Wisconsin Environmental Equity Tool Listening Sessions Report

This is a preliminary version of the report that only includes data gathered during the listening sessions. A final version of the report will be available at a later date that includes data collected from a survey sent to the general public and another survey sent specifically to public sector employees.

Thematic Analysis

Introduction

The purpose of this report is to summarize the themes and identify potential data that can be included in the development of the Wisconsin Environmental Equity Tool (WEET). The WEET Steering Committee held three virtual, public listening sessions in November 2021. Approximately 300 people attended the listening sessions. Attendees were asked a series of six semi-structured questions while in breakout rooms consisting of between three and ten people. The questions were generally associated with one of three categories: Healthy Community, Pollution and Climate Change. Each breakout room included at least one moderator and a notetaker.

This report analyzes themes from the listening sessions using the notes taken during breakout groups and the comments received through the chat function during the breakout groups. The information presented here does not include comments received through the online survey, comments submitted via email, or any other information gathering efforts. This report is a synthesis of public comments and does not reflect the views or opinions of the WEET Steering Committee or the state agencies they represent.

> **Key Themes**
> - Accessibility
> - Water and air pollution
> - Knowledge and access to information
> - Disparities and inequities
> - Economic impacts of climate and pollution
> - Mental health

Three members of the WEET Steering Committee conducted the thematic analysis by reading through the breakout session notes and identifying relevant topics, with a focus on ideas that were presented frequently across unique attendees. This report is presented in five parts. The first three parts include the thematic analysis organized by the three categories that organized the questions: Healthy Community, Pollution and Climate Change. Part four is the Additional Considerations section, which reviews comments related to sociodemographic disparities as well as infrequent comments and those that may be outside the scope of the tool. Finally, a table attempts to synthesize themes into indicators for which spatial data may be available (e.g., housing quality can be explored through a geography's age of housing structures or percentage of mobile homes). The table should be viewed as a working part of this document, welcoming experts' identification of data sources.

Healthy Community

Respondents discussed a wide range of topics that often were unrelated to an individual's health status or behaviors. Accessibility was the most common theme identified in discussion of healthy communities. Access to greenspace or parks and recreation, healthy food, child care, adequate and affordable housing, and internet access were important determinants of a healthy community for respondents. Beyond physical resources and infrastructure, access to abstract components—such as jobs, information and public events—was also important. Many respondents stated the need for these resources to be available to the entire population within a given community, regardless of the sociodemographic of any individual or group.

Respondents also cited natural resources such as clean water and air as components of a health community. Much of this discussion centered on knowledge and access to information about the quality of natural resources. Some respondents said they were unaware of the health effects that may be impacting their communities, as they believed air and water quality were not being thoroughly monitored. Further, some respondents were generally unaware of how to access information about air and water quality. When they did know how to access it, the respondents did not know exactly how to define "unhealthy" air or water.

Mental health was also cited as an indicator of a healthy community. Respondents said pollutants may be having a negative impact on the mental health of communities. Additionally, pollutants and poor mental health may intersect with incarceration, resulting in poorer health outcomes for the communities in which incarcerated individuals live or once lived.

Pollution

Air and water quality were the primary topics for discussion around pollution in communities. Respondents named several specific contaminants and pollutants, with per- and polyfluoroalkyl substances (PFAS), radon and lead mentioned most frequently. Dioxins and pharmaceutical pollution were also specifically identified as pollutants of concern, although less frequently. As mentioned in the previous section, respondents also discussed the impact of pollutants on health outcomes such as cancer, asthma, lung disease and heart disease.

Past and present land use was also of concern, particularly the presence of concentrated animal feeding operations (CAFOs) and brownfield or Superfund sites. Often, this land use pollution disproportionately affects populations that are already marginalized and lack adequate access to health care or the legal and administrative capacity to remediate the pollution. Some respondents said stricter enforcement and more severe consequences should be implemented. However, others said that it can often be difficult to identify the link between a single polluter and an impacted individual. In other words, it is difficult to determine the source of a pollutant once it enters the air or shared waterways.

SELECTED QUOTES & NOTES

"Will the tool address some of the failing infrastructure issues that cause health issues and pollution?"

"Milwaukee's lead issue is as much/more about lead paint as pipes, most often experienced in rental properties, where tenants don't have the ability to change their situation."

"I'm more concerned about the way that we don't know how pollution impacts us. I live four blocks from a four-lane road through our town; is there higher pm2.5 that I don't know about because of our proximity?"

"We don't have enough education on groundwater quality."

"People used to get water from a nearby spring, but not in the last year or so due to the PFAS."

"Inequity is a huge issue in health. Wisconsin needs to work to dismantle systemic racism to reduce those traumas."

There were many comments on pollution of food sources, particularly for tribal nations and other subsistence food communities. Specifically, failure of wild rice crops due to impaired water quality and fish tissue contaminated with mercury and PFAS were cited.

Excessive noise and light were two additional sources of pollution identified by respondents.

Climate Change

Respondents primarily cited the increase in severity and frequency of extreme weather events, particularly flooding, as the most direct and personal impact of climate change. Specifically, the high economic costs of damage from extreme weather were of greatest concern. Respondents told stories of remediating homes following flood events or the destruction of roads that limited the ability for residents to evacuate or access needed resources during disaster response and recovery. In many cases, respondents said inadequate or outdated infrastructure amplified the negative impacts of extreme weather events spurred by a changing climate. Concerns about infrastructure also intersected with climate migration, as the movement of people to cooler climates may further stress infrastructure that is already at or beyond capacity.

Respondents said climate change is also contributing to extreme heat. This is particularly true in urban areas, where impervious surfaces such as roads and buildings absorb and remit heat more than green space, creating a heat island effect. Additionally, low-income residents are disproportionately affected by extreme heat due to issues of affordability or access to air conditioning.

Agriculture was commonly cited as an industry vulnerable to climate change. Respondents spoke of changes in growing seasons, which can affect nutrient loading and water quality, and the integrity of the food supply system as a changing climate affects crops. Climate change is already affecting wild rice harvests for tribal communities and fish populations that can serve as food for subsistence communities. Respondents also discussed changes in pest populations, namely the way warmer temperatures allow ticks and other pests carrying vector-borne pathogens to thrive. This is likely to have an impact on agriculture and forestry as well as public health.

Concerning water bodies, respondents cited the negative impacts changing lake levels have on communities. This is particularly true of areas that have a significant water-based tourism sector, as fluctuating water levels significantly affect marinas and can cause beaches to disappear under rising water. Tourism and recreation are also impacted by poor water quality due to algal blooms and cyanobacteria limits. These issues can disproportionately impact low-income or otherwise marginalized communities, as they may have limited ability to access other water resources for recreation and respite from high heat.

Respondents shared a general feeling of "climate anxiety," or the mental health impacts of anticipated climate change. Some respondents discussed personal traumatic experiences or challenges they linked to climate change, including a fear that things may not improve. However, many respondents were optimistic that there are solutions to mitigate many impacts of climate change, including infrastructure investments, greater regulation on emitters of pollutants that contribute to climate change, and providing aid to populations that are expected to be disproportionately affected by climate change.

Additional Considerations

Sociodemographic Disparities

As in previous sections, many participants brought attention to how socioeconomic factors affect the way communities and individuals interact with the environment and associated pollution. Race and income were the two socioeconomic factors mentioned most. For example, respondents noted that communities that fit the description of "healthy" were predominantly white. Another respondent said that many "unsightly" and "unhealthy" developments are built in communities that are largely low-income and have high populations of people of color. Respondents expressed concerns of predominantly low-income populations and people of color having to live in poor-quality housing that is often located in areas most impacted by pollution and climate change due to affordability issues. The proximity of marginalized populations to areas with poor health indicators is also due to historic discrimination in housing and development policies. Notably, the listening sessions lacked proportionate representation from marginalized populations, including but not limited to Black, Hmong, Hispanic/Latinx and tribal nations. This prompted the WEET Steering Committee to plan upcoming focus groups to hear from these groups.

Other Concerns

Some comments related to issues that can be split among rural and more urban communities. One respondent outlined the impact outdoor furnaces and the burning of leaves, both of which are more prevalent in rural areas, have on water quality. While housing was a frequent topic, some respondents focused on the difference between renters and homeowners in the ability to respond to pollutants and other concerns. For example, a renter may have limited ability to remediate lead pipes or mold, and the unit owner may not be proactive in fixing the problem. Transparency was also a theme in the final listening session. Participants felt frustrated with the lack of transparency in government efforts addressing pollution and climate change, including this project.

Identified Data

Listening session participants were asked what data they would like to see included within WEET. Below is a table that contains a list of potential data categories identified by participants, along with possible indicators and currently available data sources collected by project staff.

Data Category	Indicator	Source
Environmental		
Extreme rainfall	Precipitation projections	Wisconsin Initiative on Climate Change Impacts (WICCI)
Flooding	Percentage in floodplain; NFIP data	FEMA Flood Insurance Rate Maps (FIRM); NFIP claims; WEM
Water quality	Impaired waterways	WDNR
Air quality	Ozone; particulate matter	WDNR
Heat	Heat Vulnerability Index (HVI)	WDHS
Illness	Rates of cancer, asthma	WDHS
Agriculture	Percentage land area in agriculture; percentage of farms with nutrient management plan	Land Use Land Cover (LULC); DATCP
Light pollution	Artificial sky brightness	International Dark-sky Association (IDA)
Noise pollution	-	-
Structural		
Internet availability	Percentage without internet	Federal Communications Commission (FCC)
Access to open space	Population within one mile of park	Trust for Public Land Park Score Index
Housing quality	Age of housing	American Community Survey (ACS)
Food desert	Percentage population within one mile of grocery store	WDHS – Social Determinants of Health (SDOH)
Renter population	Percentage renter-occupied housing	SDOH, ACS
Pollution sites	Population within "x" miles of CAFO, brownfields, Superfund	WDNR; U.S. Environmental Protection Agency; WDHS
Social		
Elderly population	Percentage 65+	ACS
Disability status	Percentage with disability	ACS
Race	Percentage non-white	ACS
Income	Percentage poverty; median income	ACS
Mental health	Percentage reporting "fair" or "poor" mental health	County Health Rankings
Financial distress	Percentage of income to transportation; rent stress	SDOH
Education	Percentage 25+ with bachelor's degree	ACS
Community engagement	Voter turnout; number of nonprofits	Wisconsin Elections Commission; social capital datasets
Availability of jobs	Unemployment; new business startups	ACS
Health care	Percentage without health insurance	ACS