Wisconsin State Health Assessment and Health Improvement Plan

2017

Access the report at Healthy.Wisconsin.gov
A letter from Linda Seemeyer
Secretary, Wisconsin Department of Health Services

Dear Partners in Health and the People of Wisconsin:

For decades, we have worked to be a healthier Wisconsin through the state health plan, which is informed by data, evidence, and the community.

The current ten-year state health plan, Healthiest Wisconsin 2020, is “both a product – a state health plan – and an ongoing process using science, quality improvement, partnerships and large-scale community engagement.” It is in that spirit of collaboration and continuous improvement that we are pleased to share Healthy Wisconsin.

Healthy Wisconsin and the Wisconsin Health Improvement Planning Process were driven by the great collaborative work that has taken place since preparation for Healthiest Wisconsin 2020 began nearly ten years ago. One of Wisconsin’s great assets is the sense of community and innovation in health.

Even as people and communities throughout Wisconsin continue to work broadly on all matters of health and wellbeing, Healthy Wisconsin invites us to align around five health priorities – alcohol, nutrition and physical activity, opioids, suicide and tobacco. Together, we can ensure that everyone can live better, longer.

Sincerely,

[Signature]

Linda Seemeyer
Thank you for reviewing the state health assessment and health improvement plan. This report provides important information regarding the health status of Wisconsin’s residents—including successes, challenges and identified opportunities to work together to continue to make improvements.
Foundational Work of Healthy Wisconsin
Healthiest Wisconsin 2020: Framework, Vision, Goals and Focus Areas

Healthy Wisconsin is an initiative driven by Healthiest Wisconsin 2020 (HW2020), our current 10-year state health plan. HW2020 represents “statewide community health improvement planning that is designed to benefit the health of everyone in Wisconsin and the communities in which we live, play, work and learn.” The extensive plan was a collaborative effort with a diverse range of public health workers and partners totaling 1,500 people.

The vision of HW2020 is “everyone living better, longer.” This was chosen to stress the importance of living a quality life from birth to old age, and to be inclusive of all communities and regions.

Complementing HW2020’s vision are two goals. The first goal is to improve health across the lifespan. This preventative approach emphasizes the importance of starting healthy practices at a young age in order to avoid things like chronic disease and injury, and continuing them until the end of life.

The second goal of HW2020 is to eliminate health disparities and achieve health equity. Making sure everyone in Wisconsin has access to good health is a very important part of this plan. There are large health differences between various communities in Wisconsin, which means not everyone has the same chance to live a healthy life. HW2020, and its follow-up Baseline and Health Disparities Report, looked at things like structural disadvantage along with the social determinants of health to help us better understand current health disparities.

HW2020 calls special attention to social determinants, which are the social, economic and educational factors that influence health. These factors became an element of the prioritization criteria established for identifying health issues of importance in Wisconsin, and the steering committee for WI-HIPP (Wisconsin Health Improvement Planning Process) included representation of stakeholders working in the areas of social, economic and educational policy and practice in Wisconsin. The steering committee strongly agreed with the public input that stressed the ongoing importance of social determinants in health outcomes.

Because we know that these factors underlie many health problems, we urge anyone working on the priorities issues identified in Healthy Wisconsin to seek ways to address these issues as well. Success in meeting the objectives laid out in this plan will be possible only as we include a focus on those experiencing health disparities, in the context of each priority and its associated implementation plans.

HW2020 includes 12 health focus areas that address specific health conditions and need our attention. This assessment is structured around these focus areas.

Finally, HW2020 includes nine infrastructure focus areas designed to look at our public health system and how it operates. This part of the plan aims to make health systems work more efficiently for the different people and communities in Wisconsin.
Assessing Population Health in Wisconsin

Another significant part of Healthiest Wisconsin 2020 was the Baseline and Health Disparities Report. This 26-chapter, 1,000-page document was created by the Wisconsin Department of Health Services in 2014 with the goal of using HW2020 to identify health differences throughout the entire state. The report focused largely on groups of people who are especially vulnerable to health disadvantages; these specifically chosen populations were racial and ethnic minority populations; people of lower socioeconomic status; people with disabilities; people who identify as lesbian, gay, bisexual and transgender (LGBT); and those in different geographical locations across the state.

Wisconsin state statute requires local health departments to complete regular community health assessments. The Affordable Care Act introduced the requirement that nonprofit hospitals assess their community’s health every three years. Other organizations such as community action agencies and federally qualified health centers are also doing more to assess their population’s health. Because so many community partners are required to conduct assessments, stakeholders are doing more to work together to ensure alignment. The University of Wisconsin-Population Health Institute has a project devoted to the review of these community health assessments in an effort to identify shared priorities across the state. The Institute is also the creator of the County Health Rankings and Roadmaps, and generates periodic progress reports and health report cards based on the HW2020 framework and indicators.

From December 2014 to January 2016 the State Innovation Model (SIM) was planned and executed with this goal: “to transform the health care system in a way that works for all stakeholders and advances health care value for Wisconsinites.” The $2.45 million plan was completed with the support of the Office of Governor Scott Walker, the Wisconsin Department of Health Services, the Statewide Value Committee, and the Center for Healthcare Value, along with several multi-sector workgroups representing the diverse interests of the project. The report, which included “specific population health components, was also available to the public for feedback through the SIM website and periodic town hall meetings.

The SIM report covered a significant amount of information. The leadership team recognized the importance for everyone involved to agree to clear, shared goals and a united purpose. The document was developed based on examples like the “Sustainable Transformation Model” and the “Collective Impact Model.” In the report, diabetes was identified as a pilot issue, specifically looking at the co-conditions of diabetes and hypertension and diabetes and depression. It also included a Plan to Improve Population Health, which was reviewed by the Centers for Disease Control and Prevention. The team was invited to present its findings and experiences with the CDC’s National Center for Chronic Disease Prevention and Health Promotion.
# Population Health Assessments in Wisconsin

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<thead>
<tr>
<th>Assessment</th>
<th>Description</th>
<th>Resources</th>
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<tbody>
<tr>
<td>Healthiest Wisconsin 2020</td>
<td>This 10-year state health plan is the third in a series of statewide community health improvement plans designed to benefit the health of everyone in Wisconsin and its communities.</td>
<td>[Healthiest Wisconsin 2020 Main Plan (2010)]</td>
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<tr>
<td>Healthiest Wisconsin 2020: Baseline and Health Disparities Report</td>
<td>This report offers baseline data for the health focus areas of Healthiest Wisconsin 2020. Also included are data about health disparities among some populations and communities in Wisconsin.</td>
<td>[Healthiest Wisconsin 2020 Baseline and Health Disparities Report (2014)]</td>
</tr>
<tr>
<td>Assessing and Improving Community Health in Wisconsin</td>
<td>University of Wisconsin Population Health Institute project to look at the priorities selected through local health assessments.</td>
<td><a href="#">Accessing and Improving Community Health in Wisconsin</a></td>
</tr>
<tr>
<td>State Innovation Model – State Health Innovation Plan</td>
<td>Through a $2.49 million grant from the Centers for Medicare and Medicaid Services Innovation Center, a statewide collaboration created a comprehensive State Health Innovation Plan (SHIP) to transform the health care system.</td>
<td>[State Health Innovation Plan (2016)]</td>
</tr>
<tr>
<td>County Health Rankings and Roadmaps</td>
<td>An assessment driven by data to identify state-specific, data-driven and realistic priorities, objectives and strategies to address identified needs and gaps.</td>
<td>[Wisconsin Mental Health and Substance Abuse Needs Assessment (2014)]</td>
</tr>
<tr>
<td>Title V Maternal and Child Health (MCH) Block Grant Needs Assessment</td>
<td>A five-year statewide needs assessment and plan of action to address priorities identified during the process.</td>
<td><a href="#">Wisconsin Department of Health Services</a></td>
</tr>
<tr>
<td>Wisconsin Child Health Needs Assessment</td>
<td>A needs assessment, the first phase in the ACTIVATE Initiative. Assessed “Wisconsin’s strengths, program and policy gaps and particular ideas of how a community academic partnership might best serve Wisconsin’s children.”</td>
<td>[Activate – Partnering to Transform Child Health in Wisconsin (2015)]</td>
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The People of Wisconsin

In 2015, Wisconsin had a total population of:

5,771,331

This represented a 1.5% increase from 2010.

Females are slightly greater in number than males.

Wisconsin’s racial and ethnic demographics mirror its neighboring Upper Midwestern states of Iowa and Minnesota.

87.6% White
6.6% African American
1.1% American Indian or Alaska Native
2.8% Asian
1.8% Two or More Races
6.6% Hispanic or Latino

More than 1 in 4 people in Wisconsin live in a rural area.

1 in 6 people live in Milwaukee County
Wisconsin has an older population than many other states, and the proportion of younger residents is going down.

### 55 and Older

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<tr>
<th>In 2010, about</th>
<th>In 2015, about</th>
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<tbody>
<tr>
<td><strong>25%</strong></td>
<td><strong>30%</strong></td>
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In 21 of the 72 counties in Wisconsin, more than 1 in 5 of the residents are 65 and older.

Education is linked to better health outcomes, including having a greater sense of control for one’s self, earning more money and living longer. Wisconsin ranks among the best in the U.S. for the number of residents who have graduated high school, nearly 9 out of 10. In Wisconsin, 2 out of 3 adults have some post-secondary (or college) education.

- **9 out of 10** Graduated High School
- **2 out of 3** Have some post-secondary (or college) education

The average household income in Wisconsin is $52,738; the U.S. national average was $55,775. According to U.S. Census data, the national poverty rate in 2014 was 14.8%, or approximately 46.7 million people. In Wisconsin, the poverty rate for the same year was 12.1%. The Institute for Research on Poverty at the University of Wisconsin-Madison issued the Wisconsin Poverty Report with 2014 data in June 2016 using the Wisconsin Poverty Measure.

- **10.8%** Statewide Poverty Rate
- **11.8%** Child Poverty Rate
- **6.8%** Elderly Poverty Rate
Minority and Vulnerable Populations in Wisconsin

In Wisconsin, and across America, there are certain groups of people who are especially vulnerable to poor health. Often it is harder for them to live healthy lives because of circumstances or other challenges beyond their control. Because we want everyone in our state to live better, longer, it is important that we directly name and address these groups. Continuing our work started in the Healthiest Wisconsin 2020 Baseline and Health Disparities Report, we identified these groups: racial and ethnic minorities; people of lower socioeconomic status; people with differing abilities; LGBT populations; and those who live in specific parts of the state.

It is important to remember that even within each of these groups there is a lot of diversity. While we are addressing them in larger, general terms, we recognize that the needs of individuals within each group might vary significantly. Where people live, various family structures, different values, assorted levels of education, plus many other factors influence each person’s outcomes within these groups. There are also people who fit into more than one of these categories, which places them in a unique position, and we are working on figuring out how that affects their health and wellbeing.

The following report sections look specifically at some of the health disparities experienced by these groups. Reading this information can be difficult, but it is important to talk about these health differences and why they happen. It is also important to remember that each group has unique strengths and assets they can draw on to face challenges. The data below come from the Baseline and Disparities Report, which was released in 2014.

Racial and Ethnic Minorities

The four diverse racial and ethnic minority populations identified by federal, state and local initiatives are: African American, Hispanic/Latino, Asian, and American Indian. These four groups make up an estimated 15% of Wisconsin’s total population.

Some of the health differences for racial and ethnic minorities include:

› In 2013, the death rate of infants less than one year old, in a population of 1,000, is 5.2 for Whites and 14.0 in the Black community.

› Alcohol liver disease death rates were almost six times higher for the American Indian population than any other population in Wisconsin.

› The Black and Hispanic/Latino communities were twice as likely as whites to experience frequent mental distress.
**Socioeconomic Status**

Socioeconomic status measures economic, social and work status.

Some of the health differences we see here are:

› Adults with low household incomes (<$20,000) have a significantly higher rate of smoking than both middle ($20,000-$74,999) and high income households (>-$75,000).

› Low-income adults in Wisconsin experienced frequent mental distress at a rate more than twice that of middle-income adults and six times that of high-income adults.

› Nearly one-half of children in poor households (0-99% of FPL) had experienced two or more Adverse Childhood Experiences (ACEs); the proportion decreased as household income increased.

**Differing Abilities**

Disabilities and impairments can include blindness and visual impairments, deafness and being hard of hearing, development disabilities and physical disabilities.

Some of the health differences for those with differing abilities include:

› Nearly 1 in 3 adults with a disability experienced frequent mental distress compared to 1 in 14 of those with no disability.

› Nearly 1 in 3 adults with disabilities reported four or more adverse childhood experiences (ACEs) compared to 1 in 7 of those who do not have a disability.

› People with disabilities are significantly more likely to be overweight or obese and have higher rates of diabetes.

› More than 1 in 3 adults with disabilities are current smokers, compared to 1 in 5 of those who not report a disability.

**LGBT**

The LGBT community includes people from diverse backgrounds. Community members vary by race, ethnicity, age, income and education. For some, sexual orientation or gender identity is central to their self-concept.

Some of the health differences for LGBT youth and adults include:

› LGBT youth are almost 5 times as likely to not go to school, to feel unsafe at school or on their way to or from school.

› LGBT youth are nearly twice as likely to feel so sad or hopeless that they stop doing some usual activities, 4 times as likely to attempt suicide and 6 times as likely to have a suicide attempt resulting in injury. LGBT adults are nearly 3 times as likely to feel sad or depressed and 7 times as likely to consider suicide.

› LGBT adults are 6 times as likely to be afraid for their safety.
**Wisconsin Health Improvement Planning Process**

WI HIPP officially commenced in 2015 and concluded in 2016. The process was documented, communicated, and feedback solicited through the [WI HIPP web page](#).

The state health assessment worked within the framework of Healthiest Wisconsin 2020 and the health focus areas. Using the state’s assessments of health from 2010 through 2015, and applying prioritization criteria reviewed and approved by the WI HIPP Steering Committee, approximately two dozen health issues emerged for review by subject matter experts, the public and the Steering Committee. Through discussion and use of a multi-voting technique, the Steering Committee identified a shorter list of health issues. This list required additional feedback from subject matter experts, including identification of baseline data and potential measurable goals for 2020.

Through additional discussions, the list was shortened to five priorities and one cross-cutting issue. These priorities were reviewed and approved by Department of Health Services Secretary Kitty Rhoades in May 2016. The priorities were revealed to the public via a workshop at the Wisconsin Public Health Association annual conference, and then shared online for public feedback throughout the summer.

Subject matter experts for each priority were identified and asked to help develop concise work plans. These priority plans were vetted with leadership groups across the state who are working closely with the issues. The consolidated plans were shared with the Steering Committee for final discussion and review in September 2016.

The consolidated plans lay the framework for the Priority Action Teams, which will convene regularly through December 2019 to report on and track the progress of the State Health Improvement Plan. The Priority Action Teams will report to the Public Health Council, which is statutorily charged with monitoring and advising on the implementation of the state health plan.
## Wisconsin Health Improvement Planning Process (WI HIPP)

<table>
<thead>
<tr>
<th>Phase</th>
<th>Description</th>
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| **Pre-WI HIPP** | HW2020 (2010)  
› “Do not re-invent the wheel”, one of the strongest messages that emerged in preparation for HW2020 and a message that re-emerged throughout WI HIPP  
› Recommended to 1) continue to focus on underlying determinants of health, not just specific diseases; 2) framework should allow partners to link their programmatic strategies to HW2020 goals; 3) retain focus on a strong public health system and connected partners  
› Used multiple processes, techniques and practical knowledge  
› Engaged more than 1,500 stakeholders statewide  
› Identified 23 focus areas  

**Baseline and Health Disparities Report (2014)**  
› Consisted of 1,000+ pages, formatted as power point presentations by population and health issue  
› Identified and highlighted health disparities among specific communities  
› Utilized in 2014 and 2015 for community conversations about health issues and disparities  

**State Innovation Model (SIM) - State Health Innovation Plan; Prioritization Criteria (2014-2015)**  
› Utilized collective impact model for engagement, other processes to engage many stakeholders in a short timeframe  
› Developed State Health Innovation Plan, with focus on diabetes, depression and hypertension  
› Collected feedback from stakeholders, the public and the CDC  


### Phase 1  
**October – November 2015**  
**Establish Collaborative Process**  
› Stakeholder groups identified  
› Steering Committee assembled; first meeting held  
› Prioritization criteria developed and approved  

### Phase 2  
**November 2015 – February 2016**  
**Compile Wisconsin State Health Assessment**  
› Convened subject matter experts  
› Convened data experts, chief medical officers  
› Collected public feedback and input on pressing health issues  
› Developed fact sheets for health issues that met prioritization criteria  

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<tr>
<th>Phase</th>
<th>Description</th>
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<tr>
<td><strong>Phase 3</strong></td>
<td>Establish Three to Five Priorities for Wisconsin State Health Improvement Plan</td>
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<tr>
<td>February - May 2016</td>
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<tr>
<td>› Convened WI HIPP Steering Committee (February, April)</td>
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<tr>
<td>› Facilitated Wisconsin Public Health Association presentation and feedback session</td>
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<td><strong>Phase 4</strong></td>
<td>Develop Wisconsin State Health Improvement Plan</td>
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<td>May - February 2017</td>
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<tr>
<td>› Engaged subject matter experts in identification of goals, measurable objectives, and strategies for improvement</td>
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<tr>
<td>› Solicited feedback from priority-specific stakeholders</td>
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<td>› Collected public feedback from Wisconsinites on their involvement with the priorities</td>
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<tr>
<td>› Convened Steering Committee to approve priority plans</td>
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<td>› Finalize State Health Improvement Plan</td>
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<tr>
<td><strong>Phase 5</strong></td>
<td>Implement Wisconsin State Health Improvement Plan</td>
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<td>March 2017 - December 2019</td>
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<tr>
<td>› Establish and regularly convene Priority Action Teams</td>
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<tr>
<td>› Monitoring of and advising on implementation of State Health Improvement Plan by Public Health Council</td>
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<tr>
<td>› Prepare for next cycle</td>
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<tr>
<td>› Launch Healthy Wisconsin</td>
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</table>
**Wisconsin Health Improvement Planning Process (WI-HIPP)**

**Steering Committee Members**

- Rick Abrams, Wisconsin Medical Society
- Bevan Baker, Milwaukee City Health Department
- Sarah Beversdorf, Ministry Health
- Isaiah Brokenleg, Great Lakes Inter-Tribal Epidemiology Center
- Mary Cay Freiberg, West Allis Department Board of Health and Wisconsin Association of Local Health Departments and Boards (WALHDAB) Board
- Bridget Cullen, Wisconsin Department of Children and Families
- Cheryl DeMars, The Alliance
- Gina Dennik Champion, Wisconsin Nurses Association
- Lisa Ellinger, Employee Trust Fund
- Mari Freiberg, Wisconsin Primary Health Care Association and Scenic Bluffs Community Health Centers
- Mary Kay Grasmick, Wisconsin Hospital Association
- Brenda Gray, Milwaukee Area Health Education Center
- Pam Guthman, University of Wisconsin School of Nursing
- Eileen Hare, Wisconsin Department of Public Instruction
- Bill Hanna, Wisconsin Department of Health Services – Office of the Secretary
- Stephanie Harrison, Wisconsin Primary Health Care Association
- Elizabeth Hudson, Wisconsin Office of Children’s Mental Health Director
- Sarah Jensen, Wisconsin Department of Military Affairs
- Bill Keeton, Public Health Council Steering Committee Co-Chair
- Karen McKeown, Wisconsin Department of Health Services – Public Health Steering Committee Co-Chair
- Kevin Moore, Wisconsin Department of Health Services - Medicaid
- Paula Morgen, Theda Care
- Lisa Mattes, CVS
- Karen Ordinans, Children’s Health Alliance of Wisconsin
- Neil Patel, CVS
- Molli Rolli, Wisconsin Medical Society and Mendota Mental Health Institute
- Matt Strittmater, La Crosse County Human Services
- Joy Tapper, Milwaukee Health Care Partnership
- Barb Theis, Wisconsin Association of Local Health Departments and Boards (WALHDAB) Board
- Karen Timberlake, University of Wisconsin Population Health Institute
- Becky Turpin, University of Wisconsin Hospitals and Clinics
- Sam Wilson, AARP
Wisconsin Health Improvement Planning Process (WI-HIPP)

Department of Health Services Team

› Milda Aksamitaukas
› Joyce Allen
› Oskar Anderson*
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› Lisa Bullard-Cawthorne
› Beth Collier
› Ousmane Diallo
› Julianne Dwyer
› Megan Elderbrook
› AJ Ernst
› Jason Fischer
› Shari Galitzer
› Crystal Gibson
› Chris Gjestson
› Brittany Crogan
› Andrea Gromoske
› Eric Grosso
› Linda Hale
› William Hanna
› Chris Huard
› Vicki Huntington
› Tasha Jenkins*
› Mimi Johnson*
› Beth Kaplan
› Alaina Knief
› Ashley Kraybill
› Paul Krupski
› Terry Kruse
› Martha Mallon
› Carlie Malone
› Robin Matthies
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› Richard Miller
› Donna Moore
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› Christine Niemuth
› Liz Oftedahl
› Mary Pesik
› Mike Quirke
› Camille Rodriguez
› Angie Rohan
› Ragini Sathasivam
› Jessica Seay
› Stephanie Smiley*
› Kelli Stader
› Spencer Straub
› Maggie Thelen
› Susan Uttech
› Shelby Vadjunec
› Chuck Warzecha
› Anne Ziege
› And many others who provided review and support.

* WI HIPP Division of Public Health Leadership Team
Public Health Infrastructure in Wisconsin

In addition to identifying 12 health focus areas, Healthiest Wisconsin 2020 identified nine infrastructure focus areas as “essential underpinnings of how work gets done”. Although the goal of WI HIPP was specifically to identify priority health issues for the state to work on together, the Steering Committee also recognized that many of these infrastructure focus areas are the tools by which the health goals will be met. The importance of a strong infrastructure was also a key theme that emerged from public input.

▲ Green represents ranking among the top 10 best states
▼ Red represents ranking among the bottom 10 states

Socioeconomic Status

▲ 3rd for high school graduation (AHR 2015)
▲ 4th (tied) for children with health insurance (AHR-HWC 2016)
▲ 6th for income disparity (AHR 2015)
▲ 6th for lack of insurance (AHR 2015)
▲ 6th for food insecurity among those 60 and older (AHR-SR 2016)
▲ 7th for percentage of households experiencing food insecurity (AHR-HWC 2016)
▲ 8th for percentage of adults aged 65 and older who live in households at or below 100% of the poverty threshold (AHR-SR 2016)
▲ 9th for percentage of adults aged 65 and older who report volunteering through or for an organization in the past 12 months (AHR-SR 2016)

Utilizing America’s Health Rankings (AHR), America’s Health Rankings for Health of Women and Children (AHR-HWC), and America’s Health Rankings Senior Report (AHR-SR).
## Infrastructure in Wisconsin

<table>
<thead>
<tr>
<th>Focus Area</th>
<th>Objectives</th>
<th>Reports and Resources</th>
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<tbody>
<tr>
<td>Access to High-Quality Health Services</td>
<td>› Assure access to high-quality health services</td>
<td>Healthiest Wisconsin 2020 Baseline and Health Disparities Report - Access to High-Quality Health Services (2014)</td>
</tr>
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<td></td>
<td>› Assure patient-centered health services for all</td>
<td>Wisconsin Primary Care Program</td>
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<td>Health Care Coverage</td>
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<td>Health Insurance Coverage in Past Year (2014)</td>
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<td>Collaborative Partnerships</td>
<td>› Identify resources to support partnerships</td>
<td>Local Public Health</td>
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<td></td>
<td>› Build effective partnerships resulting from respect and empowerment</td>
<td>Area Administration</td>
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<td>Local Public Health Departments</td>
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<td>Tribal Affairs Office</td>
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<td>Partner Communications and Alerting (PCA) Portal</td>
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<td>Wisconsin Association of Local Health Departments and Boards</td>
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<td>Other Partnerships</td>
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<td>Minority Health Program</td>
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<td>Aging and Disability Resource Centers (ADRCs)</td>
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<td></td>
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<td>Healthy Brain Initiative (HBI) Project</td>
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<tr>
<td>Emergency Preparedness, Response, and Recovery</td>
<td>› Increase integration and partner collaboration</td>
<td>Health Emergency Preparedness and Response</td>
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<td>› Increase community engagement</td>
<td>Wisconsin Hospital Emergency Preparedness Program (WHEPP)</td>
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<td>Wisconsin Emergency Assistance Volunteer Registry (WEAVR)</td>
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<td>Cities Readiness Initiative</td>
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<td>ReadyWisconsin</td>
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<td>Funding</td>
<td>› Establish stable revenue sources to support health departments</td>
<td>Wisconsin Local Health Department Survey (2015)</td>
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<td>› Effectively use funds available to support health departments</td>
<td>Preventive Health and Health Services Block Grant (Prevention Block Grant)</td>
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<td>Public Health Consolidated Contracting</td>
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<thead>
<tr>
<th>Focus Area</th>
<th>Objectives</th>
<th>Reports and Resources</th>
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</table>
| Health Literacy |  › Increase awareness of literacy’s effects on health outcomes  
  › Strengthen communication for effective health action | Cultural and Linguistically Appropriate Services in Health and Health Care (CLAS Standards)  
 Minority Health Community Grants  
 Wisconsin Health Literacy |
| Improve Data to Advance Health |  › Exchange data  
  › Make data accessible  
  › Use data standards to measure health | Wisconsin Interactive Statistics on Health  
 Wisconsin Public Health Information Network  
 Wisconsin Public Health Profiles  
 Environmental Public Health Tracking - County Environmental Health Profiles  
 Wisconsin County Maternal and Child Health Profiles  
 Public Health Meaningful Use  
 Wisconsin Health Information Organization  
 Wisconsin State Health Information Network  
 Death Data  
 Births and Infant Deaths Data  
 Immunization Data |
| Public Health Capacity and Quality |  › Strengthen quality in practice  
  › Achieve public health standards | Public Health Accreditation in Wisconsin  
 Public Health Employee Orientation  
 Wisconsin Admin Code ch. DHS 140 - Required Services |
| Public Health Research and Evaluation |  › Forge new paths to a healthy Wisconsin  
  › Take actions that are proven to work  
  › Target research to reduce health disparities | University of Wisconsin Population Health Institute  
 What Works for Health  
 Wisconsin Public Health Research Network |
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<tbody>
<tr>
<td>Workforce that Promotes and Protects Health</td>
<td>› Assure the workforce is prepared to practice in evolving delivery systems</td>
<td>Wisconsin Stat ch. 251 – Local Health Officials</td>
</tr>
<tr>
<td></td>
<td>› Establish systems to analyze workforce sufficiency, competency and diversity</td>
<td>Wisconsin Public Health Workforce Report (2011)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Wisconsin Clinical Laboratory Science Workforce Survey Report (2012)</td>
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<tr>
<td></td>
<td></td>
<td>Wisconsin Public and Community Health Registered Nurse Workforce Report (2013)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Wisconsin Local Health Department Survey (2015)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Wisconsin Area Health Education Center – Workforce Data and Analysis</td>
</tr>
</tbody>
</table>
Health in Wisconsin

This section details health issues in the state, using the framework of Healthiest Wisconsin 2020.

The first table in this section highlights the leading causes of death by age group for Wisconsin residents. The data used by subject matter experts, data leadership team, the WI HIPP Steering Committee and the public were based on the 2014 death data from the state.* In 2014, there were 50,127 deaths of Wisconsin residents. While the total number of deaths increased 10% from 2009 to 2014, the age-adjusted death rate, 711 per 100,000, decreased slightly. The death rate in Wisconsin is comparable to the national rate. Overall, the leading causes of death in Wisconsin in 2014 were cancer and heart disease, accounting for almost half (45%) of all deaths.

The leading causes of death and death rates vary by sex, age, race/ethnicity and socioeconomic status. Age-adjusted mortality rates by sex in Wisconsin mirror the national rates; in 2014, males had a 38% higher risk of dying than females. Age-adjusted mortality rates were also higher among non-Hispanic American Indian/Alaska Native and Non-Hispanic Black/African American populations compared to White; Asian and Hispanic groups had lower age-adjusted mortality rates than White.

Following the table are profiles on the 12 health focus areas of Healthiest Wisconsin 2020, in addition to profiles of emerging issues. Each profile includes:

› Indicators from America’s Health Rankings relevant to the health focus areas. These indicators can be used to demonstrate Wisconsin’s ranking over time and across the nation.

› Where applicable, there are additional indicators included where Wisconsin was most recently among the 10 best or 10 worst states in the nation, as ranked by America’s Health Rankings (AHR), America’s Health Rankings Health of Women and Children Report (AHR-WC) and America’s Health Rankings Senior Report (AHR-SR).

› Each profile includes a brief discussion of key health issues related to the focus area. All issues that were submitted for consideration and met preliminary criteria established by the WI HIPP Steering Committee are included.

› Each profile also contains highlights of what we are doing and what we can do to address the health issues related to the focus area.

* The 2015 data have since become available and can be accessed here.
Causes of Death

Leading causes are highlighted in different colors to demonstrate changes over age groups in population.

<table>
<thead>
<tr>
<th>Leading Causes of Death by age</th>
<th>Infants under 1</th>
<th>1 - 4</th>
<th>5 - 14</th>
<th>15 - 24</th>
<th>25 - 34</th>
<th>35 - 44</th>
<th>45 - 54</th>
<th>55 - 65</th>
<th>65 and older</th>
<th>All ages</th>
</tr>
</thead>
<tbody>
<tr>
<td>2nd</td>
<td>Congenital Malformations (87)</td>
<td>Malignant Neoplasms (7)</td>
<td>Malignant Neoplasms (12)</td>
<td>Suicide (116)</td>
<td>Suicide (111)</td>
<td>Malignant Neoplasms (165)</td>
<td>Heart Disease (491)</td>
<td>Heart Disease (1,161)</td>
<td>Malignant Neoplasms (8,160)</td>
<td>Heart Disease (11,066)</td>
</tr>
<tr>
<td>3rd</td>
<td>Unintentional Injuries (23)</td>
<td>Pneumonia/ Influenza (7)</td>
<td>Suicide (47)</td>
<td>Homicide (47)</td>
<td>Malignant Neoplasms (51)</td>
<td>Heart Disease (143)</td>
<td>Unintentional Injuries (317)</td>
<td>Unintentional Injuries (346)</td>
<td>Chronic Lower Respiratory (2,390)</td>
<td>Unintentional Injuries (2,891)</td>
</tr>
<tr>
<td>5th</td>
<td>Placenta/ Cord/ Membrane (77)</td>
<td>Congenital (*)</td>
<td>Homicide (*)</td>
<td>Heart Disease (14)</td>
<td>Heart Disease (56)</td>
<td>Chronic Liver Disease (43)</td>
<td>Suicide (159)</td>
<td>Chronic Liver Disease (262)</td>
<td>Alzheimer’s (1,857)</td>
<td>Stroke (2,468)</td>
</tr>
<tr>
<td>6th</td>
<td>Maternal Pregnancy Complication (64)</td>
<td>Septicemia (*)</td>
<td>Heart Disease (*)</td>
<td>Congenital (6)</td>
<td>Chronic Liver Disease (11)</td>
<td>Diabetes (37)</td>
<td>Stroke (93)</td>
<td>Diabetes (197)</td>
<td>Unintentional Injuries (1407)</td>
<td>Alzheimer’s (1,864)</td>
</tr>
<tr>
<td>7th</td>
<td>Neonatal Hemorrhage (10)</td>
<td>In Situ Neoplasm (*)</td>
<td>Congenital (*)</td>
<td>Chronic Lower Respiratory (5)</td>
<td>Stroke (10)</td>
<td>Stroke (23)</td>
<td>Diabetes (81)</td>
<td>Stroke (165)</td>
<td>Diabetes (1,009)</td>
<td>Diabetes (1,331)</td>
</tr>
<tr>
<td>8th</td>
<td>Respiratory Distress (*)</td>
<td>Heart Disease (*)</td>
<td>Cerebro-Vascular (*)</td>
<td>HIV (*)</td>
<td>In Situ Neoplasm (8)</td>
<td>Pneumonia/ Influenza (20)</td>
<td>Chronic Lower Respiratory (64)</td>
<td>Suicide (120)</td>
<td>Nephritis (864)</td>
<td>Pneumonia/ Influenza (981)</td>
</tr>
<tr>
<td>9th</td>
<td>Bacterial Sepsis (1)</td>
<td>Pneumonitis/ Asp. (*)</td>
<td>Septicemia (*)</td>
<td>Pneumonia/ Influenza (*)</td>
<td>Chronic Lower Respiratory (7)</td>
<td>Homicide (16)</td>
<td>Pneumonia/ Influenza (43)</td>
<td>Septicemia (67)</td>
<td>Pneumonia/ Influenza (834)</td>
<td>Nephritis (964)</td>
</tr>
<tr>
<td>10th</td>
<td>Necrotizing Enterocolitis (*)</td>
<td>–</td>
<td>Diabetes (*)</td>
<td>Pregnancy Related (*)</td>
<td>Septicemia (61)</td>
<td>HIV (10)</td>
<td>Nephritis (22)</td>
<td>Pneumonia/ Influenza (66)</td>
<td>Parkinson’s (600)</td>
<td>Suicide (755)</td>
</tr>
</tbody>
</table>

Source: Office of Health Informatics, Division of Public Health, Department of Health Services.
Health Profiles:
Alcohol and Drug Abuse
## Alcohol and Drug Use

<table>
<thead>
<tr>
<th>Focus Area</th>
<th>Objectives</th>
<th>Reports</th>
<th>Fact Sheets</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alcohol and Drug Use</td>
<td>- Change underlying attitudes, knowledge and policies</td>
<td>Reports</td>
<td>Fact Sheets</td>
</tr>
<tr>
<td></td>
<td>- Improve access to services for vulnerable people</td>
<td>![Image](attachment:Healthiest Wisconsin 2020 Baseline and Health Disparities Report (2014))</td>
<td>![Image](attachment:Neonatal Abstinence Syndrome in Wisconsin (2015))</td>
</tr>
<tr>
<td></td>
<td>- Reduce risky and unhealthy alcohol and drug use</td>
<td>![Image](attachment:Wisconsin Epidemiological Profile on Alcohol and Other Drug Use (2014))</td>
<td>![Image](attachment:Neonatal Abstinence Syndrome Rate by County of Residence, Wisconsin, 2009-2014 (Map) (2015))</td>
</tr>
</tbody>
</table>

### Reports
- Wisconsin Epidemiological Profile on Alcohol and Other Drug Use (2014)

### Fact Sheets
- Neonatal Abstinence Syndrome in Wisconsin (2015)
- Neonatal Abstinence Syndrome Rate by County of Residence, Wisconsin, 2009-2014 (Map) (2015)
- Opioid Overdose Prevention in Wisconsin (2015)
- Misuse and Abuse of Opioids in Wisconsin (2015)
- Trauma and Substance Use in Wisconsin (2015)
- Alcohol and Drug-Facilitated Sexual Assault in Wisconsin (2015)
- Operating While Intoxicated (OWI) in Wisconsin (2015)
- Underage Drinking in Wisconsin (2015)
- Adult Binge Drinking in Wisconsin (2015)
- Risks of Snowmobiling with Alcohol and Other Drug Use (2016)

<table>
<thead>
<tr>
<th>Alcohol and Drug Use</th>
<th>WI 2010</th>
<th>WI 2015</th>
<th>Best State 2015</th>
<th>WI Rank 2010</th>
<th>WI Rank 2015</th>
</tr>
</thead>
<tbody>
<tr>
<td>Binge Drinking</td>
<td>18.7</td>
<td>22.1</td>
<td>10.2</td>
<td>50</td>
<td>49</td>
</tr>
<tr>
<td>(percent of adult population)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Drug Deaths</td>
<td>11.0</td>
<td>13.1</td>
<td>2.7</td>
<td>16</td>
<td>23</td>
</tr>
<tr>
<td>(deaths per 100,000 population)</td>
<td></td>
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</tbody>
</table>

### America’s Health Rankings (AHR)

Utilizing America’s Health Rankings (AHR), America’s Health Rankings for Health of Women and Children (AHR-HWC), and America’s Health Rankings Senior Report (AHR-SR).
**Alcohol Abuse and Binge Drinking in Wisconsin**

**Binge Drinking**

Binge drinking is the practice of consuming large quantities of alcohol in a single session, which is considered four drinks in one sitting for women and five drinks for men. Heavy drinking is defined as more than two drinks per day for men and more than one drink per day for women. Adverse health outcomes associated with excessive alcohol consumption include cirrhosis of the liver and other chronic diseases, alcohol dependence and fetal alcohol spectrum disorder.

Wisconsin continues to rank among the worst in the nation for both heavy drinking and binge drinking among adults. Approximately one in four (24.3%) Wisconsin adults engaged in binge drinking in the previous month, compared to the national median of 18.3%; and 9.8% of Wisconsin adults engaged in heavy drinking, compared to the national median of 6.6%. More than one in three high school students in Wisconsin drank alcohol within the past 30 days.

In 2012, the estimated annual costs associated with excessive alcohol consumption in Wisconsin totaled $6.8 billion. In 2010, at least 1,732 people died (3% of all deaths), 3,511 were injured and 67,345 were arrested as a direct result of alcohol use and misuse in Wisconsin. The death rate due to alcoholic liver disease has increased by 28% since 2001.

While Whites have the greatest number of deaths, American Indians have the highest age-adjusted death rate from alcoholic liver disease.

- Binge drinking rates were significantly higher among males and younger age groups.
- Wisconsin’s rate of binge drinking among women of childbearing age is the highest in the nation.
- Binge drinking rates were significantly lower for Black adults compared to Whites.
- White students were significantly more likely to binge drink than were Black, Hispanic and Asian students.
- Early initiation of alcohol use (before age 13) was most prevalent among Latino and Black students.

**Alcohol Abuse and Binge Drinking**

- 45th for chronic drinking (AHR 2015)
- 48th for excessive drinking (AHR 2015)
- 48th for women aged 18-44 who self-report either binge drinking (four or more drinks on one occasion) in the past month or chronic drinking (eight or more drinks per week) (AHR-HWC 2016)
- 48th (tied) for percentage of children aged 12 to 17 who were dependent on or abused illicit drugs or alcohol in the past year (AHR-HWC 2016)
- 49th for binge drinking (AHR 2015)
- 50th for percentage of adults aged 65 and older who self-report either binge drinking (five or more drinks [men] or four or more drinks [women] on one occasion in the last year) or chronic drinking (more than two drinks [men] or more than one drink [women] per day) (AHR-SR 2016)
Drug Use in Wisconsin

Drug overdose and prescription drug abuse are related to many types of mortality, morbidity, and criminal behavior. Drug overdose deaths are now the leading injury cause of potential years of life lost before age 65, and have overtaken automobile accidents as a cause of death. More Wisconsin residents died in 2013 from drug poisoning than from suicide, breast cancer, colon cancer, firearms, influenza or HIV.

Wisconsin’s patterns of illicit drug consumption mirror national trends. This includes the use of prescription drugs for non-medical purposes.

Drug Use and Drug-related Death in Wisconsin

- Age-adjusted rate of drug-related mortality increased from 6.7 deaths per 100,000 population in 2004 to 15.2 deaths per 100,000 in 2015.
- Charges for drug-related hospitalizations in Wisconsin totaled $317 million in 2012 (48% increase from 2004).

Non-Medical Use of Prescription Drugs in Wisconsin

- Of deaths related to prescription opioid overdose, 93% occurred among individuals over age 25 in 2015.
- Opioid pain relievers including oxycodone, hydrocodone, methadone, and other prescription opioids contributed to 44% of overdose deaths in 2015.

Other Drug-Related Illness and Injury

- Heroin contributed to approximately 1 in 4 overdose deaths in 2013.
- Of deaths related to heroin overdose, 83% occurred among individuals over age 25 in 2015.
- 70% of drug overdose deaths involved opioids in 2015.

What Are We Doing?

Governor’s Task Force on Opioids
Heroin, Opiate Prevention and Education Agenda (HOPE) signed into law
Dose of Reality campaign
State Council on Alcohol and Other Drug Abuse (SCAODA)

What Can We Do?

Address underage drinking (ages 12-20)
Reduce adult binge drinking (18-34)
Reduce drinking among pregnant women
Reduce drinking and driving (especially among people ages 16-34)
### Chronic Disease

<table>
<thead>
<tr>
<th>Focus Area</th>
<th>Objectives</th>
<th>Reports</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chronic Disease Prevention and Management</td>
<td>Promote sustainable chronic disease programs</td>
<td>Reports</td>
</tr>
<tr>
<td></td>
<td>Improve equitable access to chronic disease management</td>
<td>Healthiest Wisconsin 2020 Baseline and Health Disparities Report (2014)</td>
</tr>
<tr>
<td></td>
<td>Reduce chronic disease health disparities</td>
<td>The Epidemic of Chronic Disease in Wisconsin: Why it Matters to the Economy and What You Can Do to Help (2011)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Burden of Asthma in Wisconsin (2015)</td>
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<td></td>
<td></td>
<td>Burden of Heart Disease and Stroke in Wisconsin (2010)</td>
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<tr>
<td></td>
<td></td>
<td>Wisconsin Cancer Survival (2016)</td>
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<tr>
<td></td>
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<td>Wisconsin Pediatric Cancer Report (2016)</td>
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<td></td>
<td></td>
<td>Fact Sheets</td>
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<tr>
<td></td>
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<td>Overweight and Obesity in Wisconsin (2016)</td>
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<td></td>
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<td>All Cancer in Wisconsin (2016)</td>
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<td></td>
<td></td>
<td>Breast Cancer in Wisconsin (2016)</td>
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<td></td>
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<td>Breast Cancer Disparities between African American and White Women in Wisconsin (2016)</td>
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<td></td>
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<td>Colorectal Cancer in Wisconsin (2016)</td>
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<td></td>
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<td>Lung Cancer in Wisconsin (2016)</td>
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<td></td>
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<td>Skin Cancer in Wisconsin (2016)</td>
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<td></td>
<td></td>
<td>Adolescent and Childhood Cancer in Wisconsin (2016)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Chronic Disease Prevention and Management</th>
<th>WI 2010</th>
<th>WI 2015</th>
<th>Best State 2015</th>
<th>WI Rank 2010</th>
<th>WI Rank 2015</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cancer Deaths (deaths due to all causes of cancer per 100,000 population)</td>
<td>192.7</td>
<td>193.3</td>
<td>146.1</td>
<td>23</td>
<td>30</td>
</tr>
<tr>
<td>Cardiovascular Deaths (deaths due to CVD—including heart disease and stroke—per 100,000 population)</td>
<td>258.3</td>
<td>237.2</td>
<td>186.5</td>
<td>22</td>
<td>24</td>
</tr>
<tr>
<td>Obesity (percent of adults who are obese by self-report, with a body mass index [BMI] of 30.0 or higher)</td>
<td>29.2</td>
<td>31.2</td>
<td>21.3</td>
<td>34</td>
<td>36</td>
</tr>
</tbody>
</table>

Chronic Disease

Chronic diseases are defined by the National Center for Health Statistics and the World Health Organization as illnesses that last for at least three months, and often for a long time. Chronic diseases, including cancer, cardiovascular disease, diabetes and stroke, are some of the most common and expensive health problems. These diseases are hard to cure, often get worse over time and can leave people disabled. Some of the things people do that contribute to chronic disease, and the possible sickness and death that result from them, include smoking or chewing tobacco, not eating a healthy diet, not staying active and drinking too much alcohol.

Cardiovascular Disease

Cardiovascular disease is one of two leading causes of death in Wisconsin. Together, heart attacks and strokes cause approximately 1 in 3 deaths in the state. Direct and indirect costs for cardiovascular disease are estimated at approximately $4 billion annually in Wisconsin. Even though the deaths from coronary heart disease have gone down, there is still a big difference in the number of people who die from it based on race and ethnicity.

Stroke is the leading cause of serious disability in Wisconsin, where over 2,500 people die from strokes each year. Many of the people who survive after a stroke will have major physical, mental and emotional disabilities. Strokes cost an estimated $629 million each year in Wisconsin. People who have strokes are also much more likely to have hypertension.

According to the National Health and Nutrition Examination Survey (NHANES), more than 1.3 million adults have hypertension in Wisconsin. Of those, only half are controlled, and an estimated 275,000 people in Wisconsin do not know they have high blood pressure.

About 750,000 adults in Wisconsin have diabetes or prediabetes, and that number is growing each year. Diabetes costs about $4.5 billion in Wisconsin. Diabetes causes many other health problems and people who have it need a lot of daily care to make sure they stay as healthy as possible.

Green represents ranking among the top 10 best states

Cancer - Breast

▲ 3rd for percentage of adults aged 65 to 74 who self-report having a mammogram and/or fecal occult/colonoscopy/sigmoidoscopy screens within the recommended time period (AHR-SR 2016)

Cancer - Colorectal

▲ 4th for colorectal cancer screening (AHR 2015)

Cardiovascular

▲ 7th for heart attacks (AHR 2015)
▲ 8th for high cholesterol (AHR 2015)

Diabetes

▲ 1st (tied) for percentage of women aged 18 to 44 who have been told by a doctor that they have diabetes (excludes prediabetes and gestational diabetes) (AHR-HWC 2016)
▲ 5th for diabetes management (percentage of Medicare beneficiaries aged 65 to 75 with diabetes receiving a blood lipids test) (AHR-SR 2016)
Cancer

Cancer is not just one disease, but many diseases. There are more than 100 different types of cancer. The Wisconsin Tracking Program has data on 14 different types of cancer. Wisconsin also uses a population-based cancer registry, the Wisconsin Cancer Reporting System (WCRS). This system, housed within the Department of Health Services, was established in 1976 to collect information about how often people who live in Wisconsin get cancer. Since 1994, WCRS has been part of the National Program of Cancer Registries.

Every day, nearly 90 people in Wisconsin will find out they have cancer. Cancer is a leading cause of death in Wisconsin. In 2012, the most common types of cancer in Wisconsin were lung and bronchus, colon and rectum, breast and prostate. There are significant differences in the stages at which people are diagnosed and die depending on the kind of cancer and the race and gender of the person diagnosed.

What Are We Doing?

- Million Hearts Wisconsin Blood Pressure Improvement Challenge
- Wisconsin Chronic Disease Prevention Program
- Wisconsin Comprehensive Cancer Control Program
- Wisconsin Coverdell Stroke Program
- Wisconsin Heart Disease and Stroke Alliance
- Wisconsin Stroke Coalition

What Can We Do?

Increase implementation of quality improvement processes in health systems, including electronic health record adoption and increased institutionalization and monitoring of standardized quality measures at the provider and systems level.
Health Profiles:

Communicable Diseases
# Communicable Diseases

<table>
<thead>
<tr>
<th>Focus Area</th>
<th>Objectives</th>
<th>Reports</th>
</tr>
</thead>
</table>

## America’s Health Rankings (AHR)

<table>
<thead>
<tr>
<th>Disease/Immunization</th>
<th>WI 2010</th>
<th>WI 2015</th>
<th>Best State 2015</th>
<th>WI Rank 2010</th>
<th>WI Rank 2015</th>
</tr>
</thead>
<tbody>
<tr>
<td>Infectious Diseases <em>(cases per 100,000 population)</em></td>
<td>N/A</td>
<td>0.207</td>
<td>-1.09</td>
<td>N/A</td>
<td>35</td>
</tr>
<tr>
<td>Immunization – Children <em>(percent aged 19 to 35 months)</em></td>
<td>93.53</td>
<td>70.9</td>
<td>84.7</td>
<td>–</td>
<td>29</td>
</tr>
<tr>
<td>Immunization HPV female</td>
<td>N/A</td>
<td>40.9</td>
<td>54.9</td>
<td>N/A</td>
<td>21</td>
</tr>
<tr>
<td>Immunization HPV male</td>
<td>N/A</td>
<td>23.6</td>
<td>42.9</td>
<td>N/A</td>
<td>15</td>
</tr>
</tbody>
</table>

Communicable Diseases

Communicable diseases (infectious diseases) are illnesses caused by bacteria, viruses, fungi or parasites. As clean water, refrigeration, and sanitation get better and more common; and as safer, more effective vaccines become available, communicable diseases become less of a threat. However, people still get common diseases and new diseases are always being discovered.

Vaccines protect more than the individual that gets them, they prevent the spread of disease within the community. The number of adults who receive these possible life-saving vaccines remains low so new efforts are needed to encourage vaccination throughout life.

Immunizations

The Wisconsin Immunization Program, along with many other partners, has the goal of eliminating the spread of preventable diseases through vaccination and actions that will help stop outbreaks. Wisconsin has a computerized internet database program, the Wisconsin Immunization Registry (WIR), which records and tracks the dates Wisconsin children and adults get their shots.

In 2011, for most age groups, children in Wisconsin got their vaccines more frequently than other children in America. According to the CDC, in 2014:

› Vaccination rates among children aged 19-35 months living in Wisconsin were comparable to or higher than those of children nationally. Wisconsin ranked 29th for the percentage (70.9%) of children up-to-date with the full series of recommended immunizations.

› HPV vaccination rates among adolescents in Wisconsin are suboptimal, similar to the national rates, but are improving, with 39.7% of females and 21.6% of males aged 13-17 years receiving 3 doses of HPV vaccine. Among the 50 states, Wisconsin ranked 21st for females and 16th for males.

› During the 2014-2015 influenza season, only 57.2% of Wisconsin adults aged 65 and older received an influenza (flu) vaccination. Wisconsin ranked the lowest of all other states (national rate: 66.7%).

Vaccinations

▲ 5th for percentage of adolescents aged 13 to 17 years who received ≥1 dose of tetanus toxoid, reduced diphtheria toxoid, and acellular pertussis (Tdap) since age 10 years (AHR HWC 2016)
▼ 43rd for pertussis (AHR 2015)
▼ 47th for percentage of adults aged 65 and older who self-report receiving a flu vaccine in the last year (AHR-SR 2016)
Incidence of Disease

› Since 2002, the number of people with meningococcal disease in Wisconsin has decreased because of new vaccines and increased vaccinations.

› During 2007-2010, the rates of infection of both Streptococcus pneumoniae and group B streptococcal (GBS) among Blacks and American Indians were considerably higher than among Whites.

› During 2012, Black people with influenza in Wisconsin were hospitalized more often than other racial and ethnic groups.

› Asians experience hepatitis B and tuberculosis at higher rates than other racial/ethnic groups in Wisconsin.

Hepatitis C Virus

Hepatitis C is a liver infection caused by the hepatitis C virus (HCV). HCV is spread by exposure to blood from a person that has it; it can also be spread through sex or from a mother to her infant. Today most new HCV infections are caused by sharing needles, syringes or other equipment used to inject drugs. Wisconsin has about 2,500 new reports of HCV infections each year; approximately 90,000 people in Wisconsin are living with HCV infection. Many people are infected with HCV, but not diagnosed.

Infection rates are increasing among younger people in Wisconsin, with most of these cases related to injection drug use. In 2015 alone, 994 new HCV infections were reported among people aged 15-29 years. HCV as a cause of death is three times higher among males than females. Of the people living in Wisconsin known to have HCV, 65% are “baby boomers” or those born between 1945-1965. Annual rates among Native American and non-Hispanic Black people are more than two times higher than rates among non-Hispanic whites.

HIV/AIDS

An estimated 7,900 people are living with HIV in Wisconsin, including those who do not know they have it. The overall number of HIV diagnoses went down in Wisconsin between 2007 and 2016 but the number increased among younger males ages 13-29. More information on HIV/AIDS can be found in the Reproductive and Sexual Health section.

Sexually Transmitted Infections

Each year there are more STDs reported than all other reportable communicable diseases combined. In 2015, there were 23,945 new cases of chlamydia and 5,253 new cases of gonorrhea. Most of these new cases were among young people aged 15-25. African Americans also had a rate of infection that was nine times higher than that of whites. More information about sexually transmitted infections in Wisconsin can be found in the Reproductive and Sexual Health section.
**Tick-Transmitted Disease**

Lyme disease is the most commonly reported vectorborne illness in the U.S. In 2014, it was the fifth most common nationally notifiable disease. Lyme disease is the highest tickborne disease reported in Wisconsin with more than a total of 38,000 cases reported from 1990 to 2015. In 2015, a total of 1,883 cases of Lyme disease were reported in Wisconsin with the highest number of cases in the western and northern regions. In recent years, cases have increased in the central and eastern regions. Other tickborne illnesses identified in Wisconsin include anaplasmosis, the state’s second most frequently reported tickborne illness, babesiosis, ehrlichiosis and Powassan virus disease. The Wisconsin Department of Health Services and local health departments investigate tickborne diseases to better understand the increasing risk tickborne diseases pose in Wisconsin.

**Tuberculosis**

Tuberculosis (TB) is a disease caused by bacteria that are spread from person to person through the air. TB usually affects the lungs, but it can also affect other parts of the body such as the brain, the kidneys or the spine. In most cases, TB is treatable and curable; however, persons with TB can die if they do not get proper treatment. The incidence rate of TB in Wisconsin is at or below 1 per 100,000; the national incidence rate is 3 per 100,000. The incidence rate among foreign-born individuals in Wisconsin, however, is 15 per 100,000, and 25.5 per 100,000 among foreign-born individuals from Asian countries.

Multidrug-resistant TB (MDR TB) is caused by an organism that is resistant to at least isoniazid and rifampin, the two most potent TB drugs. Resistance to anti-TB drugs can occur when these drugs are misused or mismanaged. Examples include when patients do not complete their full course of treatment; when healthcare providers prescribe the wrong treatment, the wrong dose or the wrong length of time for taking the drugs; when the supply of drugs is not always available; or when the drugs are of poor quality. The cost of one MDR TB infection is approximately $260,000. The 10-year average of MDR TB in Wisconsin is 6% of all TB cases, while the national average is less than 2%.

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**What Are We Doing?**

The Wisconsin Electronic Disease Surveillance System (WEDSS) has data on selected vaccine-preventable diseases

Wisconsin Immunization Registry

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**What Can We Do?**

Continued surveillance
Health Profiles:
Environmental Health
# Environmental Health

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<tr>
<th>Focus Area</th>
<th>Objectives</th>
<th>Reports</th>
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<tr>
<td>Environmental and Occupational Health</td>
<td>Improve the quality and safety of the food supply and natural, built and work environments</td>
<td>Healthiest Wisconsin 2020 Baseline and Health Disparities Report (2014)</td>
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<tr>
<td></td>
<td>Promote safe and healthy homes in all communities</td>
<td>Environmental Public Health Tracker (2016)</td>
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<td></td>
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<td>Burden of Asthma in Wisconsin (2013)</td>
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<td></td>
<td></td>
<td>Report on Childhood Lead Poisoning in Wisconsin (2014)</td>
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<tr>
<td></td>
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<td>Drinking Water Data (2016)</td>
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<tr>
<td></td>
<td></td>
<td>Fact Sheets</td>
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<td></td>
<td></td>
<td>Harmful Algal Blooms Toolkit (2016)</td>
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<table>
<thead>
<tr>
<th>Environmental and Occupational Health</th>
<th>WI 2010</th>
<th>WI 2015</th>
<th>Best State 2015</th>
<th>WI Rank 2010</th>
<th>WI Rank 2015</th>
</tr>
</thead>
<tbody>
<tr>
<td>Air Pollution (micrograms of fine particles per cubic meter)</td>
<td>11.1</td>
<td>9.1</td>
<td>5</td>
<td>31</td>
<td>30</td>
</tr>
<tr>
<td>Occupational Fatalities (deaths per 100,000 workers)</td>
<td>3.3</td>
<td>3.8</td>
<td>2</td>
<td>8</td>
<td>16</td>
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America’s Health Rankings (AHR)

Utilizing America’s Health Rankings (AHR)
Environmental Health

Where people live, work and play affects their health. This is true whether we’re talking about the environment inside or outside because both can have good or bad consequences on our health. For example, the air we breathe, water we drink, food we eat and communities we live in will influence how we feel and can even make us sick. Knowing this, it is important to make sure our homes and communities are environmentally safe.

Lead

About 30% of all homes in Wisconsin have lead-based paint hazards. Lead poisoning in Wisconsin has steadily gone down among children under age six since 2001, but there are still disparities between different groups. In 2010, Black children were three to six times as likely as White children to have experienced lead poisoning. Children who live in poverty are also at increased risk for lead poisoning, possibly because their families have limited housing options. In 2010, 81% of all children in Wisconsin who had elevated blood lead levels were enrolled in Medicaid.

Air Quality Issues and Asthma in Wisconsin

In Wisconsin, 1 in 10 adults and 1 in 13 children have asthma. Asthma can be controlled and even prevented. Still, many people with asthma do not have it under control. Many adults and children who have asthma do not have the recommended two checkups per year and a similar number do not get an asthma action plan from their provider.

While the statewide rate of asthma hospitalization has gone down slightly over the past 10 years, notable disparities exist:

› Black adults have a much higher percentage of lifetime and current asthma compared to other racial or ethnic groups.

› Trips to the hospital because of asthma were five times greater for the Black population and two times greater for American Indians than for Whites.

› Milwaukee and Menominee counties had asthma hospitalization and emergency department visit rates roughly twice the statewide average.

› Lifetime and current asthma rates are significantly higher among people with lower incomes and those with less education.

What Are We Doing?

Wisconsin Asthma Program and Wisconsin Asthma Plan

280+ member Wisconsin Asthma Coalition

Wisconsin Radon Information Center – 1-888-LOW RADON

New public data portal for environmental public health tracking

Department of Health Services Environmental Health Listserv
Health Profiles:
Healthy Growth and Development
## Healthy Growth and Development

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<th>Focus Area</th>
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<th>Reports</th>
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<tr>
<td></td>
<td>› Reduce disparities in health outcomes</td>
<td></td>
<td>What Moms Tell Us: Postpartum Depression (2011)</td>
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<td></td>
<td></td>
<td></td>
<td>Wisconsin Infant Mortality Background and Related Efforts (2013)</td>
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### America’s Health Rankings (AHR)

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<thead>
<tr>
<th>Healthy Growth and Development</th>
<th>WI 2010</th>
<th>WI 2015</th>
<th>Best State 2015</th>
<th>WI Rank 2010</th>
<th>WI Rank 2015</th>
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<tr>
<td>Infant Mortality</td>
<td>6.4</td>
<td>6</td>
<td>4.2</td>
<td>19</td>
<td>23</td>
</tr>
</tbody>
</table>

Utilizing America’s Health Rankings (AHR), America’s Health Rankings for Health of Women and Children (AHR-HWC), and America’s Health Rankings Senior Report (AHR-SR).
Healthy Growth and Development

According to Healthiest Wisconsin 2020, healthy growth and development “requires family-centered, community-based, culturally competent, coordinated care and support throughout the life course during preconception and prenatal periods, infancy, childhood, adolescence and adulthood.” This means in order to grow in the healthiest, best way possible we need to be lovingly supported by our family and community and receive care specific to our needs from the time we are in the womb through old age.

Prematurity and Low Birth Weight

In Wisconsin, in 2015:

- 6,251 infants were born prematurely (gestation of less than 37 weeks), or 9.3% of all births
- 4,889 infants were low birth weight (weighed less than ~5.5 pounds at birth), or 7.3% of all births; 8% of all infants in the U.S. are born with a low birth weight
- 889, or 1.3% of all births, were born at very low birth weight (weighed less than ~3.3 pounds at birth)

The March of Dimes aims to reduce preterm births to 8.1% by 2020. In 2016, March of Dimes gave Wisconsin a grade of “C” for its preterm birth rate. However, there is variation across the state; Milwaukee earned a D for its rate of 10.4%, while Green Bay received an A for its rate of 8%. This means that low birth weight is a noteworthy health difference between groups and we will need to keep working to reduce this disparity.

Infant Mortality

Fetal deaths or stillbirths are reported if the fetus reached 20 weeks of gestation or 250 grams. In Wisconsin in 2015, there were 331 recorded fetal deaths. During this same year, there were 384 deaths of infants under the age of one year. The infant mortality rate was 5.7 infant deaths per 1,000 live births, unchanged from 2014. The rate was 11.1 per 1,000 births for teens aged less than 20.

Infant Health

- 4th for percentage of babies aged 0 to 2 years who had a well-baby checkup in the past 12 months (AHR-HWC 2016)
- 5th for percentage of women with a recent birth who report their infants are usually placed on their backs to sleep (AHR-HWC 2016)
- 6th for baby-friendly facilities (AHR-HWC 2016)
2012-2014 three-year rolling average infant mortality rates calculated for major race/ethnicity groups showed large differences between groups:

- Hispanic/Latino – 4.8 infant deaths per 1,000 births
- White – 4.8 infant deaths per 1,000 births
- Laotian/Hmong – 6.5 infant deaths per 1,000 births
- American Indian/Alaska Native – 8.1 infant deaths per 1,000 births
- Black/African American – 13.8 infant deaths per 1,000 births

What Are We Doing?

- Prenatal Care Coordination (PNCC) – Medicaid and BadgerCare Plus benefit
- Wisconsin Healthiest Women Initiative
- Wisconsin First Step
- Maternal and Child Health Hotline
- Collaborative Improvement and Innovation Network (CoIIN) to Reduce Infant Mortality

What Can We Do?

- Increase rate of annual preventive medical visits for women and adolescents
Health Profiles:

Injury and Violence
# Injury and Violence

## Focus Area Objectives Reports

### Injury and Violence Prevention

- Create safe environments and practices through policies and programs
- Improve systems to increase access to injury care and prevention services
- Reduce disparities in injury and violence

<table>
<thead>
<tr>
<th>Reports</th>
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<tr>
<td><em>Burden of Injury in Wisconsin (2011)</em></td>
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<td><em>Burden of Falls in Wisconsin (2010)</em></td>
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<tr>
<td><em>Wisconsin Fall Prevention Activities Survey Report (2011)</em></td>
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### America’s Health Rankings (AHR)

<table>
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<tr>
<th>Violent Crime (offenses per 100,000 population)</th>
<th>WI 2010</th>
<th>WI 2015</th>
<th>Best State 2015</th>
<th>WI Rank 2010</th>
<th>WI Rank 2015</th>
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<tr>
<td></td>
<td>257</td>
<td>278</td>
<td>121</td>
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Injury and Violence

Injury is a leading cause of death and disability among Wisconsin residents every year. Injury and violence encompass a broad array of topics. Unintentional injuries are sometimes referred to as accidents despite being often preventable. Intentional injuries are those that were purposely inflicted, and often involve violence. Injuries are the leading cause of death among Wisconsin people aged 1 - 44 years and are a significant cause of morbidity and mortality at all ages. Injuries and violence occur in all ages, races, and socioeconomic classes; however, some groups experience more injuries and violence than other groups.

Falls

In 2010, unintentional falls accounted for the greatest number of Wisconsin injury deaths among adults, mainly among adults 65 and older. White adults had a significantly higher age-adjusted death rate from falls than did Black, Hispanic, and Asian adults. During 2008-2010, injury deaths due to falls happened among residents from all 72 counties of Wisconsin. Counties with age-adjusted rates that topped the statewide rate of fall-related injury death were found in urban, suburban, and rural regions. In 2010, unintentional falls were responsible for the greatest number of Wisconsin injury hospitalizations, nearly 50% of all injury hospitalizations. In 2010, Medicare was listed as the primary payer for nearly 75% of fall-related hospitalizations in Wisconsin.

Motor Vehicle Crashes

In 2013, there were 118,254 traffic crashes, 28,747 injury crashes and 491 fatal crashes in Wisconsin, resulting in 527 deaths. The average fatality rates are slightly lower in Wisconsin than the Midwestern average, at 0.89 deaths per 100 million miles of vehicle travel. Minnesota has the lowest rate regionally, 0.68, while Iowa, Indiana, and Michigan have rates at or above 1.0.

Compared to other age groups, teens wear their seatbelts the least and have a greater risk of being involved in a motor vehicle crash. In Wisconsin, approximately one-quarter of adults do not always wear a seat belt when driving or riding in a motor vehicle. Men were significantly less likely to wear a seat belt than women. The number of deaths from motor vehicles crashes was highest among rural populations; however, deaths occurred among residents of all counties but one.
Sexual Assault and Violence

Sexual violence is doing or saying something to another person that is both sexual and unwanted; examples of this behavior range from sexual harassment to unwanted touching to rape. All are done without consent, which means there is no permission given by the person experiencing the abuse. Sexual violence affects women at a much higher rate than men; four out of five victims are female. It is estimated that one in seven or 14% of Wisconsin women over the age of 18 has been raped at some point in her lifetime. Approximately 90% of victims know the person who assaulted them. Two-thirds of victims of assaults are less than 15 years of age.

Suicide

The suicide rate in Wisconsin is four times the homicide rate. Every year, over 700 Wisconsin residents die by suicide. In addition, approximately 5,500 Wisconsin residents are hospitalized due to intentional, self-inflicted injury. More on suicide in Wisconsin can be found in the Mental Health section.

Violence

Wisconsin is ranked 19th for violent crime in America’s Health Rankings 2015. The number of violent crimes (murders, rapes, robberies and aggravated assaults) per 100,000 people has remained relatively stable in Wisconsin for the past three years at approximately 280. The national average for violent crime for the same period was 387 offenses per 100,000 people.

Firearms are the third leading cause of injury death for Wisconsin children. Both firearm-related injury and death continue to increase in Wisconsin, despite national rates decreasing, with approximately 1.7 children killed by firearms per 100,000 children based on the 2012-2014 three-year average. In Wisconsin, homicide explains 48% of firearm-related deaths in children, while suicide accounts for 45%.

What Are We Doing?

Wisconsin Falls Prevention Initiative and Wisconsin Fall Prevention Action Plan
Forward Wisconsin: A Plan for the Prevention of Sexual Violence

What Can We Do?

Increase access to information on evidence-based injury prevention programs and policies at the state, regional and local levels
Increase the capacity of professionals in Wisconsin to design, implement and evaluate evidence-based injury and violence prevention programs and policies
Health Profiles:
Mental Health
**Mental Health**

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<th>Focus Area</th>
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<th>Reports</th>
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<tr>
<td>Mental Health</td>
<td>› Reduce smoking and obesity among people with mental disorders</td>
<td>Healthiest Wisconsin 2020 Baseline and Health Disparities Report (2014)</td>
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<tr>
<td></td>
<td>› Reduce disparities in suicide and mental disorders</td>
<td>The Burden of Suicide in Wisconsin (2014)</td>
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<td></td>
<td>› Reduce depression, anxiety and emotional problems</td>
<td>Mental Health and Substance Abuse Needs Assessment (2014)</td>
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<td>Suicide Rates by County (2015)</td>
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<td>Facts about Youth Suicide in Wisconsin (2015)</td>
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<td>Behavioral Health Barometer – Wisconsin (2015)</td>
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<th>Mental Health</th>
<th>WI 2010</th>
<th>WI 2015</th>
<th>Best State 2015</th>
<th>WI Rank 2010</th>
<th>WI Rank 2015</th>
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<tr>
<td>Poor Mental Health Days (number of days in previous 30 days)</td>
<td>2.8</td>
<td>3.6</td>
<td>2.7</td>
<td>7</td>
<td>22</td>
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<td>Suicide</td>
<td>N/A</td>
<td>14.7</td>
<td>8.3</td>
<td>N/A</td>
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</table>

**Mental Health**

“Mental health is our emotional, psychological and social well-being” and it affects how we think, feel, and act. It is a very important part of a person’s overall health from childhood to adulthood because it influences how we interact with others, how we feel about ourselves, and how we move through our everyday lives.

People who struggle with their mental health are more likely to smoke, be physically inactive, be obese and suffer from substance abuse and dependence.

**Adult Mental Health in Wisconsin**

In 2014, 17% of Wisconsin adults reported being told they had a form of depression. The rate was highest among adults aged 35-64 (about 20%) and lowest (about 12%) among those aged 18-24 and 65 and over.

Frequent mental distress is having 14 or more days of poor mental health in the past 30 days. In Wisconsin, the people who report higher rates of frequent mental distress include females, blacks, Hispanics, low-income people, Milwaukee County residents, people who are obese and smokers. Milwaukee County residents, people with low household incomes and people with a disability also reported higher rates of insufficient sleep and lack of emotional support.

**Youth Mental Health in Wisconsin**

From 2007 to 2012, the percentage of children receiving medications for ADHD, emotions, concentration or behavior significantly increased both in Wisconsin and nationally. Still, a higher percentage of Wisconsin children receive medications for ADHD, emotions, concentration or behavior, compared to children nationwide.

In Wisconsin, approximately 55,000 adolescents aged 12-17 (12.3% of all adolescents) had at least one major depressive episode within the year before they were surveyed. This rate increased from 2010 through 2014 and was similar to the national average, although it grew at a faster rate. Only a little more than one-third of adolescents in Wisconsin who had a major depressive episode received treatment for depression. This number is similar for the country as a whole. According to national estimates, as many as one in nine Wisconsin kids have a severe emotional disturbance, and as many as one in five has at least one kind of mental health challenge.
Suicide in Wisconsin

According to the Wisconsin Suicide Prevention Strategy, suicide is a significant health problem in Wisconsin. It is the 10th leading cause of death in the state, and the second leading cause of death due to injury. The number of suicide deaths annually has increased over the last several years. In 2013, the age-adjusted suicide rate was 14.4 per 100,000 population, which is above the national average of 12.6.

› Adults aged 45-54 experience the highest suicide rate by age.
› Nearly four out of five people who die by suicide are male.
› Whites experience the highest suicide rates by race, followed by American Indians/Alaska Natives, Asians/Pacific Islanders, and Blacks/African Americans.
› Approximately 50% of people who die by suicide have at least one known mental health problem, and more than 40% are receiving mental health treatment at the time of death.
› Personal crises, intimate partner problems, substance abuse problems, physical health issues and job problems are often present in the lives of those who commit suicide.
› From 2001 to 2011, the total number of Wisconsin high school students reporting thinking about suicide went down.

What Are We Doing?

Prevent Suicide Wisconsin

Zero Suicide Movement—creating systemic changes to impact suicide among populations served by health care organizations

Wisconsin Suicide Prevention Strategy

The Wisconsin Council on Mental Health was created to advise the Governor, the Legislature and the Wisconsin Department of Health Services on the allocation of federal funding for mental health services

Peer Respites

What Can We Do?

Build protective factors, including more around trauma-informed care, social emotional development and increased social connections

Increase access to care

Improve use of data and evaluation-based injury prevention programs and policies at the state, regional and local levels

Increase the capacity of professionals in Wisconsin to design, implement and evaluate evidence-based injury and violence prevention programs and policies
Health Profiles:

Nutrition and Healthy Foods
# Nutrition and Healthy Foods

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<tr>
<th>Focus Area</th>
<th>Objectives</th>
<th>Reports and Resources</th>
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| Nutrition and Healthy Foods | › Increase access to healthy foods and support breastfeeding  
› Make healthy foods available to all  
› Target obesity efforts to address health disparities | Reports  
Nutrition, Physical Activity and Obesity Wisconsin Data (2016)  
Fact Sheets  
Chronic Disease Prevention Program Fact Sheet – Overweight and Obesity in Wisconsin (2016) |

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<tbody>
<tr>
<td>Fruits (times per day)</td>
<td>N/A</td>
<td>1.4</td>
<td>1.67</td>
<td>N/A</td>
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<tr>
<td>Vegetables (times per day)</td>
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<td>1.76</td>
<td>2.21</td>
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<td>36</td>
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<tr>
<td>Obesity (percent of adults who are obese by self-report, with a body mass index [BMI] of 30 or higher)</td>
<td>29.2</td>
<td>31.2</td>
<td>21.3</td>
<td>34</td>
<td>36</td>
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America’s Health Rankings (AHR)

Utilizing America’s Health Rankings (AHR), America’s Health Rankings for Health of Women and Children (AHR-HWC), and America’s Health Rankings Senior Report (AHR-SR).
**Nutrition and Healthy Foods**

It is very important that people in Wisconsin have access to enough nutritious and safe food throughout life. This not only helps people grow and develop, it also enhances the physical, emotional and social well-being of all communities.

Eating healthy foods can reduce the risk for a number of long-lasting diseases such as type 2 diabetes, cancer, heart disease and stroke, as well as chronic conditions such as obesity. Many cultural, social and individual changes have occurred to make healthy eating more difficult and obesity more likely. In order to help prevent obesity and improve the health of Wisconsinites, there will need to be changes made to different environments and policies to support healthy eating.

**Obesity**

Obesity means a person has a higher amount of body fat in comparison to their lean body mass. In Body Mass Index (BMI) measurements, obesity is defined as a BMI equal to or greater than 30 in adults.

In 2014, about two-thirds (67.4%) of Wisconsin adults were overweight or obese. Just under one in three Wisconsin adults are obese. According to yearly estimates from the CDC, obesity in Wisconsin increased by 35% from 2000 to 2010. If obesity rates keep going up like this, more than 56% of adults will be obese by 2030.

Nearly one-quarter of Wisconsin high school students were overweight or obese in 2014. More low-income and minority children are obese than children in other groups. Children who are obese in their preschool years are more likely to be obese in adolescence and adulthood and to develop chronic diseases such as diabetes, hypertension, hyperlipidemia, asthma and sleep apnea.
Health Behaviors

Breastfeeding in Wisconsin

Research has shown that the best food for a baby’s first year of life is breast milk, with health, nutritional, economic and emotional benefits to both the mother and baby. More than one in three infants in Wisconsin is exclusively breastfed initially; however, only 15% are exclusively breastfed until six months, as recommended. About 70% of all low-income children are ever breastfed, the highest percentage is among Hispanic children (81%) and the lowest among Asian children (50%). In 2012, 81% of Wisconsin infants were ever breastfed. In the same year, 31% of Wisconsin infants were only breastfed for the first three months and 17% were only breastfed for the first six months. The national percentage is slightly lower for infants ever breastfed (77%), slightly higher for infants who were exclusively breastfed at three months (36%), and approximately the same for infants who were exclusively breastfed at six months (16%).

Income and education are known to be associated with the likelihood of a mother to breastfeed. Black mothers are much less likely to start breastfeeding and continue breastfeeding practices three months after birth compared to White and Hispanic mothers. Similar to national trends, the most common reason mothers give for not breastfeeding is “I didn’t want to breastfeed” (54%). It has been shown that if a mother knows the benefits of breastfeeding, it is more likely she will start breastfeeding her child.

Fruit and Vegetables

The Dietary Guidelines for Americans recommend that Americans eat more fruits and vegetables as part of a healthy eating pattern throughout their life. Still, more than one-quarter of Wisconsin adults report that they do not eat vegetables every day, and more than one-third report that they do not eat fruit every day.

Access to Healthy Food

A U.S. Department of Agriculture report, based on 2010 U.S. Census data, found that food insecurity affected more than 270,000 households in Wisconsin. A household is food insecure if “access to safe, nutritious foods was limited or uncertain for at least one person at some point during the year.” Among households in Wisconsin eligible for Special Supplemental Nutrition for Women, Infants and Children (WIC), more than half report overall food insecurity, and one in five report very low food security.

Wisconsin had fewer census tracts (61%) with healthier food retailers (supermarkets, larger grocery stores, warehouse clubs, and fruit and vegetable markets) within one-half mile of their boundaries than communities nationally (70%).

What Are We Doing?

Wisconsin Partnership for Activity and Nutrition (WI PAN), including Wisconsin Nutrition and Physical Activity State Plan and Nutrition and Physical Activity Coalitions

Ten Steps to Breastfeeding-Friendly Child Care Centers toolkit

Breastfeeding-Friendly Health Departments

Farm to School

Got Dirt? Garden Initiative

Healthier Wisconsin Worksite Initiative

What Can We Do?

Policy, systems and environmental changes

Long-term tracking of program progress, behavior changes and health outcomes
Oral Health

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<th>Focus Area</th>
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<tr>
<td></td>
<td>› Assure access to services for all population groups</td>
<td>The Oral Health Of Wisconsin Adults (2015)</td>
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<td>Healthy Smiles/Healthy Growth – Wisconsin’s Third Grade Children (2013)</td>
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<td>Wisconsin Healthy Smiles Survey: The Oral Health of Wisconsin’s Older Adults (2012)</td>
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<td>County Oral Health Wisconsin Surveillance System</td>
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<td>Wisconsin Public Water Supply Fluoridation Census (2013)</td>
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<th>Physical Activity</th>
<th>WI 2010</th>
<th>WI 2015</th>
<th>Best State 2015</th>
<th>WI Rank 2010</th>
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<tr>
<td>America’s Health Rankings (AHR)</td>
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<tr>
<td>Dentists per 100,000 people</td>
<td>52.6</td>
<td>56</td>
<td>81.2</td>
<td>–</td>
<td>24</td>
</tr>
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</table>

Oral Health

Good oral health means being free of mouth pain, tooth decay, tooth loss, oral and throat cancer, gum (periodontal) disease and other diseases that affect the mouth and surrounding structures. Oral health can be achieved by everyone, and is very important to general health throughout life. Many systemic diseases may first start with and be identified through oral symptoms.

State of Wisconsin’s Oral Health

Wisconsin ranks 9th in the nation for the percent of the population visiting a dental health professional in the last year and 24th for dentists per 100,000 population.

Youth

› The percentage of third-grade children with untreated tooth decay decreased by 35% from the 2001-2002 school year to the 2007-2008 school year.

› Of children in Head Start (aged 3-5), 26% had untreated decay.

› Schools with a higher proportion of students from low income households were considerably more likely to have children with untreated tooth decay than schools with a higher socioeconomic status.

› One in three Asian, Black or Hispanic third-grade children had untreated tooth decay, compared to one in six White children.

Adults

› Only 25% of Medicaid/Badgercare+ enrollees had a dental service in the past year.

› Emergency department visits for non-traumatic dental complaints increased by 20% from 2006 to 2010.

› 40% of adults had at least one permanent tooth removed due to tooth decay or gum disease.

› 30% did not visit a dentist within the past year.

› Compared to Whites and Asians, Black, Hispanic and American Indian adults were significantly more likely to have permanent teeth removed due to tooth decay or gum disease, and not to have visited a dentist, dental hygienist or dental clinic in the past year.

› Permanent tooth removal and lack of dental visits are significantly more common among people who earn less money. More than half of adults with a disability had at least one permanent tooth removed due to tooth decay or gum disease, while more than one-third did not have a dental visit in the past year.

▲ Green represents ranking among the top 10 best states

Oral Health

▲ 8th for percentage of adults aged 65 and older who self-report visiting the dentist or dental clinic within the past year for any reason (AHR-SR 2016)

▲ 9th for annual dental visit (AHR 2015)
Dental Care Access and Utilization

Among Wisconsin adults, 70.1% self-report a visit to a dental health professional within the last year. Iowa and Minnesota have similar numbers, while only 63.9% of Illinois adults report visiting a dental health professional. In Wisconsin, there is an average of 56 dentists per 100,000 people. Some of Wisconsin’s regional neighbors fare slightly better—Illinois (66.7), Michigan (61.4) and Minnesota (60.6), while Iowa (51.9) and Indiana (47.4) fare worse. Wisconsin’s dental workforce has remained relatively stable between 2008 (51.3) and 2003 (56.8).

Disparities

A review of the 2008 National Health Interview Survey data showed that adults with Medicaid were almost five times as likely to have poor oral health as adults with private health insurance. People in the U.S. who reported having an oral health problem reported that cost and lack of dental coverage were the primary reasons they did not get medical attention.

Children and pregnant women enrolled in Wisconsin Medicaid/BadgerCare+ were enrolled in comprehensive dental coverage. Enrollees may still face barriers in finding Medicaid-certified dentists accepting new patients.

Many people who are unable to obtain dental services seek care in emergency departments. From 2006 to 2010, the number of emergency department visits for non-traumatic dental complaints increased by nearly 20%. In 2008, 39% of these emergency department visits listed Medicaid as the primary payer and 33% had self-pay listed as the primary payer. Self-pay typically refers to the uninsured and the underinsured, or those with out-of-network insurance policies. More than 75% of emergency department visits for non-traumatic dental complaints occurred among adults 18 to 44 years of age.

What Are We Doing?

- Water Fluoridation—nearly 90% of the population on public water systems had access to fluoridated water in Wisconsin in 2010 (exceeding national target of 80%)
- Seal-A-Smile Program—40% of eligible schools were participating in 2010
- Dental Medicaid Pilot Program

What Can We Do?

- Make it easier for people of all ages, abilities, and identities to access oral health care services, like our elders in nursing homes and people with developmental disabilities
- Grow care and services for youth that would help prevent bad oral health problems later in life
- Support and grow school and community-based oral health programs
- Continue teaching that oral health affects overall health
- Improve oral health literacy
Physical Activity

<table>
<thead>
<tr>
<th>Focus Area</th>
<th>Objectives</th>
<th>Reports</th>
<th>Fact Sheets</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical Activity</td>
<td>› Design communities to encourage activity</td>
<td>Reports</td>
<td>Chronic Disease Prevention Program Fact Sheet – Overweight and Obesity in Wisconsin (2016)</td>
</tr>
<tr>
<td></td>
<td>› Provide opportunities to become physically active</td>
<td>Healthiest Wisconsin 2020 Baseline and Health Disparities Report (2014)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>› Provide opportunities in all neighborhoods to reduce health disparities</td>
<td>Nutrition, Physical Activity and Obesity Wisconsin Data (2016)</td>
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<table>
<thead>
<tr>
<th>Physical Activity</th>
<th>WI 2010</th>
<th>WI 2015</th>
<th>Best State 2015</th>
<th>WI Rank 2010</th>
<th>WI Rank 2015</th>
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<tbody>
<tr>
<td>America’s Health Rankings (AHR)</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Physical Inactivity (percent of adult population)</td>
<td>22</td>
<td>21.2</td>
<td>16.4</td>
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<td>15</td>
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</table>

Utilizing America’s Health Rankings (AHR)
Physical Activity

Physical activity means any activity done with the body that helps and maintains physical fitness and overall health. When physical activity is done regularly it can help to reduce the risk of certain chronic diseases, such as high blood pressure, stroke, coronary artery disease, type 2 diabetes, obesity, colon cancer and osteoporosis.

Physical activity recommendations include ways to make physical activity an easy choice. This can happen by creating opportunities for children, adults, and older adults to be active where they live, play, work and learn.

More than half of Wisconsin adults (18 years and older) are not meeting the recommended physical activity level (150+ minutes per week). A growing number—almost 1 in 4—are reporting no amount of physical activity in a week.

According to the Youth Risk Behavior Survey, only 24% of Wisconsin adolescents were physically active for a total of at least 60 minutes per day on each of the seven days before taking the survey. 39.4% of adolescents attended daily physical education classes in an average week (when in school); 12.6% did not participate in at least 60 minutes of physical activity on any day during the seven days prior to the survey.

Disparities in Physical Activity

› Black (35%) and Hispanic (31%) people are less likely to be physically active compared to White people (23%).
› As a person’s income increases they are more likely to meet the recommended activity level and less likely to be inactive.
› As a person’s education level increases they are more likely to meet the recommended activity level and less likely to engage in no physical activity.

Access to Physical Activity

Having access to opportunities for physical activity plays a role in whether someone will be physically active. There are differences among Wisconsin counties, from as few as 1% of county residents having access to physical activity opportunities (i.e., parks, recreation facilities), to as many as 98% of county residents having access. (Please see the Food and Nutrition section for more information on obesity.)
Health Profiles:
Reproductive and Sexual Health
## Reproductive and Sexual Health

<table>
<thead>
<tr>
<th>Focus Area</th>
<th>Objectives</th>
<th>Reports and Resources</th>
</tr>
</thead>
</table>
| Reproductive and Sexual Health | › Establish a norm of sexual and reproductive health across the life span  
› Establish the social, economic and health policies to improve equity in sexual health and reproductive justice  
› Reduce disparities in sexual and reproductive health | Reports  
Wisconsin Youth Sexual Behavior and Outcomes 2010-2011 Update (2012)  
2013 Wisconsin Youth Risk Behavior Survey Executive Summary (2014)  
Wisconsin PRAMS Data Book 2009-2011 (2014)  
STD Profiles  
Fact Sheets  

<table>
<thead>
<tr>
<th>Reproductive and Sexual Health</th>
<th>WI 2010</th>
<th>WI 2015</th>
<th>Best State 2015</th>
<th>WI Rank 2010</th>
<th>WI Rank 2015</th>
</tr>
</thead>
<tbody>
<tr>
<td>Immunization HPV female</td>
<td>N/A</td>
<td>40.9</td>
<td>54.9</td>
<td>N/A</td>
<td>21</td>
</tr>
<tr>
<td>Immunization HPV male</td>
<td>N/A</td>
<td>23.6</td>
<td>42.9</td>
<td>N/A</td>
<td>15</td>
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<tr>
<td>Teen Birth Rate</td>
<td>32.2</td>
<td>19.6</td>
<td>12.1</td>
<td>–</td>
<td>11</td>
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</tbody>
</table>

### America’s Health Rankings (AHR)

Reproductive and Sexual Health

Reproductive and sexual health refer to the things that affect physical, emotional, mental, and social well-being related to reproduction and sexual health during a person’s entire life. Unintended pregnancies, sexually transmitted diseases (STDs) and HIV for example, all effect reproductive and sexual health.

A woman with an unintended pregnancy is less likely to see a doctor and get care early in her pregnancy. Because she may not realize that she is pregnant immediately, she is also more likely to use tobacco or alcohol during pregnancy. STDs and HIV may have serious health effects including cancers, infertility, ectopic pregnancy, miscarriages, stillbirth, low birth weight, neurologic damage and death.

Unintended Pregnancies

According to the Wisconsin Pregnancy Risk Assessment Monitoring System (PRAMS), 38% of new mothers did not mean to get pregnant. Of those with an unintended pregnancy, 46% reported doing nothing to prevent pregnancy. In the 2009-2010 PRAMS, 78% of pregnancies among those under the age of 20 were unintended.

Teen Births

In 2014, about 5 percent of all live births in Wisconsin were to teen mothers (mother less than 20 years). That is about 3,414 live births. The teen birth rate, 18.1 births per 1,000 females aged 15-19, was below the national rate of 24.2 per 1,000 females.

Adolescents

In Wisconsin, just over one in three high school students has ever had sexual intercourse. This is lower than the national average, which is just under one in two. Among those who have had sexual intercourse in Wisconsin, about one in 10 had sexual intercourse before they turned 13. Approximately one in four are currently sexually active; among those currently sexually active, 37.5% did not use a condom; 65.1% did not use a female form of birth control (birth control pill, a patch, implant, IUD, shot, etc. and 10.7% did not use any method to prevent pregnancy. Among Wisconsin students, 13% report never being taught about AIDS or HIV in school.

Sexually Transmitted Diseases in Wisconsin

There are currently five reportable sexually transmitted diseases (STDs) in Wisconsin: chlamydia, gonorrhea, syphilis, chancroid and pelvic inflammatory disease. The Department of Health Services issues yearly annual profile and surveillance reports with statewide, regional, and county-level data for both adults and youth (aged 15-19). Chlamydia and gonorrhea are the two most reported communicable diseases.
HIV/AIDS in Wisconsin

Over the last several years the average number of new HIV/AIDS cases has remained relatively the same at about 250 new cases each year. Wisconsin has the 11th lowest diagnosis rate in the U.S. While 26 of 72 counties in Wisconsin had at least one HIV diagnosis in 2014, 58% of new diagnoses are in Milwaukee County.

Between 25% and 30% of cases first diagnosed as HIV in Wisconsin during 2011-2014 had already progressed to AIDS by time of diagnosis. 4% - 8% of people diagnosed during 2011-2013 developed AIDS within 12 months of their HIV diagnosis. As of December 2014, 6,899 individuals were reported with HIV or AIDS were presumed to be alive and living in Wisconsin. The CDC estimates 14% of people living with HIV (PLHIV) are unaware of their status because they do not have any symptoms, which equates to an estimated 1,125 additional residents in Wisconsin living with HIV, but unaware of their HIV status.

Disparities in Wisconsin

In Wisconsin, there are big differences in reproductive and sexual health between certain groups of people.

Milwaukee ranks second among large cities in the U.S. for the number of people who have chlamydia and gonorrhea. Milwaukee ranks sixth for the percent of teenagers who have given birth. Rates of teen birth, STDs and HIV are significantly higher in Milwaukee than in the rest of Wisconsin. Youth who identify as LGBT have higher rates of sexual risk behaviors compared to youth who do not identify.

In 2014, 67% of new diagnoses of HIV were among racial/ethnic minorities, even though minorities are only 17% of the population in Wisconsin. Males were five times more likely to be diagnosed than females. Rates are stable among young females and older males, are increasing among younger males and are decreasing among older females. Male diagnosis rates were 16-fold higher for Blacks and sevenfold higher for Hispanics compared to whites. Female diagnosis rates were 34-fold higher among Blacks and ninefold higher among Hispanics compared to whites.

What Are We Doing?

Sexually Transmitted Disease Surveillance
Wisconsin HIV/AIDS Strategy

What Can We Do?

Continue to improve early identification of individuals with HIV/AIDS and linkage to care
Continue to target resources to persons disproportionately affected by HIV
Health Profiles:
Tobacco
# Tobacco

<table>
<thead>
<tr>
<th>Focus Area</th>
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<th>Reports</th>
<th>Reports</th>
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<tr>
<td>and Exposure</td>
<td>› Reduce use and exposure among adults</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>› Decrease disparities among vulnerable groups</td>
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## Reports and Resources

- **Burden of Tobacco in Wisconsin Report (2015)**
- **Tobacco Fact Sheet, Wisconsin Behavioral Risk Factor Surveillance Survey System (2015)**
- **Youth Tobacco Survey – Middle School Fact Sheet (2016)**
- **Youth Tobacco Survey – High School Fact Sheet (2016)**

## America’s Health Rankings (AHR)

<table>
<thead>
<tr>
<th>Tobacco Use and Exposure</th>
<th>WI 2010</th>
<th>WI 2015</th>
<th>Best State 2015</th>
<th>WI Rank 2010</th>
<th>WI Rank 2015</th>
</tr>
</thead>
<tbody>
<tr>
<td>Smoking (percentage of adults who are smokers)</td>
<td>18.7</td>
<td>17.4</td>
<td>9.1</td>
<td>31</td>
<td>21</td>
</tr>
<tr>
<td>Youth Smoking (percentage of high school students who self-report smoking cigarettes on at least one day during the past 30 days)</td>
<td>14.6</td>
<td>11.8</td>
<td>-</td>
<td>-</td>
<td>-</td>
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</table>

Utilizing America’s Health Rankings (AHR), America’s Health Rankings for Health of Women and Children (AHR-HWC), and America’s Health Rankings Senior Report (AHR-SR).
Tobacco

Tobacco is Wisconsin’s leading cause of preventable death, and costs the state more than $4.5 billion every year in health care and lost productivity expenses. There are large health differences in who is impacted by tobacco. Some groups have cigarette smoking rates that are double the general population. Programs and policies that help prevent and reduce the number of people who use tobacco are important to stopping the disproportionate burden tobacco has in Wisconsin. We recognize the sacred use of ceremonial tobacco among Native Americans, and use the word “tobacco” to refer to commercial tobacco use.

Early Exposure to Nicotine Leads to Long-Term Addiction

› Over 8 out of 10 smokeless tobacco users first tried smokeless tobacco before turning 21.

› Nearly 9 out of 10 current smokers started smoking before turning 18.

› More than 1 out of 10 adults have ever used e-cigarettes.

Youth Remain Vulnerable to Tobacco

Though fewer Wisconsin youth are smoking, new tobacco products threaten this progress. Smokeless tobacco use among high school students increased 67% from 5.8% in 2012 to 10% in 2014 and the rising popularity of e-cigarettes is a problem.

No Safe Level of Secondhand Smoke Exposure

The majority of secondhand smoke youth experience is in the home. There is no safe level of secondhand smoke exposure. Over 1 in 5 middle and high school youth in Wisconsin live with someone who smokes tobacco products. The CDC has noted that nationally, 7 in 10 black children, compared to 4 in 10 children overall, are exposed to secondhand smoke.

▲ Green represents ranking among the top 10 best states

Tobacco Use and Exposure

▲ 10th for percentage of adults aged 65 and older who are self-reported smokers (smoked at least 100 cigarettes in their lifetime and currently smoke every day or some days) (AHR-SR 2016)
People want to Quit Tobacco

Nicotine is addictive and very hard to quit. There are seven approved nicotine replacement therapies to aid in cessation efforts. Of current adult smokers, 64% have stopped using cigarettes for at least one day in an attempt to quit smoking.

Emerging Issues in Tobacco Use

Nearly 7 out of 10 current cigarette smokers have used e-cigarettes.

Examples of tobacco-related disparities:

- Nationally, a majority of people in treatment for substance abuse addiction programs currently smoke (77%-93%), compared to 18% of the general population.
- African Americans in Wisconsin smoke at a higher rate (32%) than the national African American rate (18%).

What Are We Doing?

Local groups educate, implement and promote best practices in tobacco prevention and control

State programs implement best practices such as the Quit Line, First Breath and Spark

Wisconsin tobacco taxes are at the currently recommended level

What Can We Do?

Education and awareness of ACEs and their connection to smoking

Regulation of other tobacco products, such as e-cigarettes

Increased health equity efforts to address tobacco-related disparities
Health Profiles:
Emerging Issues
Adverse Childhood Experiences (ACEs), Trauma, and Resilience

Adverse Childhood Experiences (ACEs) are negative life events or experiences, which occur during childhood (before age 18) and have the potential to impact healthy child development. ACEs can have long-term damaging consequences, and are connected to risk behaviors and poor general health.

Data show that 57% of Wisconsin residents have at least one ACE. The more ACEs someone has, the more likely it is that individual will experience negative health outcomes. The Wisconsin BRFSS asks Wisconsin adults about experiences before they were 18, which is used to determine an ACE score. The score does not capture the severity or frequency of an adverse experience; instead it shows the number of ACE categories experienced.

The Wisconsin Behavioral Risk Factor Surveillance Survey (BRFSS) asks if individuals experienced any of the adverse events or circumstances below prior to the age of 18:

- Physical abuse
- Emotional abuse
- Sexual abuse
- An alcohol and/or a drug abuser in the household
- An incarcerated household member
- A household member who was chronically depressed, mentally ill, institutionalized or suicidal
- Violence between adults in the home
- Parental separation or divorce
- Physical neglect
- Emotional neglect
While research shows that ACEs impact all populations regardless of identity, there are some populations that have higher ACE prevalence rates than others. Wisconsin BRFSS data (as well as national data) show that black and Native American populations are more likely to have ACEs than their white, Asian and Hispanic/Latino peers. Individuals who have lower incomes and have attained less education are also more likely to have ACEs than those with higher incomes and higher educational attainment. There are many reasons certain populations are disproportionately impacted by adversity in childhood but there is still a need for more in depth research to better understand those correlations. What we do know is there is substantial research that shows ACEs are associated with diminished health and overall life opportunity.

While ACEs are correlated with risk behaviors and negative health outcomes, this is not at all an absolute. The impact of ACEs can be mitigated by the presence of protective factors and coping skills that build resilience, or the ability to overcome adversity and successfully adapt in the face of serious hardship. Protective factors that develop resilience include, but are not limited to:

- Caring relationships with parents, teachers, counselors or other adults actively involved in a child’s life
- Good peer relationships
- Positive disposition
- Positive coping style
- Good social skills

Another evidence-based response to ACEs is trauma-informed care (TIC). TIC provides a shift in perspective from asking “What is wrong with you?” to “What happened to you?” This shift reduces blame and shame that some people experience through stigmatization and labeling.

Adverse childhood experiences (ACEs) were identified by the WI HIPP Steering Committee as a priority issue. Experts from within the Department of Health Services and throughout the state provided input on the issue. The people of Wisconsin are working together to help better understand the impact of trauma and stress in childhood.

---

**What Are We Doing?**

- Fostering Futures
- Wisconsin School Mental Health Initiative

**What Can We Do?**

- Education and awareness of ACEs
- Increased awareness and adoption of trauma informed care
Alzheimer’s Disease and Related Dementia

The term “dementia” describes a set of symptoms of cognitive decline that result from brain cell death caused by disease and injury to the brain. This can include declines in memory, judgment, perception and reasoning along with other cognitive abilities. Alzheimer’s disease is the most common type of dementia in the U.S. today, affecting 1 in 9 people aged 65 and older. The course of Alzheimer’s disease is one of progressive decline. Although early onset Alzheimer’s disease occurs, the typical Alzheimer’s process begins in middle age but does not progress to the point of interfering with daily activities until people are in their 60s, 70s and 80s. As the population ages, Alzheimer’s disease is becoming a more common cause of death.

In 2015, it was estimated that 115,000 Wisconsin residents had Alzheimer’s disease or related dementia. Between 2015 and 2040, the population aged 65 and older is expected to grow by 640,000 people—an increase of 72%. Recent studies have indicated that the risk of dementia may have declined in the last 25 years, but it is still expected that the number of individuals with the disease will grow along with the aging population.

In Wisconsin, the Department of Health Services’ Dementia Care System Redesign has helped foster a broad commitment to building a Dementia-Capable Wisconsin.

Green represents ranking among the top 10 best states

Alzheimer’s

▲ 2nd for percentage of adults aged 65 and older who report having cognitive difficulty (AHR-SR 2016)

Older Health Issues

▲ 2nd for percentage of adults aged 65 and older with no disability (AHR-SR 2016)
▲ 10th for percentage of adults aged 65 and older who self-report very good or excellent health (AHR-SR 2016)
What Are We Doing?

› A Dementia Care Specialist program
› A Toolkit for Building Dementia-Friendly Communities
› A web-based Dementia-Friendly Employers Toolkit
› Implementation of the Wisconsin Music and Memory program
› Guiding Principles for Dementia Care

What Can We Do?

› Work with medical providers to increase dementia-related screening, diagnosis and care planning
› Enhance dementia-capable crisis response and stabilization
› Expand the proficiency within long-term care facilities to appropriately respond when dementia-related behaviors occur that require enhanced understanding and care
Wisconsin Health Improvement Plan
Wisconsin Health Improvement Plan

An Initiative Built Upon Healthiest Wisconsin 2020

The Wisconsin Health Improvement Plan was developed through collaboration with the help of and participation by representatives from public health, health care systems and payers, employers, academia, state and local government agencies, advocacy organizations, tribal communities and the public.

The Wisconsin Health Improvement Planning Process (WI HIPP) identified five priorities to drive progress on making Wisconsin a healthier state by 2020. The WI HIPP Steering Committee also identified ACEs as an emerging issue that weaves through the five priorities and requires focus and coordination among partners in health across Wisconsin.

As the Health Improvement Plan is implemented, and Priority Action Teams commence their work, the priorities—and the measures, strategies and activities associated with them—will be explored from the perspective of different populations already identified by the WI HIPP Steering Committee. These include older adults, racial and ethnic minorities, poverty and geographic diversity (e.g., rural and urban).
Wisconsin Health Improvement Plan

Healthy Wisconsin At-A-Glance

Alcohol
Prevent and Reduce Binge Drinking
49th for Excessive Drinking and Binge Drinking

Nutrition and Physical Activity
Eat Healthier and Move More
36th for Obesity
15th for Physical Inactivity
19th for Fruit Consumption
36th for Vegetable Consumption

Opioids
Prevent and Reduce Opioid-Related Deaths and Harm
25th for drug deaths (AHR 2015)

Suicide
Prevent Suicide
27th for Suicide

Tobacco
Prevent and Reduce Smoking and Use of Other Tobacco Products
21st for Smoking

Chart continues on next page
Wisconsin State Health Assessment and Health Improvement Plan

### Alcohol
- **Reduce Binge Drinking**
  - From 23% in 2015 to 20% in 2020 among adults
  - From 18% in 2013 to 16% in 2020 among high school students
  - From 25% in 2015 to 20% or less in 2020 among women (18-44)

- **Reduce Alcohol-Related Deaths**
  - Falls - By 5% from 37% in 2015 to 32% in 2020
  - Alcohol Poisoning - By 5% from 18% in 2015 to 13% in 2020
  - Motor Vehicle - By 5% from 15% in 2015 to 10% in 2020

### Nutrition and Physical Activity
- **Increase Consumption of Healthy Foods and Beverages**
  - Consumption of 1+ fruit per day by adults from 62% in 2013 to 65% in 2020
  - Consumption of 1+ vegetable per day by adults from 74% in 2013 to 78% in 2020
  - Reduce daily consumption of soda by students from 20% in 2013 to 15% in 2020

- **Increase Breastfeeding**
  - Initiation from 76.4% in 2015 to 80% in 2020
  - Duration at six months from 53% in 2015 to 60% in 2020

### Opioids
- **Reduce the Number of Overdose Deaths, Hospitalizations, and Emergency Department Visits Associated with Nonmedical Opioid Use**
  - Reduce rate of opioid overdose deaths from 10.7/100,000 in 2015 to 10.1/100,000 by 2020
  - Reduce rate of opioid overdose hospital encounters from 52.0/100,000 in 2014 to 49.4/100,000 by 2020

### Suicide
- **Reduce Suicides**
  - From 15.2/100,000 in 2015 to 12.8/100,000 in 2020

- **Reduce the Rate of Suicide Attempts**
  - From 210.47/100,000 in 2014 to 208.37/100,000 in 2020

### Tobacco
- **Reduce Adult Smoking**
  - From 17.3% in 2014 to 16.3% in 2020

- **Reduce Use of Other Tobacco Products by Adults**
  - From 15.6% in 2014 to 14% in 2020

- **Reduce Use of Other Tobacco Products by Youth**
  - Among middle school youth from 5.2% in 2014 to 4% in 2020
  - Among high school youth from 33.7% in 2014 to 31% in 2020

### Increase and Enhance Protective Factors
- **Adults with less than four poor mental health days/month from 78% in 2015 to 83% in 2020**
- **Adults who report receiving social and emotional support from 63% in 2015 to 68% in 2020**
- **Children with at least one teacher or adult in school they can talk to from 74% in 2013 to 79% in 2020**
Priority: Alcohol
**Priority: Alcohol**

Wisconsin continues to have a serious problem with heavy drinking. Binge drinking, drinking more than five drinks on one occasion for men and more than four for women, is very common in the state. More adults are binge drinking in Wisconsin now than they were 10 years ago. Adults in the state binge drink at much higher rates than other adults in the U.S.

Drinking too much can lead to death and alcohol-related diseases. Both can be hard on communities and cost a lot of money. Hospital and health care costs and missed time at work are just a few of the areas impacted by drinking too much in Wisconsin, and costs about $6.8 billion each year.

To make progress on alcohol use, it is important to understand how youth use alcohol. Starting to drink early can make people more likely to misuse prescription medicine and opioids. Keeping Wisconsin youth from starting to drink may help keep them from getting addicted to or misusing other substances.

It is also important to understand how women who are pregnant, or who may want to have a baby, use alcohol. When pregnant women drink, their babies may be born with fetal alcohol spectrum disorders (FASD). Babies with FASD can have a hard time learning or remembering things, staying focused, talking and making decisions. They can also have low IQ and hyperactivity. Because one in three women who are pregnant did not plan to have a baby, they might still drink alcohol when pregnant because they are not looking for the signs of early pregnancy. Women in Wisconsin who are between the ages of 18 and 44 binge drink and drink more heavily than women in the rest of the U.S. Two out of three women in Wisconsin who recently had a baby reported they drank in the three months before pregnancy, and about one in 12 reported drinking in the last three months of pregnancy.

Adverse childhood experiences (ACEs) are connected to risk behaviors that can lead to substance use disorders, and are linked to negative health outcomes in adulthood. While a little over half of Wisconsin adults report having at least one ACE, more than three out of five people who report binge or heavy drinking also report at least one ACE. More work is being done to understand the connection between ACEs and alcohol consumption to help drive down binge and heavy drinking rates in Wisconsin.

The Wisconsin Alcohol Policy Project reports that unlike most other states, “alcohol control is a municipal issue” in Wisconsin. This means local communities “have the authority to improve the community alcohol environment.” Wisconsin cities, towns, and villages can focus on alcohol-related problems or populations in their community through local alcohol-related polices or practices without requiring the rest of the state to adopt the policy. In addition, some policy makers are beginning to consider legislation to help reduce excessive drinking in Wisconsin.
Priority: Alcohol
Goal: Reduce Binge and Heavy Drinking

Objective 1
Reduce binge drinking:
› From 25% in 2012 to 23% in 2020 among adults
› From 18% in 2012 to 16% in 2020 among youth
› From 18% in 2009-2011 to 16% in 2020 among women (18-44)

Strategies
Strategy 1: Educate and engage employers, health care systems and providers and the community to promote, cover and provide alcohol screening and treatment, including SBIRT.

Strategy 2: Reduce youth access to alcohol through continued support of municipal ordinances and other evidence-informed policies.

Strategy 3: Increase adoption of NIAAA College Drinking Task Force best practices and policies by colleges, universities and technical schools.

Strategy 4: Engage community coalitions and local leaders in discussions and educational sessions on the evidence-informed policies that prevent and reduce excessive alcohol use.

Strategy 5: Develop and implement municipal policies that prevent and reduce illegal and excessive drinking.

Objective 2
Reduce alcohol-related deaths:
› By fall by 5%
› By alcohol poisoning by 5%
› By motor vehicle by 5%

Strategies
Strategy 1: Engage with the health care community, including pharmacies and pharmacists, to discuss alcohol and drug interactions when dispensing medications, with a focus on those taking multiple medications daily.

Strategy 2: Work with area agencies on aging and others in the community to increase awareness of the lower threshold for impairment and intoxication in older adults.

Strategy 3: Engage health educators, athletic trainers and other youth workers to teach the symptoms of alcohol poisoning to youth and the appropriate steps to take when youth suspect alcohol poisoning.

Strategy 4: Encourage law enforcement to compile and use Place of Last Drink information with the goal of improving serving practices and reducing over-serving.
Priority: Nutrition and Physical Activity
**Priority: Nutrition and Physical Activity**

We need to eat healthy and be active to help ourselves stay healthy throughout our life. That’s why it’s important to have healthy food and ways to be active where we live, work, learn and play. Good nutritional practices and physical activity can reduce the risk for a number of chronic diseases, such as type 2 diabetes, cancer, heart disease, stroke and obesity. Chronic diseases are among the most common and costly of health problems. These diseases are rarely cured and often get worse over time, resulting in disability later in life.

It is important to start eating healthy from the very beginning. Breastfeeding provides ideal food for optimal growth and development of infants and promotes the health of breastfeeding mothers. In 2013, 80% of Wisconsin infants were ever breastfed. The number of breastfed babies drops dramatically at six months, when only 60% are still breastfeeding and only 27% exclusively. Wisconsin experiences extreme disparities in breastfeeding. Among WIC participants in 2015, 79% of white infants were ever breastfed compared to 60% of African American infants. Only 4% of African American infants are exclusively breastfed at six months, which is well below the Healthy People 2020 goal of 25%.

One in 4 Wisconsin adults report eating vegetables less than one time a day, and more than 1 in 3 reported eating fruits less than one time a day, and more than 1 in 3 reported eating fruits less than one time day. In addition, only 1 in 6 adults meets the recommended five or more fruits and vegetables a day.

While more than half (53%) of Wisconsin adults meet the recommended level of physical activity (150+ minutes per week), Wisconsin ranks 18th nationally for physical activity. A growing number of adults, now one in four, report no physical activity in a given month. Among Wisconsin youth, only half (49.5%) reached the recommended level of physical activity of 60 minutes on five or more days per week and one in eight did not participate in an hour of physical activity on any day during a given week.

Wisconsin has the 14th highest adult obesity rate in the U.S. In 2014, about two in three Wisconsin adults and one in four Wisconsin high school students were overweight or obese. The number of people in Wisconsin who are overweight or obese has been rising and if it continues to rise at the same rate, more than half of Wisconsin adults will be obese by 2030.

Childhood obesity affects low-income and minority children more than others. Children who are obese during preschool are more likely to be obese as teenagers and adults, and to develop chronic diseases and conditions like diabetes, high blood pressure, asthma and sleep apnea. These diseases are starting to appear earlier in childhood too.

We know that as ACEs scores go up, so do rates of obesity and bad physical health days. We also know that eating healthy and increasing physical activity can help those who have experienced trauma in childhood. In Wisconsin, the number of adults with at least one ACE (56%) is very similar to the number of adults who report no exercise in the past 30 days (58%), and eating vegetables (57%) and fruit (59%) less than once per day.
Priority: Nutrition and Physical Activity

Goal: Eat Healthier and Move More

Objective 1
Increase consumption of healthy foods and beverages

- Consumption of 1+ fruit per day by adults from 62% in 2013 to 65% in 2020
- Consumption of 1+ vegetable per day by adults from 74% in 2013 to 78% in 2020
- Reduce daily consumption of soda by students from 20% in 2013 to 15% in 2020

Objective 2
Increase breastfeeding

- Initiation from 80% in 2015 to 90% in 2020
- Duration at six months from 53% in 2015 to 60% in 2020

Objective 3
Increase physical activity

- Increase percent of adults physically active at least 150 minutes per week from 53% in 2013 to 58% in 2020
- Increase percent of students physically active for a total of at least 60 minutes per day on five or more of the past seven days from 50% in 2013 to 55% in 2020

Strategies

Strategy 1: Create healthy options where foods and beverages are available.

Strategy 2: Improve accessibility, affordability and demand for healthy foods and beverages in retail settings.

Strategy 3: Increase alignment and coordination among partners supporting nutrition-related initiatives and implementing key nutrition policies at the state and local level.

Strategy 1: Engage communities to increase options for all people to be active—including the ability to safely walk and bike.

Strategy 2: Create opportunities for employees to be active and healthy during the workday.

Strategy 3: Educate and engage schools and early childhood education providers to improve accessibility and opportunities for physical activity throughout the day, including through recess policies.

Strategy 4: Create opportunities for and promote evidence-informed community programs that help adults, including those with chronic conditions, to become and remain active.
Priority: Opioids
**Priority: Opioids**

Drug overdoses, especially of opioids, are a big problem in Wisconsin. Over the last 10 years, deaths from people overdosing on opioids have more than doubled. In 2014, more than 14,000 hospital visits were because of opioids, and almost 3,000 were for opioid overdoses. The number of people in Wisconsin aged 12 and older who have used opioids nonmedically or illegally is just under the number of people living in the city of Madison, Wisconsin, or 202,770 people. More than 80% of Wisconsin’s counties have had opioid-related deaths.

Prescription opioids have been the main cause of drug overdoses. In 2014, prescription medicine was the reason for six out of 10 opioid-related deaths and eight out of 10 hospital visits in Wisconsin. Heroin is also a serious problem, and three out of four people who use heroin started with prescription opioids. Heroin is cheap, easy to get and very strong. In Wisconsin, from 2010 to 2014, the rate of heroin deaths increased by 188% compared to a 21% increase in the rate of prescription drug deaths during the same time period. Individuals often use both heroin and prescription drugs.

Heroin deaths are highest among young adults (20-29 years), and hospital encounters for opioid use disorder are also highest among this group. Prescription drug deaths are highest among middle-aged adults (45-54 years). Men have higher rates of opioid overdose deaths than women.

Mental health issues are associated with substance addiction. At least six out of 10 of those with addiction also have a mental illness, and one in five people having mental health conditions also have an addiction. Individuals with a substance addiction are six times more likely than the general population to attempt suicide.

Studies have shown that toxic stress during childhood, such as ongoing childhood abuse or neglect, impacts the pleasure and reward center of the brain that is involved with substance dependence. With more data being collected and attention being paid to opioid use and misuse in Wisconsin, we will continue to study the connection between ACEs and opioids to better inform policy decisions, prevention and intervention efforts.

Opioid misuse and opioid addiction can lead to poverty, unemployment, not being as productive, not doing as well in school, family problems and abuse, crime and homelessness.

Preventing these problems requires many partners and many strategies, including making it harder to misuse prescription opioids, making it easier to get Naloxone to prevent opioid overdose death and making sure people can get help for substance use and mental health issues.
**Priority: Opioids**

**Goal: Prevent and Reduce Opioid-Related Deaths and Harm**

### Objective 1

Reduce the number of overdose deaths, hospitalizations, and emergency department visits associated with nonmedical or illicit opioid use by 5% by 2020:

- From 622 deaths in 2014 to fewer than 590 in 2020
- From 12,134 hospitalizations in 2014 to fewer than 11,530 in 2020
- From 8,041 emergency department visits in 2014 to fewer than 7,640 in 2020

### Strategies

1. Improve pain management practice in Wisconsin in accordance with best practices including widely distributing the CDC’s Opioid Prescribing Guideline.
2. Improve use of prescription drug monitoring information systems.
3. Promote Naloxone distribution and administration and training to prevent overdoses and overdose-related deaths.
4. Ensure proper disposal of prescription drugs.
5. Develop a community monitoring and early warning system that tracks overdoses associated with prescription drug and heroin use at a local level.

### Objective 2

Increase people benefiting from outreach, intervention, treatment and support services for nonmedical and illicit opioid addiction by 5% from 4,015 persons in 2014 to at least 4,210 persons in 2020.

### Strategies

1. Promote evidence-informed screening and treatment, including SBIRT (screening, brief intervention, referral, treatment) intervention and referral for treatment, among health care, mental health and social service professionals. Encourage physicians to screen their patients for opioid use disorder and provide or connect them with evidence-informed treatment.
2. Promote effective models of opioid outreach, intervention, treatment and support that reach out to active drug users; non drug-using friends and family members; pain management clinics; community-based organizations; correction facilities; and hospitals.

### Objective 3

Reduce the percentage of adolescents who have used an opioid prescription drug for nonmedical purposes from 14.9% in 2013 to less than 13% by 2020.

### Strategies

1. Improve knowledge and adoption of evidence-informed policies and programs that prevent and reduce nonmedical and illicit opioid use among adolescents.
2. Promote pharmacist, family physician and parent education about the risks and practices to prevent nonmedical use of opioid prescription medications.
3. Educate prescribers and community members on alternatives to opioid pain relievers for acute pain situations such as sports injuries, car accidents and minor medical or dental procedures.
Priority: Suicide
Priority: Suicide

Suicide is a serious problem in Wisconsin. It is the 11th leading cause of death in the state, and the second leading cause of death due to injury. Over the last 10 years, the number of suicides each year continues to increase. Suicide and people thinking about suicide cause a lot of pain for communities, families and individuals. For every death by suicide, there are more than 10 emergency department visits and hospitalizations for self-inflicted injury, and this does not include the number of people in Wisconsin who go to outpatient clinics or do not seek medical treatment following a suicide attempt.

Some populations and communities have a higher risk for suicide and suicide attempts. Men are at a greater risk of dying from suicide at all ages. The age group at greatest risk of suicide for both men and women is 45-54. Another age group with high rates of suicide is men 85 and older. Other groups at higher risk include non-Hispanic Whites, American Indians, people with low educational attainment, veterans, divorced individuals and those living in the northern and western regions of Wisconsin. It is important, especially for those at greater risk of dying from suicide, that everyone can feel comfortable seeking help.

Teens have the highest rates of self-inflicted injuries. Among Wisconsin high school students, one out of seven have seriously considered attempting suicide. High school students of ethnic and racial minority backgrounds are more likely to have suicidal thoughts and behaviors than their classmates.

During the 2007-2011 time period, the three primary means of suicide in Wisconsin were firearms (45.4%); hanging, strangulation, or suffocation (25%); and poisoning (19.5%). The primary reasons people were hospitalized or in the emergency department for self-injury were poisoning (67.1%) and injury from sharp instruments (21.5%).

Six out of 10 people who died from suicide had an indication of a current depressed mood, and more than half had an indication of a current mental health problem. In Wisconsin, nearly one in four adults reported four or more poor mental health days in the last month. Similarly, nearly three in ten high school students reported that their mental health was not good four or more days in the past month.

Adverse childhood experiences (ACEs) considerably increase the risks of suicidal behaviors. In one study it was found that nearly two-thirds (64%) of suicide attempts among adults were attributable to ACEs and 80% of suicide attempts during childhood/adolescence were attributed to ACEs. Researchers have found that toxic stress during childhood, such as ongoing childhood abuse or neglect, impacts how the brain works, which makes it harder to resist impulses and increases the likelihood of engaging in risk behaviors. Data shows that 57% of Wisconsin residents have at least one ACE, which makes it clear that Wisconsin needs to continue exploring the connection between childhood adversity and suicide.
Priority: Suicide
Goal: Prevent Suicide in Wisconsin

Objective 1
Reduce suicides from 13.1 (per 100,000) in 2014 to 12.8 (per 100,000) in 2020

Strategies
Strategy 1: Increase the capacity of communities, families and individuals to create suicide-safe environments.
Strategy 2: Increase use of evidence-informed practices by health organizations—including health departments, health care systems and other partners—to reduce suicide and the impact of suicide.
Strategy 3: Implement methods to reduce access to lethal means.

Objective 2
Reduce the rate of suicide attempts from 210.47 (per 100,000) in 2014 to 208.37 (per 100,000) in 2020

Strategies
Strategy 1: Provide community-wide gatekeeper training.
Strategy 2: Create and support active suicide prevention coalitions.
Strategy 3: Health care organizations and community members use evidence-informed practices for talking about and treating suicidal thoughts and behaviors.

Objective 3
Increase and enhance protective factors

- Increase percentage of adults with less than four poor mental health days/month from 78% in 2015 to 83% in 2020
- Increase percentage of adults who report receiving social and emotional support from 63% in 2015 to 68% in 2020
- Increase percentage of children with at least one teacher or adult in school they can talk to from 74% in 2013 to 79% in 2020

Strategies
Strategy 1: Establish trauma-sensitive schools.
Strategy 2: Support those affected by suicide attempts and suicide loss through support groups and peer support.
Strategy 3: Expand access to services for mental health and substance use disorders, as well as suicidal thoughts and behavior.
Priority: Tobacco
**Priority: Tobacco**

Tobacco use and exposure is the leading cause of preventable death in Wisconsin, linked to 7,700 deaths and $4.5 billion in health care and lost productivity each year. There is a need for programs and policies to keep people from using tobacco in the first place, and to use less tobacco.

Wisconsin—and the Wisconsin Health Improvement Plan—recognize the sacred use of ceremonial tobacco among Native Americans, and use the word “tobacco” to refer to commercial tobacco use.

Many populations use tobacco at disproportionately higher rates than the general population (17%), such as those impacted by depression (31%), Medicaid recipients (36%) and African Americans (36%).

Additionally, adverse childhood experiences (ACEs) are connected to risk behaviors (like tobacco use) and linked to negative health outcomes in adulthood. Data show that 74% of all smokers in Wisconsin have experienced at least one ACE, compared with 57% of the general population. There are efforts underway in Wisconsin to explore integrating trauma-informed practices into treatment efforts while continuing to focus on the strong connection between smoking and adversity in childhood.

Though fewer Wisconsin youth are smoking, new tobacco products threaten this progress. Smokeless tobacco use among high school students increased 67% from 5.8% in 2012 to 10% 2014, and the rising popularity of e-cigarettes is a concern. Some youth communities are using tobacco much more than others and some are also impacted by tobacco advertising more than others.
Priority: Tobacco

Goal: Prevent and Reduce Smoking and Other Tobacco Products

Objective 1
Reduce adult smoking rate from 17.3% in 2014 to 16.3% in 2020

Strategies
- Strategy 1: Improve access to, coverage for and use of evidence-informed cessation services. Target outreach to pregnant women, their families and health care providers.
- Strategy 2: Integrate tobacco cessation into behavioral health care treatment and services and educate tobacco users with behavioral health concerns about benefits of quitting smoking.
- Strategy 3: Train stakeholders and professionals working in tobacco intervention about the correlation between and among addictions, and on trauma-informed care practice and motivational interviewing.

Objective 2
Reduce use of other tobacco products by adults from 15.6% in 2014 to 14% in 2020

Strategies
- Strategy 1: Implement tobacco-free policies on college campuses.
- Strategy 2: Educate and engage at-risk populations, such as behavioral health, low socioeconomic status, racial/ethnic minorities and LGBTQ populations, about the dangers of other tobacco products.

Objective 3
Reduce use of other tobacco products by youth
- Among middle school youth from 5.2% in 2014 to 4.5% in 2020
- Among high school youth from 33.7% in 2014 to 31% in 2020

Strategies
- Strategy 1: Educate and engage youth and school officials about the dangers of other tobacco products and implement tobacco-free school policies.
- Strategy 2: Increase the number of compliance checks conducted and education and outreach to retailers.
- Strategy 3: Identify and implement evidence-informed policies to reduce youth use.
**ACEs Intersect with Healthy Wisconsin**

The following are examples of how Healthy Wisconsin and ACEs intersect. Research shows that ACEs may be intergenerationally passed down, which can cause a familial cycle of ACE transmission. Adults with high ACE scores may be more likely to struggle with substance use disorder (e.g., misuse of alcohol and/or drugs), mental health diagnoses, depression or suicidality. In turn, these risk behaviors and mental health outcomes expose any children living in the household to those specific ACEs.

**ACEs and Alcohol Abuse**

ACEs are connected to risk behaviors that can lead to substance use disorders, and are linked to negative health outcomes in adulthood. Researchers have found that toxic stress during childhood, such as ongoing childhood abuse or neglect, impacts the pleasure and reward center of the brain that is involved in substance dependence as well as executive functioning, which compromises impulse control. Wisconsin adults with one or more adverse childhood experience have a significantly higher rate (22%) of binge drinking in the past 30 days compared to adults with no ACEs (16%).

**ACEs and Nutrition and Physical Activity**

Data show that as ACE scores go up, so do rates of obesity, and bad physical health days. Research also highlights that eating healthy and increasing physical activity are positive coping mechanisms and can serve as a source of resilience for those who have experienced trauma in childhood, and who are, in turn, struggling with risk behaviors and experiencing negative health outcomes.

**ACEs and Opioid Use**

ACEs are connected to risk behaviors that can lead to multiple addictions and are linked to negative health outcomes in adulthood. Researchers have found that toxic stress during childhood, such as ongoing childhood abuse or neglect, impacts the pleasure and reward center of the brain that is implicated in substance dependence.

**ACEs and Suicide**

ACEs considerably increase the risks of suicidal behaviors. In one study it was found that nearly two-thirds (64%) of suicide attempts among adults were attributable to ACEs and 80% of suicide attempts during childhood/adolescence were attributed to ACEs. Researchers have found that toxic stress during childhood, such as ongoing childhood abuse or neglect, impacts the brain’s executive functioning, which compromises impulse control and increases the likelihood of engaging in risk behaviors.

**ACEs and Tobacco**

ACEs are connected to risk behaviors (like tobacco use) and linked to negative health outcomes in adulthood. Data show that 74% of all smokers in Wisconsin have experienced at least one ACE, compared to 57% of the general population in Wisconsin. There are efforts underway in Wisconsin to explore integrating trauma-informed practices into treatment efforts while continuing to focus on the strong connection between smoking and adversity in childhood.
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**ACEs**


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Appendix

Age-adjusted Death Rate

2011-2015

Map created by the Bureau of Information Technology Services, GIS Program
February 2017

Source: Office of Health Informatics, Division of Public Health, Department of Health Services
Non-Hispanic Black Population

2015

Total Non-Hispanic Black Population

Map created by the Bureau of Information Technology Services, GIS Program
February 2017

Source: Office of Health Informatics, Division of Public Health, Department of Health Services
Non-Hispanic American Indian Population

2015

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

February 2017

Map created by the Bureau of Information Technology Services, GIS Program

Appendix 105
Hispanic Population

2015

Map created by the Bureau of Information Technology Services, GIS Program
February 2017

Source: Office of Health Informatics, Division of Public Health, Department of Health Services
Age-adjusted Diabetes Death Rate

2011-2015

Map created by the Bureau of Information Technology Services, GIS Program
February 2017

Source: Office of Health Informatics, Division of Public Health, Department of Health Services
Age-adjusted Heart Disease Death Rate

2011-2015

Map created by the Bureau of Information Technology Services, GIS Program
February 2017

Source: Office of Health Informatics, Division of Public Health, Department of Health Services
Age-adjusted Suicide Death Rate

2011-2015

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

Map created by the Bureau of Information Technology Services, GIS Program
February 2017
All references include sources for data and information and are categorized by section.

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