TRACKING 101
INTRO TO ENVIRONMENTAL PUBLIC HEALTH TRACKING

Bureau of Environmental and Occupational Health
Division of Public Health
Wisconsin Department of Health Services

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YOUR SOURCE FOR ENVIRONMENTAL PUBLIC HEALTH DATA.
HEALTH HAZARD
(air pollution)

EXPOSURE
(breathing it in)

HEALTH EFFECT
(asthma)
To get the right data, you might have to visit several databases.
To get the right data, you might have to visit several databases.
Data Topics

- Air quality
- Water quality
- Asthma
- Birth outcomes
- Cancer
- Carbon monoxide poisoning
- Childhood lead poisoning
- Heart attack
- Heat stress
- Immunizations
- Lyme disease
- Oral health (fluoridation)
Data Topics: PLANNED FOR 2017

Alcohol Outlet Density + Life Expectancy
Cancer-Causing Emissions
It’s that time again!
HOW TO USE THIS PROFILE

Below you will find our suggestions for how to use this profile. This profile contains many data points unique to environmental health. As you explore the information on the following pages, consider how it might be put to good use in your community. We are here to help you along the way. If you have questions about how to integrate these data into your work, let us know!

COMMUNITY HEALTH ASSESSMENTS
Data from the profiles can be used in your health department or hospital’s community health assessments to help meet state and federal requirements.

ACCREDITATION
The profiles can be used to address the Public Health Accreditation Board’s accreditation standards. For instance, Standard 1.3: Analyze public health data to identify trends in health problems, environmental public health hazards, and social and economic factors that affect the public’s health.

GRANT PROPOSALS
Data in this profile can help you and your team develop a rationale for funding requests. These data can help justify existing programs and show where there is still work to be done.

EDUCATION AND OUTREACH
When creating programs and outreach materials for your community, these data can help you build your case and show the extent of a problem. Communities have used their profile data to target education efforts to areas with the most need.

POLICY DEVELOPMENT
This profile contains measures that can be used to justify the need for a policy. If a policy is put in place, these data can be used as baseline measures with which to monitor changes over time.

How have you used your county’s profile? Tell us about it!

dhstracking@wi.gov
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HOW TO USE ENVIRONMENTAL PUBLIC HEALTH TRACKING DATA

COMMUNITY HEALTH ASSESSMENTS
Tracking data can help flesh out your community health assessment and help meet state requirements.

COMMUNITY HEALTH IMPROVEMENT PLANS
Use Tracking data and Ideas for Taking Action to help prioritize environmental health and plan strategies for community improvement. Use the data to track progress in meeting your goals.

RESEARCH
Tracking data can be used to explore answers to environmental health research questions.

MEDIA STORIES
Strengthen your interview or article with facts and figures from Tracking and our resources.

SOCIAL MEDIA
Localize your posts with data from your community.

ACCREDITATION
The profiles can be used to address Public Health Accreditation Board’s standards; for example, Standard 1.3—Analyze public health data to identify trends in health problems, environmental public health hazards, and social and economic factors that affect the public’s health.

GRANT PROPOSALS
Tracking data and resources can help you and your team develop rationale for funding requests. These data can help justify existing programs and show where work needs to be done.

EDUCATION AND OUTREACH
When creating programs and outreach materials for your community, Tracking data can help you make your case and show the extent of the problem.

POLICY DEVELOPMENT
Tracking data and profiles contain measures that can be used to justify the need for a policy. Once a policy is in place, the data can be used as a baseline to track progress over time.

If you have questions about how to integrate the data into your work, let us know!

How have you used your county's profile? Tell us about it!
dhitracking@wi.gov 608-267-2488
### BEFORE

- **Air Quality**
  - Ozone: 0.0 | Annual days above standard
  - Wisconsin: 0.7
  - Particulate Matter 2.5: 0.0 | Annual days above standard
  - Wisconsin: 0.1

- **Water Quality**
  - Arsenic: 0.6 | Average concentration in µg/L
  - Wisconsin: 1.3
  - Nitrate: 4.4 | Average concentration in mg/L
  - Wisconsin: 1.5

- **Home Hazards**
  - Carbon Monoxide (CO): 7.4 | Rate of ER visits per 100,000 people
  - Wisconsin: 5.2
  - Childhood Lead Poisoning: 1.3% | Percent with blood lead ≥ 6 µg/dL
  - Wisconsin: 1.9%

- **Birth Outcomes**
  - Low Birth Weight: 6.0% | Percent of births <2500 grams
  - Wisconsin: 7.3%
  - Preterm Birth: 9.3% | Percent of births <37 weeks gestation
  - Wisconsin: 10.2%

- **Health Indicators**
  - Heat Stress: 20.8 | Rate of ER visits per 100,000 people
  - Wisconsin: 16.5
  - Melanoma: 21.7 | Rate of cases per 100,000 people
  - Wisconsin: 18.4
  - Lung Cancer: 59.4 | Rate of cases per 100,000 people
  - Wisconsin: 62.0
  - Asthma: 237.0 | Rate of ER visits per 100,000 people
  - Wisconsin: 57.6

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**Wisconsin Environmental Public Health Tracking Program**

dhs.wi.gov/epht  |  dhstracking@wi.gov  |  608-267-2488

Wisconsin Department of Health Services | Division of Public Health | Bureau of Environmental and Occupational Health
# Sauk County Environmental Health Profile 2017

## Home Hazards

<table>
<thead>
<tr>
<th>Hazard</th>
<th>Rate</th>
<th>Description</th>
<th>Wisconsin Compared</th>
</tr>
</thead>
<tbody>
<tr>
<td>Childhood Lead Poisoning</td>
<td>1.4%</td>
<td>Percent with blood lead ≥ 25 µg/dL</td>
<td>6.4%</td>
</tr>
<tr>
<td>Carbon Monoxide Poisoning</td>
<td>14.2</td>
<td>Rate of ER visits per 100,000 people</td>
<td>7.9</td>
</tr>
</tbody>
</table>

## Climate

<table>
<thead>
<tr>
<th>Condition</th>
<th>Rate</th>
<th>Description</th>
<th>Wisconsin Compared</th>
</tr>
</thead>
<tbody>
<tr>
<td>Heat Stress</td>
<td>28.9</td>
<td>Rate of ER visits per 100,000 people</td>
<td>15.5</td>
</tr>
<tr>
<td>Lyme Disease</td>
<td>42.4</td>
<td>Crude rate per 100,000 people</td>
<td>22.7</td>
</tr>
</tbody>
</table>

## Health Outcomes

<table>
<thead>
<tr>
<th>Condition</th>
<th>Rate</th>
<th>Description</th>
<th>Wisconsin Compared</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asthma</td>
<td>31.4</td>
<td>Rate of ER visits per 10,000 people</td>
<td>39.5</td>
</tr>
<tr>
<td>Melanoma</td>
<td>14.3</td>
<td>Rate of cases per 100,000 people</td>
<td>21.6</td>
</tr>
<tr>
<td>Heart Attack</td>
<td>28.3</td>
<td>Rate of hospitalizations per 10,000 people</td>
<td>27.4</td>
</tr>
</tbody>
</table>

## Water Quality

<table>
<thead>
<tr>
<th>Contaminant</th>
<th>Concentration</th>
<th>Description</th>
<th>Wisconsin Compared</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arsenic</td>
<td>0.4 µg/L</td>
<td>Average concentration</td>
<td>1.4 µg/L</td>
</tr>
<tr>
<td>Nitrate</td>
<td>2.1 mg/L</td>
<td>Average concentration</td>
<td>1.5 mg/L</td>
</tr>
<tr>
<td>Fluoride</td>
<td>94.5%</td>
<td>Percent of population with fluoridated public water</td>
<td>88.6%</td>
</tr>
</tbody>
</table>

## Air Quality

<table>
<thead>
<tr>
<th>Pollutant</th>
<th>Days Above Standard</th>
<th>Description</th>
<th>Wisconsin Compared</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ozone</td>
<td>3</td>
<td>Annual days</td>
<td>3.3</td>
</tr>
<tr>
<td>Particulate Matter (PM 2.5)</td>
<td>0</td>
<td>Annual days above standard</td>
<td>0.3</td>
</tr>
</tbody>
</table>

*Note: these rates are per 10,000 people, while the others are per 100,000. To compare these measures to others, be sure to multiply the rates by 10. Above or below state value (with exception of fluoride where above state value is not preferred) Data details on next page.
**BEFORE**

We know it is a challenge to translate data into action. To help get you started, we have listed strategies that can improve environmental public health.

Use the data in the [County Environmental Health Profiles](#) and in the [online data portal](#) to target education, programming, and policies to address your community's needs. Visit [What Works for Health](#) and [The Community Guide](#) for more ideas.*

This document includes many hyperlinks. We recommend you view it online: [bit.ly/ideasfortakingaction](#).

### STRATEGY

Collaborate with community partners to develop active and shared transportation infrastructure.

- Bicycle and pedestrian master plans
- Active transportation to school through safe routes and walking school buses
- Public transportation system introduction, expansion, and incentives for use
- Workplace supports for active commuting

Encourage the use of [lower-polluting diesel technologies](#) among local and regional transit authorities.

Consider incorporating [permeable pavement](#) into sidewalk, road, and parking lot projects.

Encourage residents to [test their wells](#) and [take appropriate steps](#) to ensure good water quality.

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*This is a companion document to the 2015 County Environmental Health Profiles. It is not intended to be an exhaustive list.

**CONTINUED ON NEXT PAGE**
AFTER

CHILDHOOD LEAD POISONING
Ideas for Taking Action
Wisconsin Environmental Public Health Tracking Program

TAKING ACTION
We know it's a challenge to translate data into action. To help get you started, we created a short menu of potential strategies for addressing asthma. To help communities of all sizes and resource levels, we organized this guide by the scope of the strategy, from addressing knowledge, attitudes, and skills to addressing laws and policies.

INDIVIDUAL LEVEL - Knowledge, Attitudes, Skills
- Encourage families and children to maintain healthy homes.
- Educate children about the importance of healthy environments.
- Promote healthy lifestyle choices such as regular exercise and proper nutrition.

INTERPERSONAL LEVEL - Family, Friends, Social Networks
- Initiate or support local asthma awareness campaigns.
- Encourage community members to reduce exposure to known asthma triggers.
- Foster a network of support among families, schools, and community organizations.

ORGANIZATIONAL LEVEL - Organizations, Schools, Workplaces
- Implement asthma-friendly practices in schools and workplaces.
- Encourage employers to provide smoke-free environments.
- Support community-wide initiatives that promote healthy living.

COMMUNITY LEVEL - Design, Access, Connectedness, Spacing
- Promote public health initiatives that improve the physical environment.
- Encourage green spaces and parks within communities.
- Support community-wide initiatives that promote healthy living.

POLICY LEVEL - National or Local Laws and Policies
- Advocate for policies that protect and promote healthy communities.
- Support legislative efforts to reduce exposure to asthma triggers.
- Promote smoke-free policies in public places.

Find more strategies and explore asthma data at dhs.wisconsin.gov/asthma.

WISCONSIN ENVIRONMENTAL PUBLIC HEALTH TRACKING PROGRAM
Bureau of Environmental and Occupational Health
dhs.wisconsin.gov/eph

Each strategy contains links to more resources. View this document on the Resources section of our website to access the links.
Mini-Grants
Find newsletters, surveillance briefs, success stories, publications, and more on this page from the Wisconsin Environmental Public Health Tracking Program.

Information on this page has been organized into three categories. Please choose one of the following tabs.

### Success Stories

We collect success stories from communities that have integrated Environmental Public Health Tracking data and resources into their work. If you have a story to share, please let us know!

<table>
<thead>
<tr>
<th>Story Topic</th>
<th>Story Location</th>
<th>Story Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>Well Water</td>
<td>Florence and Marinette Counties</td>
<td>Simplifying Well Water Test Results P-01595C (PDF, 538 KB)</td>
</tr>
<tr>
<td>Well Water</td>
<td>Florence and Marinette Counties</td>
<td>Increasing Arsenic Testing in Private Wells P-01595D (PDF, 612 KB)</td>
</tr>
<tr>
<td>Well Water</td>
<td>Rock County</td>
<td>Increasing Well Water Testing P-01603 (PDF, 727 KB)</td>
</tr>
<tr>
<td>Nitrate</td>
<td>Rock County</td>
<td>Identifying Nitrate Sources to Improve Future Planning P-01603A (PDF, 550 KB)</td>
</tr>
<tr>
<td>Nitrate</td>
<td>Eau Claire County</td>
<td>Development of a Nitrate Taskforce P-01596A (PDF, 605 KB)</td>
</tr>
<tr>
<td>Well Water</td>
<td>Eau Claire County</td>
<td>Overcoming Communication Challenges to Improve Well Testing P-01595B (PDF, 780 KB)</td>
</tr>
<tr>
<td>Well Water</td>
<td>Eau Claire County</td>
<td>A New Sampling Strategy: Using Partnerships to Improve Well Water Testing P-01595 (PDF, 742 KB)</td>
</tr>
<tr>
<td>Well Water</td>
<td>Eau Claire County</td>
<td>Testing the Waters: Using Well Water Data to Target Outreach P-00980A (PDF, 1 MB)</td>
</tr>
<tr>
<td>Heat</td>
<td>Wisconsin</td>
<td>Adding a Heat Response Plan Template to an Extreme Heat</td>
</tr>
</tbody>
</table>
SURVEILLANCE BRIEF
Wisconsin Environmental Public Health Tracking Program
September 2017

UNDERSTANDING WISCONSIN PRECIPITATION DATA

By Megan Christensen, MS, MPH; Cherry Yago, MPH; Charles May, MS; Paul Cuciat, MS
Wisconsin Environmental Public Health Tracking Program
Wisconsin Department of Health Services

SUMMARY
Historical climate data indicate that Wisconsin’s climate is getting wetter with more frequent and intense rain events, which can lead to damaging floods. A number of health impacts may result from floods, including injury, drowning, waterborne disease, and effects resulting from power outages. The Wisconsin Climate and Health Program offers resources such as the Flood Toolkit to help communities prepare for flooding events. The Wisconsin Tracking Program’s portal allows users to view spatial and temporal trends in precipitation.

BACKGROUND
Wisconsin’s climate has generally become warmer and wetter since 1950 and this trend is expected to continue into the future (WCCD, 2011). Heavy rain events have become both more frequent and more intense from 1950 to 2006 (WCCD, 2011). These heavy rainfall events can lead to groundwater flooding, runoff, and contaminated water, which have important implications for public health. Furthermore, flooding events can stress local resources when they occur repeatedly in a season.

Floods can cause a variety of direct and indirect health impacts. Direct health impacts from floods include injury, drowning, waterborne disease, respiratory infections, and skin infections (Rose et al. 2001, Greenough et al. 2003). Indirect health impacts...

Department of Health Services | Division of Public Health | Bureau of Environmental and Occupational Health
P-1000 (09/2017)
Surveillance Briefs

- Flooding (coming soon!)
- Health Disparities/Asthma
- Lyme Disease
- Carbon Monoxide Poisoning
- Heat Stress
- UV Radiation
- Lung Cancer and Radon
Tutorials
Tutorials

TRACKING 101
Intro to Tracking

TRACKING 110
County Environmental Health Profiles

TRACKING 201
Portal Basics

TRACKING 210
Portal Data by Census Tracts

TRACKING 250
Portal Tips and Tricks

TRACKING 270
Portal Terminology and Data Details
Wisconsin Environmental Public Health Tracking is your source for environmental health data in Wisconsin.

**COMPREHENSIVE.**
We house data on nearly a dozen environmental public health topics such as air quality, asthma, Lyme disease, and many others.

**CURRENT.**
We work with data managers to host the most up-to-date data available.

**EASY.**
Our data portal has improved mapping, exporting, mobility, and the capacity to display data below the county-level. Note that the portal works best with Firefox and Chrome internet browsers.

Interested in Tracking? Subscribe to our quarterly newsletter!

NEW DATA AND FEATURES ADDED TO TRACKING PORTAL
The Tracking portal now offers immunization and historical precipitation data! In addition to new data, the portal now has the ability to compare datasets. Need help using the new features? Let us know!

Questions? Can't find what you're looking for? Contact us!
Keep in Touch
TRACK.
Explore the data, compare counties, age groups, and years

ANALYZE.
Create charts, maps, and tables to visualize and interpret the data

ACT.
Use the data to target education, programming, and policies to address your community’s needs
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