



WASHINGTON COUNTY
ENVIRONMENTAL
HEALTH PROFILE

2017



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 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 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 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 integrate the data into your work, [let us know!](#)

How have you used your county's profile?
[Tell us about it!](#)

dhstracking@wi.gov
608-267-2488



WASHINGTON COUNTY

DASHBOARD | 2017 ENVIRONMENTAL HEALTH PROFILE



HOME HAZARDS

Childhood Lead Poisoning

✓ 4.4% | Percent with blood lead ≥ 5 $\mu\text{g}/\text{dL}$
Wisconsin: 6.4%

Carbon Monoxide Poisoning

✓ 4.0 | Rate of ER visits per 100,000 people
Wisconsin: 7.9



CLIMATE

Heat Stress

✓ 9.9 | Rate of ER visits per 100,000 people
Wisconsin: 16.5

Lyme Disease

✓ 2.2 | Crude rate per 100,000 people
Wisconsin: 22.7



HEALTH OUTCOMES

Asthma

✓ 17.5 | Rate of ER visits per 10,000 people*
Wisconsin: 39.5

Melanoma

⚠ 23.9 | Rate of cases per 100,000 people
Wisconsin: 21.6

Heart Attack

✓ 26.8 | Rate of hospitalizations per 10,000 people*
Wisconsin: 27.4



WATER QUALITY

Arsenic

⚠ 1.7 | Average concentration in $\mu\text{g}/\text{L}$
Wisconsin: 1.4

Nitrate

✓ 0.4 | Average concentration in mg/L
Wisconsin: 1.5

Fluoride

⚠ 82.4% | Percent of population with fluoridated public water
Wisconsin: 88.6%



AIR QUALITY

Ozone

⚠ 12 | Annual days above standard
Wisconsin: 3.8

Particulate Matter (PM) 2.5

⚠ 1 | Annual days above standard
Wisconsin: 0.3

*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 state value (with exception of fluoride where below state value is not preferred)

✓ At or below state value (with exception of fluoride where above state value is preferred)

^ Data are suppressed [Data details on next page](#)



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 page 15. For more information about age-adjustment and other terms referenced in this profile, visit the Wisconsin Tracking Program's Glossary of Terms or our Tracking 270 tutorial, both available on our website (dhs.wisconsin.gov/epht).



HOME HAZARDS

Childhood Lead Poisoning: Percent of children (less than six years of age) tested who had a blood lead level ≥ 5 $\mu\text{g}/\text{dL}$
Source: Wisconsin Childhood Lead Poisoning Prevention 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 emergency room visits related to CO poisoning
Source: Office of Health Informatics, Division of Public Health, Wisconsin Department of Health Services
Years displayed: Averaged data from 2010-2014



CLIMATE

Lyme Disease: Crude rate of confirmed Lyme disease cases
Source: Wisconsin Vectorborne Disease Program, Division of Public Health, Wisconsin Department of Health Services
Year displayed: 2015

Heat Stress: Age-adjusted rate of emergency room visits related to heat stress
Source: Office of Health Informatics, Division of Public Health, Wisconsin Department of Health Services
Years displayed: Averaged data from 2010-2014



HEALTH OUTCOMES

Melanoma: Age-adjusted rate of new cases reported by health care providers
Source: Wisconsin Cancer Reporting System, Office of Health Informatics, Division of Public Health, Wisconsin Department of Health Services
Years displayed: 2009-2013

Asthma: Age-adjusted rate of emergency room visits related to asthma
Source: Office of Health Informatics, Division of Public Health, Wisconsin Department of Health Services
Year displayed: 2014

Heart Attack: Age-adjusted rate of emergency room visits related to heart attack
Source: Office of Health Informatics, Division of Public Health, Wisconsin Department of Health Services
Year displayed: 2014



WATER QUALITY

Arsenic and Nitrate: Measured concentrations from active public water systems
Source: Bureau of Drinking Water and Groundwater, Wisconsin Department of Natural Resources
Years displayed: Averaged data from 2013-2015

Fluoride: Percent of population with access to fluoridated public water
Source: Wisconsin Oral Health Program, Division of Public Health, Wisconsin Department of Health Services
Year displayed: 2015



AIR QUALITY

Particulate Matter 2.5 (PM_{2.5}) and Ozone: Monitored and modeled estimates of air quality readings
Source: National Environmental Public Health Tracking Network, Centers for Disease Control and Prevention
Year displayed: 2012



HOME HAZARDS WASHINGTON COUNTY

BACKGROUND

Lead and carbon monoxide (CO) poisoning are two home hazards monitored by the Wisconsin Environmental Public Health Tracking Program.

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

In children, lead poisoning slows growth and development, particularly in the brain. Lead poisoning is also associated with increased incarceration and poor academic outcomes.

✓ **4.0**

CARBON MONOXIDE POISONING

RATE OF ER VISITS RELATED TO CO PER 100,000

STATEWIDE: 7.9

✓ **4.4%**

CHILDHOOD LEAD POISONING

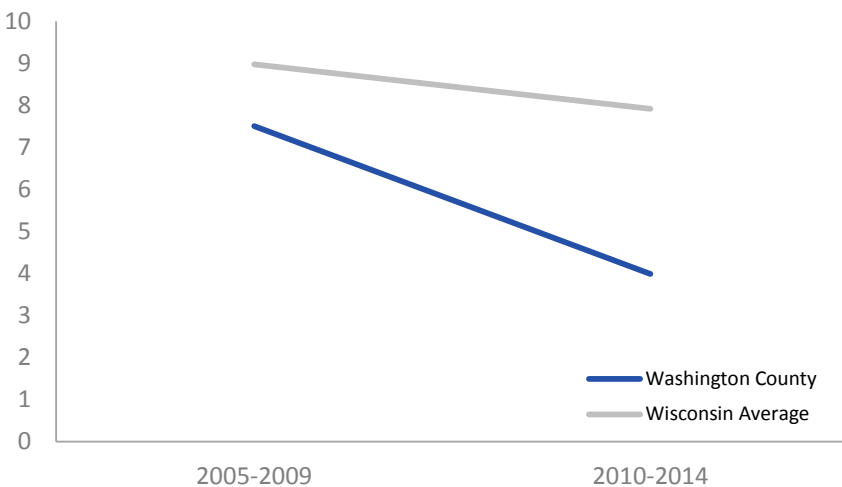
PERCENT OF TESTED CHILDREN WITH BLOOD LEAD ≥ 5 $\mu\text{g/dL}$

STATEWIDE: 6.4%

🔴 Above state value ✓ At or below state value ^ Suppressed

CARBON MONOXIDE

RATE OF ER VISITS PER 100,000 PEOPLE



CARBON MONOXIDE POISONING

Carbon monoxide (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 that all homes have a carbon monoxide 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, cars, motorbikes, go carts, etc.) is used. These facilities are not required to have CO detectors.



HOME HAZARDS WASHINGTON COUNTY

CHILDHOOD LEAD POISONING

There is no safe level of lead in the human body. Even very low levels of exposure can cause harmful health effects. Blood lead levels are measured in micrograms per deciliter ($\mu\text{g}/\text{dL}$). The Centers for Disease Control and Prevention defines lead poisoning at or above $5 \mu\text{g}/\text{dL}$.

The percentage of children (less than six years of age) tested with a blood lead level greater than or equal to $5 \mu\text{g}/\text{dL}$ has declined over the past 14 years in most Wisconsin counties. This decline is due in part to prevention and outreach efforts that have happened throughout the state.

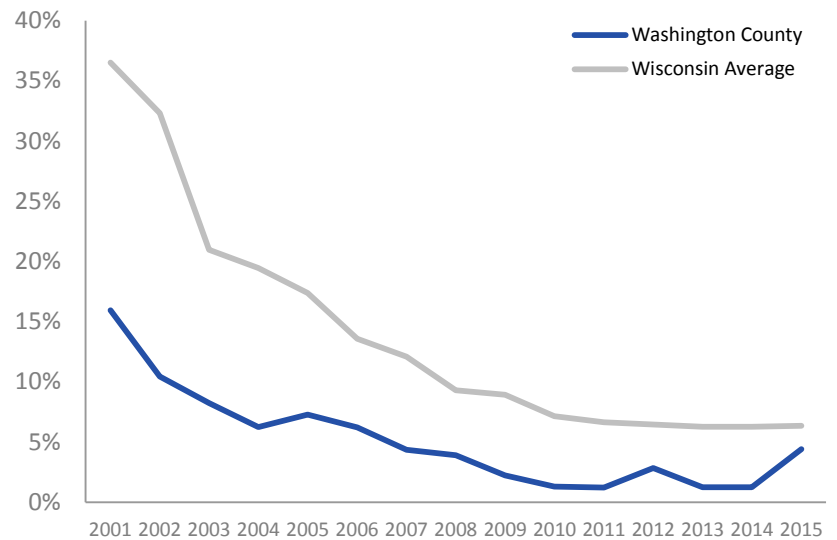
Together we have made great progress, but there is still work to be done to eliminate lead poisoning for all children.

In most counties, the percentage of children poisoned is below 5%. However, counties vary greatly in the number of children they have tested for lead poisoning. It should be noted that high rates may reflect fewer children tested. For example, if a county tested eight children and one was poisoned, the percentage poisoned will be quite high.

To explore your county rate and see how many children were tested, how many were poisoned, and view data at the census tract level, take a look at our data portal (dhs.wisconsin.gov/epht).

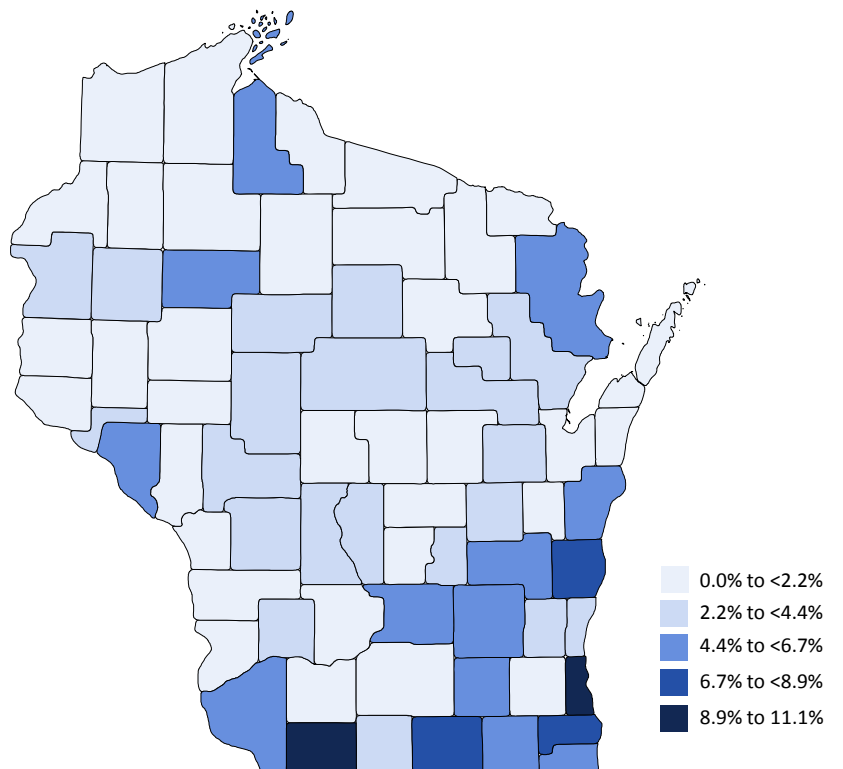
CHILDHOOD LEAD POISONING

PERCENT OF TESTED CHILDREN WITH BLOOD LEAD $\geq 5 \mu\text{g}/\text{dL}$



CHILDHOOD LEAD POISONING

PERCENT OF TESTED CHILDREN WITH BLOOD LEAD $\geq 5 \mu\text{g}/\text{dL}$ 2015





CLIMATE WASHINGTON COUNTY

BACKGROUND

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 (e.g., mosquitoes and ticks). Extreme weather 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 climate and health connection and work being done by the Wisconsin Climate and Health Program, visit dhs.wisconsin.gov/climate.

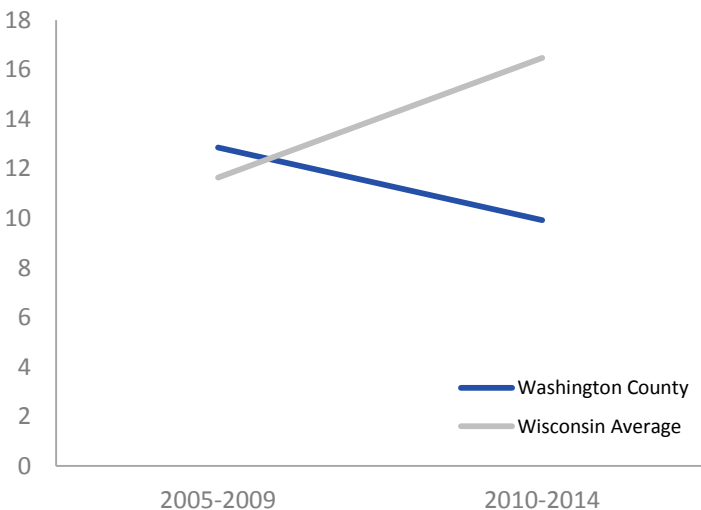
✔ **9.9**
HEAT STRESS
 RATE OF ER VISITS
 PER 100,000 PEOPLE
 STATEWIDE: 16.5

✔ **2.2**
LYME DISEASE
 RATE OF CASES
 PER 100,000 PEOPLE
 STATEWIDE: 22.7

⚠ Above state value
 ✔ At or below state value
 ^ Suppressed

HEAT STRESS

RATE OF ER VISITS PER 100,000 PEOPLE



HEAT STRESS

Heat stress encompasses a range of conditions 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 is hot.

Certain populations, such as older adults who live alone or have limited social contacts, people who work or play outside, and people without access to air conditioning are at increased risk of heat-related injury.

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.

DIVE DEEPER INTO THE DATA: dhs.wisconsin.gov/epht



LYME DISEASE

Lyme disease is spread by the bite of an infected black-legged tick (*Ixodes scapularis*) and is becoming more common in Wisconsin. Lyme disease was the fourth highest reported notifiable communicable disease in 2015.

The highest number of cases are typically reported in the northwestern region of Wisconsin, but in recent years cases have increased in the central and eastern regions.

The data in the crude rate include confirmed cases of Lyme disease—not probable or estimated cases. It should be noted that in 2008 and 2012, Wisconsin’s criteria for reporting Lyme were revised (see data details on page 15 for more information).

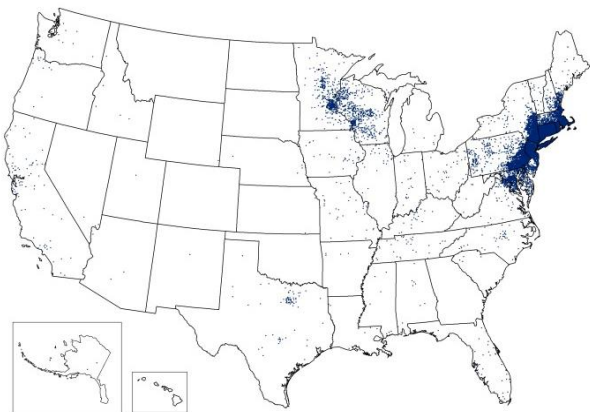
The new criteria in 2012 require reporting and follow-up only for cases with an erythema migrans (EM) rash. To compensate for this change, epidemiologists used a statistical method to estimate the true number of cases based on the number of total laboratory reports for each year since 2012. As such,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

Estimated and probable cases are available at the state-level on the Tracking portal. The crude rate of confirmed cases reported here is an underestimate of the true rate of Lyme disease.

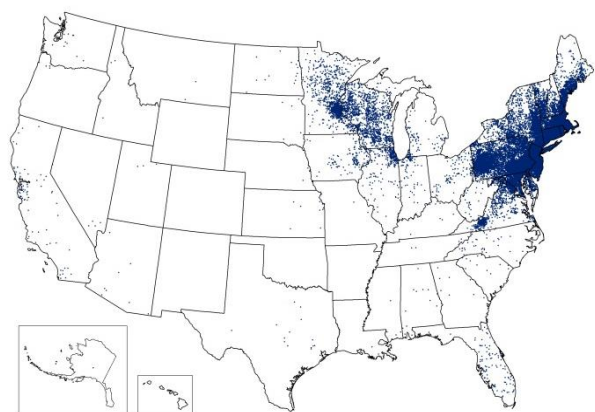
LYME DISEASE AT THE NATIONAL LEVEL

ONE DOT PLACED RANDOMLY WITHIN COUNTY OF RESIDENCE FOR EACH REPORTED CASE

2001



2015

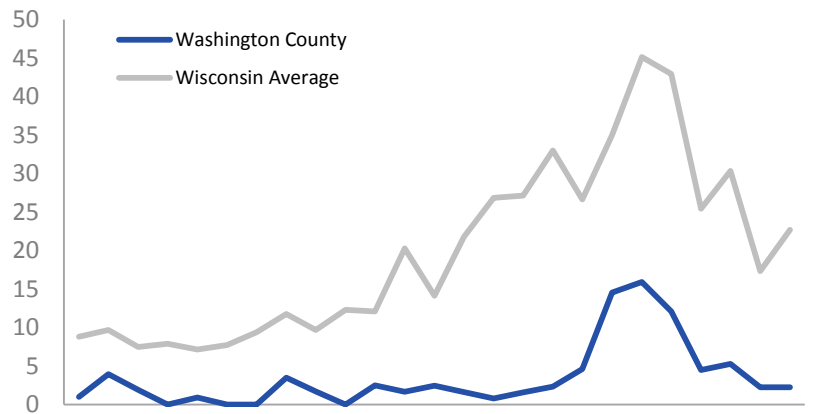


Maps courtesy of Centers for Disease Control and Prevention.

Wisconsin’s climate has become generally warmer and wetter in recent decades, and these changes in weather patterns can provide favorable conditions for ticks. Increased temperatures with higher humidity can enhance tick survival. Climatic shifts contribute 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 (e.g., deer and mice), awareness of Lyme disease, and land use changes also impact Lyme disease rates.

LYME DISEASE

RATE OF CONFIRMED CASES PER 100,000 PEOPLE



1991 1993 1995 1997 1999 2001 2003 2005 2007 2009 2011 2013 2015
Case definition changed in 2008 and again in 2012; see data details on page 15 for more information.



HEALTH OUTCOMES

WASHINGTON COUNTY

BACKGROUND

Asthma, melanoma (a type of skin cancer), lung cancer, and heart attack are four of the many health topics collected by the Wisconsin Environmental Public Health Tracking Program. Each of these measures is strongly linked to one or more environmental factors.

✓ **17.5**
ASTHMA
 RATE OF ER VISITS
 PER 10,000 PEOPLE
 STATEWIDE: 39.5

⚠ **23.9**
MELANOMA
 RATE OF NEW CASES
 PER 100,000 PEOPLE
 STATEWIDE: 21.6

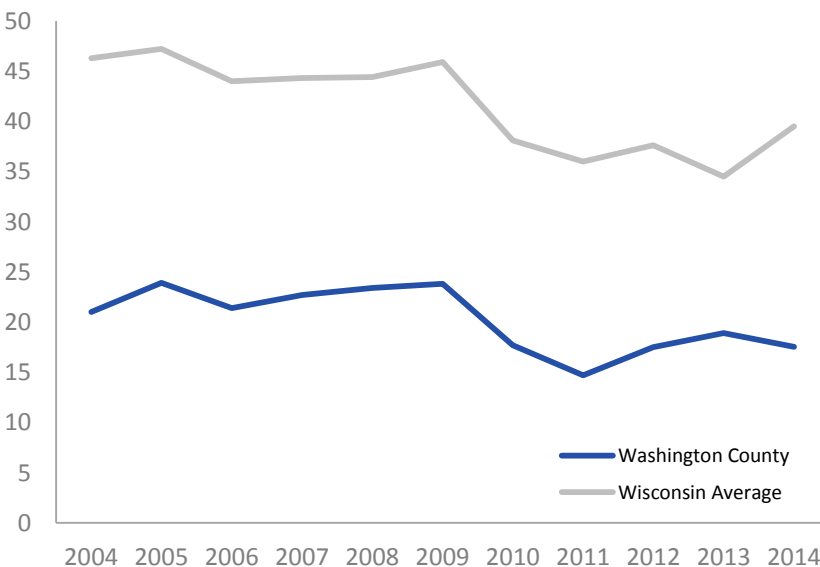
✓ **57.3**
LUNG CANCER
 RATE OF NEW CASES
 PER 100,000 PEOPLE
 STATEWIDE: 61.1

✓ **26.8**
HEART ATTACK
 RATE OF HOSPITALIZATIONS
 PER 10,000 PEOPLE
 STATEWIDE: 27.4

⚠ Above state value ✓ At or below state value ^ Suppressed

ASTHMA

RATE OF ER VISITS PER 10,000 PEOPLE



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.

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](#), available in the resources section of our website.



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 United States.

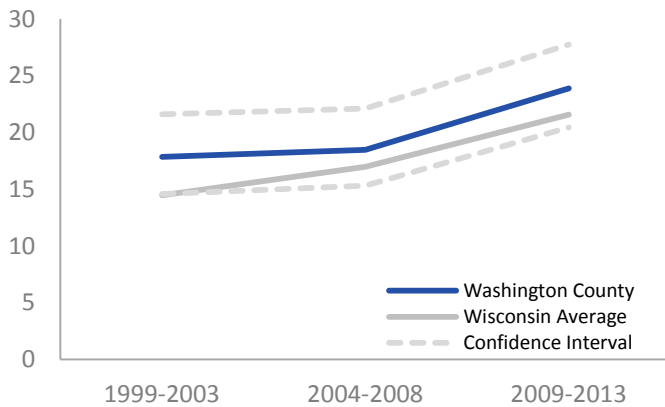
Both melanoma and lung cancer are strongly linked to environmental causes. Melanoma is linked to ultraviolet (UV) radiation, and lung cancer is related to radon and secondhand smoke. In addition to environmental exposures, lung cancer is also caused by smoking.

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.

Confidence intervals based on the county rate are on the charts below and are denoted with dotted gray lines. The closer the dotted lines are to the county line, the better (or more precise) the estimated county rate. For more information on interpreting confidence intervals, watch our Tracking 270 tutorial, available on the training tab of our website (dhs.wisconsin.gov/epht).

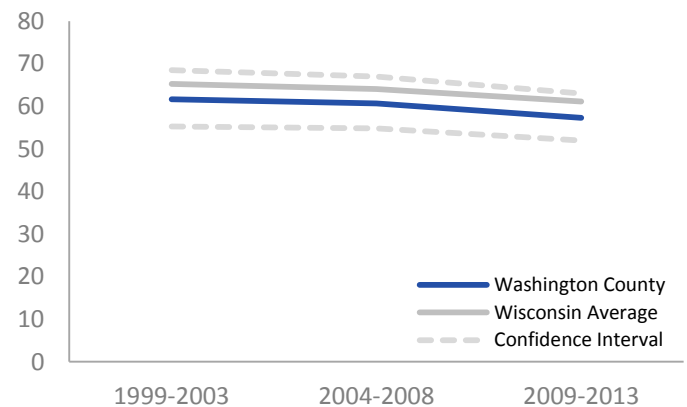
MELANOMA

RATE OF NEW CASES PER 100,000 PEOPLE



LUNG CANCER

RATE OF NEW CASES PER 100,000 PEOPLE



HEART ATTACK

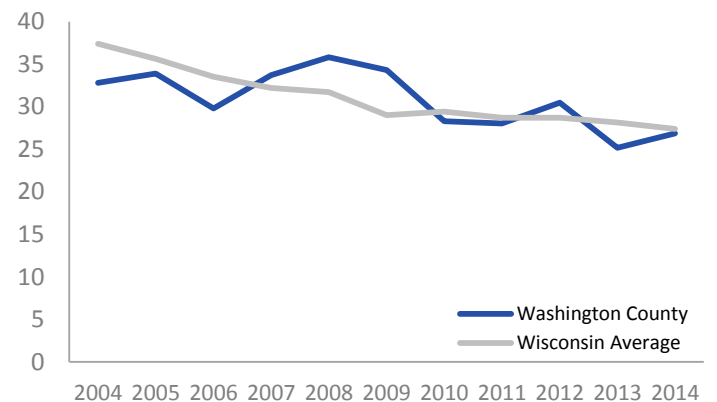
A heart attack is a brief and severe health event in which the heart does not get enough oxygen because of a block in blood flow.

A number of studies have shown that high levels of air pollution can increase the number of hospital visits for heart attacks.

The overall rate of heart attack hospitalizations in Wisconsin has declined since 2004. Rates at the county level are more variable.

HEART ATTACK

RATE OF HOSPITALIZATIONS PER 10,000 PEOPLE





WATER QUALITY WASHINGTON

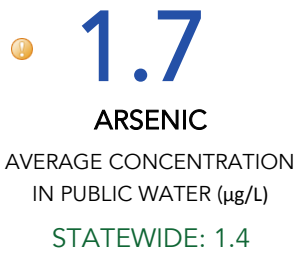
BACKGROUND

Water piped into your home, school, or workplace comes from either a public water system or a private well.

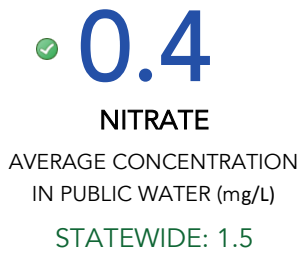
Two water contaminants of concern are arsenic and nitrate. Potential health effects of drinking water with high levels of arsenic include skin damage, circulatory system problems, and cancers (e.g., bladder and lung cancer). High nitrate levels may be linked with certain birth defects. Infants who consume drinking water with

high nitrate levels are at risk of blue baby syndrome, a condition that limits the blood's ability to carry oxygen.

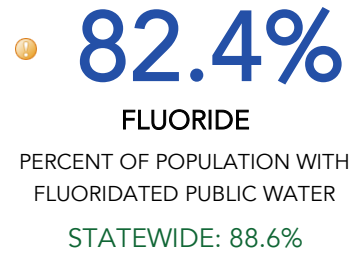
Communities should also know their levels of fluoride, a mineral in water that is often naturally-occurring and offers protection against tooth decay. You can read about your water's fluoridation levels in a consumer confidence report, which you can request from your water utility.



⚠ Above state value (with exception of fluoride where below state value is not preferred)



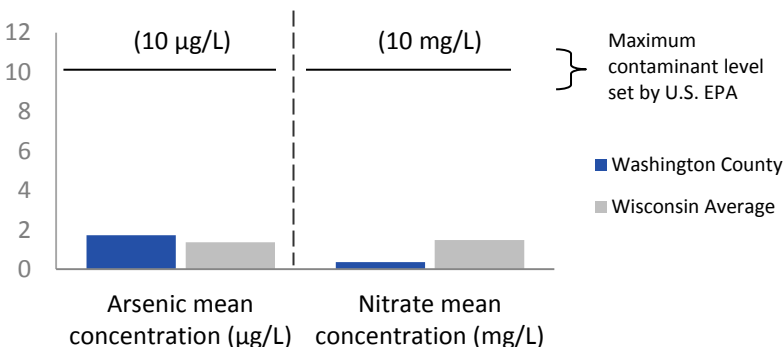
✓ At or below state value (with exception of fluoride where above state value is preferred)



^ Suppressed

ARSENIC AND NITRATE

MEAN CONCENTRATION LEVELS IN PUBLIC WATER (2013-2015)



ARSENIC AND NITRATE IN PUBLIC DRINKING WATER

Over half of Wisconsin households rely on public water for their water source. Public water is monitored and regulated by the Wisconsin Department of Natural Resources. All counties reported average arsenic and nitrate levels below the maximum contaminant levels set by the U.S. Environmental Protection Agency.

DIVE DEEPER INTO THE DATA: dhs.wisconsin.gov/epht



WATER QUALITY WASHINGTON COUNTY

FLUORIDE IN PUBLIC DRINKING WATER

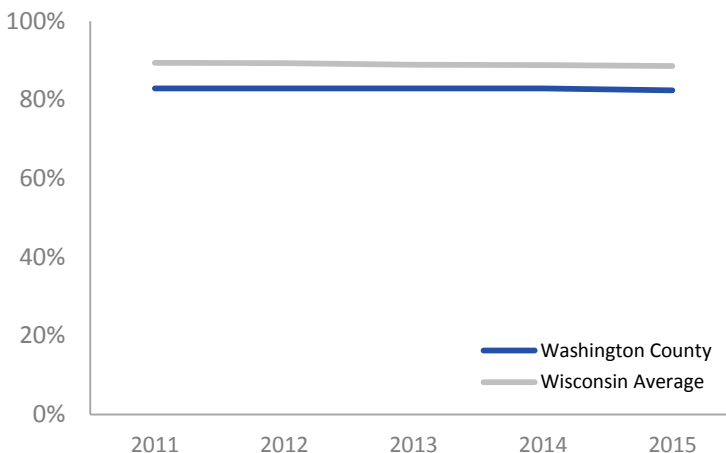
Community water fluoridation was selected as one of the 10 greatest public health achievements of the 20th century since it offers a low-cost, effective way of providing fluoride to a broad population to prevent tooth decay.*

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 milligrams per liter (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.

FLUORIDE

PERCENT OF POPULATION WITH ACCESS TO FLUORIDATED PUBLIC WATER



*Centers for Disease Control and Prevention. Ten Great Public Health Achievements in the 20th Century. <https://www.cdc.gov/about/history/tengpha.htm>

ARSENIC AND NITRATE IN PRIVATE DRINKING WATER

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 well data are voluntarily submitted by homeowners and do not include water quality information for all known wells.

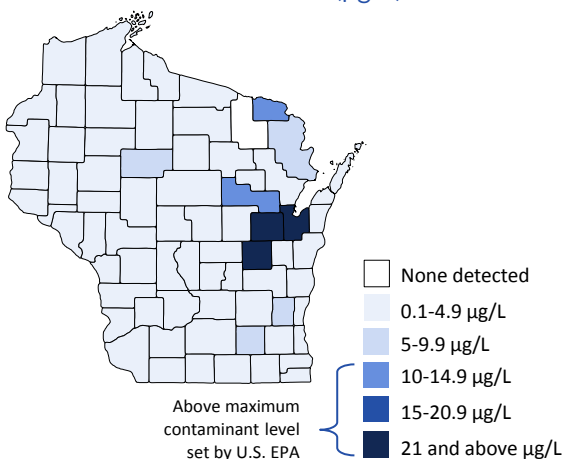
County-specific measures for arsenic and nitrate in private wells are displayed below.

Five counties have average concentrations of arsenic above the 10 µg/L maximum contaminant level. For nitrate, all counties are below the 10 mg/L maximum contaminant level.

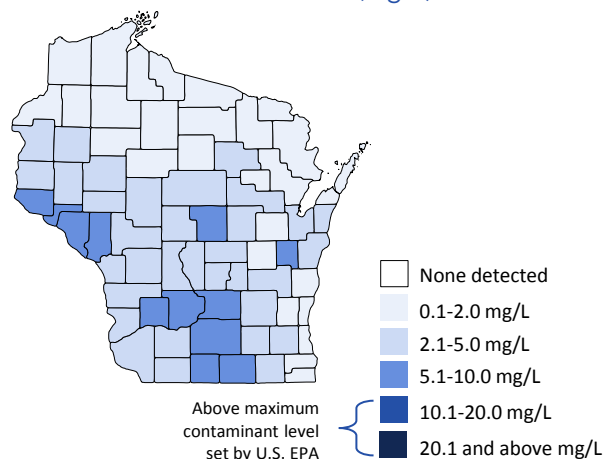
The data displayed represent samples collected from 1988 to March 2017. The maps include results of 14,699 arsenic samples and 73,517 nitrate samples. The number of samples collected varies from year to year; accordingly, some years are better represented than others.

To explore data for the other water contaminants, search "UW Stevens Point Well Water Viewer" in your search engine.

ARSENIC IN PRIVATE WELLS AVERAGE CONCENTRATION (µg/L)



NITRATE IN PRIVATE WELLS AVERAGE CONCENTRATION (mg/L)



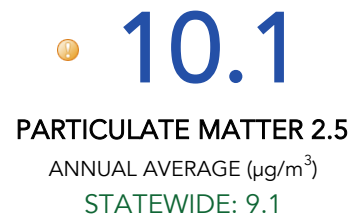
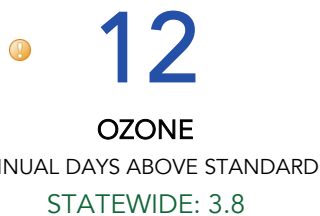


AIR QUALITY WASHINGTON COUNTY

BACKGROUND

Air pollution means that there are particles or gases in the air that should not be there. Two pollutants of concern are fine particulate matter and ozone. Particulate matter describes very tiny particles that settle in our lungs after being inhaled. The "2.5" in "particulate matter 2.5 (PM_{2.5})" refers to the size of the particles, which are smaller than the width of a human hair.

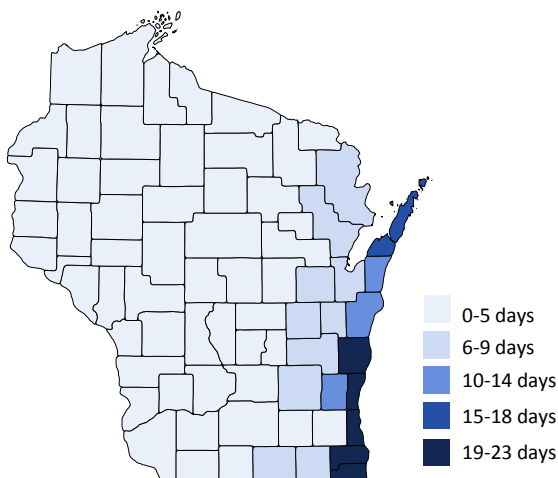
Ozone comes from vehicle emissions and industrial facilities. Both particulate matter and ozone can trigger health problems, especially in people with breathing conditions like asthma. Levels of these pollutants are measured by monitoring stations set up around the state. Counties without monitoring stations have estimated values.



● Above state value ✓ At or below state value ^ Suppressed

OZONE

ANNUAL DAYS ABOVE STANDARD (2012)



OZONE

The map to the left illustrates the annual number of days in which ozone was above the standard set by the U.S. Environmental Protection Agency. The fewer days above the standard, the better.

Counties on Wisconsin's eastern edge tend to have more days above the standard. Scientists hypothesize cool lake air can trap emissions. During warmer months, emissions can be pushed north by lake breezes, even from as far as Illinois and Indiana.*

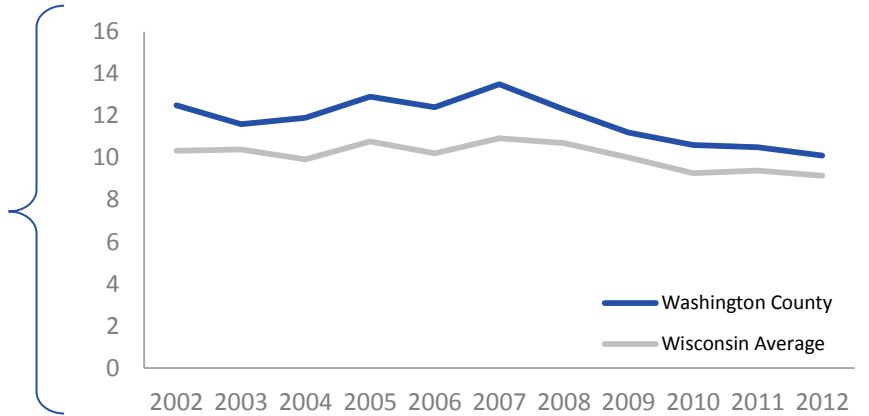
*Pierce, B., et al. White Paper: Lake Michigan Ozone Study 2017.



PARTICULATE MATTER 2.5

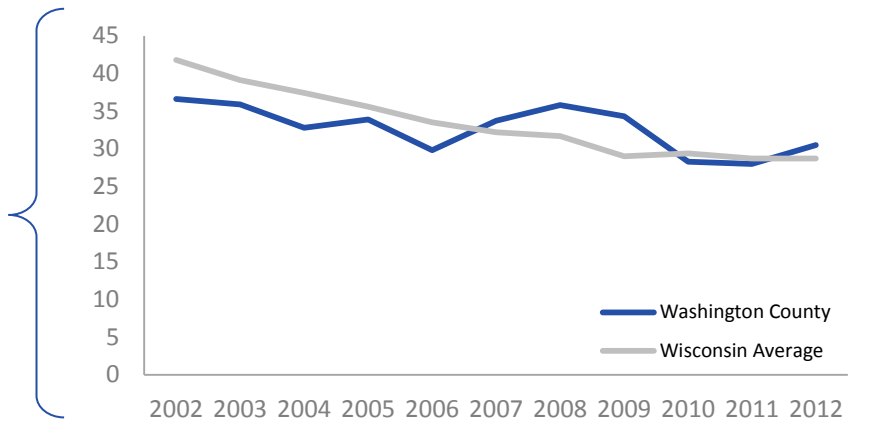
Particulate matter 2.5 (PM_{2.5}) is so tiny that it can settle in a person's lungs or bloodstream after being inhaled. These particles are more common near busy roads and in areas with dusty industries. PM_{2.5} has been linked to heart attacks and asthma attacks. Below are three charts showing how the annual average of PM_{2.5}, heart attack hospitalization rates, and asthma emergency room visits have fluctuated over the 2002-2012 time period (note the scales are different). In most Wisconsin counties, there has been a downward trend in all three measures over time.

PARTICULATE MATTER 2.5 ANNUAL AVERAGE (µg/m³)



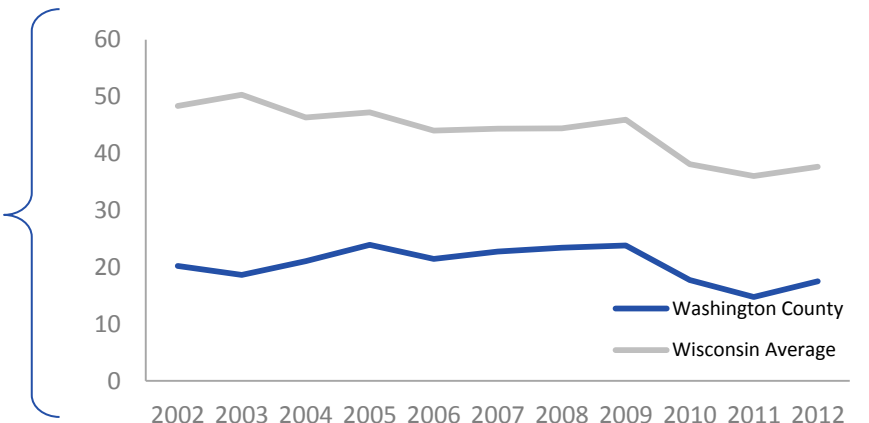
HEART ATTACK HOSPITALIZATIONS Rate per 10,000 people

Note the years displayed here are different than those on page 10.



ASTHMA EMERGENCY ROOM VISITS Rate per 10,000 people

Note the years displayed here are different than those on page 9.



DATA DETAILS



HOME HAZARDS

Lead Poisoning | Percent of children (less than six years of age) tested who had a blood lead level ≥ 5 $\mu\text{g}/\text{dL}$

Source: Wisconsin Childhood Lead Poisoning Prevention Program, Bureau of Environmental and Occupational Health, Division of Public Health, Wisconsin Department of Health Services

Years displayed: 2001-2015, data from 2015 displayed on dashboard

Data details: Wisconsin blood lead testing data from children less than six years of age are reported to the Wisconsin 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.

Carbon Monoxide Poisoning | Annual average rate of emergency room visits, age-adjusted per 100,000 people

Source: Office of Health Informatics, Division of Public Health, Wisconsin Department of Health Services

Years displayed: 2005-2014, data averaged from 2010-2014 displayed on 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 of 986 or cause of injury code E868.2, E868.3, E868.8, E868.9, E982.0, E982.1, E818, E825, E838, E844, E867, E868, or E890-E899. 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.



CLIMATE

Heat Stress | Annual average rate of emergency room visits, age-adjusted per 100,000 people

Source: Office of Health Informatics, Division of Public Health, Wisconsin Department of Health Services

Years displayed: 2005-2014, data from 2010-2014 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 of 992.0-992.9, or cause of injury code E900.0 or E900.9. 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 Lyme disease cases per 100,000 people

Source: Vectorborne Disease Program, Division of Public Health, Wisconsin Department of Health Services

Years displayed: 1991-2015, data from 2015 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 cases and does not include probable or 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 atrioventricular 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 data portal for more information.



HEALTH OUTCOMES

Asthma | Age-adjusted rate of emergency room visits per 10,000 people

Source: Office of Health Informatics, Division of Public Health, Wisconsin Department of Health Services

Years displayed: 2004-2014 (page 9), 2002-2012 (page 14), data from 2014 displayed on the dashboard

Data details: These data are collected from emergency room visit records. This measure includes cases with an ICD-9 code of 493. 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 and Lung Cancer | Annual average rate of new cases, 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: 1999-2013, data from 2009-2013 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.



HEALTH OUTCOMES (continued)

Heart Attack | Age-adjusted rate of hospitalizations among persons age 35 and over per 10,000 people

Source: Office of Health Informatics, Division of Public Health, Wisconsin Department of Health Services

Years displayed: 2004-2014 (page 10), 2002-2012 (page 14), data from 2014 displayed on the dashboard

Data details: These data are collected from inpatient hospital discharge records. This measure includes cases with an ICD-9 code of 410.0-410.92. Data for counties with fewer than five visits are suppressed to protect confidentiality. However, data from counties with zero visits are not suppressed. Our data do not include records from Wisconsin residents who seek care in border states and as such, are underrepresenting rates from border counties. See our portal data details for more information. Direct age-adjustment is conducted using the 2000 U.S. standard population.



WATER QUALITY

Arsenic | Mean concentration of arsenic ($\mu\text{g/L}$) in public drinking water

Source: Bureau of Drinking Water and Groundwater, Wisconsin Department of Natural Resources

Years displayed: Averaged data from 2013-2015

Data details: Arsenic concentrations in drinking water are based on samples taken from active public community water systems. Because many counties did not have any samples for a given year, three years of data were aggregated (2013-2015). Some counties had multiple arsenic mean values (from different water systems), so the values were first averaged within a given county and then averaged across the years.

Nitrate | Mean concentration of nitrate (mg/L) in public drinking water

Source: Bureau of Drinking Water and Groundwater, Wisconsin Department of Natural Resources

Years displayed: Averaged data from 2013-2015

Data details: Nitrate concentrations in drinking water are based on samples taken from active public community water systems. Because many counties did not have any samples for a given year, three years of data were aggregated (2013-2015). Some counties had multiple nitrate mean values (from different water systems), so the values were first averaged within a given county and then averaged across the years.

Fluoride | Percent of population with access to fluoridated public drinking water

Source: Wisconsin Oral Health Program, Division of Public Health, Wisconsin Department of Health Services

Years displayed: 2011-2015, data from 2015 displayed on dashboard

Data details: Data on fluoride in drinking water are based on samples taken from active public community water systems. The data represent the population on public drinking water that have access to fluoridated water, regardless of whether it is at the recommended level.



AIR QUALITY

Particulate Matter 2.5 (PM_{2.5}) | Annual Average PM_{2.5} ($\mu\text{g}/\text{m}^3$); Annual number of days above standard set by the U.S. Environmental Protection Agency

Source: National Environmental Public Health Tracking Network, Centers for Disease Control and Prevention

Years displayed: 2002-2012, data from 2012 are displayed on the dashboard

Data details: These measures include monitored and modeled estimates of PM_{2.5} levels. Modeled estimates are used to fill in gaps for days when monitoring does not occur or in counties where monitors do not exist. The data downloaded from the National Environmental Public Health Tracking portal (cdc.gov/ephtracking) for percent of days above standard were multiplied by 365 to get the annual number of days above U.S. Environmental Protection Agency standard. The U.S. Environmental Protection Agency's National Ambient Air Quality Standard (NAAQS) for a 24-hour average PM_{2.5} concentration is 35 $\mu\text{g}/\text{m}^3$.

Ozone | Annual number of days above standard set by the U.S. Environmental Protection Agency

Source: National Environmental Public Health Tracking Network, Centers for Disease Control and Prevention

Year displayed: 2012

Data details: This measure is the annual number of days with maximum eight-hour average ozone concentration over the U.S. Environmental Protection Agency's National Ambient Air Quality Standard (NAAQS) of 0.075 ppm. This measure includes monitored and modeled estimates of ozone levels. Modeled estimates are used to fill in gaps for days when monitoring does not occur or in counties where monitors do not exist.



TAKING THE NEXT STEP

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. The notes section is full of ideas and considerations for tailoring your talk. Let us know if you need help making the slide deck work for you. Visit dhs.wisconsin.gov/epht/profiles.htm 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 by the scope of the strategy, from addressing knowledge, attitudes and skills to addressing laws and policies. Visit dhs.wisconsin.gov/epht/profiles.htm to access *Ideas for Taking Action*.

Join Our Quarterly Newsletter

Stay up-to-date on the latest Wisconsin Environmental Public Health Tracking news and resources by subscribing to our newsletter. Head to dhs.wisconsin.gov/epht and click the link to subscribe.

OUR STAFF

Jenny Camponeschi, MS | Program Manager
608-267-3811 | jennifer.camponeschi@wi.gov

Megan Christenson, MS, MPH | Epidemiologist
608-266-7897 | megan.christenson@wi.gov

Paul Creswell, PhD | Senior Epidemiologist
608-267-9752 | paul.creswell@wi.gov

Jon Meiman, MD | Chief Medical Officer
608-266-1253 | jonathan.meiman@wi.gov

Meridith Mueller, MPH | Evaluation Specialist
608-267-3830 | meridith.mueller@wi.gov

Joseph Olson | IS Comprehensive Specialist
608-266-6696 | josepha.olson@wi.gov

Christy Vogt, MPH, CHES | Health Educator
608-267-2488 | christy.vogt@wi.gov

Mark Werner, PhD | Chief, Environmental Epidemiology and Surveillance Section, Principal Investigator
608-266-7480 | mark.werner@wi.gov

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Wisconsin Environmental Public Health Tracking Program's Technical Advisory Group

Kevin Masarik, Center for Watershed Science and Education, University of Wisconsin-Extension

ACCESS DATA AND RESOURCES
dhs.wisconsin.gov/epht



WISCONSIN ENVIRONMENTAL PUBLIC HEALTH TRACKING PROGRAM

Bureau of Environmental and Occupational Health

State of Wisconsin | Department of Health Services | Division of Public Health

dhstracking@wi.gov | dhs.wisconsin.gov/epht

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