and economic determinants of health are something that have a significant impact on people's ability to be healthy in the first place. And next slide.

73
00:15:32.570 --> 00:15:46.839
Ian Hughes: When we started our work here at the organization about 5 years ago, we were curious, you know, we saw those maps, and we were like, well, I wonder what the environmental burden looks like, for these populations. And sure enough, it follows very similar patterns when you go from downtown Chicago, the map on the left.

74
00:15:46.840 --> 00:15:57.049
Ian Hughes: shows environmental and pollution burden increasing in those lighter colors, from the lighter colors downtown to the west side. That little cell that's highlighted is, Garfield Park.

75
00:15:57.050 --> 00:16:10.210
Ian Hughes: pretty significantly. And similarly, there was a study done for HeatShy, where they looked at heat exposure across the city on one of the hottest days of the summer a few years ago, and monitored street… monitored street-level humidity and temperature data.

76
00:16:10.210 --> 00:16:21.760
Ian Hughes: And found a 20 degree difference from downtown, on the lakefront, we get a nice, cool breeze off the lake, if you can afford to live out there, to the near west side, and south sides being about 20 degrees hotter.

77
00:16:22.000 --> 00:16:31.660
Ian Hughes: So it's really important to look at this from a holistic perspective and kind of step out of our silos a little bit to have a more of a holistic picture of what's happening to human health. So next slide.

78
00:16:34.330 --> 00:16:42.590
Ian Hughes: So we'd like to call this multi-solving, we definitely didn't coin that term, that was Elizabeth Samhain. I've got a link down here in the bottom, and on all these slides, I do have links, so you can click through.

79
00:16:42.590 --> 00:16:55.940
Ian Hughes: But this is essentially, you know, taking multiple groups of people to collaborate on a variety of different problems that have all kinds of overlaps and intersections, kind of saving ourselves money and time, right? It's an iterative process.

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00:16:55.940 --> 00:17:01.989

Ian Hughes: It takes a lot of learning and curiosity, but it is something that's actually helped us to tell a lot of stories.

81
00:17:01.990 --> 00:17:13.130
Ian Hughes: in a more holistic manner that looks at all aspects that are potentially affecting human health, which is really exciting. And though we're not quite to the flower model in that lower right-hand corner there.

82
00:17:13.130 --> 00:17:32.249
Ian Hughes: of looking at all of these aspects of projects and of, you know, implications of doing work at Rush. It's definitely something that we strive to achieve, and something that we're getting better at the more we, again, step out of our silos. I love that Helena mentioned silos as well. Stepping out of those silos and kind of standing in the intersection together. Next slide.

83
00:17:34.270 --> 00:17:50.990
Ian Hughes: So our work, my team, the Office of Environmental Sustainability, you know, we're, like any other sustainability department, focusing on measuring, managing, and minimizing our environmental footprint. We do so across these five pillars, and that is, like, the shortest summary I could possibly give of our work.

84
00:17:50.990 --> 00:18:02.029
Ian Hughes: that is very wildly complex, and kind of crazy. It is just three of us, right? We just have a small team of three, and I know we're very lucky because I know there's other departments that are typically teams of one.

85
00:18:02.030 --> 00:18:13.319
Ian Hughes: Next slide. But what we like to do, and what we like to kind of make a joke of, is we're a small but mighty team of three trying to be a team of 10,000, right? Because without the support of all 10,000 employees across our organization.

86
00:18:13.340 --> 00:18:26.080
Ian Hughes: there's no way we're gonna make this work happen in the time span that we need to make it happen. So we've created a wide variety of, you know, multidisciplinary working groups. We've got top-down support from senior leadership.

87
00:18:26.080 --> 00:18:35.510

Ian Hughes: Working groups dig into a little bit more specific areas, like greening the operating room, or recycling sustainable materials management, efficiency on the utilities side of things.

88
00:18:35.560 --> 00:18:51.980
Ian Hughes: We find a lot of deep enthusiasm in and around the research and university space. Students and faculty in particular are very excited about sustainability. We have a ton of just individual sustainability champions across the boards that we're leaning on to help us, again, drive this work. Next slide.

89
00:18:53.660 --> 00:19:07.299
Ian Hughes: So, a couple of really cool projects, and you can do next slide. The really exciting one on our food waste side of things, we've got kind of two main alleyways that we avoid food going to landfills. On the recoverable food side of things, we donate

90
00:19:07.300 --> 00:19:15.080
Ian Hughes: Thanks to our partnership with the University of Illinois Chicago, they have a student group that comes and picks up, they do a literal milk run of surplus food.

91
00:19:15.080 --> 00:19:22.450
Ian Hughes: In our neighborhood, they pick up from us, and then they drop it off over at the Franciscan Outreach, which is a shelter for the unhoused just west of our facility.

92
00:19:22.450 --> 00:19:39.339
Ian Hughes: That ends up being about 200 to 400 pounds of food per week, which is really exciting, from a perspective right now, especially everything going on with SNAP benefits and things along those lines, but also keeping that food out of the landfill. Next slide. The other vein that we've got is collecting our…

93
00:19:39.440 --> 00:19:53.679
Ian Hughes: Unrecoverable food to send it off to, Green Era Campus via our Women, Women in Local Owned Business Collective Resource. They're our compost hauler, a hauler, they take it down to Green Era Campus, which is an anaerobic biodigester.

94
00:19:53.680 --> 00:20:00.359
Ian Hughes: They digest our organic material, turn it into renewable natural gas and nutrients.

95
00:20:00.360 --> 00:20:05.429
Ian Hughes: the solids that come off of that help grow food, right? So we're creating a nice circular economy with that. Next slide.

96
00:20:05.560 --> 00:20:21.180
Ian Hughes: And that actually saves us pretty significantly on a greenhouse gas emissions perspective, which, from our team's perspective, that's fantastic, but looking at it from the broader community, social, and economic side of things, this has many, many wins across the board. Next slide.

97
00:20:23.170 --> 00:20:36.589
Ian Hughes: Another one that's a great example of this is our partnership with Fillmore Linen Service. They are a newly opened laundry service that is on the near west side of Chicago in North Lawndale. We were one of the original folks, healthcare organizations, to sign up.

98
00:20:36.590 --> 00:20:45.089
Ian Hughes: And instead of sending our laundry 80 miles round trip, we're now sending it 8 miles round trip, which has its own environmental implications, of course, from a greenhouse gas perspective.

99
00:20:45.100 --> 00:21:03.420
Ian Hughes: But the facility itself is brand new, state-of-the-art, incredibly efficient from an energy and water perspective, which is fantastic across the boards. But also, on the community and social side of things, this has been a historically disinvested neighborhood, and we've now helped to support the creation of 80 new jobs, paying great wages.

100
00:21:03.420 --> 00:21:13.739
Ian Hughes: And benefits and all that really great stuff. So this is definitely an awesome opportunity to show, kind of, the strength of pulling together those Anchor Mission Community Health Equity and sustainability teams. Next slide.

101
00:21:16.180 --> 00:21:29.519
Ian Hughes: We've also supported community solar. We are doing some really great work with this. For those that aren't familiar, the state of Illinois has got some really great programs with community solar that actually, when you sign up as a subscriber on the commercial side or the residential side.

102

00:21:29.530 --> 00:21:40.169
Ian Hughes: You get a bill credit, right? So you're actually getting a financial win, which is really exciting. You're supporting that bigger transition to green energy, and what's really great about this

103
00:21:40.450 --> 00:21:45.730
Ian Hughes: We're building a clean energy workforce, right? We're helping in the support of these

104
00:21:45.760 --> 00:22:03.080
Ian Hughes: community solar projects, build out job opportunities for these neighborhoods, and then provide new opportunities for residential subscriptions to help them save money on their utility bills. Next slide is just a high level of how far we've come with this work. We're almost at 50% under contract with Renewal Energy through

105
00:22:03.080 --> 00:22:10.630
Ian Hughes: community solar, which is really exciting for us. Again, that's over 20 solar projects in Northern Illinois that we're supporting. Next slide.

106
00:22:11.910 --> 00:22:20.019
Ian Hughes: Planetary Health Report Card is a great one. We love this. It's a great opportunity to engage students. They lead this assessment of our organization.

107
00:22:20.020 --> 00:22:34.850
Ian Hughes: to say how well we're integrating planetary health into our education, and then they hold our staff and faculty to it, which is really, really exciting. I'm gonna leave that at a really high level, but this has been an amazing opportunity for students to get engaged, and participate in these programs.

108
00:22:34.850 --> 00:22:36.089
Ian Hughes: Next slide.

109
00:22:36.720 --> 00:22:53.210
Ian Hughes: I'd be remiss not to mention our great partnership with the Alliance for the Great Lakes. I was on the Young Professionals Council a long time ago, I'm a huge fan of this organization. So when I found out that we were doing some really great joint fundraising initiatives with the Alliance for Great Lakes to really start to better understand microplastics, not only

110
00:22:53.210 --> 00:22:58.939
Ian Hughes: In the Great Lakes, there's estimates that 22 million pounds of plastic end up in our Great Lakes every year, which is crazy.

111
00:22:58.940 --> 00:23:18.390
Ian Hughes: Lord only knows how many pounds or ounces are finding their way into our bodies, but we've got some really amazing folks internally who are doing some great research in this space to better understand the impacts on human health. And then on top of that, we're obviously incredibly aligned with their work around the increasing water and energy demands of these

112
00:23:18.430 --> 00:23:32.719
Ian Hughes: New data centers, next slide. And I think this is my last one. Give a quick plug for the Illinois Clinicians for Climate Action. If there's an opportunity for anyone in the Illinois, the state of Illinois, to join this. It's an amazing organization that just got started.

113
00:23:32.720 --> 00:23:39.570
Ian Hughes: Doing some really great, exciting work, and if y'all would like to stay in touch, please feel free to reach out via LinkedIn. Thanks so much for the time.

114
00:23:41.560 --> 00:23:49.819
Sheetal K. Rao,: Thank you so much, Ian. Now we're going to move on to Katie Wickman with, talking about some of the work that's going on with Healthy Climate Wisconsin.

115
00:23:51.100 --> 00:24:16.099
Katie Wickman: Thank you, Shudal. Hi, everybody. Good afternoon. My name is Katie Wickman. I am a nurse by trade. I am a current healthcare sustainability professional and a former board member and current volunteer with Healthy Climate Wisconsin. We are, and we're born as a state-affiliated group of the National Medical Society Consortium on Climate and Health, and we've been able to build

116
00:24:16.100 --> 00:24:24.050
Katie Wickman: into a robust nonprofit organization that now includes 1,500 passionate members in the state of Wisconsin.

117
00:24:24.330 --> 00:24:25.620
Katie Wickman: Next slide, please.

118
00:24:26.570 --> 00:24:35.829
Katie Wickman: So, our purpose is all about supporting the health of our fellow Wisconsinites through the voice and action of our health professional members.

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00:24:35.880 --> 00:24:52.629
Katie Wickman: Specifically, as you can see on the slide here, our purpose is to enable Wisconsin's health professionals to support system-transforming climate and health equity solutions within local communities, public and healthcare systems, and the government to ensure all Wisconsinites

120
00:24:52.630 --> 00:25:03.690
Katie Wickman: Across every background and zip code, can breathe clean air, drink safe water, enjoy our state's vibrant ecosystems, and thrive on a healthy planet for generations.

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00:25:04.190 --> 00:25:09.179
Katie Wickman: That is a really good purpose statement, don't you think? One that so many of us can get behind.

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00:25:09.510 --> 00:25:11.260
Katie Wickman: You can do… next slide, please.

123
00:25:11.700 --> 00:25:19.270
Katie Wickman: And as I said, we started as a small group of health professionals that were passionate about climate and health.

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00:25:19.290 --> 00:25:30.899
Katie Wickman: We're interested in bringing the work of the National Consortium on Climate and Health to Wisconsin, and we met around a table after a different conference back in 2019,

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00:25:30.900 --> 00:25:41.530
Katie Wickman: And those early conversations of healthcare professionals, just like probably many of you on the call today, led to Wisconsin's first Climate and Health Conference in late 2019.

126
00:25:41.720 --> 00:25:51.609
Katie Wickman: And it is a really good example, I think, of kind of that Margaret Mead quote, where, you know, you never want to doubt the ability of a small group of thoughtful, committed citizens.

127
00:25:51.610 --> 00:26:16.440
Katie Wickman: And that's really how we grew, and we grew through the pandemic. We became an official nonprofit in 2020, we hired part-time staff, we formed partnerships to take action together, and then in 2021, we launched work groups, a newsletter, because you have to have a newsletter, a speakers bureau, a regular conference cadence, and then since then, we've really been able to continue to build our

128
00:26:16.440 --> 00:26:23.209
Katie Wickman: capacity and reach. We currently have a vision, for seven working teams.

129
00:26:23.210 --> 00:26:35.440
Katie Wickman: Of healthcare folks to plug into based on their expertise and their interest, and we're excited about what the future holds, as we continue to bring our voices, to the table and to our communities.

130
00:26:35.970 --> 00:26:36.950
Katie Wickman: Next slide.

131
00:26:38.150 --> 00:26:50.820
Katie Wickman: So, based on our annual strategy retreats, we currently have a vision for the world, the world that we really want, and we have structured that into seven teams in alignment with that vision. And as you can see.

132
00:26:51.410 --> 00:27:05.329
Katie Wickman: no matter what your passion around climate and health is, there is probably a place in Healthy Climate Wisconsin to use it. Most of the times, our teams are working on using the health professional voice.

133
00:27:05.380 --> 00:27:17.029
Katie Wickman: Either in the education of their peers, their institutions, their communities, or with government officials, to make the connection between climate and health, and then to advocate for healthy solutions.

134
00:27:18.420 --> 00:27:27.159
Katie Wickman: And so, we do that across a number of different ways, and on a number of different topics, and we know that they all can interconnect and intersect.

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00:27:27.160 --> 00:27:45.899
Katie Wickman: Whether that is water, or transportation, or climate-smart healthcare, or, any of the other things on the slide. So, but on the… in the next couple of slides, I'm going to zero in a bit on the Climate Smart Healthcare team and its work to help our health systems in Wisconsin move toward, climate-smart healthcare delivery.

136
00:27:46.500 --> 00:28:02.790
Katie Wickman: So, first, I want to briefly mention the why here, and I'm sure most of you are familiar with all of this already, but, you know, it's this knowledge that the U.S. health sector is responsible for not an insignificant amount of the pollution that harms human health.

137
00:28:02.930 --> 00:28:12.159
Katie Wickman: And that we as a healthcare sector contribute 8.5% of the U.S. emissions, also contribute a quarter of global health sector emissions.

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00:28:12.240 --> 00:28:15.570
Katie Wickman: That's a lot, right? And we can do better.

139
00:28:15.570 --> 00:28:32.410
Katie Wickman: And we want to help break that cycle of contributing to the health harms that then require treatment in our facilities, which then increases the healthcare demands, which then creates additional pollution. So, breaking this cycle is part of what climate-smart healthcare is.

140
00:28:32.410 --> 00:28:50.479
Katie Wickman: It includes both reducing healthcare's own contribution to the problem and preparing and adapting to the changes that are both here now, and that will continue to come because of climate change. And I know a couple of our speakers have a lot more on adaptation in the minutes to come.

141
00:28:50.920 --> 00:28:52.690
Katie Wickman: Next slide, please.

142
00:28:53.520 --> 00:29:08.949
Katie Wickman: There are, many benefits of climate-smart healthcare, and of course we've already touched on some of those very most important ones, like improving community health, and the resilience of our

healthcare system, and the resiliency of our communities, but there are more.

143
00:29:08.950 --> 00:29:24.740
Katie Wickman: Many Climate Smart Act actions actually save money to healthcare organizations. We have some great examples of them here in Wisconsin with energy efficiency and other energy projects. One called out here on the slide is from Gundersen Health now, Amplify Health.

144
00:29:24.910 --> 00:29:28.729
Katie Wickman: But there are some, cost savings that can come.

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00:29:28.940 --> 00:29:43.860
Katie Wickman: We also know that, health professionals care about this issue, right? The Commonwealth Fund reported in 2023, that of the thousand U.S. clinicians that they surveyed, nearly 80% of them

146
00:29:43.860 --> 00:29:52.209
Katie Wickman: Believed that it was important for their organizations to address climate change, and that doing so was in alignment with their organization's mission.

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00:29:52.250 --> 00:29:56.660
Katie Wickman: That is a high percentage of healthcare professionals agreeing to that one statement, so…

148
00:29:56.930 --> 00:30:06.790
Katie Wickman: Climate healthcare… climate-smart healthcare can improve, employee satisfaction and engagement, which then can also attract and retain talent to your organization.

149
00:30:07.720 --> 00:30:15.020
Katie Wickman: It can also improve reputation among patients and visitors, too, so that's a lot of reasons here to be excited about the work of Climate Smart Healthcare.

150
00:30:15.990 --> 00:30:17.210
Katie Wickman: Next slide, please.

151
00:30:18.430 --> 00:30:27.879

Katie Wickman: So, what does our climate-smart healthcare team do? We do what most of our teams at Healthy Climate Wisconsin do. We connect with each other.

152
00:30:27.890 --> 00:30:32.709
Katie Wickman: We learn from one another, we try to educate our peers together.

153
00:30:32.710 --> 00:30:47.989
Katie Wickman: We work within our own health systems to move the needle, and we try to share our wins and advocate for further action. So, just last month, we had a physician who was working on a presentation about the environmental impact of inhalers, and wanted our team to review the content.

154
00:30:47.990 --> 00:31:04.290
Katie Wickman: That is perfect. That's a great opportunity and a great example of how bringing health professionals together to kind of provide their expertise, can help each other, move the needle and help instill the confidence in healthcare health professionals

155
00:31:04.410 --> 00:31:10.449
Katie Wickman: Instill that confidence of their own expertise, and their own ability to make change in their corner of the world.

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00:31:10.820 --> 00:31:14.169
Katie Wickman: So that's some of the work that we do. Next slide.

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00:31:15.810 --> 00:31:24.950
Katie Wickman: We also love to share resources. We share, the six success stories that we've heard from our Wisconsin health systems and hospitals.

158
00:31:24.950 --> 00:31:48.840
Katie Wickman: So those are available on our website. We also share tools and resources that we've created to support the journey, the journey to climate-smart healthcare. In the chat, you're going to be seeing a couple of those things go out, as well as a link to our, Climate Smart Healthcare Toolkit that we put together, which is full of tips and tricks to start the conversation in your organization, if you work for a healthcare organization. It includes

159
00:31:48.840 --> 00:32:06.359

Katie Wickman: conversation starters, a step-by-step guide for starting a team, ideas on projects, other success stories, some background information on health sector emissions, and then, links to other publicly available resources for you. So, I encourage you to check that out when you have a chance.

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00:32:07.380 --> 00:32:29.180
Katie Wickman: And then, if you're looking to connect, like, right now, or sooner rather than later, we actually have our annual conference coming up this weekend, on Friday and Saturday in De Pere, Wisconsin, which is just south of Green Bay. We have both in-person and virtual options to attend. It is a great place to connect with other like-minded health professionals.

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00:32:29.290 --> 00:32:40.619
Katie Wickman: If you're in person, it's a great place to eat some good food, learn some from some experts, get some continuing education credits, I think there are 12 and a half available, and connect into the organization.

162
00:32:41.150 --> 00:32:55.029
Katie Wickman: If you are not available this weekend, but still, want to get involved, just head over to our website. On the top menu option, there's a Get Involved button, and then a Join Us button, and you can,

163
00:32:55.030 --> 00:33:16.140
Katie Wickman: fill out that form. There are a lot of options, to get involved, and let… if you just let us know how you'd want to connect, right? There are options to just get our newsletter, or there are options to get your… roll up your sleeves and jump in. So, we are not scary at all, just fill out the form. We'll get in touch with you to hear more about you, and your passion, and your interest in the shared work, so…

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00:33:16.270 --> 00:33:23.520
Katie Wickman: I'm delighted to be with you all today. Thanks so much for being here, and excited to hear from our next speaker.

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00:33:24.490 --> 00:33:30.450
Sheetal K. Rao,: Thank you, Katie. And next, we'll move on to Joe Bjorgaard. She's going to talk about communicating climate and health.

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00:33:31.300 --> 00:33:38.510
Jo Bjorgaard: Hi, everyone! I'm excited to be tuning in from St. Paul, Minnesota today, and we can go to the next slide, please.

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00:33:39.330 --> 00:33:47.369
Jo Bjorgaard: Great. So over the next several minutes, we're going to chat a little bit about how communication can bridge climate and health.

168
00:33:47.410 --> 00:34:01.009
Jo Bjorgaard: why health framing makes climate change personal, relevant, and actionable, the role of trusted messengers in communication, and how collective narratives drive shared action. Next slide, please.

169
00:34:01.470 --> 00:34:20.140
Jo Bjorgaard: Great. So let's dive in with three guiding C's for effective climate and health communication. And I want to quickly shout out my partner in developing this framework, Dr. Melissa Thone, who is a nurse and an emergency preparedness leader in Ramsey County, Minnesota.

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00:34:20.820 --> 00:34:32.080
Jo Bjorgaard: So this framework highlights three essential elements that make climate communication effective and inclusive and grounded in a shared value, which is health.

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00:34:32.489 --> 00:34:44.329
Jo Bjorgaard: Whether we're talking about air quality, housing, energy, or food systems, health is the thread that connects every sector and every region, something that everyone cares about.

172
00:34:44.790 --> 00:34:53.029
Jo Bjorgaard: Health professionals serve as trusted messengers. Health framing gives messages relevance and emotional resonance.

173
00:34:53.219 --> 00:34:59.430
Jo Bjorgaard: And health-centered storytelling makes climate impacts and solutions personal and actionable.

174
00:34:59.650 --> 00:35:03.999
Jo Bjorgaard: And at the center of the three C's, or this trifecta.

175
00:35:04.270 --> 00:35:13.110
Jo Bjorgaard: is collaboration. Leading with health creates common ground, opening doors for cross-sector and cross-regional partnerships.

176

00:35:13.870 --> 00:35:15.640
Jo Bjorgaard: Alright, next slide, please.

177
00:35:16.860 --> 00:35:27.719
Jo Bjorgaard: This data from EcoAmerica shows that the majority of Americans, even across political lines, trust health professionals for information about climate change.

178
00:35:27.920 --> 00:35:35.769
Jo Bjorgaard: So it highlights that health professionals are uniquely trusted messengers when it comes to communicating climate and health issues.

179
00:35:36.100 --> 00:35:44.700
Jo Bjorgaard: And as a nurse, I'm proud to share that nurses have been rated THE most trusted health professionals for the past 23 years in a row.

180
00:35:45.260 --> 00:35:46.729
Jo Bjorgaard: Next slide, please.

181
00:35:48.510 --> 00:35:49.390
Jo Bjorgaard: Great.

182
00:35:49.490 --> 00:36:02.879
Jo Bjorgaard: So we asked a group of multidisciplinary attendees at the Midwestern Climate Resilience Conference why they think this is, why they think health professionals are consistently ranked among the most trusted messengers.

183
00:36:02.940 --> 00:36:11.559
Jo Bjorgaard: And this is what we heard. We heard health professionals have long established relationships with their patients who are members of the community.

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00:36:12.290 --> 00:36:17.790
Jo Bjorgaard: Health professions are commonly known as professions rooted in ethics.

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00:36:18.570 --> 00:36:24.990
Jo Bjorgaard: They can see health impacts on a widespread population level before other professionals.

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00:36:25.360 --> 00:36:28.950
Jo Bjorgaard: And health professionals represent all generations.

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00:36:29.700 --> 00:36:33.350
Jo Bjorgaard: So if you have anything to add to that, feel free to drop it in the chat.

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00:36:34.970 --> 00:36:41.159
Jo Bjorgaard: And we'll talk about the first C. So our first C is credibility. You can go to the next slide, please.

189
00:36:42.130 --> 00:36:44.939
Jo Bjorgaard: Health professionals are trusted messengers.

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00:36:45.190 --> 00:36:52.850
Jo Bjorgaard: And they're embedded in communities. So their words carry weight, because they come from care and from lived experience.

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00:36:53.260 --> 00:37:07.020
Jo Bjorgaard: They make climate science relatable and link health impacts like asthma, heat stress, and mental health to real solutions like cleaner air, safer housing, and healthier communities.

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00:37:07.420 --> 00:37:17.070
Jo Bjorgaard: So when health professionals step into this role of trusted messenger, climate change becomes local, it becomes personal, and actionable.

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00:37:17.530 --> 00:37:20.749
Jo Bjorgaard: Solutions matter in everyday life.

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00:37:21.080 --> 00:37:31.709
Jo Bjorgaard: Cleaner air means fewer hospital visits, walkable communities mean healthier hearts, and renewable energy means less respiratory illness.

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00:37:31.900 --> 00:37:35.539
Jo Bjorgaard: So trusted messengers can help make these connections.

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00:37:36.090 --> 00:37:44.609
Jo Bjorgaard: And that's why they're at the top of the trifecta. Building trust, shaping narratives, and driving along that collective action.

197
00:37:45.200 --> 00:37:46.610
Jo Bjorgaard: Next slide, please.

198
00:37:47.910 --> 00:37:48.990
Jo Bjorgaard: Great.

199
00:37:49.090 --> 00:38:02.670
Jo Bjorgaard: And this survey is from George Mason University's Center for Climate Change Communication, and it shows something really important. Most Americans already connect climate change to human health.

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00:38:03.520 --> 00:38:13.209
Jo Bjorgaard: About 3 out of 4 people are thinking about how climate change affects health, and about 6 in 10 are actually worried about it.

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00:38:13.330 --> 00:38:16.179
Jo Bjorgaard: And that tells us something powerful.

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00:38:16.360 --> 00:38:24.919
Jo Bjorgaard: When we frame climate change as a health issue, something that affects our families, our patients, our kids, our communities.

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00:38:24.930 --> 00:38:40.710
Jo Bjorgaard: People pay attention. Health is personal, it is relatable, and it can move people forward to act in ways that abstract concepts like greenhouse gas emissions or sea level rise just can't do.

204
00:38:41.390 --> 00:38:42.520
Jo Bjorgaard: Next slide.

205
00:38:45.710 --> 00:38:56.020
Jo Bjorgaard: So as I just shared, climate change can feel distant or abstract, but framing it through health makes it local, personal, and urgent.

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00:38:56.710 --> 00:39:05.379

Jo Bjorgaard: Health connects climate to everyday lives of people, showing why it matters for their families, communities, and futures.

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00:39:06.220 --> 00:39:14.940
Jo Bjorgaard: The research on health framing shows that health… framing climate as a health issue increases engagement.

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00:39:15.240 --> 00:39:17.690
Jo Bjorgaard: Even across political divides.

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00:39:18.800 --> 00:39:25.989
Jo Bjorgaard: Climate solutions often provide multiple benefits, something we often refer to as co-benefits.

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00:39:26.450 --> 00:39:34.679
Jo Bjorgaard: They improve health, advance equity, and protect the environment, which makes action feel meaningful on multiple levels.

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00:39:35.570 --> 00:39:48.540
Jo Bjorgaard: But it's really important to focus on health benefits, not just harms. So simply pointing out the risks of climate change doesn't strongly motivate behavior or policy support.

212
00:39:48.830 --> 00:39:57.109
Jo Bjorgaard: But showing how solutions improve lives makes climate action tangible and moves people along to act.

213
00:39:57.580 --> 00:40:05.909
Jo Bjorgaard: And finally, stories and lived experiences are very powerful tools when communicating about climate change.

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00:40:06.630 --> 00:40:11.650
Jo Bjorgaard: When people hear concrete examples, like a child

215
00:40:11.850 --> 00:40:23.210
Jo Bjorgaard: Avoiding asthma attacks because of cleaner air, or families benefiting from safer, more walkable neighborhoods, the issue becomes real and actionable.

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00:40:23.720 --> 00:40:27.019
Jo Bjorgaard: So, as we frame climate through health.

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00:40:27.150 --> 00:40:35.260
Jo Bjorgaard: We're not just sharing facts, we're connecting climate to what people care about and motivating that meaningful action.

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00:40:36.120 --> 00:40:41.440
Jo Bjorgaard: That's why connection is the second element of our three C's, or our trifecta.

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00:40:42.140 --> 00:40:43.690
Jo Bjorgaard: Next slide, please.

220
00:40:45.510 --> 00:40:54.800
Jo Bjorgaard: Great. And the third C is collective action. Power is what turns individual efforts into collective impact.

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00:40:55.430 --> 00:41:06.870
Jo Bjorgaard: It's not held by one single person. It exists in relationships between movements and stakeholders, and of course, the people that they seek to influence.

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00:41:07.360 --> 00:41:16.259
Jo Bjorgaard: True power is durable and helps movements sustain progress, even as political contexts shift.

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00:41:16.900 --> 00:41:25.770
Jo Bjorgaard: But it doesn't just come from activity, it comes from strategically leveraging the right actions at the right time.

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00:41:26.050 --> 00:41:43.900
Jo Bjorgaard: So this is where collaboration across sectors and across regions becomes really crucial. And by working together across health, environment, business, and community organizations, and of course across the geographic boundaries.

225
00:41:44.210 --> 00:41:50.329
Jo Bjorgaard: We expand influence, we pool our resources, and amplify our impact.

226
00:41:51.040 --> 00:41:52.580
Jo Bjorgaard: Next slide, please.

227
00:41:55.440 --> 00:41:56.320
Jo Bjorgaard: Great.

228
00:41:56.720 --> 00:42:03.509
Jo Bjorgaard: And one of the most powerful ways to harness collective action is through our stories.

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00:42:03.940 --> 00:42:11.420
Jo Bjorgaard: They make abstract ideas tangible. They connect people to shared values and motivate action.

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00:42:12.590 --> 00:42:24.359
Jo Bjorgaard: Neuroscience shows that when hearing a vivid story, it actually activates the same brain regions as experiencing it ourselves.

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00:42:24.500 --> 00:42:28.030
Jo Bjorgaard: So our brains are wired to connect through stories.

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00:42:28.350 --> 00:42:37.870
Jo Bjorgaard: And this is why they stick. They translate power into real-world impact, they engage people emotionally and cognitively.

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00:42:38.730 --> 00:42:43.690
Jo Bjorgaard: So facts and data matter, but stories help people remember and connect.

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00:42:43.970 --> 00:42:52.789
Jo Bjorgaard: They link climate, health, and equity, and show how climate change affects patients, communities, healthcare systems.

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00:42:52.960 --> 00:42:55.460
Jo Bjorgaard: All across the spectrum.

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00:42:56.040 --> 00:43:07.260
Jo Bjorgaard: Well-crafted stories bridge silos, they align clinicians and administrators and decision makers or policy makers, and they make the solutions tangible.

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00:43:07.750 --> 00:43:13.420

Jo Bjorgaard: So, in short, storytelling turns abstract challenges into relatable.

238
00:43:13.570 --> 00:43:17.590
Jo Bjorgaard: motivating action. Next slide, please.

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00:43:19.030 --> 00:43:30.639
Jo Bjorgaard: Great. So, we've talked about 3 essential ingredients for communicating effectively about climate change, and those are credibility, connection, and collective action.

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00:43:31.190 --> 00:43:37.349
Jo Bjorgaard: So, to see how this sort of plays out in practice, let's look at an example close to home.

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00:43:37.580 --> 00:43:45.729
Jo Bjorgaard: So this is an example that gained national attention, but it has very real health and equity implications.

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00:43:46.550 --> 00:43:54.940
Jo Bjorgaard: I'm not an economist or a climate scientist, but as a health professional, I immediately noticed the gaps in this narrative.

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00:43:55.320 --> 00:44:03.530
Jo Bjorgaard: So, in 2019, the New York Times ran a feature calling Duluth, Minnesota, a kind of climate-proof city.

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00:44:03.730 --> 00:44:06.579
Jo Bjorgaard: It framed Duluth as a refuge.

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00:44:06.980 --> 00:44:10.220
Jo Bjorgaard: A place that might benefit as the climate warms?

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00:44:10.620 --> 00:44:17.499
Jo Bjorgaard: And that narrative spread very quickly and shaped how people think about the Midwest region, and especially Minnesota.

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00:44:18.470 --> 00:44:23.080
Jo Bjorgaard: But what's missing from this story is the human and health dimension.

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00:44:23.520 --> 00:44:28.210
Jo Bjorgaard: So since that article, Duluth has experienced a housing crisis.

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00:44:28.410 --> 00:44:36.500
Jo Bjorgaard: Which is driven in part by new residents seeking a climate haven, like Teddy referenced at the very beginning of this webinar.

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00:44:37.250 --> 00:44:55.849
Jo Bjorgaard: And rising costs and limited availability have actually displaced long-term residents, and put a lot of strain on local systems. And that directly affects health outcomes, from stress and instability to access to care, food, and community.

251
00:44:56.240 --> 00:45:03.159
Jo Bjorgaard: And there's another layer here. It's the livelihoods tied to long, cold winters. Next slide, please.

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00:45:05.790 --> 00:45:12.919
Jo Bjorgaard: So to bring this back to the human experience, I want to share my own experience with a family in the Duluth area.

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00:45:13.110 --> 00:45:21.320
Jo Bjorgaard: My family has been going dog sledding in northern Minnesota for several years, always with the same family-owned outfitter.

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00:45:22.220 --> 00:45:30.270
Jo Bjorgaard: From our very first visit, I started talking with our guide and the owner about his observations of the environment and climate.

255
00:45:30.740 --> 00:45:45.439
Jo Bjorgaard: And over time, those conversations deepened as we got to know each other. And he shared very emotionally that he had always imagined passing down this family-run dog sledding business to his children and future generations.

256
00:45:45.600 --> 00:45:47.739
Jo Bjorgaard: As it had been passed down to him.

257
00:45:48.210 --> 00:45:54.200

Jo Bjorgaard: But with shorter and warmer winters, that dream no longer feels possible to him.

258
00:45:54.580 --> 00:46:03.470
Jo Bjorgaard: And he's encouraging his children now to learn other skills and prepare for a future without reliable, long, snowy seasons.

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00:46:03.990 --> 00:46:14.100
Jo Bjorgaard: And this story really made a light bulb go off for me. There are many families in northern Minnesota whose livelihoods depend on the long, cold winters.

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00:46:14.520 --> 00:46:21.769
Jo Bjorgaard: But yet, their voices aren't represented in the Climate Proof Duluth narrative, or the Climate Haven narrative.

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00:46:22.280 --> 00:46:27.760
Jo Bjorgaard: The loss of stability, identity, and income is more than economic.

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00:46:28.070 --> 00:46:31.150
Jo Bjorgaard: It directly affects health and well-being.

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00:46:31.290 --> 00:46:42.519
Jo Bjorgaard: So when we hear terms like climate refuge, or climate haven, or climate-proof city, I think we need to pause and ask, who is this message serving?

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00:46:42.710 --> 00:46:56.320
Jo Bjorgaard: Who's being left out, and how can climate communications, whether about migration, adaptation, or resilience, be grounded in health, equity, and local lived realities.

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00:46:57.130 --> 00:47:10.960
Jo Bjorgaard: So that's why a collaborative, multidisciplinary approach is very essential. Bringing together housing, economic, and health experts, along with local voices, to shape narratives.

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00:47:11.520 --> 00:47:28.620
Jo Bjorgaard: that aren't just hopeful, but honest and humane and actionable. And it's also worth noting, that the ongoing narrative around

Duluth being a climate-proof city has been acknowledged even by the original New York Times contributor.

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00:47:28.620 --> 00:47:35.900
Jo Bjorgaard: who recognized gaps in how the story was communicated. So, they're doing some repair work there, which is great.

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00:47:36.300 --> 00:47:37.789
Jo Bjorgaard: Next slide, please.

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00:47:41.180 --> 00:47:48.910
Jo Bjorgaard: So just to bring this all together and sum it up, when we lead with health, we connect to what matters most.

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00:47:49.330 --> 00:47:54.189
Jo Bjorgaard: And when we speak through story, we reach hearts as well as minds.

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00:47:54.570 --> 00:48:01.380
Jo Bjorgaard: And collaboration is so important, we turn shared values into shared victories and lasting impact.

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00:48:01.410 --> 00:48:18.340
Jo Bjorgaard: We have many fantastic organizations and champions that are really leading the way in this throughout the entire Midwest, including Healthy Climate Wisconsin and Health Professionals for Healthy Climate here in Minnesota, and of course, all of the speakers on this call today.

273
00:48:18.950 --> 00:48:20.410
Jo Bjorgaard: Next slide, please.

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00:48:21.730 --> 00:48:28.269
Jo Bjorgaard: That's all I have for you. Please feel free to connect after this meeting. I'll pass it over to the next speaker.

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00:48:29.550 --> 00:48:36.029
Sheetal K. Rao,: Thank you, Joe. Next, we have Heidi Rupp, and she's going to be talking about climate adaptation in Minnesota.

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00:48:37.910 --> 00:49:02.889

Heidi Roop: Hello, everyone. Great to be here, and hard to follow such a great set of heavy-hitter speakers, so I'll do my best, and I know we're near time here, so I'll try to move through this quickly. I think as other speakers have indicated, it's hard to cover the breadth and depth of what we do in this, so really hoping to move through this so we can engage in conversation. My name is Dr. Heidi Rupp. I am the Director of the University of Minnesota

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00:49:02.890 --> 00:49:24.080
Heidi Roop: Climate Adaptation Partnership. I'll share a little bit about who we are as a program, and some of the work that we've been doing that I think is both timely and sort of connected into this broader theme of how we're seeking to lead in addressing climate and health in Minnesota and the greater Midwest region. Next slide, please.

278
00:49:25.800 --> 00:49:43.139
Heidi Roop: So, the Climate Adaptation Partnership is a nation-leading program with an approach to climate services and extension. So, without going into all the details, we are a program that is jointly held between our College of Food, Agricultural, and Natural Resource Sciences at the University of Minnesota.

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00:49:43.140 --> 00:50:05.279
Heidi Roop: We advance a range of research, including understanding how Minnesota's climate is changing, how the Midwest climate is changing, and what solutions work, when, where, and why, and so invest really deeply in advancing our understanding across, economic, atmospheric, and social sciences. So we're sort of steeped in the research.

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00:50:05.280 --> 00:50:29.530
Heidi Roop: At the same time that we're, equally steeped in and collaborating with our land-grant extension mission. So, our team sits between our research team, and we have an extension team who are living and working and serving across the state, but they work together in close coordination, as a team. That's really bringing, shoulder to shoulder the research

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00:50:29.530 --> 00:50:54.319
Heidi Roop: and the engagement, education, technical assistance, that is needing to happen as we seek to prepare for the impacts of a warming world that we have already set in motion and as we work to respond to those that we are anticipating in the future. So we have brought together dedicated research and extension positions that are really focused on understanding these risks and figuring out how we manage them, and then moving that

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00:50:54.320 --> 00:51:05.310
Heidi Roop: onto the landscape. And critically, really being on the landscape to understand what research, and knowledge gaps need filling, and doing that in collaboration with our partners across the landscape.

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00:51:05.310 --> 00:51:14.670
Heidi Roop: We have very intentionally brought in diverse sectoral expertise into all of these positions, spanning everything from agriculture and tribal food systems.

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00:51:14.670 --> 00:51:39.310
Heidi Roop: to public health, we have a nurse on our team, really thinking, I'll describe some of their work, for today, to forestry, to science and climate, and digital communication, so really thinking across the full spectrum, diverse sectoral and interdisciplinary expertise working in close collaboration with one another, all with the aim of delivering durable, research-based education and technical assistance as we seek to manage our emerging

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00:51:39.310 --> 00:51:41.970
Heidi Roop: climate risks. Next slide, please.

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00:51:43.450 --> 00:52:08.180
Heidi Roop: Of course, it goes without saying, no matter where you are in the world, and whatever geography you call home, that our risks in the context of weather and climate are shifting. These intersect with a range of the other risks that we navigate as communities and as a global society. And increasingly, the need is expanding for how we prepare for, how we respond to, and how we recover from

287
00:52:08.180 --> 00:52:33.180
Heidi Roop: the range of weather and climate-related disasters that we're experiencing. Here is a smattering of them. To build on the climate refuge. Of course, Minnesota, as a climate scientist, I really despise that framing, because everyone will experience climate change. We will all experience it differently. But part of how we will experience climate change is whether we're prepared or not, so that resilience piece and how equitable the distribution of that

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00:52:33.180 --> 00:52:41.730
Heidi Roop: resilience investments are. And in Minnesota, we are navigating a range of impacts from recent events

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00:52:41.730 --> 00:53:06.660
Heidi Roop: And also still recovering from some events that have occurred, over the past several years, for which we are still seeking to make sure people have a shelter, a safe place to call home, where kids can go to school, and people can have all their, care and other needs met. So while we like to think about these singular events and then move on, it, of course, for the communities that are feeling these impacts, rarely is it, so

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00:53:06.660 --> 00:53:10.080
Heidi Roop: Fleeting, but rather life-changing and life-altering.

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00:53:10.080 --> 00:53:11.860
Heidi Roop: Next slide, please.

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00:53:12.820 --> 00:53:37.799
Heidi Roop: At the same time that we have growing risks and expanding needs, I think there are a few critical things. Of course, the landscape around us is shifting, and I'll talk about that in a bit. But there are a majority of Americans who are, reporting having experienced extreme weather. So 72%, this is a study through the Pew Research Center at the end of 2024, 72% of Americans report that their local community has experienced one of

293
00:53:37.800 --> 00:54:01.170
Heidi Roop: at least 5 types of extreme weather, in the past 12 months. So these were things like wildfire, sort of extreme weather, precipitation, and flooding events. So many of us report experiencing this. And importantly, over 70% of those who reported experiencing an extreme weather event are tying it to climate change, or in this case, they're also tying it to a negative impact on their lives.

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00:54:01.200 --> 00:54:25.920
Heidi Roop: And this is where it really matters. I think this is really where the work of all the prior speakers and also the criticality of telling our story, is talking less about these abstract phenomenons, like derechos and other things, and really talking about what they mean for people. Folks reported negative impacts on their community, on their lifestyle, on their property, what they're paying for property, for construction costs, for their health and well-being.

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00:54:25.950 --> 00:54:34.819
Heidi Roop: For their lives and livelihoods, their lives at work and school, and in some cases, the necessity to relocate. Next slide, please.

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00:54:36.460 --> 00:55:01.399
Heidi Roop: So as we, as a research and extension program, sort of look at the realities and how we are part in partnership of seeking to deploy solutions on the landscape and build that evidence base for how, and when and where, we are advancing a few things. So we're trying to think sort of from the professional lens, how do we seek to be part of the solution? Some of the work that's part of our Climate Risk and Resilience Research

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00:55:01.400 --> 00:55:12.469
Heidi Roop: portfolio includes, better understanding and characterizing our future risk. What does that mean for how we build and design critical infrastructure, like our stormwater and wastewater systems?

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00:55:12.470 --> 00:55:37.410
Heidi Roop: How do we better prepare across our natural systems and our food systems? And what are the risks that we are anticipating in the near term? And then those multi-decadal changes that we think about when we're predominantly thinking about large infrastructure investments. I really don't want, as a taxpayer, to invest in roads that are going to fail in the next three to five years. I would rather invest in roads that last the multiple decades there

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00:55:37.410 --> 00:55:53.280
Heidi Roop: designed to withstand, but right now we understand that our design criteria often don't reflect the climate through which that infrastructure is going to have to… the climate it will have to withstand. So really critically thinking across that spectrum to what those risks are, better characterizing those.

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00:55:53.330 --> 00:56:16.049
Heidi Roop: through to better thinking about how we can forecast what's going to happen in the near term. So we're working on enhancing our abilities to recall this water intelligence, really improve our forecast of floods, and think about how to leverage things like AI and machine learning in service with human forecasters to make sure that we can give communities as much

301
00:56:16.050 --> 00:56:20.519
Heidi Roop: Notice as possible, when disaster may be, coming their way.

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00:56:20.760 --> 00:56:45.620
Heidi Roop: We also are working really critically to think about how we fill gaps in early warning systems for vector-borne diseases, and leverage our, resources in climate and atmospheric science to think about

systems that will help us partner with our health department, emergency managers, and others to make sure, and health professionals, to make sure that we are casting an eye forward and making sure that we're protecting and providing

303
00:56:45.620 --> 00:56:49.549
Heidi Roop: Information to communities to help protect their own health and well-being.

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00:56:49.560 --> 00:57:02.340
Heidi Roop: We're also thinking about how we make sure we're understanding where we're spending our resources, so measuring and monitoring resilience achievements on the landscape, and making sure, to the best of our abilities, that communities aren't being left behind.

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00:57:02.340 --> 00:57:22.700
Heidi Roop: At the same time, while we're trying to understand both the cost of adaptation and the costs of inaction. And this is work we're doing specifically in the state of Minnesota, and I know other states in the U.S. have started to do this work or have completed economic analyses that really are intended to help motivate some of the business case for adaptation. Next slide, please.

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00:57:25.170 --> 00:57:42.140
Heidi Roop: And just as a specific health-oriented example, so we do a lot of research, and I think that oftentimes folks think, oh, well, science sits on a shelf. In this case, we are trying to do science that moves into decisions while really working hand-in-hand with community members to address some of the here and now.

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00:57:42.140 --> 00:58:07.059
Heidi Roop: So while we cast an eye toward 2100, we also know it's really critical to cast an eye to today and figure out how we partner and improve the lives of folks in our state and those with whom we partner. So in this case, we're thinking a lot more about air quality in the state of Minnesota, and it turns out that in our largest cities, the highest estimated rates of death and disease related to air pollution are in communities that have the highest percentage

308
00:58:07.060 --> 00:58:10.470
Heidi Roop: percentages of low-income residents, those with uninsured residents.

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00:58:10.470 --> 00:58:14.439

Heidi Roop: Residents of colors, and those living with a disability. Next slide.

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00:58:17.610 --> 00:58:33.010
Heidi Roop: We also know that these communities, low-income people, our Indigenous communities and people of color, have higher rates of, heart and lung conditions, so these, these slides come from, or this information comes from our Minnesota Pollution Control Agency, so this is state-reported data.

311
00:58:33.010 --> 00:58:43.069
Heidi Roop: And zip codes with the largest percentage of residents of color have more than 5 times the rate of asthma emergency room visits related to air pollution than areas with more white residents.

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00:58:43.070 --> 00:58:58.049
Heidi Roop: So underlying this is not just a climate challenge, right? This is exposure to pollutants that are… some of them are from industrial… most of them are from industrial, drivers and non-climatic sources. However, we're also seeing that shift. Next slide.

313
00:59:00.240 --> 00:59:24.229
Heidi Roop: And in Minnesota, we are experiencing more and worse air quality as a direct consequence of wildfires, many of which are burning outside of the boundaries of the state of Minnesota, while we do have high wildfire risks as a state. The wildfire smoke that we're often breathing on, in some cases, our summers have had the worst air quality in the world. We've measured some of the worst air quality in the world over a few summers, a couple days in our… in the last few summers.

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00:59:24.230 --> 00:59:38.789
Heidi Roop: And so there is more awareness around, the challenges associated with not having clean air. And so we have, wildfire smoke as another layer onto, this, this, this challenge around clean air.

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00:59:38.790 --> 00:59:40.320
Heidi Roop: Next slide, please.

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00:59:41.120 --> 00:59:53.860
Heidi Roop: So as a program, of course, we're hearing a lot about this, and we think are thinking, okay, well, what are… what are some of the interventions and solutions? So there's this broader context and a growing field of folks really seeking to develop resilience hubs around communities.

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00:59:53.860 --> 01:00:10.789
Heidi Roop: So resilience hubs are leveraging community organizations, trusted, facilities, faith communities, and others, to provide year-round, to continue to invest in these spaces as providing year-round services and community-building activities.

318
01:00:10.790 --> 01:00:26.669
Heidi Roop: but ensuring that these spaces, are healthy and safe, especially in moments of, say, extreme heat, or disaster. So one thing that we've been thinking a lot about in Minnesota, a lot of the Resilience Hub work has been focused on a critical component, which is energy resilience.

319
01:00:26.790 --> 01:00:41.620
Heidi Roop: And we've been really thinking about energy resilience as one critical facet of what a comprehensive resilience hub looks like. So we've been talking about, well, what are the, some of the healthcare services that could be offered during either chronic or, these sort of acute events?

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01:00:41.620 --> 01:00:53.270
Heidi Roop: How do we start to actually understand how to make these spaces themselves, as resilient as possible, both in not just the energy, but also thinking about, do they… can they provide clean air to their communities?

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01:00:53.710 --> 01:01:06.820
Heidi Roop: So, with support from a philanthropy, we've been working to think about how to address capacity in these organizations, to really think and thoughtfully, invest in developing the Build These Hubs more holistically as resilience hubs.

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01:01:06.820 --> 01:01:21.800
Heidi Roop: We've been partnering with architecture and engineering professionals to actually conduct site audits with an eye towards resilience, actually costing out and thinking about how to connect those opportunities for resilience to capital investment for solutions.

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01:01:21.840 --> 01:01:30.660
Heidi Roop: And at the same time, have been jointly providing ongoing education and engagement with community partners and those who are using and in these facilities, both from youth

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01:01:30.660 --> 01:01:43.129
Heidi Roop: Through to elders to think about how do we actually use this as an opportunity to have conversations about our own individual preparedness, and the community's preparedness for these current and emerging risks.

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01:01:43.130 --> 01:01:44.070
Heidi Roop: Next slide.

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01:01:44.720 --> 01:02:09.670
Heidi Roop: As a direct response, we've actually been specifically building, starting with this indoor air quality challenge, and we've been doing Corsi Rosenthal box building and education events, so this is actually air purification. We've been providing these, and building them with youth, building them with community members, doing air filtration building events alongside, vaccine clinics, and other… getting information out to community members

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01:02:09.670 --> 01:02:17.909
Heidi Roop: around other health, impacts and interventions and opportunities and services, across the state and region.

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01:02:17.990 --> 01:02:37.559
Heidi Roop: Or, sorry, across the Minneapolis region, so we've been targeting those communities that are disproportionately exposed, but then also carrying this out across the state of Minnesota. So really thinking about how to work hand-in-hand and improve life at the same time that we're talking about how we prepare for this emerging and changing future. Next slide, please.

329
01:02:40.020 --> 01:03:05.000
Heidi Roop: In addition to our air quality interventions, which is very tangible, we actually have air quality monitors. We've been measuring the improvements in air quality, and it's a great conversation, community science opportunity. But we also don't want to lose our individual touchpoints with people to pass us by, and so we've been building whole card decks of disaster preparedness resources that we partner, strategically with understanding about current and

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01:03:05.000 --> 01:03:29.940
Heidi Roop: emerging climate risks, and have been bringing these across the state. We've also been distributing these at the State Fair. We gave out over a thousand magnets to help people understand what it is you actually do when the AQI is high. What does it actually mean if it's red

or purple? Do you go to soccer practice? How do you protect yourself? How do you protect your children? How do you protect your loved ones? So really thinking about these touchpoints as strategic opportunities to engage.

331
01:03:29.940 --> 01:03:31.790
Heidi Roop: Next slide, please.

332
01:03:33.700 --> 01:03:46.669
Heidi Roop: And in part, we, in addition to sort of this quick overview of the many things that we're doing in all these spaces here, focusing really on some of those ways that we're trying to connect around health and well-being.

333
01:03:46.670 --> 01:03:58.170
Heidi Roop: Is that we're… I think it's… we'd be remiss not to sort of end by really acknowledging very explicitly that the sort of research landscape, is shifting, both in health and climate and other domains.

334
01:03:58.170 --> 01:04:23.170
Heidi Roop: our response and our service landscape have changed. And so, at the same time that we're trying to do this work, we're also trying to figure out how do we do it in a durable way? How do we partner in new and clever ways as we think about the… and better understand the real ripple effects of the loss of support, the critical loss of human infrastructure, reductions in the investments that often help connect science

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01:04:23.170 --> 01:04:42.690
Heidi Roop: to solutions, coming predominantly from federal funding opportunities, for energy resilience, for actual, you know, so all different types of resilience and adaptation on the landscape. And increasingly figuring out how to navigate a shift in emphasis from the federal level to states, to take on more responsibility for the response and recovery.

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01:04:42.690 --> 01:05:03.390
Heidi Roop: To weather and climate-related disasters. So that is something that all states are starting to navigate, and we're figuring out how are we part of that solution? While thinking about how we actually navigate and feel to the best of our abilities, you know, sometimes it feels like duct tape and gum, but those resources that underpin healthy and resilient communities.

337

01:05:03.390 --> 01:05:12.850
Heidi Roop: And as a way to sort of round this out, I think for me, as I've been reflecting on this and thinking about how it shifts or enhances some of the work that we do.

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01:05:12.850 --> 01:05:17.469
Heidi Roop: Just a real increasing imperative that we plan, and that we're planful.

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01:05:17.470 --> 01:05:41.550
Heidi Roop: that we partner, that we engage in movement generosity, that we seek to prepare and also, innovate as we accelerate to do all of this work, together and in a different environment. But I am so thrilled to be here and with the folks on this call and have benefited from your work, and hope that, others on this call, we can link arms and partner and learn from one another.

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01:05:41.550 --> 01:05:52.259
Heidi Roop: As we move to ensure that everyone in our communities, has access to, a healthy life and solid healthcare. So, thank you. I will now stop and pass it back.

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01:05:53.370 --> 01:05:59.160
Sheetal K. Rao,: Thank you so much, Heidi, and thank all of you for your informative and engaging presentations.

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01:05:59.260 --> 01:06:07.279
Sheetal K. Rao,: Now we're going to move on to a question and answer session, and I see here we have a question in the Q&A from Sarah Scheer.

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01:06:07.430 --> 01:06:09.909
Sheetal K. Rao,: And it looks like that question is for Heidi.

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01:06:10.040 --> 01:06:17.120
Sheetal K. Rao,: How did the University of Minnesota's Climate Adaptation Center form and obtain funding within the university?

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01:06:18.100 --> 01:06:37.560
Heidi Roop: Yeah, that's a great question. For our advisory board, one of my board members referred to us for a while as the ragtag group of do-gooders. Teddy Potter, who's here on the call, is actually one of our advisory board members, and it's been, I think, a creative approach,

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01:06:37.560 --> 01:06:54.299
Heidi Roop: I don't know what really the method here is, other than, I think, casting a net and really trying to listen, and innovate in how we were working. And so, some of our early investment came from some agricultural commodity group organizations.

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01:06:54.300 --> 01:07:19.220
Heidi Roop: Alongside some dedicated research investments, both from the federal and the state governments, that enabled us to sort of do some early proof of concept. And then we actually spent quite a bit of time building bipartisan support for, from our state legislature, that really unlocked the foundational resources that, we then leverage, to return investment to the state through other

348
01:07:19.220 --> 01:07:43.500
Heidi Roop: funding, whether that's philanthropic, corporate funding, federal funding, or other state research dollars. So we've really put together, sort of a diverse, support system, but, have benefited from really being on the landscape and demonstrating value in all the sectors, that I mentioned, and making sure we have partners who we're working with, but who see real tangible benefits from our work.

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01:07:43.690 --> 01:07:55.250
Heidi Roop: So a little bit of, good luck, but also a lot of, really just, I think, partner-centered engagement, and support, and articulating a very clear public value.

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01:07:55.250 --> 01:08:11.849
Heidi Roop: had been part of it, but happy to share more, as folks would like, or if you want to have, Sarah, if you'd like to have a one-on-one, I'm very happy to chat with you. We've got lots of states, looking to see how their context might work to, catalyze something similar.

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01:08:13.580 --> 01:08:24.890
Sheetal K. Rao,: Thank you, and I think this covers Laura's question as well, or this answer covers that. And then Beth had asked about the resilience hubs. Do you have a list of the Minnesota Resilience Hubs? Maybe that's something we can share out with our resources.

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01:08:24.890 --> 01:08:48.290
Heidi Roop: Yeah, that's a good question. I don't know if I have a very comprehensive list, but I could point you to some that have gained a lot of, of the press attention, and we also have a community of practice formed around that knowledge exchange, between folks who are… have

resilience hubs or are thinking about expanding components of their facilities or their, community organizations to be resilient hubs. So yeah, I'm happy to… happy to share that with you.

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01:08:49.439 --> 01:09:00.239
Sheetal K. Rao,: Thank you. I have a question for Ian. With your work that you've done at Rush, how have clinicians been most helpful in moving that forward?

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01:09:01.460 --> 01:09:20.540
Ian Hughes: That's an awesome question. I think one of the biggest things that clinicians have done to support this work, pretty much across the boards, is just be vocal advocates, right? Without their voices, it's just a bunch of sustainability nerds buzzing around like a gnat, you know, and people get kind of frustrated with that.

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01:09:20.960 --> 01:09:40.500
Ian Hughes: And to be quite honest, you know, I'm not an expert. I'm not a surgeon, I'm not a nurse, I don't have the kind of expertise that those folks do, and it not only is inappropriate for me to tell them what to do or to make suggestions, but when it comes from them, from passionate advocates.

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01:09:40.660 --> 01:09:49.139
Ian Hughes: We have a pediatric surgeon, Dr. Ami Shah, who is one of our most vocal advocates, and it's so incredibly powerful.

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01:09:49.229 --> 01:09:57.880
Ian Hughes: When she speaks, because people listen, right? And it's… I just think speaking up, being passionate, if you need help or resources.

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01:09:57.900 --> 01:10:11.070
Ian Hughes: and you don't feel like you're an expert, guess what? None of us are ever really experts in this space. We're learning every single day, but if there are resources that people like myself can hand over to support you and your…

359
01:10:11.270 --> 01:10:20.960
Ian Hughes: education and understanding of these things so that you can be even more of an empowered advocate, let us know. I'm guaranteeing you anybody on this call would send you any resource that they've got their hands on.

360

01:10:22.490 --> 01:10:23.359
Sheetal K. Rao,: Thank you.

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01:10:23.900 --> 01:10:32.140
Sheetal K. Rao,: My next question is for Joe. There are… I know there are a lot of clinicians looking to improve their skills and how to communicate climate action better.

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01:10:32.360 --> 01:10:35.780
Sheetal K. Rao,: Can you share any resources that can help them get better at this?

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01:10:37.560 --> 01:10:50.219
Jo Bjorgaard: Yeah, absolutely, there are many. I think the Yale program on climate communications is a fantastic resource. I would also direct folks towards the,

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01:10:50.220 --> 01:11:11.889
Jo Bjorgaard: climate communication maps from Yale Climate Communications, you can actually go in and filter out to better understand the perspectives of your own community or region, and that way you're able to better align your communications with the values of your community, and that's what really needs to be at the heart of the communication, is connecting with your audience's values.

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01:11:14.000 --> 01:11:15.319
Sheetal K. Rao,: Great, thank you.

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01:11:16.100 --> 01:11:21.000
Sheetal K. Rao,: Katie, With your work that you've done in your state.

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01:11:21.170 --> 01:11:27.729
Sheetal K. Rao,: Can you offer any advice about how to effectively engage with community members or Indigenous populations?

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01:11:28.900 --> 01:11:29.780
Katie Wickman: Hmm.

369
01:11:29.940 --> 01:11:34.290
Katie Wickman: Well, I would have to say, in general.

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01:11:34.550 --> 01:11:38.970
Katie Wickman: The idea that nobody can do it all, and we all need to have

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01:11:39.000 --> 01:12:01.320
Katie Wickman: you know, like, take our little piece of the puzzle and then connect with other groups that have the expertise in their area, right? So, no organization… our organization is filled with health professionals that have expertise in health, right? And we are not necessarily experts in environmental issues or in policy, right? And therefore, we have to reach out to those folks

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01:12:01.320 --> 01:12:17.369
Katie Wickman: that do know, the intricacies of their community, right, in order for us to effectively use our voice, to lift up their voice, to, do other pieces. So I think, in general, just having the lens of knowing that we can only do

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01:12:17.370 --> 01:12:23.869
Katie Wickman: Our little part, and that we've got to connect, with the others that have expertise in their specific area.

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01:12:26.670 --> 01:12:27.490
Sheetal K. Rao,: Thank you.

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01:12:28.860 --> 01:12:33.240
Sheetal K. Rao,: Does anyone else want to add to that? I know many of you are working with communities.

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01:12:35.710 --> 01:12:55.489
Helena Volzer: I guess I can just chime in to say, we always try to bring in local advocates, and so in this… developing this toolkit of resources for local advocates, I met with, you know, a number of community-based organizations to get their input and perspective. What would be helpful? What would not be helpful to focus on in this kind of a resource? So always trying to bring folks in and be inclusive is really important.

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01:12:57.910 --> 01:13:07.740
Sheetal K. Rao,: Helena, is that a toolkit that is shareable in any way? Yeah, I'm still working on it, it's not ready yet. But when it is done, it will be out there in the world, and I will absolutely share it.

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01:13:07.970 --> 01:13:23.579

Sheetal K. Rao,: Great, thank you. And I saw that you had answered Rod's questions in the chat, thank you for that. Definitely hearing more about data centers and their use of resources and how they have been many times driving up the cost of utilities can be very concerning.

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01:13:23.580 --> 01:13:34.129
Sheetal K. Rao,: But Rod also mentioned that, you know, how EJ principles may at times be abandoned when it's time to move, move this work forward with them. And…

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01:13:34.190 --> 01:13:47.119
Sheetal K. Rao,: I know that you had answered in there, and I was just wondering if there was, anything else you'd like to add along the lines of how communities can, really speak up and protect themselves against this forward movement.

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01:13:47.480 --> 01:13:57.719
Helena Volzer: Yeah, it's a great question, and as you saw at the beginning with that map of where data centers are locating, they are kind of locating around these metropolitan areas where you have these EJ principles to consider.

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01:13:57.720 --> 01:14:15.389
Helena Volzer: And so that's really something, you know, in terms of the local solutions, I touched on sort of why those are challenging to address this problem. But one of the things we do mention in the report, and I have more on this in there, is about community benefit agreements, you know, utilizing those to the extent possible early on in the negotiation stage.

383
01:14:15.390 --> 01:14:20.410
Helena Volzer: Both for securing some kind of water resources benefit, but they can also be used to bring back some kind of

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01:14:20.410 --> 01:14:45.260
Helena Volzer: other environmental benefit back to the community. And the example that I found, they're often used in transportation projects, was from 2011, in the construction of the LA airport, they were able to secure some things like electrification of gates and reducing idling at those gates as a benefit back to the community to reduce air pollution. So there are ways like that to secure something like that in the negotiation of these projects that communities could be seeking to do.

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01:14:45.260 --> 01:14:59.320

Helena Volzer: at that level. But yeah, negotiating for some of those things are probably challenging, in this, in this really high, fast pace, and I can't emphasize that enough, how fast this development's really going, in bringing these facilities online.

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01:15:01.360 --> 01:15:02.570
Sheetal K. Rao,: Thanks, Teddy Ju.

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01:15:02.970 --> 01:15:03.480
Sheetal K. Rao,: Bye-bye.

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01:15:03.480 --> 01:15:26.860
Teddie Potter: This is a little bit different topic, and it's a resource that's available to all people. It was just released in September by the National Academy of Medicine, and that is a climate and health resource or information gateway. What we wanted to do is we gathered a group of people, and we said that the National Academy of Medicine wants to inform health professionals and citizens

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01:15:26.860 --> 01:15:30.580
Teddie Potter: About, the health impacts of climate change and what they can do.

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01:15:30.580 --> 01:15:32.950
Teddie Potter: And as we sat around the circle.

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01:15:33.070 --> 01:15:51.800
Teddie Potter: and everybody put in their most favorite go-to resources, we realized that none of us, or many of us, didn't know what the resources were that our colleagues were mentioning. So we didn't need more resources, we just needed to find the resources that are out there and are really good and available to communities.

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01:15:51.800 --> 01:16:05.590
Teddie Potter: So we decided to create a resource hub where somebody can log, you know, get into it. They can say, I'm a parent, and I'm concerned about my children and air quality. And up comes all the information for them.

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01:16:05.590 --> 01:16:29.580
Teddie Potter: easily accessible, there isn't a paywall or anything like that, and it's all been vetted by the National Academy, so it's accurate information, it's not misinformation or disinformation, and it's

preserved for your use. Or you might say, I'm a K-12 teacher, and I want to present information in a classroom, or I'm a health professional, I want to share it with people in my

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01:16:29.580 --> 01:16:40.059
Teddie Potter: in my… that I care for. So you can get very tailored resources available to you, and Justin and Emma will share that link with you.

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01:16:41.520 --> 01:16:50.660
Sheetal K. Rao,: Thank you for sharing that, Teddy. Do you happen to know, or if anyone here knows, are the resources that many of you have mentioned in your presentations included in that gateway?

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01:16:51.970 --> 01:16:54.980
Teddie Potter: That's a great question, and they will be.

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01:16:54.980 --> 01:16:55.330
Sheetal K. Rao,: Alright.

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01:16:55.330 --> 01:17:20.009
Teddie Potter: all these resources, and as resources are added, if somebody says, I'm a psychologist, and I use this to deal with the mental health impacts of climate change, we will be looking at that resource. We need to make sure that it's free and accessible to people, that it's accurate, and that it really is nonpartisan. We don't want it pushing any political messaging. Those are our three standards

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01:17:20.010 --> 01:17:28.359
Teddie Potter: for the resources. But yes, it's a living hub, and we plan to continue to add, emerging resources as they're developed.

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01:17:29.310 --> 01:17:32.409
Sheetal K. Rao,: Thank you. I have a question here from Juan.

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01:17:32.540 --> 01:17:46.409
Sheetal K. Rao,: After appreciating these excellent public and academic initiatives, how can we articulate and combine them so that we can replicate them in other regions? I know that the Climate and Health Information Gateway is going to be one of those ways to combine. Are there any other

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01:17:46.510 --> 01:17:49.179
Sheetal K. Rao,: Answers to this that anyone would like to chime in on?

403
01:17:54.970 --> 01:17:58.010
Sheetal K. Rao,: Or even advice on replicating what you did.

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01:17:58.710 --> 01:18:03.630
Ian Hughes: I mean, I'd say no two stories are gonna be the same, right? So you can… you can replicate…

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01:18:03.800 --> 01:18:19.080
Ian Hughes: Based on general frameworks, but just know that, like, the story isn't gonna necessarily turn out exactly the same for your organization and for your work. And, you know, tell it… tell it accordingly, right? It's gonna be different for everybody, your impact is gonna be different, your focus is gonna be slightly different.

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01:18:19.270 --> 01:18:23.789
Ian Hughes: So it's kind of a little bit of a non-answer, but I think it's… it's your story to tell.

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01:18:27.320 --> 01:18:27.950
Sheetal K. Rao,: It's great.

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01:18:27.950 --> 01:18:42.629
Teddie Potter: And I'll just direct you to the other regional websites. The other programs are very worth listening to, because we share these problems. Yes, we might not be the desert southwest, but we're having heat issues in the Midwest.

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01:18:42.630 --> 01:19:06.419
Teddie Potter: We might be having water issues, but other places, such as along the Mississippi River, or in Florida, or the Southeast, are also having water issues. So, by going on there, you also have a chance to collaborate. You hear the recordings, you listen to the names. We're really about these starting to build capacity.

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01:19:06.420 --> 01:19:19.280
Teddie Potter: And, that's one of the, sort of, the next phases of this project, is that we take all the people that were involved and say, how can we start to really keep engaged and keep moving ahead?

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01:19:20.620 --> 01:19:27.850
Sheetal K. Rao,: and study. There's so much good work going on, and it's so important, as many of the speakers mentioned, to not be in silos, and to collaborate, and not…

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01:19:27.910 --> 01:19:43.770
Sheetal K. Rao,: recreate things that are already happening, just really work together. One last question from Mike. For Katie, please share more about your education outreach to healthcare providers. Who tends to be the majority audience, and what is the frequency of workshops?

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01:19:45.140 --> 01:19:47.070
Katie Wickman: Yeah, the,

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01:19:47.710 --> 01:20:03.409
Katie Wickman: It really depends, right? So, I would say that, in general, our members are made up of the gamut. It runs the gamut of healthcare professionals, from physicians to allied health professionals, nurses, pharmacists, therapists, all of the above.

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01:20:03.410 --> 01:20:14.590
Katie Wickman: When the… when Healthy Climate Wisconsin puts on educational content, we will often do it for a webinar for a large audience, for a general healthcare professional audience.

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01:20:14.590 --> 01:20:29.910
Katie Wickman: We also then do that annual conference, which, again, can be applicable, depending on the session that you're attending to, one… to a clinical audience, to a community-based audience, it just kind of depends.

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01:20:31.410 --> 01:20:53.700
Katie Wickman: in… and then we also have a speakers bureau, right, which will allow, you know, other organizations potentially to call us up and say, hey, do you have somebody that can speak to X audience on this particular topic? And so I think those are a couple of ways that we do educational outreach, in addition to when we're involved with our, working teams, then we're

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01:20:53.700 --> 01:21:10.680
Katie Wickman: having generally, informal, sharing of new content and new papers and, and literature out there as well between, folks in the organization. And I unfortunately cannot answer what percentage of membership participates in these educational offerings.

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01:21:10.680 --> 01:21:15.380
Katie Wickman: That would have to be something I'd take back to the… to the team for.

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01:21:15.700 --> 01:21:16.310
Sheetal K. Rao,: Things…

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01:21:16.880 --> 01:21:17.360
Katie Wickman: Of course.

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01:21:17.360 --> 01:21:36.200
Sheetal K. Rao,: I actually… I think we have a minute for this last question as well, it's a good one. So, under these initiatives, and I think this is one for, Helena, what are your thoughts on incorporating AI to generate efficient responses and information for decision making? I guess, kind of, what are the… outweighing the pros and cons of AI, knowing what we know?

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01:21:36.200 --> 01:22:01.059
Helena Volzer: Yeah, that's a tough one. We have not gotten involved in that level of the debate at the Alliance. We're really focused on the water quantity impacts. I think, you know, we… everyone thinks that because we have the Great Lakes, we have this vast, abundant resource that… that we should just tap it. But really, the Great Lakes are finite, less than 1% of the Great Lakes are replenished each year. But, you know, this is one of the angles and perspectives that we do need to be considering, you know, how do we responsibly use AI

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01:22:01.110 --> 01:22:26.090
Helena Volzer: are there best practices? Are there sustainable practices that can be used? It's just not something that the Alliance is working on at this time, you know, but I'm sure there are other organizations that are interested in working on that aspect of it, and engaging businesses in what are those best practices for utilizing AI. On the other side of it, you know, with water and energy standards that I talked about, conservation and efficiency standards for this industry, we don't even have those right now because

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01:22:26.090 --> 01:22:32.379
Helena Volzer: of the lack of transparency, we can't even compare and contrast what are the best cooling methods? You know, what's the most,

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01:22:32.380 --> 01:22:39.299
Helena Volzer: efficient practice there, so I think we need to start, kind of, from that angle, but then also, you know, be considering these kinds of questions at the same time.

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01:22:41.060 --> 01:22:41.620
Sheetal K. Rao,: Right?

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01:22:41.770 --> 01:22:48.290
Sheetal K. Rao,: Looks like we have a little more time. So, Linda, how are local food producers being brought into these wonderful projects?

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01:22:49.420 --> 01:22:51.030
Sheetal K. Rao,: Ian, do you want to take this one?

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01:22:53.380 --> 01:22:57.820
Ian Hughes: Sorry, I was raising my hand for another question that I had publicly in my head. Could you repeat that question?

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01:22:58.150 --> 01:23:03.180
Sheetal K. Rao,: Oh, sure. How are local food producers being brought into these wonderful projects?

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01:23:03.420 --> 01:23:10.349
Ian Hughes: Great question. For us at Rush, local procurement has been a part of our anchor mission work for quite some time.

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01:23:10.370 --> 01:23:26.519
Ian Hughes: And that was typically focused on other vendors and producers, but has recently really started spreading to local food vendors and local opportunities to collaborate in that space. You know, from a sustainability perspective, it's an awesome win because, of course, you're shortening your supply chain.

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01:23:26.630 --> 01:23:36.679
Ian Hughes: Which leads to more resilience and a wide variety of other positives, but it's also a really great investment in the community from an anchor perspective. So we've focused on…

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01:23:36.750 --> 01:23:50.070
Ian Hughes: identifying local opportunities. A big one that I'd love to point out is we just transitioned over to Cahokia rice, which is a rice

grown in the state of Illinois and actually has a higher protein content, which is better for patient healing.

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01:23:50.130 --> 01:23:58.609
Ian Hughes: win, win, win. It's a really cool example of just some really neat things that can happen when you're open to those local vendors and actively seeking them out.

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01:24:01.100 --> 01:24:01.920
Sheetal K. Rao,: That's great.

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01:24:02.590 --> 01:24:03.950
Sheetal K. Rao,: Is that white rice?

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01:24:04.950 --> 01:24:24.619
Ian Hughes: White and brown, and Farmer… oh my gosh, I think it was Farmer Bob, if I remember right, or something like that. He's the best. He actually comes and sells at, he was at the Wicker Park Farmers Market, a couple months ago. No, it just went, indoors for the winter, but amazing company, delicious rice.

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01:24:26.030 --> 01:24:29.079
Sheetal K. Rao,: Is anyone else working with local food vendors I'd like to share?

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01:24:33.230 --> 01:24:57.149
Heidi Roop: This is Heidi. I… it's sort of a different… it's less about vending and more about, engaging with our, broad… broadly across the agricultural sector, so as a program, we work, with commodity crops through to specialty crops, and smaller local producers, and so, are part of a program, that helps develop resilience planning for, predominantly specialty crop and smaller farm operations.

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01:24:57.150 --> 01:25:22.099
Heidi Roop: Some of that comes into thinking about how are we actually purveying food locally, and so we do partner with some other, amazing organizations, like the Good Acre, which is a food distribution hub, that ensures that local food gets into school meals and sort of reduces that, middle person, broker and makes sure there's a market for, some of our amazing locally produced, products. And so, we do think holistically about

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01:25:22.100 --> 01:25:46.670

Heidi Roop: how to partner, but also ensuring that we're providing resources, research, and sort of planning and implementation support, to ensure we have a robust and thriving agricultural, food system. And then we do work in specialty, we work with tribal food systems resilience as well, so, all the way down to smaller gardens, and sort of experimentation for, ensuring that there's the ability to produce,

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01:25:46.710 --> 01:26:00.670
Heidi Roop: critical and culturally, culturally important foods, and life ways. So we sort of expanded that question a little bit, but we do have that as a specific part of our program and partnership.

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01:26:01.430 --> 01:26:12.780
Teddie Potter: Heidi, I'm not sure it's ready for, excuse me, prime time yet, but I think the work that's being done with the build environment, with the architect firm is really also very exciting.

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01:26:13.730 --> 01:26:38.670
Heidi Roop: Oh, yes, thanks, Teddy. I feel like, Teddy, you're… you're, like, my hype… hype lady. I need… I need Teddy on the payroll. Yeah, so one of the other things we're working on right now is, just a simple checklist for, folks in all different types of housing environments to… to start thinking about, to begin to think about or advance their thinking around what… what makes for, a resilient, environment, whether

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01:26:38.670 --> 01:27:03.499
Heidi Roop: that's, your home or your yard or the landscapes around you, and just some simple overviews and checklist items just both help kind of connect people to understand, sort of, what they're experiencing, what they may experience, and then what those really, critical near-term and long-term actions are, but in a digestible sort of checklist fashion. So those will be… those are coming out soon. They're in their final review.

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01:27:06.890 --> 01:27:16.850
Sheetal K. Rao,: Thank you so much. Thank you to all of you for joining us today and for sharing your wisdom and expertise, and thank you to all of our listeners for being with us today.

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01:27:16.880 --> 01:27:28.389
Sheetal K. Rao,: We will have all of the slides, as well as recordings and resources on our event page, so if you missed anything, you can always go there and access that.

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01:27:28.500 --> 01:27:32.360

Sheetal K. Rao,: And we are going to be putting up a QR code

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01:27:33.220 --> 01:27:36.990
Sheetal K. Rao,: So we ask that you please fill this out and give us feedback.

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01:27:37.770 --> 01:27:39.020
Sheetal K. Rao,: Thank you so much.

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01:27:45.210 --> 01:27:46.180
Sheetal K. Rao,: Hi, everyone.