Communicable Disease

Communicable Disease Prevention and Control

Communicable diseases (infectious diseases) are illnesses caused by bacteria, viruses, fungi, or parasites that may be transmitted from human to human or from animal to human. Advances in clean water, refrigeration, and sanitation, and the development of safe and effective vaccines, have greatly reduced the threat of communicable diseases; however, common diseases still cause outbreaks and new communicable diseases emerge.

Vaccines protect more than the individual immunized; they prevent the spread of disease within the population. With persistently low adult immunization rates, new efforts are needed to encourage vaccination across the life span and increase access in all communities to eliminate disparities in immunization rates.\(^1\)

Immunizations

The Wisconsin Immunization Program, in partnership and collaboration with local partners, strives to eliminate the transmission of vaccine preventable disease through effective immunization programs and outbreak control measures. Wisconsin has a computerized internet database application, the Wisconsin Immunization Registry (WIR), which records and tracks immunization dates of Wisconsin children and adults.

In 2011, for most age groups, vaccination rates for children living in Wisconsin were comparable to or higher than those of children nationally.\(^2\)\(^3\)\(^4\)

- A higher percentage of Wisconsin children ages 19-35 months living below poverty received the recommended vaccination coverage compared to their peers nationally.
- During 2009-2011, 65% of adults ages 65 and older received an influenza (flu) vaccination in the previous 12 months.
- Low-income seniors had lower flu vaccination rates compared to middle- and high-income seniors.
- During 2009-2011, 73% of adults ages 65 and older had ever received a pneumonia vaccination.

Incidence of Disease

- Since 2002, the incidence of meningococcal disease in Wisconsin has declined due to the development 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, Blacks in Wisconsin had a higher rate of influenza hospitalization compared to other racial and ethnic groups.
- Asians have the highest rates of Hepatitis B and Tuberculosis of any racial/ethnic group in Wisconsin.
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Hepatitis C Virus
Hepatitis C is a liver infection caused by the hepatitis C virus (HCV). HCV is spread by exposure to blood from an infected person; 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 averages approximately 2,500 new reports of Hepatitis C Virus (HCV) infections each year; approximately 74,000 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. In 2014 alone, 895 new HCV infections were reported among people aged 15-29 years. Cases in this age group have increased an average of 140 each year since 2010. HCV as a cause of death is three times higher among males than females. In addition, there is a large burden of HCV among people born during 1945-1965, sometimes called “baby boomers.” Of reported people living with HCV in Wisconsin, 65% were born during 1945-1965. Annual rates among Native American and non-Hispanic black are consistently more than two times higher than rates among non-Hispanic white.

Antimicrobial Resistance
While not a leading cause of death, antimicrobial resistance can cause illness that can lead to serious disability and may be a contributing cause of death. Infections caused by bacteria that are resistant to many drugs can be difficult or even impossible to cure. Over the last decade, many types of bacteria have become less responsive to antibiotic treatment. The issue relates to both human and veterinary antibiotic usage.

HIV / AIDS
An estimated 7,900 people are living with HIV in Wisconsin, including those unaware of their infection. The number of HIV diagnoses declined overall in Wisconsin between 2009 and 2015, however, the number increased among younger males, ages 15-29, between 2006 and 2015. 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. 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 United States. 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 22,350 cases reported between 2002 and 2014. In 2014, a total of 1,346 cases of Lyme disease were reported in Wisconsin with the highest number of cases is seen in the western and northern regions. In recent years, cases have increased in the central region and eastern region. 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 all tickborne diseases to better understand the increase risk of tickborne diseases in Wisconsin.

What’s Being Done
- The Wisconsin Electronic Disease Surveillance System (WEDSS) has data on selected vaccine-preventable diseases from 1978-2014
- Wisconsin Immunization Registry

What Can Be Done
- Continued surveillance
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1 Healthiest Wisconsin 2020, Communicable and Infectious Diseases Focus Area Profile
2 Wisconsin Immunization Program: http://www.dhs.wisconsin.gov/immunization/index.htm
4 Wisconsin Department of Health Services: Invasive Bacteria.
http://www.dhs.wisconsin.gov/communicable/InvasiveBacteria/Index.htm