

# Environmental Health and Equity Series: Water Rights, Health, and Justice Part 2

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**Isabelle Birt (IB):** Welcome to Ideas For Practice. A podcast of the Region V Public Health Training Center. As one of 10 public health training centers across the country, the RVPHTC seeks to strengthen the skills of the current and future public health workforce, in order to improve population health outcomes. We hope this podcast will share insights and spark ideas among those working in public health practice. Thank you for tuning into our episode. Today's episode is part two of our two part series on water and health, where we'll be continuing our discussion with Emily Kutil to learn more about the role of public health professionals in advocating for water rights or water access in order to promote and protect public health. I'm your host Isabelle Birt. So, the access to water, I mean, has a pretty clear... Especially in Flint, has a pretty clear connection to health, right? So I mean, the people in Flint were actually poisoned, and then but even just not having access to water can severely affect health. So what role do you think that public health professionals should play in advocating for the human right to water?

**Emily Kutil (EK):** So I think you're totally right, that the Flint water crisis really kind of raised this issue of public health and water infrastructure, and kind of put it in the forefront of everybody's mind. Such a terrifying thing to imagine that the water that comes out of your faucet is poisoning you, and I think we saw the power that public health officials had in really kind of making an argument for... And providing evidence critically, by providing evidence that there was harm being caused, that people were being poisoned, that little kids actually did have astronomically high lead levels in their bodies as a result of this. And so I think that... I think that public health officials really have a very important lens to share when it comes to debunking misconceptions about water infrastructure, and really just helping people to understand why having water infrastructure that functions well, or that provides safe and affordable water to everybody is critical. And so one of the things that's been really interesting in the work that We The People of Detroit Community Research Collective has done, is we have one of our research collective members, Nadia Gaber, Dr. Nadia Gaber is a medical anthropologist and is a kind of current MD student, she's doing her residencies right now and she has designed several different public health studies that we've conducted, to really try and evidence this impact on public health that mass water shutoffs have had in Detroit. And so we've done a whole series of different studies looking at the relationship between water access and public health, water shutoffs and public health, in Detroit. And we have really seen these arguments hold tremendous power. These arguments are really, I think, ones that the city government is incredibly sensitive to, because they are afraid of public opinion because people now... Because of the Flint water crisis, people are so sensitive to the relationships between public health and water. So one of the first studies that we worked on to really kind of demonstrate this relationship between public health risk and water shutoffs in Detroit, was a study that Dr. Nadia Gaber designed for us, in which she adapted the CDC's CASPER model for assessing public health after a natural disaster, she adapted this model to the man-made disaster of the Detroit water shutoffs.

**EK:** And essentially what this model does, is it randomly samples blocks all over the city, so we chose randomly sample blocks, distributed all across the city, and sent out survey teams to survey every house on these blocks, and we asked them a series of questions that have to do with public health and water access. We actually did that over the course of two years, so we did two rounds of these kind of citywide surveys. Nadia also developed with Monica Lewis-Patrick and Debra Taylor, and Reverend Roslyn Bouier from the Brightmoor Community Food Pantry, developed also a kind of more targeted study that was specifically interviewing women in Brightmoor who were experiencing water insecurity. And that study showed that there was a causal relationship between the lack of water access, or even the threat of water shutoffs, and a whole series of mental psychological impacts. That's a study that Nadia was able to get published, that we were able to get published, and I think that publishing this kind of research is also really important in our context in particular, because it provides a form of evidence that policy makers and public officials respond to. I think having kind of scientific data, having peer reviewed science that really in the community, we always say when we show these results is like, "We're telling you what you already know. You're experiencing this on a daily basis, so this is not a revelation for you." But this... If we look at it through this framework of a public health study, we can really leverage this argument as evidence. So, we've done a series of survey based studies, we also collaborated with Henry Ford Health Systems to do a study where we were looking at the relationship between water shut-off data, geographic water shut-off data, so where are people getting shutoff in the city and their emergency room data. So where do people live, who are coming in with water access related illnesses, like skin and soft tissue infections, which could result as like... Which could actually happen as a result of not having access to sanitation, as well as gastrointestinal illnesses and we found a statistically very significant relationship between, both people who were living on blocks where water shut-offs happen were much more likely to come down with these illnesses. And people who were coming down with these illnesses who were coming into the emergency room were much more likely to live on blocks where water shut-offs were occurring. This was just a pilot study. It was kind of an initial study. We had some kind of partial data sets. It was not as sort of robust and large scale as we know that it could be but even in the pilot, the statistical relationships were so significant that the Henry Ford Health Researchers were incredibly alarmed. And in 2019, the ACLU and a coalition of lawyers actually filed a lawsuit, sorry, a petition, asking the Michigan department of health and human services to stop water shut-offs in Detroit by declaring a public health emergency. And this is really something that also water activists had been pushing the Health Department director, when Abdulla Saeed was the Health Department Director, there was a lot of work to try and get him to declare a public health emergency, which he declined to do. And so we see now, July, 2019, a coalition of lawyers files this petition asking MDHHS to declare a public health emergency and stop shut-offs. A month later we see Bridge magazine reporting that over 7000 of the almost 12,000 homes that were shut off that year are still disconnected with over 5000 of those homes believed to be occupied. So, this is August, 2019 now. In September the Michigan Department of Health and Human Services Director denies the request to declare a Public Health Emergency in Detroit and thereby stop water shut-offs. And basically what he says is that MDHHS has not identified data.

**EK:** This is a quote, has not identified data that suggests the causal association between water shut-offs and waterborne disease. So this is September, 2019. And during this time, right, the city is conducting its water shut-offs as normal. There are, every month, thousands of water shut-offs are happening all over the city, and the way that water shut-offs are conducted, and this is something we know because we have done a lot of work to map these shut-offs. So, taking shut-off data from the water department and actually showing geographically where are these things happening and when. So, we created a series of maps that tracks where the city was shutting off water every month in the months that were leading up to COVID. And what we saw is that even as COVID is beginning to spread, right? And so, we get the first reports of that in December of 2019, right? That there's this kind of new illness that's happening in China. In January we see these things, the new Coronavirus gets identified, the first patient dies in China. And by the end of January, we had the first case of COVID in Washington state. And COVID is declared a Public Health Emergency in the United States. The city of Detroit is still shutting off water during this time. And then in February, we see over 800 shut-offs happening on the west side of Detroit, the Northwest neighborhoods. So 48235 is where most of them are concentrated. There's over 800 just in that zip code. And of course we know that February is when COVID begins to spread in the city of Detroit. In February the Detroit City Council unanimously passed a resolution urging local officials to stop shutting off water due to the COVID crisis, calling on the state governor Gretchen Whitmer to prohibit mass water shut-offs, and as a way to prevent a public health emergency. But the water shut-offs continue, in mid-February Bridge magazine reports that now almost 10,000 homes that were shut off in 2019 are still disconnected. So we don't only have these people who are being shut off as the pandemic is spreading, but we also have this kind of backlog of almost 10,000 houses, households, right? And if we imagine there's two or three people in every household on average, maybe more in low income homes in Detroit, where many family members are living together, you can imagine, right? How many people are impacted? Tens of thousands of people that don't have access to water as COVID is actively spreading in the city of Detroit. And then of course in March, we see COVID explode in the city of Detroit, and we are one of the worst impacted places in all of the United States in the early days of COVID. By March, it is spreading faster in Detroit than nearly any other place. And then we see movement to protect public health. After we already have this public health crisis spreading in the city of Detroit. By the end of March, March 28th, there is a statewide water shut-off moratorium, and there's also a water restart plan, so that the city of Detroit and the state of Michigan really scramble to try and turn everyone's water back on. But as I just explained, we have thousands of homes that are shut off. And so some homes actually, it takes them over a month to get their water turned back on. And one of the things that we don't understand about water shut-offs is that it can also wreck havoc on your home's piping system. So it's not just as easy as turning a water key and getting the water flowing again. If your water has been shut off for a very long time in particular, it can destroy your pipes and it also creates an enormous risk for lead contamination inside the individual house.

**EK:** And so one of the things that we did, starting in 2020, the Research Collective to try and sort of understand what was going on with COVID and water shutoffs in the city, we were both doing emergency response work setting up water stations, handling water deliveries and really moving enormous volumes of water with lots of volunteers in the city. We were also working with the People's Water Board to create information materials to teach people how to flush their homes piping system to help protect themselves from lead contamination if they were getting their water turned back on by the city. And we started doing research to really try and understand where Covid was spreading and where water shut-offs were happening, and if there was any kind of relationship between those things. And so what we ended up doing is creating a series of maps where we looked at COVID cases in the city. So we took the Covid data from the City of Detroit's website. And in Detroit, there were so many COVID cases that happened inside of nursing homes that it was overwhelming the data set, right? Because nursing homes were so heavily impacted. When you looked at a map of where COVID was spreading the most, it was a map of where the nursing homes are in the city. And so what we knew that we needed to do, because we were interested in water shut-offs, nursing homes don't experience water shut-offs. So we knew that we had to isolate those from the data set and really look at where water shut-offs were happening in residential neighborhoods, and when we did that, it showed a very different picture of where Covid had most impacted non-nursing homes, but neighborhood residents. And it showed this tremendous concentration in the outer neighborhoods of the city, particularly in Northwest Detroit and particularly in the zip code 48235, that was the most heavily targeted by water shut-offs in February as COVID began to spread in the city. And this kind of research, it can't prove causation, it can't prove that water shutoffs in this area actually caused the heightened spread of COVID, but it does expose a correlation and a pattern that is incredibly significant and that public officials should take very seriously, because the city of Detroit really put the residents, and it's not just the people who don't have water access in their homes, it's also their neighbors, it's everybody who encounters, who interacts and who... And people in the workplaces, children at school, all these different ways that we come together as people mean that the kind of public health risks that are created by inequities and water infrastructure put everybody at risk.

**IB:** Yeah, that's really well said. Especially in terms of COVID. It's not just one group that's at risk, it's everybody. We're all in this together. So we kind of already touched on this, I think multiple times, but just to kind of reiterate, why do you think it is important to ensure that issues around water are informed by health inequities?

**EK:** Yeah, I think this goes back to this kind of fundamental... Well, so I'm again talking about the US context, and it goes back to this kind of conversation about racial segregation and racial inequality more broadly in our country, right?

**EK:** That since we know that racism is baked into the geography of our cities, of the way that our spaces are organized and our infrastructure therefore, right? We have these inequities, racial inequities, economic inequities that are built into the way our water infrastructure works. And of course, because water is necessary for life, because everybody will use water every day in all kinds of ways, we bring it into our bodies, this has a direct impact on health, both at the scale of the individual and at the scale of the community. And so really the only way to address public health risks in our water infrastructure is to address the fundamental inequities present within those systems.

**IB:** Yeah, yeah, I agree, definitely. So kind of building off that I guess, moving forward, what do you think are some of the biggest challenges that need facing in relation to water access and health?

**EK:** Well, I think first, we need to talk about water affordability, and this is something that is relevant not just to the City of Detroit, but to the country and really to the world. We know that the City of Detroit is not the only place in the United States that's impacted by water shut-offs and by unaffordable water. We're a dramatic example, right? But this is true all over the country. There was a study done, I think in 2013 by a researcher named Elizabeth Mac with Michigan State University, who was looking at... Did a geographic analysis of the United States, looking at census tracts and mapping the at risk census tracts that would be at risk of losing access to safe and affordable water. And that study found that 35% of the country was at risk of losing access to affordable water, and at the time... So this was 2017, at the time, they said, by 2022. And so now here we are in a post-covid world where we can imagine all the ways that economic upheaval and the kind of chaos of COVID has heightened this vulnerability, it hasn't gotten any better. And so, but at the same time, because COVID has... And really, before that, the Flint water crisis really created this new awareness about public health and water infrastructure. Nationally, we also saw states all over the country issuing water shut-off moratoria during the COVID-19 outbreak. And many of those moratoria now have ended, but we saw this kind of... There was a moment of national acknowledgement of the critical necessity for affordable water infrastructure for public health, to protect public health. And so I think there's so much movement right now around really addressing water affordability in its root causes.

**EK:** And so I think that's a really important sort of ongoing story that's happening right now, and we're fighting for water affordability at the city level, but we're also working at the state level, and we're also working at the national level, because we know that Detroit is the canary in the coal mine, right? Things happen here first and worst, but they happen everywhere else too. And so we really feel, I think, a need to take leadership in this national conversation about water affordability so that we can address this issue on a much larger scale.

**IB:** So yeah, so it sounds like there's a lot of work to be done, both at the local, state and national level unfortunately. But people like you and We The People of Detroit, are doing some great work in this area that is... So thank you for all that you've done. And as a wrap-up today, what we've been kind of doing in past episodes is, as we're getting through the pandemic that is still more or less going on, do you mind just sharing something that has helped you get through the pandemic so far, or something that provides you comfort, or inspiration?

**EK:** Yeah. During the pandemic, one of the things that was so disturbing for all of us was that we were isolated, and we didn't have those kinds of social connections, or those relationships to community that normally sustain us, and I think it was so frightening in Detroit when COVID first hit, particularly because it was so scary, so many people were getting sick, and we didn't know how it worked. And for me, leaning into activism, and leaning into this work, which we had been doing for many years, it really helped to anchor me during the pandemic. It gave me a sense of agency, and it also, even though we weren't actually physically together, and also I think it was all a way to process what was going on, and to feel like we were able to impact things. And so to me, being in a space where there's so many different creative voices that are trying to really take on these questions at every level and really earnestly think about, "What would a better future look like?" When COVID was at its peak in the early days in Detroit, the We The People of Detroit was moving just massive, massive, massive water, and I wish I could remember the number. I have the number of tons of water... That were moved.

**IB:** Oh, wow!

**EK:** But it was just enormous, and so many people, even in this moment of incredible risk, there was a massive volunteer effort to move this water, to unload these trucks, to...



**IB:** That's amazing.

**EK:** To load them into water stations. And everybody was there in their Hazmat suits and their gloves, and they were spraying everything with bleach, and there was masks, but it was just this moment where everybody just decided, "This is important, and this is a way that we can do something in this moment." And a lot of the people who were volunteering were young people. There were people who were maybe at lower risk for COVID, and so those people found a way to plug in that way, and other people figured out how to do the research, or how to host a webinar, and try and raise public awareness on this issue, or so many different ways that people were sort of figuring out how to use their skills and abilities to really plug in, and to me, that is just an incredibly inspiring kind of world to participate in, and one that I'm just incredibly grateful for. It helps me to find meaning and purpose. And so for me, it really goes back to kind of the sort of communities that we create when we do this kind of work together.

**IB:** Yeah, community is so important. And it's just so inspiring to hear of people just dedicating their time in such a scary time to help others. It's just, it's really inspirational. So thank you for sharing that. And thank you so much for joining us today, sharing about your experiences and the work that you've done in Detroit. To our listeners, we hope you've learned some tips for advocating for the human right to water today. We encourage you to check out some of the great resources in the podcast notes, as well as an evaluation in the transcripts. Funding for this podcast is provided by the Health Resources and the Service Administration. With that, we'll end here for today. Stay safe and stay curious everyone.