



THE ENVIRONMENTAL HEALTH DISPARITIES (EHD) MAP

EMBEDDING ENVIRONMENTAL JUSTICE INTO WASHINGTON STATE GOVERNMENT Shelby Flanagan and Michelle Fredrickson

Agenda

Background on EHD map and HEAL

EHD Map Version 3.0 Changes

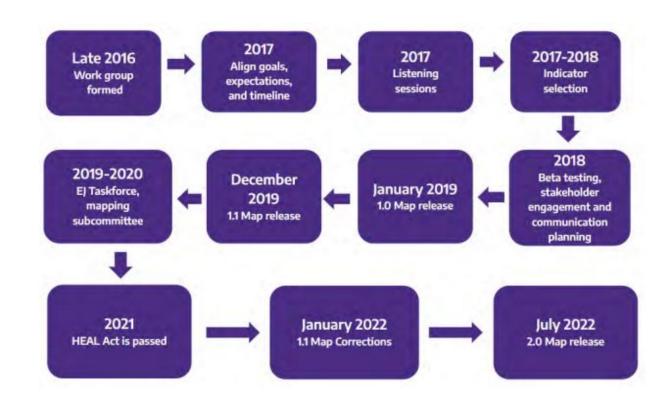
Wildfire Smoke

EHD Map Partners and Origin Story

ENVIRONMENTAL & OCCUPATIONAL HEALTH SCIENCES

UNIVERSITY of WASHINGTON | SCHOOL OF PUBLIC HEALTH





Version 2.0 Indicators

Environmental exposures

PM2.5 Diesel emissions

Ozone

Particulate matter 2.5 (PM2.5)

Toxic releases from facilities

Proximity to Heavy **Traffic Roadways**

Environmental effects

Lead risk and exposure

Proximity to hazardous waste generators and facilities

Proximity to superfund sites

Proximity to facilities with highly toxic substances

> Wastewater discharge

Sensitive populations

Death from cardiovascular disease

Low birth weight

Socioeconomic factors

Low educational attainment

Housing burden

Transportation expense

Poverty

Race (people of color)

Unemployment

Threat x Vulnerability = Risk













VULNERABILITY











THREAT

Environmental Exposures

Diesel emissions

Ozone concentration

PM2.5 concentration

Proximity to heavy traffic roadways

Toxic releases from facilities

Environmental Effects

Lead risk from housing

Proximity to hazardous waste treatment, storage, and disposal facilities

Proximity to Superfund sites

Proximity to risk management plan facilities

Wastewater discharge

Socioeconomic **Factors**

Limited English

No high school diploma

People of color

Population living in poverty

Transportation expense

Unaffordable housing

Unemployment

Sensitive **Populations**

Populations with high death rates from cardiovascular disease

Populations with high percentages of low birth weight

RISK

Environmental Health Disparities

Communities experiencing a disproportionate share of environmental health burdens that will need more assistance to reach equitable outcomes

Healthy Environment for All (HEAL) Act: DOH assigned tasks for EHD Map

- Maintain and further develop the EHD map, engaging with communities, Tribes, researchers, and the Environmental Justice Council
- Perform a comprehensive evaluation every three years
- Track changes in disparities over time
- Create public tool to measure the link between EHD map ranks and health outcome data
- Expand online video trainings and guidance on how to use the EHD map
- Provide support and consultation to state agencies on how to use the EHD map

Healthy Environment for All (HEAL) Act: Connection to EHD Map

Language in HEAL Statute (RCW 70A.02)

Definition section:

 "Overburdened community" means a geographic area where vulnerable populations face combined, multiple environmental harms and health impacts and includes, but is not limited to, highly impacted communities as defined in RCW 19.405.020.

Environmental justice assessment section:

 "Use cumulative environmental health impact analysis, such as the environmental health disparities map or other data..."

Environmental Justice Council section

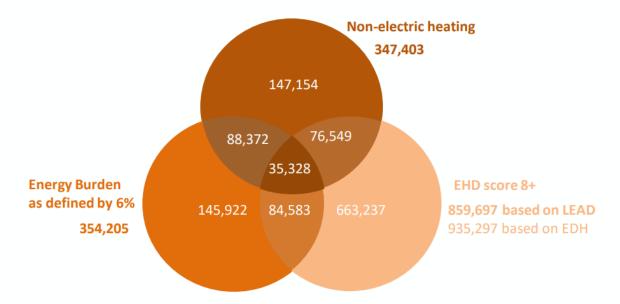
 In consultation with the interagency work group "Shall make recommendations to covered agencies... Related to the use by covered agencies of the environmental health disparities map in agency efforts to identify and prioritize overburdened communities"

How are agencies using the map?

The Washington State Department of Commerce commissioned a needs assessment to evaluate how energy efficiency services can better serve low-income households and overburdened communities, particularly in light of the state's 2050 decarbonization goals.

DATA PORTRAIT

Classifying Need. Low Income Households that are energy burdened + without electrical heating at home + subject to environmental burden



SOURCES: U.S. Department of Energy, Low-Income Energy Affordability (LEAD) Tool. Washington State Department of Health, Environmental Health Disparity Map.

NOTE: For purposes of discussion, HR&A defined "severely environmentally burdened" as being located in a census tract that scored at least 8 out of 10 on the Environmental Health Disparity Index (Washington State Department of Health Environmental Health Disparities Map, July 2022).

WSIPP Technical Review - 2022

Key Take Aways

- WA EHD Map uses similar measures, methods and data sources
- WA EHD Map includes:
 - Fewer water measures compared to other states that also have large bodies of water
 - Fewer health measures
- Suggested additional features:
 - Specific statistical adjustments for missing data
 - Easier accessibility to user guides and how-to-use videos
 - More guidance on use and interpretation
 - Different levels of geography

Draft Version 3.0 Indicators: Remove and Improve

Environmental exposures

Diesel Emissions

Risks from Air Toxics

Environmental effects

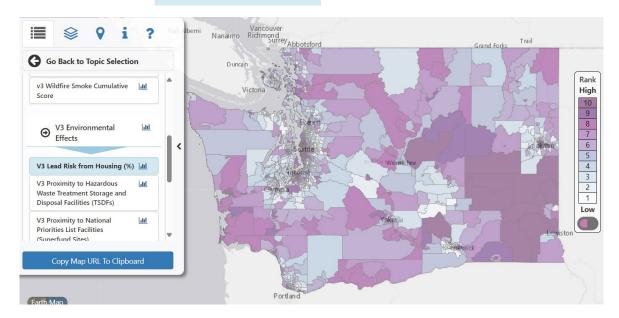
Lead Risk from Housing

Proximity to Hazardous
Waste Sites

Proximity to Superfund Sites

Sensitive populations

Low Birth Weight (including premature births)



Draft Version 3.0 Indicators: Proposed New Measures

Environmental exposures

Wildfire Smoke Exposure

Pesticide Exposure

Environmental effects

Water Quality

Sensitive populations

Air Related-Respiratory Illnesses

Population with a Disability

Socioeconomic factors

Community Retail Food Environment

Digital Infrastructure

