Rising temperatures, rising solutions:

Multnomah County Health Department builds community resilience against extreme heat



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Executive summary

A strong public health system is critical for all 4.2 million people in Oregon to achieve optimal health. Since 2013, Oregon has been rebuilding its public health system to ensure essential public health protections for all people in Oregon through equitable, community-centered, and accountable services. In 2023, Oregon's Public Health Advisory Board established an updated set of public health accountability metrics and process measures to evaluate progress toward achieving statewide goals.

The purpose of this case study is to demonstrate how the Multnomah County Health Department (MCHD) is making progress on Oregon's public health accountability metrics to increase community resilience for climate impacts on health, specifically extreme heat. Local and state health departments can use state General Fund dollars for Public Health Modernization (PHM) and other funding sources to make progress on accountability metrics.

The case study describes activities conducted by MCHD that show the breadth of core public health work underway to mitigate the impacts of extreme heat. These activities demonstrate public health foundational capabilities such as assessment and epidemiology, community partnership development and policy and planning to help advance health equity. Key informant interviews, document review and survey data were used to gather the information presented.

A tri-county heat mapping campaign and various communication products, such as a heat vulnerability index, environmental justice zine and multiple extreme heat resources, show assessment and key health messaging in action. MCHD mobilized community partnerships through a demonstration project in Wood Village Green Mobile Home Park to install mini-split heat pumps for providing energy efficient cooling and provided climate resilience training for community health workers. Furthermore, they created and implemented policy, plans and laws through their Climate Justice Framework and climate litigation against Big Oil.

Accountability metrics are an essential component of Oregon's strategy for demonstrating that, over time, sufficient and sustained state General Fund dollars in Oregon's public health system can improve health outcomes. MCHD's actions to increase community resilience to extreme heat show how core public health work can help reduce future hospitalizations due to heat, reduce heat deaths and contribute to improved health for the people of Oregon.



Background and purpose

A strong public health system is critical for all 4.2 million people in Oregon to achieve optimal health. Since 2013, the state has been rebuilding its public health system to ensure essential public health protections for all people in Oregon through equitable, community-centered and accountable services.

The purpose of this case study is to demonstrate how MCHD is making progress on Oregon's public health accountability metrics to increase community resilience for climate impacts on health, specifically through actions to address extreme heat, during the 2023-2025 biennium.

Summer heat-related morbidity and mortality are rising in Oregon. Exposure to higher temperatures and extreme heat is on the rise because of the frequency, length and intensity of heat events. Increased heat corresponds with greater illness and deaths. This case study highlights a compilation of projects and programs addressing extreme heat that help advance health equity in Multnomah County and exemplify the public health foundational capabilities.

In 2023, Oregon's Public Health Advisory Board established an updated set of public health accountability metrics and process measures^[1] to evaluate progress toward achieving statewide goals. The accountability metrics priority areas and indicators for the 2023-2025 biennium are presented in Table 1.

Table 1. Oregon's public health priorities and accountability metrics indicators[1]

Priority area	Indicators
Increase community resilience for climate impacts on health	 Emergency department and urgent care visits due to heat Hospitalizations due to heat Heat deaths Respiratory (non-infectious) emergency department and urgent care visits
Protect people from preventable diseases by increasing vaccination rates	 Two-year-old vaccination rate (4:3:1:3:3:1:4 series) Adult influenza vaccination rate, ages 65+
Reduce the spread of syphilis and prevent congenital syphilis	 Rate of congenital syphilis Rate of syphilis (all stages) among people who can become pregnant Rate of primary and secondary syphilis



Local and state health departments can use PHM General Fund dollars towards making progress on the accountability metrics. OHA conducts an evaluation of PHM each funding cycle. One component of the 2023-2025 evaluation is an examination of OHA and local partners' implementation of public health accountability metrics across the state, with the goal of understanding how work towards the accountability metrics is advancing health equity in Oregon.

The Oregon Health Authority states^[2] that health equity is established when:

"All people in Oregon can reach their full health potential and well-being without facing disadvantages due to their race, ethnicity, language, disability, immigration status, age, gender, gender identity, sexual orientation, geography, or social class.

Achieving health equity requires the ongoing collaboration of all regions and sectors of the state, including tribal governments, to address:

- The equitable distribution or redistribution of resources and power; and
- Recognizing, reconciling and rectifying historical and contemporary injustices."

State and local public health each have their own role in making improvements on the accountability metrics. The actions that they take to advance health equity, such as increasing access to care and providing culturally appropriate communication materials, help make steps towards improved outcomes.

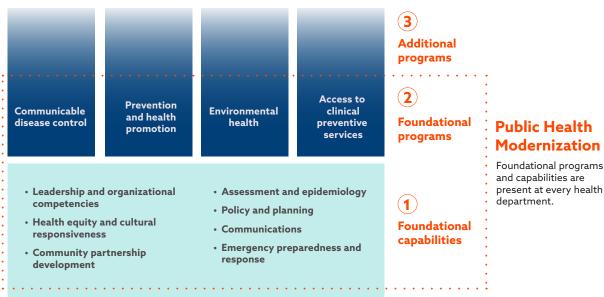


Oregon cityscape during a hazy heatwave



The foundational capabilities and programs adopted by the Oregon Legislature in 2015 provide a common set of core public health services that must be available in all areas of the state (Figure 1). The foundational capabilities are the knowledge, skills and abilities needed to successfully implement the foundational programs of communicable disease control, prevention and health promotion, environmental health, and access to clinical preventive services.

Figure 1. A modernized framework for governmental public health services[3]





About Multnomah County

Multnomah County is home to approximately 815,000 residents along the Columbia River in the northwestern part of Oregon. [4] It is the smallest county in the state by land area and the largest county in the state by population. [5]

Multnomah County contains the city of Portland (county seat), the largest city in Oregon. Most of the state's heat deaths were concentrated in Multnomah County during the 2021 "heat dome," an excessive heat event in which hot air was trapped at low elevations over a period of several days. [6]

Multnomah County Health Department actions to address extreme heat

MCHD uses all seven foundational capabilities to address extreme heat, as described in the projects presented throughout this case study. These projects exemplify how MCHD is advancing health equity and contributing to a reduction in heat-related illness and death in the community by reducing emergency department and urgent care visits due to heat, hospitalizations due to heat and heat deaths.



Table 2. Public health foundational capabilities addressed by MCHD's projects related to extreme heat

	PROJECTS							
Foundational capabilities addressed	Tri-county heat mapping campaign	Heat vulnerability index	Environmental justice zine	"Schools as Community: Cleaner Air and Cooling Centers" report	Community health worker climate and resilience training	Wood Village Green pilot project	Climate Justice Framework	Climate litigation against Big Oil
Health equity and cultural responsiveness	X	X	x	X	X	X	X	
Community partnership development	x		X	X	X	X	x	
Communications		X	X			X		
Emergency preparedness and response	X	X		X	X	X	X	
Assessment and epidemiology	x					X		x
Policy and planning		X		X		X	X	X
Leadership and organizational competencies	X					X		X

Note: There is a natural overlap among the public health foundational capabilities. Primary capabilities for each project were selected.

The projects presented in this case study are organized by the core public health service provided. These services include: assess and monitor population health; communicate effectively to inform and educate; strengthen, support and mobilize communities and partnerships; and create, champion and implement policies, plans and laws.



Foundational capabilities addressed by the tricounty heat mapping campaign

Health equity and cultural responsiveness

Community partnership development

Emergency preparedness and response

Assessment and epidemiology

Leadership and organizational competencies

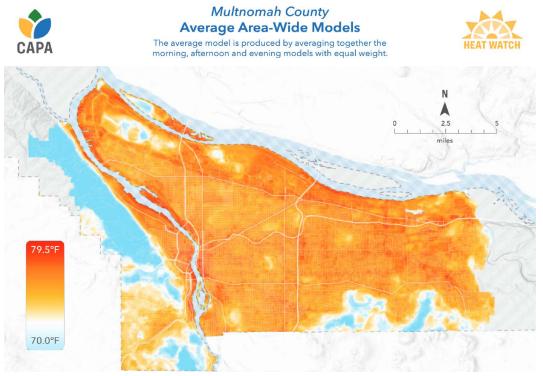
Figure 2. Multnomah County average areawide model.

Assess and monitor population health

The project highlighted in this section demonstrates the assessment and monitoring of population health status, factors that influence health and community needs and assets. Data collection and analysis enables MCHD to maintain an understanding of health and health determinants in their region so that the county can take action on emerging public health issues.

Tri-county heat mapping campaign

In partnership with Clackamas and Washington Counties, Health Share of Oregon, and CAPA (Climate, Adaptation, Planning, Analytics) Strategies, MCHD led a ground-breaking heat mapping campaign to assess the distribution of heat across the tri-county area. The campaign collected just under 270,000 temperature measurements with the help of 125 volunteers and equipment provided by CAPA Strategies, highlighting the importance of community-collected data. Volunteers secured heat sensing instruments to their personal vehicle and drove 41 different routes during the morning, afternoon, and evening to collect data in all three counties. Shortly after the campaign's conclusion, MCHD published an interactive map^[7] of the routes volunteers drove along to collect the temperature data.



Source: CAPA Strategies Heat Watch Report[8]



CAPA Strategies published findings from the heat mapping campaign in a heat watch report^[8], which was then summarized into a four-page document (available in English and Spanish, as well as Arabic, Simplified Chinese, Traditional Chinese, Farsi, Japanese, Korean, Khmer, Russian, Tagalog, Ukrainian and Vietnamese) by Multnomah, Washington, and Clackamas Counties. Almost immediately, the Wood Village Green pilot project used the results from the heat mapping campaign (page 14) to identify where resources were most needed and further inform the heat vulnerability index (page 10). **Results will continue to play a critical role in guiding immediate and long-term actions, as well as decisions related to land use, urban planning, infrastructure design, human services, emergency management, homelessness and county-level emergency response and climate planning.**

The tri-county heat mapping campaign findings continue to provide important data for supporting equity-based environmental interventions that ensure that a community member's location is not associated with increased exposure to heat and poorer health outcomes.

Assessment spotlight: Environmental health research evaluation analysts

Research evaluation analysts (REAs) inform decision making by conducting quantitative and qualitative data analysis, developing reports, communicating results, providing technical assistance and subject matter expertise to partners and applying research findings to detailed policy analysis. Positions such as environmental health REAs in local public health departments will continue to be of greater need as climate threats to health increase.

"What keeps me coming back to the work is the variety that I experience on a day to day basis because of all the interconnections between the different sectors. There's often something new to learn or to explore, or somebody in a different sector to connect with or a new, specific unique analysis. And then to pass that [analysis] along into a decision-making process to move the needle whether it's a policy, system or environmental change to improve health outcomes. That's always rewarding to me."

 Abe Moland, senior environmental health research evaluation analyst, MCHD



Communicate effectively to inform and educate

The projects highlighted in this section demonstrate MCHD's effective communication to inform and educate people about health, factors that influence it and how to improve it. The county has created many tools, reports and resources related to extreme heat to disseminate accessible health information to the community.

Foundational capabilities addressed by the heat vulnerability index

Health equity and cultural responsiveness

Communications

Emergency preparedness and response

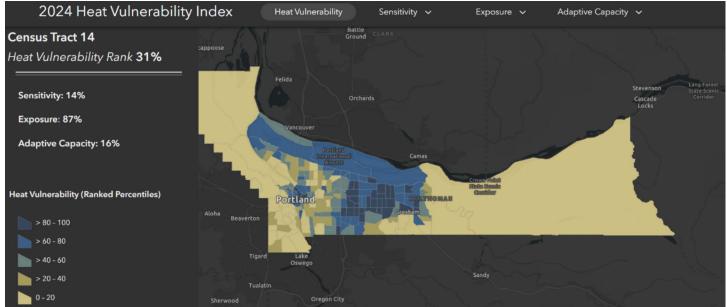
Policy and planning

Heat vulnerability index

The heat vulnerability index^[9] is an online mapping tool (Figure 3) that helps community members understand their vulnerability to heat based upon where they live in Multnomah County. The tool also helps health partners address factors influenced by three domains: sensitivity, exposure and adaptive capacity. Areas with a high domain score are more vulnerable to heat. These are areas where health partners focus intervention efforts.

MCHD hopes that by assessing heat vulnerability, the tool can help highlight pathways for reducing heat-health risks. People and organizations who use this tool will be able to see the factor that contributes the most to local heat vulnerability in a location and choose an intervention specific to that factor. The public directly benefits from these interventions, which help reduce urgent care visits, emergency department visits and hospitalizations due to extreme heat.







Foundational capabilities addressed by the environmental justice zine

Health equity and cultural responsiveness

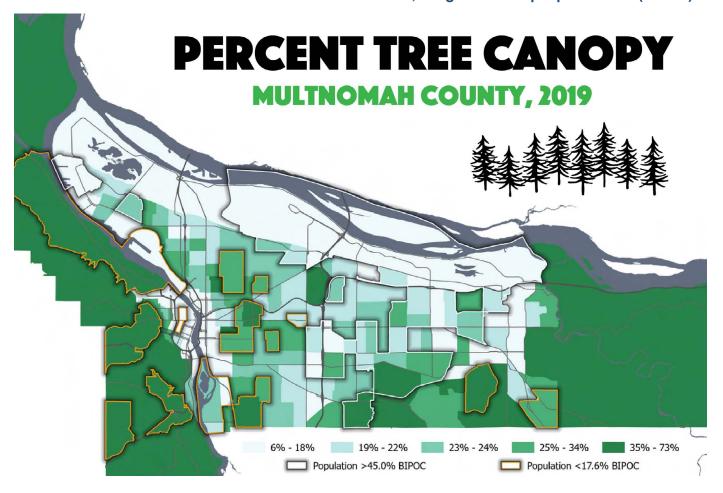
Community partnership development

Communications

Environmental justice zine

In July 2023, Coalition of Communities of Color, Unite Oregon, Harvard Climate Justice Design Fellow J'reyesha Brannon and MCHD partnered to create a zine (booklet) called: "Cultivating Justice in a Changing Climate: A Collection of Stories and Art Rooted in Multnomah County's Communities of Color."[10] The zine showcases vibrant works of art from local community members and presents data on environmental justice indicators provided by MCHD (Figure 4).

Figure 4. A map from the zine that depicts the average percent of tree canopy in neighborhoods with more than 45% or less than 17.6% residents that are Black, Indigenous and people of color (BIPOC)





Foundational capabilities addressed by the "Schools as Community: Cleaner Air and Cooling Centers" report

Health equity and cultural responsiveness

Community partnership development

Emergency preparedness and response

Policy and planning

"Schools as Community: Cleaner Air and Cooling Centers" report

MCHD worked with Portland Public Schools, Multnomah County Office of Sustainability and the Environmental Protection Agency (EPA) to address schools' readiness for heat and wildfire hazards. The "Schools as Community: Cleaner Air and Cooling Centers" pilot project and report^[11] summarizes the four goals of the pilot project:

- 1. Improving ventilation and filtration systems in public school facilities to reduce the risk of COVID-19 transmission and other airborne illnesses in schools.
- 2. Creating healthy learning environments through improved indoor air quality in schools.
- **3.** Keeping schools open over the long-term in the face of increased frequency and severity of extreme heat events and wildfire smoke events.
- **4.** Creating cleaner air shelters and cooling centers located in areas known to have a higher number of people who are susceptible to serious health impacts from extreme heat and wildfire smoke.

The report serves as a guidance document for the many partners involved in making safer spaces for individuals during severe climate events.

Resources for beating the heat

MCHD and their partners also produced and made available the following reports and resources to address extreme heat.

Cooling center interactive map

MCHD and partners created this online resource^[13] to help people find places to stay cool indoors and outdoors during hot weather. The types of places listed on the map to stay cool include libraries, community centers, community cooling centers, swimming pools, interactive fountains, splash pads, misting stations and beaches.

"Help for When It's Hot" website

MCHD's "Help for When It's Hot" [12] website is a resource hub for community members and county partners to use before and during extreme heat events. The website provides easy access to reliable sources of educational information that are available in multiple languages (English, Spanish, Vietnamese, Korean, Chinese, Russian, Ukrainian, Arabic, Somali, Amharic, French and Tagalog), updates on upcoming extreme heat events and where to stay cool, as well as how to safely recreate in the heat.





Kids cooling off in the community's park fountain

Cooling kit pilot program

In summer 2024, MCHD distributed cooling kits to vulnerable or atrisk communities. The cooling kits included misting bottles, cooling towels, gel packs, electrolyte packs, a reusable water bottle and multilanguage magnets on how to stay cool. Different units throughout the County identified community-based organizations (CBOs), partners and locations to send the kits. At least 7,000 kits were distributed to community members in 2024, which is 4,000 more kits than were distributed in 2023. MCHD helped distribute 500 kits that were allocated from Multnomah County Department of County Human Services (DCHS). MCHD distributed additional materials at events and to communities or schools without air conditioning in heat island areas, including 3,000 cooling towels and 2,000 water bottles.

Cooling resource library

MCHD maintains a library of cooling resources available from organizations in the County for staff use in referring clients or community members to cooling and filtration resources during extreme heat and poor air quality events. Examples of such resources include the appliance resource list (e.g., Portland Clean Energy Fund heat pump distribution), tax credit resources, electric power bill assistance and weatherization. The information is disseminated to partner organizations and 211, which connects people to local resources.

Strengthen, support and mobilize communities and partnerships

The projects highlighted in this section provide examples of MCHD strengthening, supporting and mobilizing communities and partnerships to improve health. These partnerships bring multiple sectors together to increase capacity and develop solutions.

Foundational capabilities addressed by the community health worker climate and resilience training

Health equity and cultural responsiveness

Community partnership development

Emergency preparedness and response

Community health worker climate resilience training

In 2023, MCHD co-developed and designed an emergency preparedness and climate resilience curriculum with community health workers (CHWs) serving CBOs focused on communities of color. They implemented a train-the-trainer model with CHWs to provide resources for CBOs to help implement culturally specific climate resilience initiatives. Topics in the workshop training included individual perception of risks, natural and human-caused hazards, prevention, actions before, during, and after emergencies, individual/family plans, cold weather preparedness and introduction to climate justice and health hazards. From November 2023 to November 2024, the group completed 12 workshops and trained 61 CHWs. Participants reported that the culturally specific tools for climate resilience were particularly well received.



Foundational capabilities addressed by the Wood Village Green pilot project

Health equity and cultural Responsiveness

Community partnership development

Communications

Emergency preparedness and response

Assessment and epidemiology

Policy and planning

Leadership and organizational competencies

Wood Village Green pilot project

Data illuminates inequities in East Multnomah County

Temperature data collected from the 2023 tri-county heat mapping campaign (page 8) highlighted the need for extreme heat interventions in East Multnomah County, with the city of Wood Village having the highest average recorded temperatures in the county. When compared to other cities within the county, Wood Village had the lowest percentage of tree canopy (17.6%) and the highest percentage of impervious surfaces (64.7%), both of which influence the intensity of heat. [8]

Greg Dirks, Wood Village city manager, was not surprised to hear that his community was the hottest city in Multnomah County as there are multiple mobile home parks that consist of large areas of asphalt and limited tree canopy, in addition to shopping malls and major roadways. City of Wood Village leadership saw an opportunity to use the data from the heat mapping campaign as a launch pad for connecting with MCHD and voicing their need for additional resources to better serve their community.

Building partnerships: Multnomah County, city of Wood Village and Líderes Naturales





In summer 2023, MCHD and the city of Wood Village collaborated to plan a pilot program to provide portable air conditioning units to Wood Village residents in need. The city and county could not conduct the pilot project that year due to funding challenges, but this initial effort laid a foundation for future partnerships. In spring 2024, Wood Village leadership reconnected with Multnomah County staff members representing DCHS and the Office of Sustainability to begin brainstorming how to fund an extreme heat intervention in Wood Village. Eron Riddle, program specialist for Climate Resilience Planning at the DCHS, took the lead.



Eron Riddle works in the Weatherization Program for DCHS. The Weatherization Program helps people living on limited incomes make their homes safer, more energy efficient and comfortable.

Riddle's role is unique. The city of Portland has a major funding stream for weatherization projects, but those funds can't be used outside of Portland. This leaves an equity gap for cities like Wood Village and other places in East Multnomah County. These areas are Riddle's specialty. He identified a pathway to fund the Wood Village Green pilot program through the county and Oregon Department of Energy.





Líderes Naturales volunteers

MCHD and the Wood Village leadership relied on the community-level expertise of Líderes Naturales (English translation: Natural Leaders)— a CBO based in Wood Village—for the rollout of the pilot program. The purpose of the pilot program was to install ductless mini-split heat pumps in Wood Village areas of high need.

Lideres Naturales selected Wood Village Green Mobile Home Park as the population to serve because this community had a high percentage of residents who had low incomes, were age 60+, disabled and from communities of color (Tables 3 and 4). In preparation for outreach, Líderes Naturales volunteers reviewed the program's application materials for cultural relevance. They helped simplify the application to remove barriers that may have resulted in residents dropping out due to confusing questions or taking too much time to complete.

"The big turning point from this year was the community connection that the city has created, has been intentional in establishing with this Natural Leader organization. A lot of their members are Wood Village residents, and I think that the program was extremely successful because of the connection between the city and that group."

— Jairo Rios-Campos, Wood Village council president





Installed Wood Village Green Mobile Home Park mini-split

The Wood Village Green pilot program was on a tight schedule with just two weeks to collect interest forms from residents and only two months to meet a heat pump installation deadline. Líderes Naturales conducted all of the necessary outreach in just three days' time, knocking on the doors of 200 hundred households in the Wood Village Green Mobile Home Park. Líderes Naturales submitted 60 interest forms to MCHD. These collective efforts resulted in the completion of the pilot project in iust two months. MCHD retrofitted a total of 36 homes in the Wood Village Green Mobile Home Park with free ductless minisplit heat pumps, providing energy efficient cooling during hot weather and heating in the winter.

"As good as this project feels, we also know there are hundreds and hundreds more households in just Wood Village that don't have this and that do live in a hotter environment or colder or expensive winter environment and understand the millions [of dollars] it would take to help just bring a bit of comfort... Wood Village has maybe 500 households in need."

- **Greg Dirks**, Wood Village city manager

The program provided a free portable air conditioning unit to an additional 28 households that were not able to receive a free heat pump due to funding constraints. Líderes Naturales visited each home to ensure the installation was complete, ensure the unit was working properly, answer any questions from residents and send necessary documentation to Multnomah County.

Figure 5. Residents contacted, engaged and provided with energy-efficient cooling during the Wood Village Green pilot project

IN
2 WEEKS:
200 homes

reached

IN
1 MONTH:
60 interest forms

collected

2 MONTHS:
mini-splits installed
in 36 homes



Table 3. Ductless mini-split installation recipient demographics, Wood Village Green pilot project

	Low income	Communities of color	Age 60+	Disabled
Household	36/36	34/36	9/36	9/36
Percent	100%	94%	25%	25%

Table 4. Portable air conditioning unit recipient demographics, Wood Village Green Mobile Home Park

	Low-income	Communities of color	Age 60+	Disabled
Household	28/28	28/28	4/28	4/28
Percent	100%	100%	14%	14%

Líderes Naturales volunteers emphasized how many community members were grateful for their mini-split and the speed of installation, including:

- A volunteer's family member noticed that the mini-split saved them money on their energy bill.
- A resident with a disability originally told Líderes Naturales they didn't want anything to do with the government, but then saw how others were receiving free mini-splits and decided they wanted to sign-up after all. They couldn't believe it was free.

MCHD, Wood Village and Líderes Naturales considered the Wood Village Green pilot project a huge success because it was feasible in a short time period, well accepted by community participants and done at a reasonable cost. Due to funding limitations, only 36 of the initial 60 identified households were served and an additional 15 households are on a waitlist. All partners agree there is more work to be done. Multnomah County is exploring whether funding from the EPA can help to get more mini-splits out into the community.

"The need is great. There are still community members asking if they can have a mini-split, but there aren't any more available."

- Líderes Naturales volunteer



This project in Wood Village demonstrates how counties, cities and community partners are using data from the 2023 tri-county heat mapping campaign to make home improvements for a community with an increased need for extreme heat interventions. The improvements in Wood Village make it safer for people to stay at home during extreme heat events and help reduce emergency room/urgent care visits and hospitalizations due to extreme heat.

"I vastly underestimated the need. I thought it would be difficult to reach even 20 homes, especially with the limited amount of time we had for outreach. We only served half the folks that we could have. So, although we were quite successful, there's definitely more of a need."

- Eron Riddle, Multnomah County weatherization program specialist

Create, champion and implement policies, plans and laws

MCHD is creating, championing and implementing policies, plans and laws that impact health. Policies, plans and laws are what enable opportunities for optimal health, ensure that impacts to health are considered and improve the health of all people in Oregon.

Community-driven climate justice planning and framework

Foundational capabilities addressed by the Climate Justice Framework

Health equity and cultural responsiveness

Community partnership development

Emergency preparedness and response

Policy and planning

In recent years, MCHD adopted a framework to include community at the forefront of climate planning. The framework was co-led and co-created by the Coalition of Communities of Color, MCHD and other community leaders and partners. It was highlighted in a July 2023 report titled "Rooted in Values Guided by Vision: Community-driven Climate Justice Framework for Multnomah County." [14] The report is filled with local community art and shares stories of the County's experience in a changing climate, their grassroots efforts to incite policy-level changes and the unfolding of MCHD's community-centered planning processes.

The steering committee for the Climate Justice Plan formed in November 2023 and consists of multiple partners at the local and government level (Table 5). The steering committee has been working together to refine universal goals and develop targeted strategies and actions, as well as conduct outreach to gather feedback. With this work, their hope is to have the Multnomah County Board of Commissioners adopt the plan in mid-2025 to inform future climate policies (Figure 6).



Table 5. Affiliated organizations on the steering committee for the Climate Justice Plan

Local level partners	 Neighbors for Clean Air Coalition of Communities of Color Unite Oregon NW Energy Coalition National Association for the Advancement of 	 Verde Self Enhancement Inc. (SEI) Asian Pacific American Network of Oregon (APANO) Communities United Fund Rahab's Sisters
Government partners	 Colored People (NAACP), Portland Branch 1120 Multnomah County Office of Sustainability Multnomah County Health Department 	 Community Energy Project City of Portland Bureau of Planning and Sustainability

Figure 6. Climate Justice Plan timeline



Foundational capabilities addressed by the climate litigation

Assessment and epidemiology

Policy and planning

Leadership and organizational competencies

Climate litigation

MCHD used the "2012-2022 Regional Climate and Health Monitoring Report" [15] to develop litigation against major oil companies for the health impacts of extreme heat. In June 2023, Multnomah County filed suit against several of the largest fossil fuel and coal-producing corporations, seeking to hold them accountable for the damages arising from the 2021 Pacific Northwest Heat Dome. The regional report provided heat illness and death data associated with the 2021 Heat Dome. As noted in the press release [16] about the litigation, "what is new about this case," said attorney Roger Worthington, a partner at Worthington and Caron, PC, "is how the leadership of Multnomah County is utilizing irrefutable climate science to hold corporate polluters accountable for their role in causing a discreet and disastrous event, as well as recent wildfires." With parallels to how the Master Settlement Agreement against tobacco companies contributed to reduced smoking rates among youth, governmental public health plays an important role influencing policy decisions that directly impact health. [17]



Conclusion

MCHD has implemented a wide variety of projects that address all the foundational public health capabilities to increase community resilience for extreme heat impacts on health. This evaluation case study exemplifies how MCHD is advancing health equity and contributing to a reduction in heat-related illness and death in the community. This core work of local public health authorities performed in a community responsive way results in long term health improvements.

Methods

The evaluation team used the following methods to conduct this case study.

Data collection and document review took place from April to November 2024. Mixed methods included: 1) key informant interview with Wood Village leadership, 2) ongoing discussions with staff from the Multnomah County Health Department and Multnomah County Department of County Human Services, 3) document review, and 4) review of Oregon's 2024 LPHA Accountability Metrics Process Measures Survey. Activities that demonstrated actions towards advancing health equity and spanned multiple of the seven public health foundational capabilities were highlighted.

A draft of the case study content was provided to Multnomah County Environmental Health; the PHM Evaluation Working Group (consisting of local public health authorities, OHA Public Health Director's Office staff and a Coalition of Local Health Officials representative); and the PHM Evaluation Technical Panel consisting of representatives from the Public Health Accreditation Board, federally-recognized tribes, OHA-PHD, LPHAs, and community-based organizations. Feedback from these groups was incorporated into the final case study. More detailed methods will be available in the forthcoming 2023-2025 Public Health Modernization Evaluation Report.

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