SHAWANO COUNTY

2019 COUNTY ENVIRONMENTAL HEALTH PROFILE

Wisconsin Environmental Public Health Tracking Program
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 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 environmental health research questions.

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

ACCREDITATION
The Profiles can be used to address Public Health Accreditation Board standards, such as 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."

SOCIAL MEDIA
Localize your posts with data from your community.

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 these County Environmental Health Profiles contain measures that can be used to identify 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 use Tracking data in your work, let us know!
dhstracking@wi.gov
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* Above state value preferred for this measure
^ Data are suppressed

# Note this rate is per 10,000 people, while the others are per 100,000. To compare this measure to others, be sure to multiply the rate by 10.
DASHBOARD DATA DETAILS

Below are the abbreviated references for the data presented in the dashboard. Note that some measures have more years of data available on the Wisconsin Tracking portal. For additional details on the data, see pages 15-16. For more information about age-adjustment and other terms referenced in this Profile, visit the Wisconsin Tracking Program’s data details webpage or our Tracking 270 tutorial, both available on our website.

COMMUNITY HEALTH

Fluoride: Percent of population with access to fluoridated public water
Source: Wisconsin Oral Health Program, Bureau of Community Health Promotion, Division of Public Health, Wisconsin Department of Health Services
Year displayed: 2017

Alcohol Outlet Density: Crude rate of alcohol licenses per 500 people
Source: Division of Care and Treatment Services, Wisconsin Department of Health Services; primary data source is Wisconsin Department of Revenue
Years displayed: 2015-2016

HOME HAZARDS

Childhood Lead Poisoning: Percent of children (less than 6 years of age) tested who had a blood lead level ≥5 µg/dL
Source: Childhood Lead Poisoning Prevention Program, Bureau of Environmental and Occupational Health, Division of Public Health, Wisconsin Department of Health Services
Year displayed: 2016

Radon: Percent of tests with results above EPA standard of 4 pCi/L
Source: Radon and Indoor Air Program, Bureau of Environmental and Occupational Health, Division of Public Health, Wisconsin Department of Health Services
Year displayed: 2015

Carbon Monoxide (CO) Poisoning: Age-adjusted rate of unintentional emergency room visits related to CO poisoning per 100,000 people
Source: Office of Health Informatics, Division of Public Health, Wisconsin Department of Health Services
Years displayed: 2013-2017

CLIMATE

Heat Stress: Age-adjusted rate of emergency room visits related to heat stress per 100,000 people
Source: Office of Health Informatics, Division of Public Health, Wisconsin Department of Health Services
Years displayed: 2013-2017

Lyme Disease: Crude rate of confirmed and probable Lyme disease cases per 100,000 people
Source: Vectorborne Disease Program, Bureau of Communicable Diseases, Division of Public Health, Wisconsin Department of Health Services
Year displayed: 2017

PRIVATE WATER QUALITY

Nitrate: Percent of test results that exceed EPA standard of 10 mg/L
Arsenic: Percent of test results that exceed EPA standard of 10 µg/L
Source: Well Water Quality Viewer, Center for Watershed Science and Education, University of Wisconsin-Stevens Point
Years displayed: 1988 to March 2017

HEALTH CONDITIONS

Asthma: Age-adjusted rate of emergency room visits related to asthma per 10,000 people
Source: Office of Health Informatics, Division of Public Health, Wisconsin Department of Health Services
Year displayed: 2017

Melanoma: Age-adjusted rate of new cases of melanoma reported by health care providers per 100,000 people
Source: Wisconsin Cancer Reporting System, Office of Health Informatics, Division of Public Health, Wisconsin Department of Health Services
Years displayed: 2012-2016

Lung Cancer: Age-adjusted rate of new cases of lung cancer reported by health care providers per 100,000 people
Source: Wisconsin Cancer Reporting System, Office of Health Informatics, Division of Public Health, Wisconsin Department of Health Services
Years displayed: 2012-2016

CLIMATE

Heat Stress: Age-adjusted rate of emergency room visits related to heat stress per 100,000 people
Source: Office of Health Informatics, Division of Public Health, Wisconsin Department of Health Services
Years displayed: 2013-2017

Lyme Disease: Crude rate of confirmed and probable Lyme disease cases per 100,000 people
Source: Vectorborne Disease Program, Bureau of Communicable Diseases, Division of Public Health, Wisconsin Department of Health Services
Year displayed: 2017
BACKGROUND
Fluoride is a mineral in water that is often naturally-occurring and offers protection against tooth decay. If you are on public water, you can read about your water's fluoridation levels in a consumer confidence report. You can request this report from your water utility.

Environment includes not only the air we breathe and the water we drink but also our built environment: the businesses, parks, schools, bike paths, and other surroundings that make up our communities. Places that sell alcohol are part of that built environment. Examining the number of places that sell alcohol—which is known as alcohol outlet density—can help us understand how alcohol impacts our health and communities.

FLUORIDE
PERCENT OF POPULATION WITH FLUORIDATED PUBLIC WATER

The CDC selected community water fluoridation as one of the 10 greatest public health achievements of the 20th century, as it is a low-cost, effective way to prevent tooth decay.

Some water systems may not have enough natural fluoride to offer protection, so community water systems can add fluoride to bring the levels up to the U.S. Department of Health and Human Services' recommended level of 0.7 mg/L.

The fluoride data in this Profile are collected from public water systems. The data include the percentage of the population on public drinking water that have access to fluoridated water (regardless of whether it is at the recommended level).
ALCOHOL OUTLET DENSITY

Alcohol has many potential health consequences, including increased risk for seven types of cancer.

Alcohol outlets are places where someone can buy alcohol to drink on premises (such as bars) or elsewhere (such as liquor stores).

Communities can use alcohol outlet density data to get a better understanding of how alcohol impacts their residents. We can use these data to monitor alcohol-related measures over time and to educate communities, plan programs, and implement policies.

Alcohol outlet data are collected once annually, which means at any given time in the year, a new license could be issued or an old one may not be renewed.

Differences in alcohol outlet density are difficult to interpret. Rural counties may have a higher number of outlets relative to population, but these outlets may be small and serve fewer people than a single outlet in a larger city.

Learn more about alcohol outlet density and Wisconsin’s alcohol environment by visiting law.wisc.edu/wapp.

ALCOHOL OUTLET DENSITY
CRUDE RATE OF ALCOHOL LICENSES
PER 500 PEOPLE
2015-2016

[Map of Wisconsin showing alcohol outlet density data]

<table>
<thead>
<tr>
<th>Density Range</th>
<th>Licenses in Shawano County</th>
<th>Total Licenses in Wisconsin</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.88 to &lt;2.37</td>
<td>196</td>
<td>16,948</td>
</tr>
<tr>
<td>2.37 to &lt;3.87</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.87 to &lt;5.36</td>
<td></td>
<td></td>
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<tr>
<td>5.36 to &lt;6.86</td>
<td></td>
<td></td>
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<tr>
<td>6.86 to 8.35</td>
<td></td>
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</tr>
</tbody>
</table>
BACKGROUND

About four in 10 Wisconsin homes get their water from private wells. Well owners are responsible for monitoring and testing their wells. All private wells should be tested regularly to ensure the water is safe to use and drink.

The University of Wisconsin-Stevens Point’s Center for Watershed Science created a mapping tool to improve access to private well water data. The private well data are voluntarily submitted by homeowners and do not include water quality information for all known wells. County-specific measures for arsenic and nitrate in private wells are displayed in this report. Users can find public water quality data on our data portal.

NITRATE IN PRIVATE WELLS

PERCENT OF TEST RESULTS ABOVE EPA STANDARD OF 10 mg/L

1988 TO MARCH 2017

- **9.9%**
  - **NITRATE IN PRIVATE WELLS**
  - **PERCENT OF TEST RESULTS ABOVE EPA STANDARD OF 10 mg/L**
  - **WASHINGTON: 11.0%**

- **17.4%**
  - **ARSENIC IN PRIVATE WELLS**
  - **PERCENT OF TEST RESULTS ABOVE EPA STANDARD OF 10 µg/L**
  - **WASHINGTON: 6.0%**

Source: UW-Stevens Point Well Water Viewer

NITRATE IN PRIVATE WELLS

Nitrate naturally occurs in plants and animals and can enter groundwater from fertilizers or animal and human waste.

In Wisconsin, nitrate is one of the most common groundwater contaminants. High nitrate levels are linked with certain birth defects.

Infants who consume drinking water with high nitrate levels are at risk of blue baby syndrome, a condition that limits the blood's ability to carry oxygen.
**PRIVATE WATER QUALITY SHAWANO COUNTY**

**ARSENIC IN PRIVATE WELLS**

Arsenic can naturally occur in soil and rock formations but can also come from some types of pesticides, treated wood, and certain foods. In Wisconsin, high levels of arsenic in wells are most common in the northeastern part of the state but can be found in any county.

Drinking water with high levels of arsenic can cause skin rashes and stomach problems. Arsenic can also increase the risk for certain kinds of cancer. Infants and children are especially sensitive to arsenic and high levels can affect learning.

**ARSENIC IN PRIVATE WELLS**

PERCENT OF TEST RESULTS ABOVE EPA STANDARD OF 10 µg/L

1988 TO MARCH 2017

Source: UW-Stevens Point Well Water Viewer

**ABOUT THE PRIVATE WELL WATER DATA**

The data displayed in the private well water section include samples collected from 1988 to March 2017. The maps include results of 19,317 arsenic samples and 122,260 nitrate samples. The number of samples collected varies from year to year and by county; accordingly, some years and counties are better represented than others.

These data do not include all well tests conducted in the state; some tests done by private labs and local labs are not submitted to be displayed on the Well Water Viewer.

To explore data for other water contaminants, enter "UW Stevens Point Well Water Viewer" in your search engine.
HOME HAZARDS  SHAWANO COUNTY

BACKGROUND
Because we spend a great deal of time in our homes, it’s important that they are safe and healthy. Carbon monoxide (CO) poisoning, childhood lead poisoning, and radon are three home hazards tracked by the Wisconsin Environmental Public Health Tracking Program.

**CARBON MONOXIDE POISONING**
RATE OF ER VISITS RELATED TO CO POISONING PER 100,000 PEOPLE
WISCONSIN: 7.9

**CHILDHOOD LEAD POISONING**
PERCENT OF CHILDREN WITH BLOOD LEAD ≥5 µg/dL
WISCONSIN: 5.0%

**RADON**
PERCENT OF TESTS WITH RESULTS ≥4 pCi/L
WISCONSIN: 50.0%

CARBON MONOXIDE POISONING
RATE OF ER VISITS PER 100,000 PEOPLE

Carbon monoxide (CO) poisoning prevents oxygen from getting to the body, which can damage tissue and even cause death.

CO is a toxic gas that cannot be seen or smelled. CO is created whenever fuel or other materials are burned. Wisconsin state law requires all homes to have a CO detector on every level.

CO poisoning is also a risk in indoor ice arenas or recreational facilities where fuel-powered equipment (e.g., ice resurfacers, motorbikes, go-karts) is used. While there is no state law requiring CO detectors in these venues, it is still important to monitor CO levels in the air and take action if levels are unsafe.
CHILDHOOD LEAD POISONING

Lead poisoning slows growth and development in children, particularly in the brain. Lead poisoning is also associated with problems later in life, such as poor academic outcomes and increased incarceration.

There is no safe level of lead in the human body. Even very low levels of exposure can be harmful to our health. Blood lead levels are measured in micrograms per deciliter (µg/dL). The Centers for Disease Control and Prevention defines lead poisoning at or above 5 µg/dL.

In most counties, the percentage of children poisoned is below 5%. However, counties vary greatly in the number of children that are tested for lead poisoning. Keep in mind that high percentages of poisoning may reflect fewer children tested. For example, if a county tested eight children and two were poisoned, the percentage poisoned would be 25%. There is also great variation within counties; some pockets of a county could have much higher percentages of children poisoned than the county as a whole.

On our data portal users can dig deeper to see how many children were tested, how many were poisoned, and how these numbers vary at the census tract level.

RADON

Radon is a naturally occurring gas that is radioactive and can cause lung cancer. Radon can leak into homes and other buildings through cracks in the foundation.

Like carbon monoxide, radon can’t be seen or smelled. Homes both old and new can have unsafe radon levels, and the only way to know if a home has high radon levels is to test for it.

The radon data we present are only a fraction of the tests completed in Wisconsin. The data presented include all tests facilitated by the Radon and Indoor Air Program and Radon Information Centers, but do not include all tests conducted by private contractors. To view more years of data and data at the zip code level, visit lowradon.org.

The Environmental Protection Agency (EPA) recommends all homes with radon levels of four picocuries per liter (4 pCi/L) or higher be fixed. There are many certified radon mitigation contractors throughout the state who can fix radon problems in homes. Learn more at lowradon.org.

Note: The white asterisk denotes a county with fewer than 11 tests. Tests may not be representative of radon levels for the county and should be interpreted with caution.
BACKGROUND
The Environmental Public Health Tracking Program monitors data on asthma, melanoma (a type of skin cancer), and lung cancer. Each of these measures is strongly linked to one or more environmental factors.

**31.1**
**ASTHMA**
RATE OF ER VISITS Per 10,000 People
WISCONSIN: 35.1

**22.8**
**MELANOMA**
RATE OF NEW CASES Per 100,000 People
WISCONSIN: 23.9

**49.3**
**LUNG CANCER**
RATE OF NEW CASES Per 100,000 People
WISCONSIN: 59.8

ASTHMA

Asthma is a disease that affects breathing and limits the ability to get oxygen to the lungs. Asthma symptoms often happen because a person came in contact with a trigger, such as outdoor air pollution or airborne pollens.

The overall rate of asthma emergency room visits in Wisconsin has declined slightly since 2004. Rates at the county level are more variable.

In Wisconsin, asthma rates vary considerably by race and ethnicity. Read more about these differences in our asthma disparities surveillance brief.

To learn more about the burden of asthma and resources in Wisconsin, visit the asthma webpage. View more years of asthma data on our portal.
MELANOMA AND LUNG CANCER

Cancer is a term used for diseases in which abnormal cells divide without control and are able to invade other body parts. There are more than 100 different types of cancer.

Melanoma is a cancer of the skin pigment cells and is the most deadly type of skin cancer. Lung cancer forms in the lung, usually in the cells lining the air passages, and is the leading cause of cancer deaths in the U.S.

Both melanoma and lung cancer are strongly linked to environmental causes. Melanoma is linked to ultraviolet (UV) radiation, and lung cancer is related to radon and secondhand smoke. In addition to these environmental exposures, lung cancer is also caused by smoking.

The rate of melanoma in Wisconsin is increasing over time, and nearly all Wisconsin counties are following the same upward trend. The Wisconsin rate of lung cancer has held relatively steady in recent years, with more variability by county.

MELANOMA
RATE OF NEW CASES PER 100,000 PEOPLE

LUNG CANCER
RATE OF NEW CASES PER 100,000 PEOPLE
BACKGROUND

Consistent with global climate change trends over the past 60 years, Wisconsin has become generally warmer and wetter. Changes in the climate may lead to more precipitation and flooding, temperature extremes (very hot and very cold days), drought, and more carriers of disease (for example, mosquitoes and ticks). Climate change can contribute to mental health problems, water and vectorborne diseases, allergies, water and food insecurity, and even death.

In this section, we focus on heat stress and Lyme disease, two climate-related health outcomes.

To learn more about the connection between climate change and health and work being done by the Climate and Health Program, visit their webpage.

HEAT STRESS

Rate of ER visits per 100,000 people

- **Wisconsin**: 12.6
- **Shawano County**: 23.9

LYME DISEASE

Rate of cases per 100,000 people

- **Wisconsin**: 51.7
- **Shawano County**: 119.7

HEAT STRESS

Heat stress encompasses a range of symptoms including heat rash, heat syncope (fainting), heat cramps, and heat exhaustion.

Any individual can develop heat stress when involved in intense physical activity or when it’s hot.

Certain populations, such as adults who live alone or have limited social contacts, males who work or play outside, and people without access to air conditioning, are at increased risk of heat-related illness. While adults aged 15-34 are most likely to visit the ER for heat stress, adults over 65 are most likely to be hospitalized for heat stress.

To learn more about historical extreme heat—such as the number of days in which the heat index was at or above 90°F—visit our data portal.
LYME DISEASE

Lyme disease is spread by the bite of an infected black-legged tick (*Ixodes scapularis*) and is becoming more common in Wisconsin. The highest number of cases is typically reported in the northwestern region of Wisconsin, but in recent years cases have increased in the central and eastern regions. Lyme disease was Wisconsin's fourth highest reported notifiable communicable disease in 2017.

Wisconsin's climate has become generally warmer and wetter, which can provide more favorable conditions for ticks. Climate change has contributed toward the expanded geographic distribution of ticks as well as a longer season of tick activity and potential for Lyme disease transmission. Other factors, such as host populations (for example, deer and mice), awareness of Lyme disease, and land use changes, also impact Lyme disease rates.

INTERPRETING LYME DISEASE DATA

The crude rate includes confirmed cases of Lyme disease—not probable or estimated cases—until 2008. Starting in 2008, the crude rate includes confirmed and probable cases.

The criteria for reporting Lyme disease were revised again in 2012 to require reporting and follow-up only for cases with an erythema migrans (EM) rash. To compensate for this change, epidemiologists used a statistical method to estimate the true number of cases based on the number of total laboratory reports for each year since 2012.

As such, rates of confirmed cases might appear to decrease since 2012, but this is likely due to the change in case definition, not from a reduced burden of Lyme disease.

On the Tracking portal, estimated cases are only available at the state level, not the county level. The crude rate of cases reported here is an underestimate of the true rate of Lyme disease (see data details on page 16 for more information).

LYME DISEASE AT THE NATIONAL LEVEL

OVER TIME, WE ARE SEEING MORE TICK ACTIVITY

One dot placed randomly within county of residence for each reported case

Maps courtesy of Centers for Disease Control and Prevention
COMMUNITY HEALTH

**Fluoride:** Percent of population with access to fluoridated public drinking water  
**Source:** Wisconsin Oral Health Program, Bureau of Community Health Promotion, Division of Public Health, Wisconsin Department of Health Services  
**Years displayed:** 2011-2017; data from 2017 displayed on dashboard  
**Data details:** Data on fluoride in drinking water are based on samples taken from active public community water systems and do not reflect data from private wells. The data represent the population using public drinking water that have access to fluoridated water, regardless of whether it is at the recommended level.

**Alcohol Outlet Density:** Crude rate of alcohol licenses per 500 people  
**Source:** Division of Care and Treatment Services, Wisconsin Department of Health Services; primary data source is Wisconsin Department of Revenue  
**Years displayed:** 2015-2016  
**Data details:** Data are a point-in-time estimate (that means the data are shared once annually and, at any given time throughout the year, a new license could be issued or an old one not renewed). Data are not suppressed for this measure. Crude rate of alcohol licenses per 500 people is the number of establishments with a liquor license divided by the total number of people in the county, expressed as a number per 500 people in the population.

PRIVATE WATER QUALITY

**Nitrate:** Percent of test results for nitrate that exceed EPA standard of 10 mg/L  
**Arsenic:** Percent of test results for arsenic that exceed EPA standard of 10 µg/L  
**Source:** Well Water Quality Viewer, Center for Watershed Science and Education, University of Wisconsin-Stevens Point  
**Years displayed:** 1988 to March 2017  
**Data details:** The statewide comparison number was calculated by dividing the total number of tests that exceed EPA standard by the total number of tests and multiplying by 100. Per the Well Water Quality Viewer, "The viewer summarizes private well water quality data from the Center for Watershed Science and Education, the Wisconsin Department of Agriculture, Trade, and Consumer Protection, the Department of Natural Resources Groundwater Retrieval Network, Eau Claire City-County Health Department, and LaCrosse County Health Department. It is not considered a scientific study and does not represent well water quality information for all known private wells."

HOME HAZARDS

**Carbon Monoxide (CO) Poisoning:** Annual average rate of unintentional emergency room visits related to CO poisoning, age-adjusted per 100,000 people  
**Source:** Office of Health Informatics, Division of Public Health, Wisconsin Department of Health Services  
**Years displayed:** 2008-2017; data averaged from 2013-2017 displayed on the dashboard  
**Data details:** This measure includes carbon monoxide poisonings that were unintentional (fire- or non-fire-related) and of unknown intent. These data are from emergency room visit records. The measure includes cases with an ICD-9 code (from 2008 through quarter three of 2015) of 986 or cause of injury code E868.2, E868.3, E868.8, E868.9, E982.0, or E982.1 and cases with an ICD-10 code (from quarter four of 2015 through 2017) of T58.01, T58.04, T58.11, T58.14, T58.2X1, T58.2X4, T58.8X1, T58.8X4, T58.91, and T58.94. Cases are excluded if there is any ICD-9 or ICD-10 code that indicates intentional exposure. Data for counties with fewer than five visits are suppressed to protect confidentiality. However, data from counties with zero visits are not suppressed. Direct age-adjustment is conducted using the 2000 U.S. standard population.

**Childhood Lead Poisoning:** Percent of children (less than 6 years of age) tested who had a blood lead level ≥5 µg/dL  
**Source:** Wisconsin Childhood Lead Poisoning Prevention Program, Bureau of Environmental and Occupational Health, Division of Public Health, Wisconsin Department of Health Services  
**Years displayed:** 2006-2016; data from 2016 displayed on dashboard  
**Data details:** Wisconsin blood lead testing data from children less than 6 years of age are reported to the Childhood Lead Poisoning Prevention Program. Data are de-duplicated such that they contain the most recent confirmatory (venous) test following an elevated screening (capillary) test. If no confirmatory test for the individual is available, the most recent screening test result is used. The Wisconsin average includes all tests, regardless of whether we have location data for a given test.
HOME HAZARDS, CONTINUED

Radon: Percent of radon tests with results at or above EPA standard of 4 pCi/L
Source: Wisconsin Radon and Indoor Air Program, Bureau of Environmental and Occupational Health, Division of Public Health, Wisconsin Department of Health Services
Year displayed: 2015
Data details: The map of these data comes from the National Tracking data explorer. Data are those from pre-mitigation tests or those where mitigation status was not designated. Post-mitigation tests are not included. This Profile includes data from 19,592 tests. The radon data we present are only a fraction of the tests completed in Wisconsin. The data presented include all tests facilitated by the Radon and Indoor Air Program and Radon Information Centers, but do not include all tests conducted by private contractors. To view more years of data and data at the zip code level, visit lowradon.org.

HEALTH CONDITIONS

Asthma: Rate of emergency room visits related to asthma, age-adjusted per 10,000 people
Source: Office of Health Informatics, Division of Public Health, Wisconsin Department of Health Services
Year displayed: 2017
Data details: These data are collected from emergency room visit records. This measure includes cases with an ICD-10 code of J45 (inclusive of all sub-variation codes). Data for counties with fewer than five visits are suppressed to protect confidentiality. However, data from counties with zero visits are not suppressed. Direct age-adjustment is conducted using the 2000 U.S. standard population.

Melanoma: Annual average rate of new cases of melanoma, age-adjusted per 100,000 people
Lung Cancer: Annual average rate of new cases of lung cancer, age-adjusted per 100,000 people
Source: Wisconsin Cancer Reporting System, Office of Health Informatics, Division of Public Health, Wisconsin Department of Health Services
Years displayed: 1997-2016; data from 2012-2016 displayed on the dashboard
Data details: Rates are calculated from counts of new cancer cases reported to the Wisconsin Cancer Reporting System by health care providers in Wisconsin. Data for counties with fewer than six cases are suppressed to protect confidentiality. However, counties with zero cases are not suppressed. Direct age-adjustment is conducted using the 2000 U.S. standard population.

CLIMATE

Heat Stress: Annual average rate of emergency room visits related to heat stress, age-adjusted per 100,000 people
Source: Office of Health Informatics, Division of Public Health, Wisconsin Department of Health Services
Years displayed: 2008-2017; data from 2013-2017 are displayed on the dashboard
Data details: These data are collected from emergency room visit records. This measure includes cases with an ICD-9 code (from 2008 through quarter three of 2015) of 992.0–992.96 or cause of injury code E900.0 or E900.9 and cases with an ICD-10 code (from quarter four of 2015 through 2017) of T67, X30, or X32. Cases are excluded if there is any ICD-9 or ICD-10 code that indicates the source of heat was human-made. Cases are only included if they occurred during May 1 to September 30 of each year. Data for counties with fewer than five visits are suppressed to protect confidentiality. However, data from counties with zero visits are not suppressed. Direct age-adjustment is conducted using the 2000 U.S. standard population.

Lyme Disease: Crude rate of confirmed and probable Lyme disease cases per 100,000 people
Source: Vectorborne Disease Program, Bureau of Communicable Diseases, Division of Public Health, Wisconsin Department of Health Services
Years displayed: 2003-2017; data from 2017 are displayed on the dashboard
Data details: These data are from the Wisconsin Electronic Disease Surveillance System (WEDSS). County-level data are based on the county of residence of the case; some infections may have been acquired during travel to other areas. The crude rate numerator includes only confirmed and probable (when available) cases and does not include estimated cases. Confirmed cases of Lyme disease include: 1) those with an erythema migrans (EM) rash that is greater than or equal to 5 cm in diameter and diagnosed by a medical professional or 2) those with at least one non-EM confirmatory sign or symptom indicating late manifestation of disease (arthritis, Bell’s palsy or other cranial neuritis, encephalomyelitis, lymphocytic meningitis, radiculoneuropathy, or 2nd or 3rd degree atroventricular block) that also has laboratory evidence of infection that meets criteria. In 2008, the national surveillance case definition for Lyme disease introduced probable cases. In 2012, the criteria for reporting Lyme disease changed so only cases with an EM rash required follow-up. Read the data details on our website for more information.
**Present to Stakeholders and Partners**

We created a Profile Template Slide Deck as a guide for presentations. The slide deck is free to use and completely customizable. See the notes section for ideas and considerations for tailoring your talk. Visit the [Profiles page of our website](#) to download the template.

**Plan Strategies for 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 the topics in this Profile called *Ideas for Taking Action*. To help communities of all sizes and resource levels, we organized them by the scope of the strategy, from increasing knowledge to addressing laws and policies. We also publish success stories from the recipients of our mini-grant program. Reviewing these stories is a great way to get ideas and connect with communities doing similar work. Visit the [Ideas for Taking Action page of our website](#) to learn more.

**Join Our Quarterly Newsletter**

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**Special Thanks**

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