

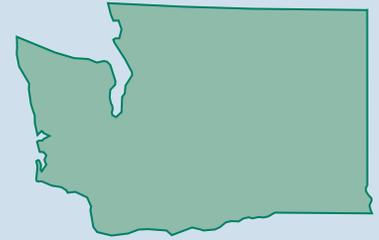
CDC's National Center for Environmental Health: Washington

CDC 24/7: *Saving Lives. Protecting People from Health Threats. Saving Money through Prevention.*

Environmental Health

Your environment is everything around you—the air you breathe, the water you drink, the community around you, the places where your food is grown or prepared, your workplace, and your home. When your environment is safe and healthy, you are more likely to stay healthy. But when your environment exposes you to dangerous events or toxic substances, your health can be affected negatively.

CDC is committed to saving lives and protecting people from environmental hazards by responding to natural and man-made disasters, supporting public health workers, educating communities, and providing scientific knowledge. We help maintain and improve the health of Americans by promoting a healthy environment and preventing premature death and avoidable illness caused by environmental and related factors. We also identify how people might be exposed to hazardous substances in the environment and assess exposures to determine if they are hazardous to human health. CDC invests in prevention to improve health and save money by reducing healthcare costs. We remain committed to maximizing the impact of every dollar entrusted to the agency.



Asthma

- In 2008, an estimated 461,670 adults in Washington had asthma.

From:

http://www.cdc.gov/asthma/stateprofiles/Asthma_in_WA.pdf

Funded Activities

National Asthma Control Program

(FY 2013 funding for Washington—\$425,000. A new funding announcement has been released; FY 2014 funding information will be available later in the year.)

Asthma is a common disease on the rise, with significant health disparities and associated healthcare costs. Nearly 1 in 12 Americans (26 million) have asthma. In the last decade, the proportion of people with asthma, grew by nearly 15%.

CDC has been working with states for more than 10 years to implement community-based interventions, build local coalitions, and track the impact of the disease on the U.S. population.

The program focuses on what works to control asthma: assessing and measuring changes in disease severity and control, using the right medications, educating people to manage their conditions, and controlling environmental irritants and allergens.

Even though the number of people with asthma has increased over the last 10 years, trends show that more are controlling their disease:

- 1.7 million fewer people had asthma attacks in 2009.
- 233,000 fewer asthma-related hospitalizations occurred in 2008, leading to \$3.96 billion in savings in hospital bills.
- 1,400 fewer people died of asthma in 2007.

Environmental Public Health Tracking Program

(FY 2013 funding for Washington—\$714,000. A new funding announcement has been released; FY 2014 funding information will be available later in the year.)

The World Health Organization (WHO) estimates that nearly 25% of all diseases are caused by environmental exposures. Some of these diseases—such as cancer, asthma, and cardiovascular disease—are the greatest killers today.

CDC's [Environmental Public Health Tracking Network](#) (Tracking Network) is a dynamic web-based tool that tracks and reports environmental hazards and the health problems that may be related to them.

The Tracking Network's integrated health, environmental exposure, and hazard information is used to

- Identify interventions and policies to reduce or prevent health effects from environmental exposures.
- Assess and research environmental links to diseases.
- Learn more about health and environmental issues in the communities where we live.

Since 2005, the Tracking Network has led to at least 160 public health interventions that prevent or control potential health effects from environmental exposures.

National Biomonitoring Program

(FY 2013 funding for Washington—\$1,348,000. A new funding announcement has been released; FY 2014 funding information will be available later in the year.)

CDC's National Biomonitoring Program assesses population and individual exposure to environmental chemicals using direct measurement of environmental chemicals or their products, in people's blood and urine.

CDC's National Biomonitoring Program helps identify harmful chemical exposures, protect health, avoid unnecessary regulation, and reduce healthcare costs through

- Development of unique laboratory methods to detect environmental chemicals in people.
- The most comprehensive assessment of the exposure of the U.S. population to more than 300 environmental chemicals.
- More than 50 studies of exposure and health effects per year.
- Support to state laboratories to increase national capacity and technical expertise in biomonitoring and to assess specific exposures of concern in states.
- Quality assurance, training, and technology transfer to state laboratories conducting biomonitoring.

Lead Poisoning Prevention Program

(FY 2011 funding for Washington—\$594,000; because of funding reductions, the program was discontinued in 2012. Some funding was restored in FY 2014. States will be re-competing for funding and more information will be available later in the year.)

Tracking

- Tracking data are available on health indicators such as asthma, birth defects, birth outcomes, carbon monoxide poisoning, cancer, and heart attacks.
- Tracking data are also available on environmental indicators such as air and drinking water, as well as exposure data such as levels of lead in a person's blood.

From:

<http://www.doh.wa.gov/DataandStatisticalReports/EnvironmentalHealth/WashingtonTrackingNetworkWTN.aspx>



Lead

- Of children ages 6 and under who were tested for lead exposure in Washington in 2011, 394 children had blood lead levels of 5 µg/dL or greater.
- *CDC's funding to state lead poisoning prevention programs was eliminated in FY 2012 because of budget reductions.



More than 12 million U.S. children are exposed to lead in their homes at levels that can harm their intellectual development. No safe blood level in children has been identified.

Reducing children's lead exposure is perhaps the greatest environmental health accomplishment in the past 20 years.

For more than 20 years, CDC funded state and local health agencies to

- Support surveillance, training, and technical capacity to help identify children with dangerous exposures to lead.
- Connect these families and children to appropriate healthcare and case management.
- Inspect and remediate unsafe homes.

Children who are exposed to lead lose \$3,000 to almost \$8,000 in lifetime productivity for each 1 microgram per deciliter (µg/dL) increase in blood lead level. Blood lead levels over 1 µg/dL are associated with measurable reductions in IQ.

Between 2007–2008 and 2009–2010, interventions that control or eliminate lead hazards before children are exposed (primary prevention) helped reduce the number of children exposed to lead (blood lead levels $\geq 1\mu\text{g/dL}$) by nearly 3 million, saving \$26–57 billion in lifetime productivity earnings alone. These estimates do not account for behavioral and other adverse effects on lifetime productivity linked to lead.

Public Health in Action:

Creating Asthma-Friendly Schools for Kids with Asthma in Washington

Asthma is one of the leading causes of hospitalization for children younger than age 15 years. About 5 percent of high school students living with the chronic respiratory disease report missing five or more days of school because of asthma.

In 2010, the Asthma Program trained about 75 school nurses and health educators on creating supportive school environments for students with asthma. The training promotes asthma-friendly policies, calls for every student with asthma to have an asthma action plan on file, and encourages parental involvement.

Environmental Public Health Tracking Helps Connect Air Pollution Control and Improved Health in Washington

For American Indians and Alaska Natives in Washington, asthma rates are much higher than the state average. These cases are also less likely to be well controlled. Reducing asthma triggers is a key step in preventing asthma attacks. Smoke can trigger an asthma attack, and non-certified wood burning stoves are a major source of smoke in some communities.

The Washington Tracking Program partnered with the state Asthma Program to find out where wood burning stoves—especially non-certified stoves—were being used. The data showed that wood burning was common in many communities, but scientists were most concerned about the high use of non-certified stoves in tribal communities where asthma rates were also high. They met with tribal leaders about wood stove use and highlighted how indoor and outdoor smoke from wood stoves can trigger problems for people with asthma.

After seeing the data about wood stove use and how wood smoke can trigger asthma, tribal leaders began to mobilize and motivate stakeholders around their action plan for managing smoke in their communities.

Biomonitoring in Washington

CDC funds the Washington State Biomonitoring Program to assess specific environmental exposures in the state by use of biomonitoring measurements in blood and urine. Biomonitoring measurements are the most health-relevant assessments of exposure, indicating the amount of chemical that actually enters the body from all environmental sources. The state conducts the Washington Environmental Biomonitoring Survey (WEBS) program to evaluate state-wide exposure to arsenic, metals, and pesticides. Preliminary results showed higher arsenic levels in participants of WEBS than in a nationally representative population. The state public health laboratory is currently conducting tests for speciated arsenic to identify possible sources of these exposures. Washington also studies regional exposures in areas with higher levels of naturally occurring arsenic, and the state lab tested for arsenic in urine samples collected from residents on south Whidbey Island who used private wells or small water systems that exceed the US Environmental Protection Agency's drinking water standard for arsenic.

The state is also testing participants of WEBS for exposure to pyrethroid and organophosphate pesticides. In 2012, Washington will investigate correlations between occupational practices and pyrethroid insecticide exposure in residential pest control professionals. Future projects include assessing mercury exposures in Asian populations and other residents of the Puget Sound region who may have higher exposures to mercury from frequent seafood consumption as well as assessing the impact of Washington's phase-out of bisphenol A (BPA) in certain children's products and sports water bottles on BPA exposure in the general state population.

Healthy Homes and Lead Poisoning Prevention in Washington*

The following is a description of activities carried out in previous years with the support of CDC's Lead Poisoning Prevention Program when it was fully funded:

Washington's Healthy Housing and Lead Poisoning Prevention Program aims to develop infrastructure for a statewide healthy homes program. Program goals include ensuring homes meet minimum health and safety requirements and reducing disease and injury from housing-related hazards.

Since 1993, the Washington State Department of Health's Blood Lead Registry has maintained records of all blood lead tests on Washington children. This allows the state to identify cases of elevated lead levels for follow-up with case management and education, to assess trends in lead exposure, and to identify communities at increased risk for lead exposure.

