Health Indicators

INDICATOR **PAGE NUMBER**

These Indicators are not listed in any specific order.

Revised on 2/22/2016

Birth Data — Indicator 1

BACKGROUND

The birth rate is a measure of childbirths per 1,000 people, per year. It is calculated by dividing the number of live births by the number of people in the total population and multiplying that by 1,000. The death rate is calculated in the same way. In this way one can compare both birth and death rates to get an idea of population growth or decline for a specific population. Information regarding death rates can be found in Indicator #2.

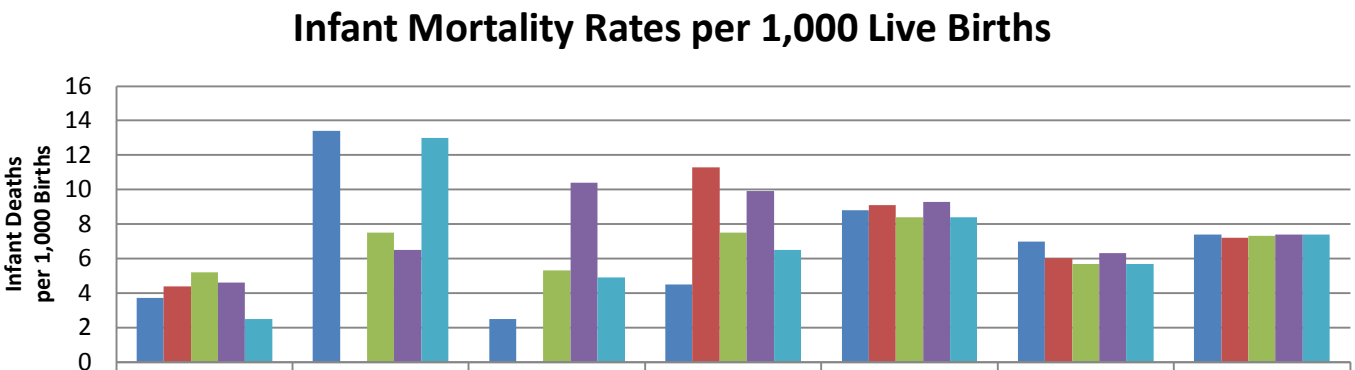
According to the Centers for Disease Control and Prevention (CDC), in 2013 there were 3,932,181 total births in the United States. This amounts to 12.4 births per 1,000 population. Wisconsin birth rates were consistently lower than Minnesota and U.S. birth rates. In general, Houston County had the lowest birth rates. Birth rates in La Crosse County have been slightly declining each year. The chart below shows births rates for the Great Rivers Region, Minnesota, Wisconsin, and the U.S. for years 2008 through 2012.

	La Crosse	Monroe	Trempealeau	Vernon	Houston	Wisconsin	Minnesota	U.S.
2008	11.8	15.2	14.1	15.0	10.8	12.7	13.9	14.0
2009	12.1	12.1	13.4	14.8	10.7	12.5	13.4	13.5
2010	11.7	14.0	13.1	13.4	7.9	12.0	12.9	13.0
2011	11.3	13.7	13.3	13.6	9.6	11.8	12.8	12.7
2012	10.5	13.7	13.9	15.3	10.4	11.8	12.8	12.6

Source: Wisconsin Department of Health Services, Minnesota Department of Health, Vital Statistics; Centers for Disease Control and Prevention-WONDER; Minnesota Department of Health, County Health Tables, Natality

Infant Mortality Rate

The Infant Mortality Rate (IMR) measures the number of deaths among children less than one year of age per 1,000 live births. This is an important indicator of the health of a community. These rates are used globally to help gauge the health and well-being of populations. In addition, according to the U.S. Department of Health and Human Services, infant mortality within a population is linked to that population's overall health and development across the life course. See table below for infant mortality rates in the Great Rivers Region and nationally. Minnesota consistently had higher infant mortality rates than Wisconsin. Monroe County had the highest rate of infant mortality over the five year period in 2008 when it reached 13.4 infant deaths per 1,000 births.



	La Crosse	Monroe	Trempealeau	Vernon	Houston	Wisconsin	Minnesota
2008	3.7	13.4	2.5	4.5	8.8	7	7.4
2009	4.4	0	0	11.3	9.1	6	7.2
2010	5.2	7.5	5.3	7.5	8.4	5.7	7.3
2011	4.6	6.5	10.4	9.9	9.3	6.3	7.4
2012	2.5	13	4.9	6.5	8.4	5.7	7.4

Source: Wisconsin Department of Health Services, Public Health Profiles; Minnesota Department of Health, Minnesota County Health Tables; *Wisconsin Births and Infant Deaths, 2009* Report

Disparities exist among racial groups when considering infant mortality rates. For example, the African American population has much higher rates of infant mortality than any other racial group. This is true at the national level as well as for the states of Minnesota and Wisconsin. In 2011, the highest rates of infant mortality were among African Americans within the state of Wisconsin. They averaged a rate of 14.3 infant deaths for every 1,000 births, compared to the national rate of 11.5 and 9.0 in Minnesota. The non-Hispanic white racial group has consistently lower rates of infant mortality than any other racial group. In 2011, Minnesota averaged a rate of 4.5 infant deaths for every 1,000 live births, compared to 5.2 in Wisconsin and 5.1 nationally. See table for more details.

Infant Mortality Rate by Race of Mother

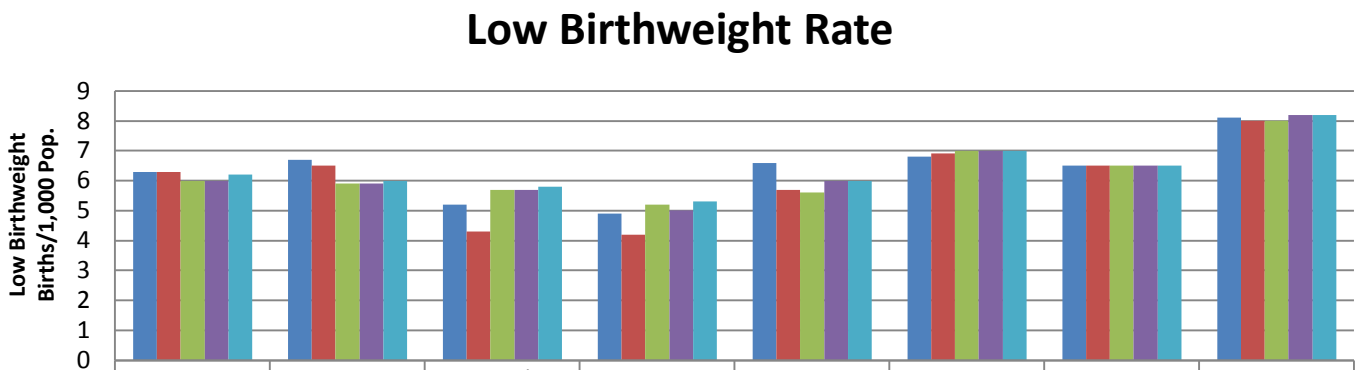
Location	Race	Rate per 1,000 Live Births				
		2007	2008	2009	2010	2011
Wisconsin	American Indian	S	S	S	S	S
	Asian and Pacific Islander	S	S	S	S	S
	Black or African American	15.2	15.8	16.1	14.6	14.3
	Hispanic or Latino	6.9	7.8	5.9	5.5	5.8
	Non-Hispanic White	5.2	5.7	4.8	4.8	5.2
	Total	6.5	7.0	6.1	5.8	6.3
Minnesota	American Indian	S	S	S	S	S
	Asian and Pacific Islander	5.5	6.9	5.3	4.1	4.1
	Black or African American	11.7	11.6	7.4	6.3	9.0
	Hispanic or Latino	5.4	7.3	6.0	6.0	4.5
	Non-Hispanic White	4.6	4.8	3.9	4.0	4.1
	Total	5.5	6.0	4.6	4.5	4.8
United States	American Indian	8.7	8.1	7.9	7.6	7.8
	Asian and Pacific Islander	3.8	3.7	3.6	3.6	3.5
	Black or African American	13.2	12.7	12.6	11.6	11.5
	Hispanic or Latino	5.7	5.7	5.4	5.5	5.3
	Non-Hispanic White	5.6	5.5	5.2	5.1	5.1
	Total	6.8	6.6	6.4	6.1	6.1

Source: National KIDS COUNT
"S" indicates that the National Center for Health Statistics reporting standards were not met.

Low Birthweight

Low birthweight is the percentage of live births where the infant weighed less than 2,500 grams, or approximately five pounds, eight ounces. According to the CDC, it is the single most important factor affecting neonatal mortality (the number of neonates dying before reaching 28 days of age) and is a significant determinant of post neonatal mortality (the number of infants dying between 28 days and 1 year of life). On average, approximately 8% of all newborns in the United States have low birthweight.

Compared to infants who are born at normal weight, low birthweight infants may be at risk for many health problems. Some of these include breathing problems, feeding difficulties, cerebral palsy, developmental delays, vision problems, and hearing impairment. The Great Rivers Region has consistently had lower rates of low birthweight when compared to national statistics. Over the past five years, Wisconsin has had slightly higher rates of low birthweight babies than Minnesota. Of the Wisconsin counties assessed, Monroe County had the highest rates of low birthweight babies in 2011 and 2012. However, La Crosse has had the highest rates of low birthweight babies from 2013 through 2015 than the other three Wisconsin counties.



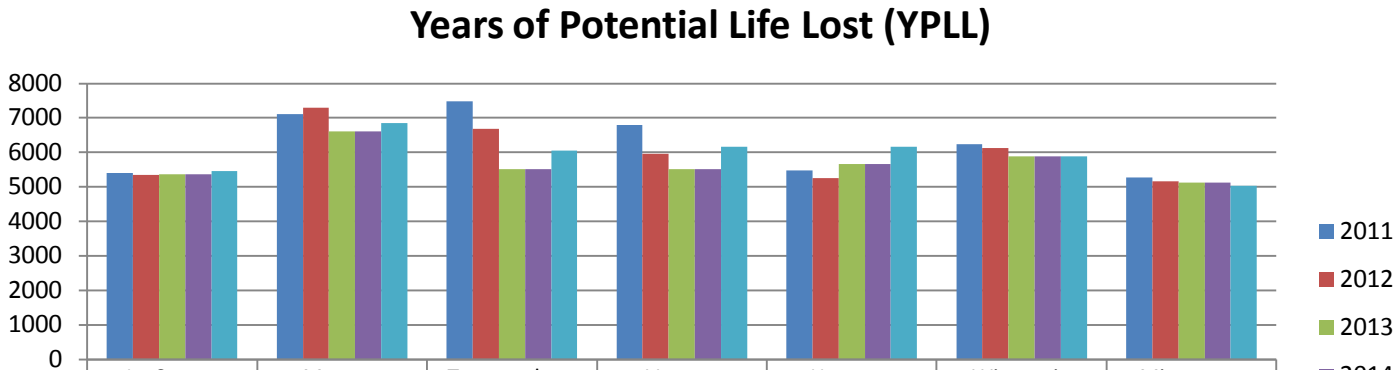
	La Crosse	Monroe	Trempealeau	Vernon	Houston	Wisconsin	Minnesota	U.S.
2011	6.3	6.7	5.2	4.9	6.6	6.8	6.5	8.1
2012	6.3	6.5	4.3	4.2	5.7	6.9	6.5	8
2013	6	5.9	5.7	5.2	5.6	7	6.5	8
2014	6	5.9	5.7	5	6	7	6.5	8.2
2015	6.2	6	5.8	5.3	6	7	6.5	8.2

Source: County Health Rankings and Roadmaps; Centers for Disease Control and Prevention, National Vital Statistics Report

Years of Potential Life Lost — Indicator 2

BACKGROUND

Years of Potential Life Lost (YPLL) is a summary measure of premature mortality (early death). It represents the total number of years not lived by people who die before a predetermined end point, set at age 65 years. The CDC calculates YPLL over the age range from birth to 65 years using age-specific death rates for 15 selected causes and supplementary data on causes of infant mortality. Therefore, it may underestimate the importance of chronic and other conditions occurring later in life. The YPLL for the Great Rivers Region during this time period are as follows: La Crosse (5,387), Monroe (6,894), Trempealeau (6,244), Vernon (5,990), and Houston (5,657). Monroe County has the most YPLL and La Crosse County has the least. Wisconsin (5,998) has more YPLL than Minnesota (5,144).



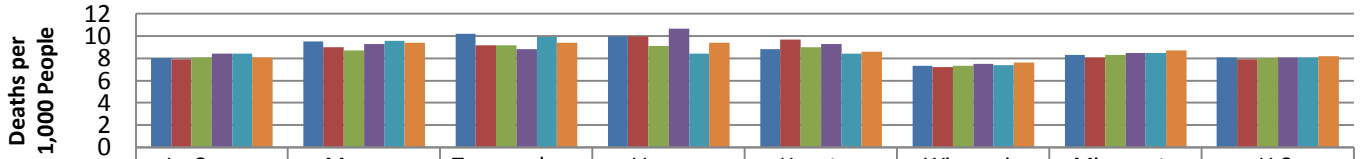
	La Crosse	Monroe	Trempealeau	Vernon	Houston	Wisconsin	Minnesota
2011	5394	7115	7475	6796	5471	6230	5272
2012	5342	7299	6679	5957	5248	6124	5159
2013	5363	6603	5509	5520	5655	5878	5126
2014	5363	6603	5509	5520	5655	5878	5126
2015	5462	6848	6050	6158	6158	5881	5038

Source: County Health Rankings and Roadmaps

Crude Death Rate

The crude death rate is calculated in the same way as the birth rate. To calculate the crude death rate divide the number of deaths in a population by the number of people in the population and divide that number by 1,000. In this way one can compare both birth and death rates to get an idea of population growth or decline for a specific population. Information regarding birth rates can be found in Indicator #1. The average crude death rate for the Great Rivers Region is 9.0 deaths per 1,000 population. This is higher than both the Wisconsin and Minnesota state averages.

Crude Death Rates/1,000 Population



	La Crosse	Monroe	Trempealeau	Vernon	Houston	Wisconsin	Minnesota	U.S.
2008	8.0	9.5	10.2	10.0	8.8	7.3	8.3	8.1
2009	7.9	9.0	9.2	10.0	9.7	7.2	8.1	7.9
2010	8.1	8.7	9.2	9.1	9.0	7.3	8.3	8.0
2011	8.4	9.3	8.8	10.7	9.3	7.5	8.5	8.1
2012	8.4	9.6	9.9	8.4	8.4	7.4	8.5	8.1
2013	8.1	9.4	9.4	9.4	8.6	7.6	8.7	8.2

Source: Centers for Disease Control and Prevention-WONDER

Knowing and understanding the leading causes of death is one of the most important means for assessing the effectiveness of the healthcare system in a community. These statistics help health authorities determine public health actions. In the Great Rivers Region, cancer and heart disease were the top two leading causes of death in 2012 for La Crosse, Monroe, Trempealeau, and Vernon County.

Leading Causes of Death in the Great Rivers Region, 2012		
County	**Leading Causes of Death**	
	Cause	**Rate per 100,000**
La Crosse	Cancer (All Types)	191.91
	Heart Disease	150.91
	Stroke	52.34
	Unintentional Injuries (including Motor Vehicle Accidents)	46.23
	Chronic Lower Respiratory Disease	44.49
Monroe	Cancer (All Types)	235.04
	Heart Disease	210.42
	Chronic Lower Respiratory Disease	55.96
	Diabetes	53.72
	Stroke	51.49

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Trempealeau	Cancer (All Types)	225.57
	Heart Disease	215.16
	Chronic Lower Respiratory Disease	65.94
	Stroke	48.58
	Nephritis (Kidney Disorder)	45.11
Vernon	Heart Disease	228.39
	Cancer (All Types)	228.39
	Unintentional Injuries (including Motor Vehicle Accidents)	77.25
	Stroke	53.74
	Nephritis (Kidney Disorder)	40.30
Source: La Crosse Medical Health Science Consortium, Health Scorecard Data unavailable for Houston County.		

BACKGROUND

According to the Wisconsin Department of Health Services, communicable diseases (infectious diseases) are illnesses caused by bacteria, viruses, fungi parasites. Organisms that are communicable may be transmitted from one infected person to another or from an animal to a human, directly or by modes such as airborne, waterborne, foodborne, or vectorborne transmission, or by contact with an inanimate object, such as a contaminated doorknob.[i]

Communicable disease prevention and control involves the surveillance for and protection from communicable diseases that may result from changes in or evolution of infectious agents (bacteria, viruses, fungi or parasites), spread of infectious agents to new geographic areas or among new populations, persistence of infectious agents in geographic areas and populations, newly emerging infectious agents, or acts of bioterrorism. Communicable disease prevention and control involves isolation and quarantine, immunization, preventive measures, early interventions including antimicrobial treatment, public health education and other measures.[i]

Sexually Transmitted Infections

Sexually Transmitted Infections (STIs) are associated with significantly increased risk of morbidity and mortality, including increased risk of cervical cancer, involuntary infertility, and premature death.[ii] STIs also have a high economic burden on society. The direct medical costs of managing sexually transmitted infections and their complications in the US was approximately 15.6 billion dollars in 2008.[ii]

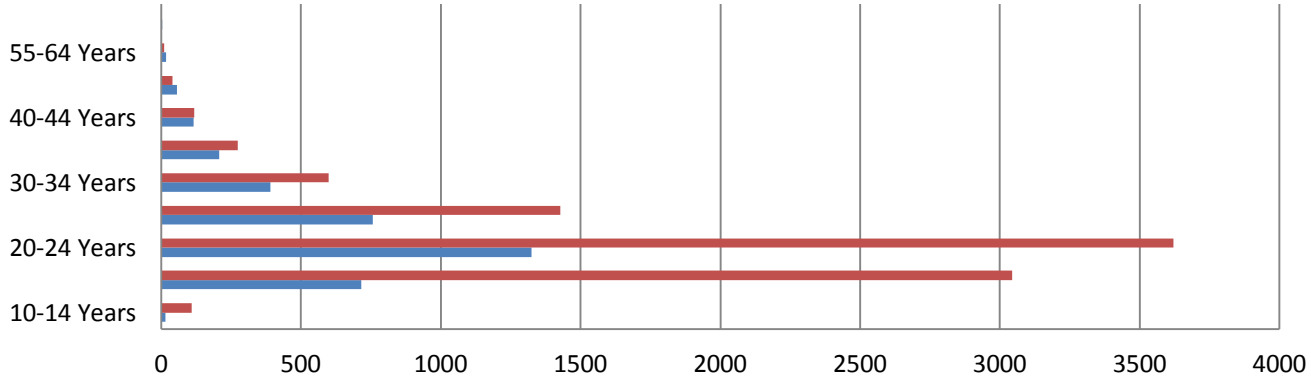
Chlamydia

Chlamydia is the most common bacterial STI in North American and is one of the major causes of tubal infertility, ectopic pregnancy, pelvic inflammatory disease (PID), and chronic pelvic pain.[iii],[iv]

According to the Centers for Disease Control and Prevention, in 2013, 993,348 cases of chlamydia were reported among females for a case rate of 623.1 per 100,000 females. During 1995-2011, the rate among females increased each year. The overall case rate among males increased slightly (0.8%) during 2012-2013 (approximately 261.6 cases per 100,000 males). As was similar in past years, the reported case rate among females was about two times the case rate among males in 2013, likely reflecting a larger number of women screened for the infection.[v]

The Centers for Disease Control and Prevention also reported that in 2013, the reported rates of chlamydia were highest among adolescents and young adults aged 15-24 years. The rate among 15-19 year olds was 1,852.1 per 100,000 and the rate among 20-24 year olds was 2,451.6 cases per 100,000. The graph below shows the national rates of chlamydia in 2013 based on age and gender.[v]

Chlamydia Rates per 100,000 Population by Age and Sex, United States, 2013



	10-14 Years	15-19 Years	20-24 Years	25-29 Years	30-34 Years	35-39 Years	40-44 Years	45-54 Years	55-64 Years	65+ Years
Women	108.9	3043.3	3621.1	1428.3	599.2	273.4	118.3	41.4	11.3	2.5
Men	14.7	715.2	1325.6	757.9	390.9	207.5	116.6	55.9	17	4

Source: Division of STD Prevention, national Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention, Centers for Disease Control and Prevention

Gonorrhea

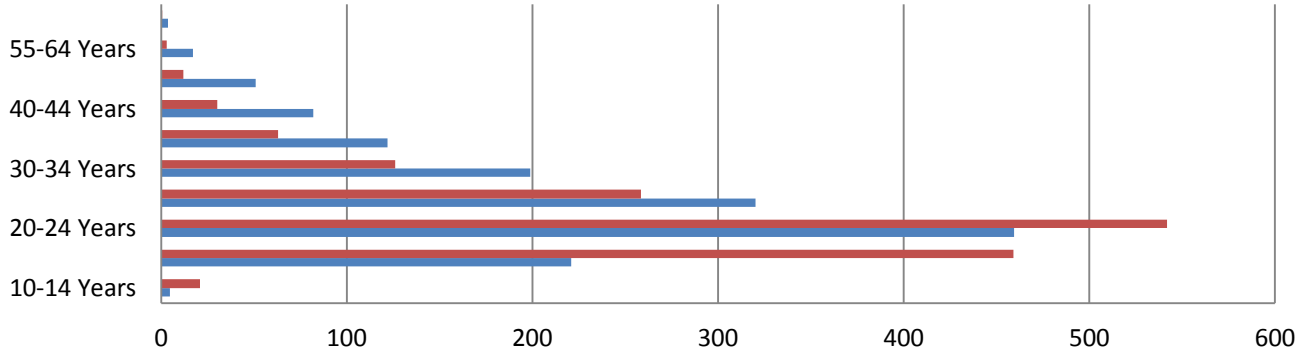
According to the Centers for Disease Control and Prevention, Gonorrhea is the second most commonly reported notifiable disease in the United States and is a major cause of pelvic inflammatory disease. In addition, Gonorrhea infections facilitate the transmission of HIV infection.[vi] Although sexual activity can increase the risk of acquiring gonorrhea, social determinants of health such as socioeconomic status, may contribute to the burden of gonorrhea in a community.[vii]

According to the Centers for Disease Control and Prevention, in 2013 the rate of reported gonorrhea cases among men (109.5 cases per 100,000) was higher than the rate among women (102.4 cases per 100,000), the first time since 2000. During 2012-2013, the gonorrhea rate among men increased 4.3%, and the rate among women decreased 5.1%. This dramatic increase among men compared with a decrease among women suggests either increased transmission or increased case ascertainment (e.g., through increased extra-genital screening) among gay, bisexual, and other men who have sex with men (collectively referred to as MSM).

However, most jurisdictions do not routinely report the gender of the sexual partner or site of infection for gonorrhea cases, so trends in gonorrhea rates among MSM over time cannot be assessed.[viii]

In 2013, the CDC reported that rates of reported gonorrhea cases were highest among adolescents and young adults. The highest rates among women were observed among those aged 20–24 years (541.6 cases per 100,000 population) and 15–19 years (459.2 cases per 100,000 population). Among men, the rate was highest among those aged 20–24 years (459.4 cases per 100,000 population). In 2013, persons aged 15–44 years accounted for 93.6% of reported gonorrhea cases with known age. During 2012–2013, the gonorrhea rate decreased 11.6% among those aged 15–19 years, and decreased 1.9% among those aged 20–24 years. However, the gonorrhea rate increased 6.3% among those aged 25–29 years, 8.4% among those aged 30–34 years, 11.3% among those aged 35–39 years, and 7.9% among those aged 40–44 years.[viii]

Gonorrhea Rates per 100,000 Population by Age and Sex, United States, 2013



	10-14 Years	15-19 Years	20-24 Years	25-29 Years	30-34 Years	35-39 Years	40-44 Years	45-54 Years	55-64 Years	65+ Years
Women	21	459.2	541.6	258.4	126.2	62.9	30.2	12.1	3.1	0.5
Men	4.8	220.9	459.4	320.1	198.7	122	82.1	50.8	17.1	3.7

Source: Division of STD Prevention, national Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention, Centers for Disease Control and Prevention

Syphilis

Syphilis is a highly contagious disease spread primarily by sexual activity and pregnant women with syphilis can spread it to their baby.[ix] Occasionally, this disease can be passed to another person through prolonged kissing or closely bodily contact. The infected person is often unaware of the disease.

According to the Centers for Disease Control and Prevention, although new cases of syphilis had plummeted in the 1990's, during 2005-2013, the number of primary and secondary syphilis cases reported each year in the United States nearly doubled, from 8,724 to 16,663; the annual rate increased from 2.9 to 5.3 cases per 100,000 population.[x] Men contributed an increasing proportion of cases, accounting for 91.1% of all primary and secondary syphilis cases in 2013. The rate among men increased from 5.1 in 2005 to 9.8 in 2013. Increases occurred among men of all ages and races/ethnicities, but race/ethnicity shifts occurred in 2009. During 2005–2009, rate increases were greatest among black men (104.1%, from 14.6 in 2005 to 29.8 in 2009) compared with Hispanic men (52.0%, 5.0 to 7.6) and white men (19.4%, 3.1 to 3.7). During 2009–2013, rates increased among Hispanic men (52.6%, from 7.6 in 2009 to 11.6 in 2013) and white men (45.9%, 3.7 to 5.4), but decreased slightly among black men (6.4%, 29.8 to 27.9). From 2005 to 2009, men aged 20–24 years had the greatest percentage increase (149.4%, 8.1 to 20.2), and from 2009 to 2013, men aged 25–29 years (the same approximate birth cohort) had the greatest increase (48.4%, 18.2 to 27.0).[x]

Syphilis Rates per 100,000 Population by Race/Ethnicity, United States, 2009-2013					
Characteristic	**2009**	**2010**	**2011**	**2012**	**2013**
Males					
Race/Ethnicity					
White, Non-Hispanic	3.7	4.0	4.4	5.0	5.4
Black, Non-Hispanic	29.8	27.8	26.6	27.8	27.9
Hispanic	7.6	8.3	8.3	10.7	11.6
Asian/Pacific Islander	2.8	2.5	3.0	3.9	4.6
American Indian/ Alaskan Native	3.7	4.4	4.9	4.4	4.7
Females					
Race/Ethnicity					
White, Non-Hispanic	0.4	0.3	0.3	0.3	0.3
Black, Non-Hispanic	7.9	6.3	5.0	4.4	4.0
Hispanic	0.6	0.5	0.6	0.7	0.8
Asian/Pacific Islander	0.2	0.1	0.1	0.2	0.2
American Indian/ Alaskan Native	0.9	0.7	0.5	0.6	1.0
Source: Centers for Disease Control and Prevention, Primary and Secondary Syphilis, United States, 2005-2013					

Hepatitis B

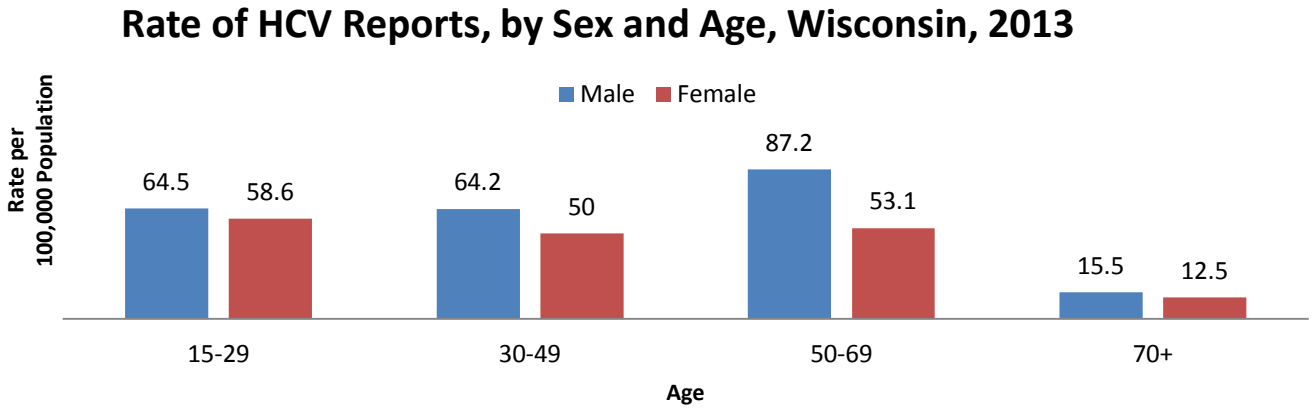
Hepatitis B is a liver disease caused by the Hepatitis B virus (HBV). The virus interferes with the functions of the liver and causes pathological damage. A small percentage of infected people cannot get rid of the virus and become chronically infected – these people are at higher risk of death from cirrhosis of the liver and liver cancer.[xi]

According to the CDC, there were a total of 3,050 cases of acute hepatitis B reported from 48 states in 2013, resulting in an overall incidence rate of 1.0 cases per 100,000 population. However, after adjusting for under-reporting, an estimate 19,784 acute Hepatitis B cases occurred in 2013. Nonetheless, although the incidence of acute hepatitis B increased slightly (by 5.4%) between 2012 and 2013, since 2000 the total number of reported cases of acute hepatitis B have decreased by 62%.[xii]

Hepatitis C

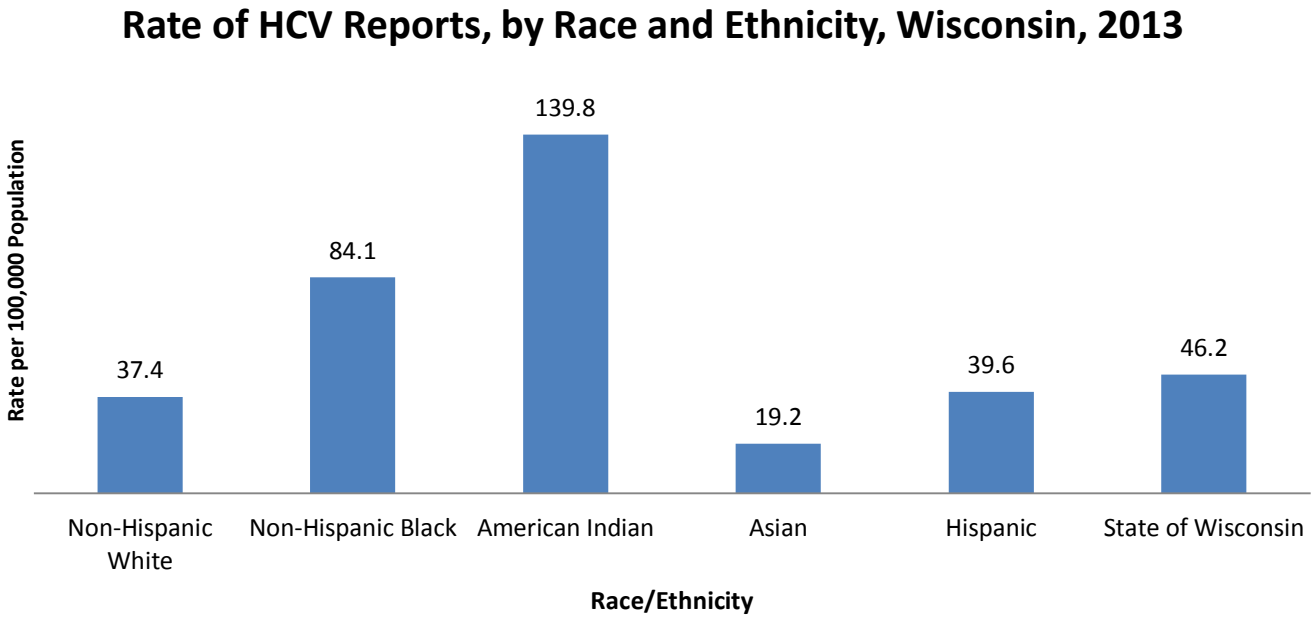
Hepatitis C is a contagious liver disease that ranges in severity from a mild illness lasting a few weeks to a serious, lifelong illness that attacks the liver. It results from infection with the hepatitis C virus (HCV), which is spread primarily through contact with the blood of an infected person. Hepatitis C can be either "acute" or "chronic." Acute hepatitis C virus infection is a short-term illness that occurs within the first 6 months after someone is exposed to the Hepatitis C virus.[xiii] For most people, acute infection leads to chronic infection. Chronic hepatitis C virus infection is a long-term illness that occurs when the Hepatitis C virus remains in a person's body. The HCV infection can last a lifetime and lead to serious liver problems, including cirrhosis (scarring of the liver) or liver cancer.[xiii]

There were a total of 2,638 cases of HCV reported in Wisconsin in 2013. Of these, 57% (1,515 cases) were male and 43% (1,123 cases) were female. Generally, HCV has been a disease prominently of males, nonetheless, HCV is now frequently being reported in females.[xiv] The chart below shows that young males and females (under 30 years old) were reported at a similar rate. However, men aged 50-69 were reported at a rate 1.6 times higher than that of women of the same age group.[xiv]



Source: Wisconsin Hepatitis C Virus (HCV) Surveillance Summary, 2013

In 2013, Wisconsin American Indians had the highest rate of HCV 139.8 per 100,000 population, nearly double that of the next highest racial group, non-Hispanic Blacks, who had the next highest rates at 84.1 per 100,000 population. See chart below for other racial HCV rates.



Source: Wisconsin Hepatitis C Virus (HCV) Surveillance Summary, 2013

HIV/AIDS

HIV stands for human immunodeficiency virus. It is the virus that can lead to acquired immunodeficiency syndrome, or AIDS. HIV/AIDS is spread mainly by having sex or sharing injection drug equipment, such as needles, with someone who has HIV. Only certain fluids (blood, semen, pre-seminal fluid, rectal fluid, vaginal fluids, and breast milk) from an HIV-infected person can transmit HIV.

Unlike some other viruses, the human body cannot get rid of HIV. That means that once someone acquires HIV, they have it for life.[xv] Currently, no safe and effective cure exists. Meanwhile, with proper medical care, HIV can be controlled. Treatment for HIV is often called antiretroviral therapy or ART. It can dramatically prolong the lives of many people infected with HIV and lower their chance of infecting others.[xv] Today, someone diagnosed with HIV and treated before the disease is far advanced can have a nearly normal life expectancy[xv]. HIV affects specific cells of the immune system, called CD4 cells, or T cells. Over time, HIV can destroy so many of these cells that the body can't fight off infections and disease. When this happens, HIV infection leads to AIDS.

According to the CDC, when comparing 2008 to 2010, the estimated number of new HIV infections among MSM (men who have sex with men) increased 12%, from 26,700 in 2008 to 29,800 in 2010. The number of new HIV infections among females with infection attributed to heterosexual contact decreased 18% from 9,800 in 2008 to 8,000 in 2010.[xvi]

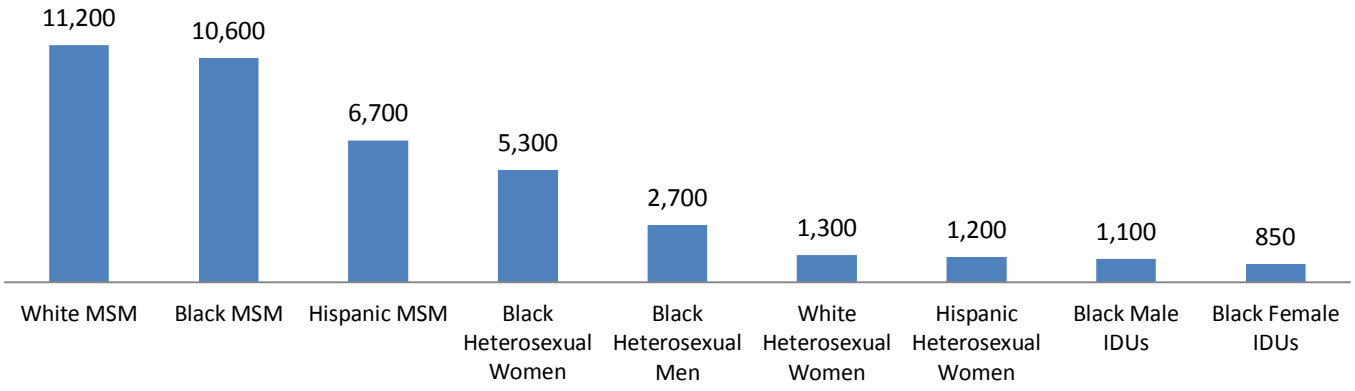
In 2010, the majority of new HIV infections was attributed to male-to-male sexual contact (63% overall and 78% among males). Among females, the largest percentage of new HIV infections was attributed to heterosexual contact (84%).[xvi]

Blacks/African Americans continue to be disproportionately affected by HIV infection. The estimated rate of new HIV infections in 2010 among blacks/African Americans (68.9) was 7.9 times as high as the rate in whites (8.7). In 2010, of all of the new HIV infections among blacks/African Americans, 51% were among MSM and 38% were attributed to heterosexual contact.[xvi]

Hispanic/Latinos continue to be disproportionately affected by HIV infection as well. In 2010, Hispanics/Latinos comprised 21% of the new HIV infections. The rate of new HIV infections for Hispanics/Latinos (27.5) was three times the rate for whites (8.7). In 2010, of all new HIV infections among Hispanics/Latinos, 68% were among MSM and 20% were attributed to heterosexual contact.[xvi]

Among MSM, the estimated number of new HIV infections increased overall and among MSM aged 13–24. MSM remain the population most heavily affected by HIV infection. Comparing 2008 to 2010, the number of new HIV infections among MSM increased 12% from 26,700 in 2008 to 29,800 in 2010, with a 22% increase among MSM aged 13–24 from 7,200 in 2008 to 8,800 in 2010. Although MSM represent about 7% of the male population in the United States, in 2010 MSM accounted for 78% of the new HIV infections among males.[xvi]

Number of New HIV Infections in the U.S., 2010



Source: Division of HIV/AIDS Prevention, National Center for HIV/AIDS, Viral Hepatitis, Sexual Transmitted Diseases and Tuberculosis Prevention, Centers for Disease Control and Prevention

MSM: Men who have Sex with Men
IDU: Injection Drug Users

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Number of Reportable Cases of Sexually Transmitted Infections (STIs) in Great Rivers Region					
La Crosse	**2008**	**2009**	**2010**	**2011**	**2012**
Chlamydia	365	362	415	459	389
Gonorrhea	35	62	28	54	51
Syphilis	0	1	1	2	1
Hepatitis B	24	9	26	27	6
Hepatitis C	34	34	41	43	30
HIV/AIDS	2	5	1	4	5
Monroe	**2008**	**2009**	**2010**	**2011**	**2012**
Chlamydia	116	89	104	148	142
Gonorrhea	16	4	3	5	0
Syphilis	<5	0	0	0	0
Hepatitis B	<5	4	2	0	<5
Hepatitis C	8	10	20	20	21
HIV/AIDS	1	1	0	0	0
Trempealeau	**2008**	**2009**	**2010**	**2011**	**2012**
Chlamydia	74	60	71	65	63
Gonorrhea	<5	0	0	1	<5
Syphilis	0	0	0	0	0
Hepatitis B	<5	0	<5	0	0
Hepatitis C	<5	5	9	9	6
HIV/AIDS	1	0	0	3	0
Vernon	**2008**	**2009**	**2010**	**2011**	**2012**
Chlamydia	21	40	7	14	37
Gonorrhea	0	1	0	0	2
Syphilis	0	0	0	<5	0
Hepatitis B	0	2	1	0	0
Hepatitis C	<5	6	<5	7	<5
HIV/AIDS	1	0	0	0	0
Houston	**2008**	**2009**	**2010**	**2011**	**2012**
Chlamydia	35	23	22	N/A	N/A
Gonorrhea	N/A	0	2	N/A	N/A
Syphilis	N/A	N/A	N/A	N/A	N/A
Hepatitis B	N/A	2	0	N/A	N/A
Hepatitis C	N/A	N/A	N/A	N/A	N/A
HIV/AIDS	N/A	2	0	N/A	4
Wisconsin	**2008**	**2009**	**2010**	**2011**	**2012**
Chlamydia	20,776	20,892	23,000	14,254	23,353
Gonorrhea	6,042	5,204	5,074	4,761	4,692
Syphilis	193	164	183	198	266
Hepatitis B	963	1,029	648	536	393
Hepatitis C	2,377	2,455	2,546	2,666	2,634
HIV/AIDS	239	285	251	246	224
Minnesota	**2008**	**2009**	**2010**	**2011**	**2012**
Chlamydia	14,350	14,186	15,294	16,898	18,048
Gonorrhea	3,036	2,302	2,119	2,283	3,082
Syphilis	263	214	347	366	118
Hepatitis B	25	39	24	20	17
Hepatitis C	22	15	15	18	32
HIV/AIDS	334	387	342	302	329

Source: La Crosse County Health Department: 2013 Annual Report; Centers for Disease Control and Prevention; Wisconsin Department of Health Services, Sexually Transmitted Disease Surveillance Reports and, Public Health Profiles; Wisconsin Hepatitis C Surveillance Summary, 2013; La Crosse Medical Health Science Consortium, Health Scorecard; Minnesota Department of Health, HIV/AIDS Prevalence and Mortality Tables and STD Surveillance Reports

Revised on 2/22/2016

Other Communicable Diseases

Pertussis

Pertussis is respiratory illness commonly known as whooping cough, is a very contagious disease caused by a type of bacteria called *Bordetella pertussis*. These bacteria attach to the cilia (tiny, hair-like extensions) that line part of the upper respiratory system. The bacteria release toxins, which damage the cilia and cause inflammation. Pertussis is a very contagious disease only found in humans and is spread from person to person. People with pertussis usually spread the disease by coughing or sneezing while in close contact with others, who then breathe in the pertussis bacteria. Symptoms of pertussis usually develop within 5–10 days after being exposed, but sometimes not for as long as 3 weeks. The CDC reported that in 2012, 48,277 cases were reported in the U.S. but many cases go undiagnosed or unreported. Nonetheless, this was the highest number of cases reported in the U.S. since 1955.[xvii]

Salmonella

The salmonella infection is a common bacterial disease that affects the intestinal tract and usually lives in animal and human intestines. Then, the infection is shed through feces. Humans become infected most frequently through contaminated water or food. People with salmonella usually have no symptoms; however, some develop diarrhea, fever, and abdominal cramps within eight to 72 hours. Most healthy people recover within a few days without specific treatment.[xviii] The CDC estimates that salmonella is responsible for one million illnesses, resulting in 19,000 hospitalizations and 380 deaths each year.[xix]

Tuberculosis

Tuberculosis (TB) is caused by a bacterium called *Mycobacterium tuberculosis*. The bacteria usually attack the lungs, but TB bacteria can attack any part of the body such as the kidney, spine, and brain. If not treated properly, TB disease can be fatal. TB is spread through the air from one person to another when a TB-infected person coughs, sneezes, speaks, or sings. Symptoms of TB include a bad cough lasting over three weeks, pain the chest, weakness or fatigue, low appetite, chills, fever, and/or sweating at night. According to the CDC, there were 9,945 TB cases reported (3.3 per 100,000 persons), a 5.4% decrease from 2011. Asians exceeded all racial or ethnic groups with the largest percentage of total cases (30%).[xx]

Influenza and Pneumonia

The American Lung Association (ALA) defines Influenza (flu) as a highly contagious viral infection that is one of the most severe illnesses of the winter season. Influenza is spread easily from person to person, usually when an infected person coughs or sneezes.

The ALA defines Pneumonia as a serious infection or inflammation of the lungs. The air sacs fill with pus and other liquid, blocking oxygen from reaching the bloodstream. If there is too little oxygen in the blood, the body's cells cannot work properly, which can lead to death. During the 2012 flu season, there were a total of 73,130 diagnosed cases of the flu in the U.S.[xxi]

Number of Infectious Disease in Great Rivers Region					
La Crosse	**2008**	**2009**	**2010**	**2011**	**2012**
Pertussis	7	2	8	34	166
Salmonella	14	13	17	16	17
Tuberculosis	<5	2	2	1	2
Influenza and Pneumonia Hospitalizations	297	336	280	248	232
Monroe	**2008**	**2009**	**2010**	**2011**	**2012**
Pertussis	<5	0	<5	39	18
Salmonella	<5	<5	7	8	9
Tuberculosis	<5	0	0	0	<5
Influenza and Pneumonia Hospitalizations	163	183	158	164	150
Trempealeau	**2008**	**2009**	**2010**	**2011**	**2012**
Pertussis	0	0	<5	<5	26
Salmonella	<5	<5	10	<5	<5
Tuberculosis	0	0	0	0	0
Influenza and Pneumonia Hospitalizations	167	116	124	128	126
Vernon	**2008**	**2009**	**2010**	**2011**	**2012**
Pertussis	0	0	<5	5	62
Salmonella	<5	5	20	6	8
Tuberculosis	0	0	0	0	0
Influenza and Pneumonia Hospitalizations	164	168	141	179	136
Houston	**2008**	**2009**	**2010**	**2011**	**2012**
Pertussis	1	0	0	10	21
Salmonella	3	N/A	1	N/A	N/A
Tuberculosis	0	0	0	0	0
Influenza and Pneumonia Hospitalizations	N/A	N/A	N/A	N/A	N/A
Wisconsin	**2008**	**2009**	**2010**	**2011**	**2012**
Pertussis	200	265	296	741	4,683
Salmonella	744	688	846	750	886
Tuberculosis	68	67	55	73	71
Influenza and Pneumonia Hospitalizations	19,179	18,425	16,978	17,295	16,198
Minnesota	**2008**	**2009**	**2010**	**2011**	**2012**
Pertussis	1,034	1,134	1,143	662	4,144
Salmonella	755	578	695	701	780
Tuberculosis	211	161	135	137	162
Influenza and Pneumonia Hospitalizations	293	1,923	965	556	3,067

Source: La Crosse Medical Health Science Consortium, Health Scorecard; La Crosse County Health Department, 2013 Annual Report; Wisconsin Department of Health Services, Public Health Profiles; Minnesota Department of Health, Tuberculosis; Minnesota Department of Health, Infectious Disease, Epidemiology, Prevention & Control

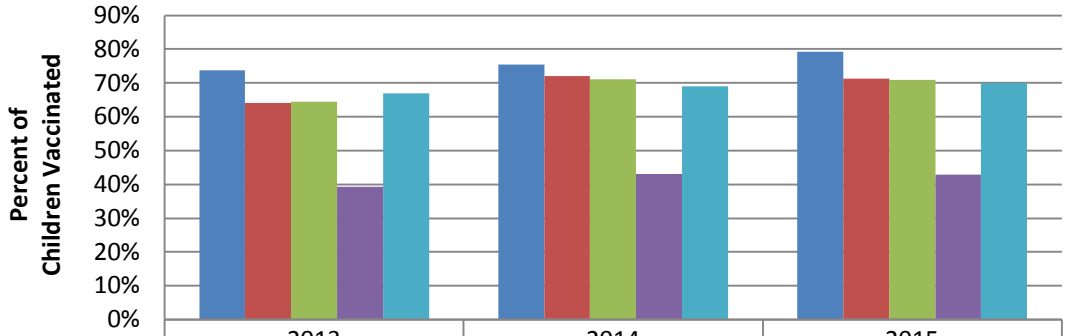
Immunizations

Vaccinations are a proactive and effective way to prevent people from experiencing the effects of preventable diseases, such as measles, pertussis, polio, and human papillomavirus (HPV). Vaccinations are safe for the individual getting vaccinated and help protect others from getting sick.

Childhood Immunizations

Childhood vaccinations are important because they protect extremely vulnerable people from serious illness and other complications that can be caused by vaccine-preventable diseases. When parents opt-out of vaccinating their children, they increase the likelihood of outbreaks of these diseases. The chart below shows the childhood immunization rates for the Great Rivers Region and the state of Wisconsin. When comparing the five counties within the Great Rivers Region, Vernon Count consistently has a much lower rate of vaccinations. La Crosse County consistently has the highest childhood immunization rates when compared to the other four counties in the Great Rivers Region and to the state of Wisconsin.

Childhood Immunization Rate, Wisconsin

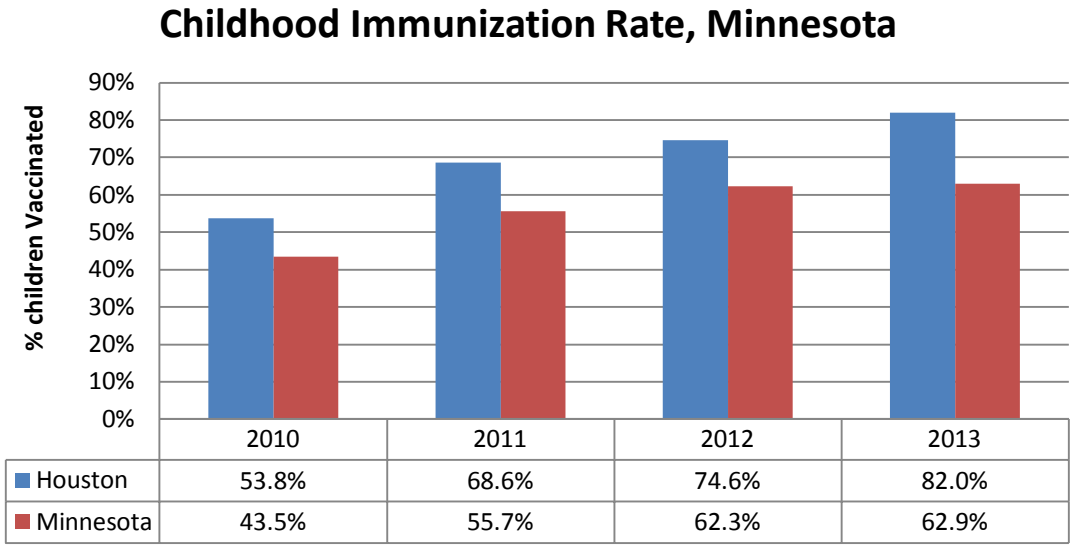


	2013	2014	2015
La Crosse	73.7%	75.4%	79.2%
Monroe	64.1%	72.0%	71.2%
Trempealeau	64.5%	71.1%	70.9%
Vernon	39.3%	43.1%	42.9%
Wisconsin	67.0%	69.0%	70.0%

Source: National Center for Health Statistics-Mortality Files

This measure represents the percentage of children aged 19 to 35 months who received the recommended doses of DTaP, polio, MMR, haemophilus influenzae type b, hepatitis B, varicella, and pneumococcal conjugate.

The chart below shows the childhood immunization rates for Houston County compared to the state of Minnesota. Houston County consistently has higher vaccination rates than the Minnesota state average.



	2010	2011	2012	2013
Houston	53.8%	68.6%	74.6%	82.0%
Minnesota	43.5%	55.7%	62.3%	62.9%

Source: Minnesota Immunization Information Connection (MIIC)

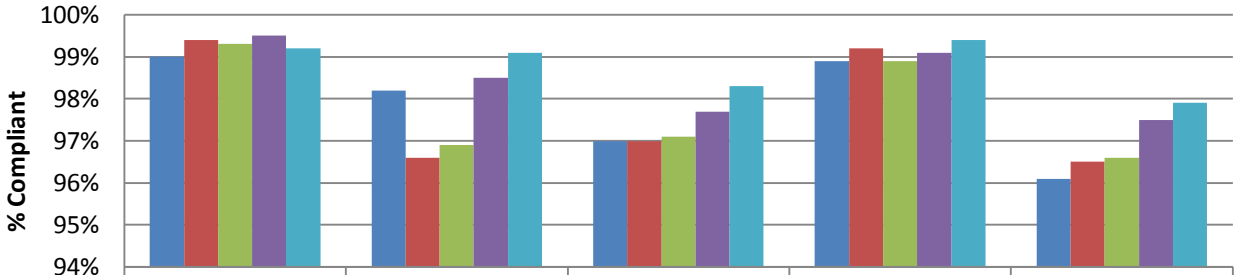
Immunization percentages are based on children 24 to 35 months with two or more non-influenza shots in MIIC. The vaccination series includes DTaP, polio, MMR, Hib, hepatitis B, varicella (chickenpox), and PCV.

Adolescent Immunizations

According to the CDC, it is recommended that children are vaccinated against 14 diseases that can be serious or even life-threatening, before they enter school.[xxii] Although outbreaks are rare, they still occur. For example, from January 1 to August 1, 2014, there were 593 cases of measles reported in the U.S., from a total of 18 outbreaks.[xxii] In addition, between January 1 and June 16, 2014, there were nearly 10,000 cases of whooping cough that had been reported to the CDC and affected all 50 states. That was a 24% increase compared to that same period in 2013.[xxii]

The chart on the next page shows the percentage of children compliant with immunization requirements in the state of Wisconsin between 2008 and 2012. This number does not include those whose parents have filed waivers based on personal conviction, religious or medical grounds. All Wisconsin counties within the Great Rivers Region had higher compliance rates than the state of Wisconsin.

Percentage of Children in Grades K-12 Compliant with Immunizations, Wisconsin

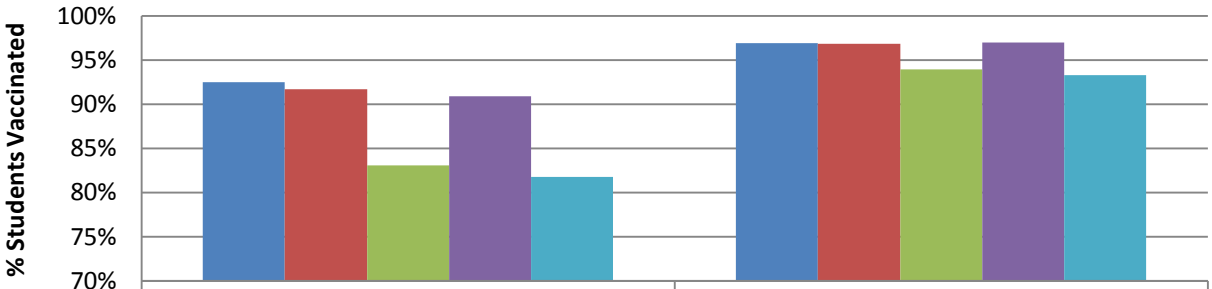


	La Crosse	Monroe	Trempealeau	Vernon	Wisconsin
2008	99.0%	98.2%	97.0%	98.9%	96.1%
2009	99.4%	96.6%	97.0%	99.2%	96.5%
2010	99.3%	96.9%	97.1%	98.9%	96.6%
2011	99.5%	98.5%	97.7%	99.1%	97.5%
2012	99.2%	99.1%	98.3%	99.4%	97.9%

Source: Wisconsin Department of Health, Public Health Profiles

The Minnesota Department of Health defines “percent vaccinated” as students who are either up-to-date or are in the process of completing vaccination (partially vaccinated). As a result, "percent vaccinated" may include students who are not fully protected against disease. The chart below shows the percentage of vaccinated kindergarten students in Houston County and for the state of Minnesota. The state of Minnesota had higher vaccination rates for all vaccination types when compared to Houston County.

Kindergarten Immunization Rates, Public Schools, Minnesota, 2012-2013 School Year

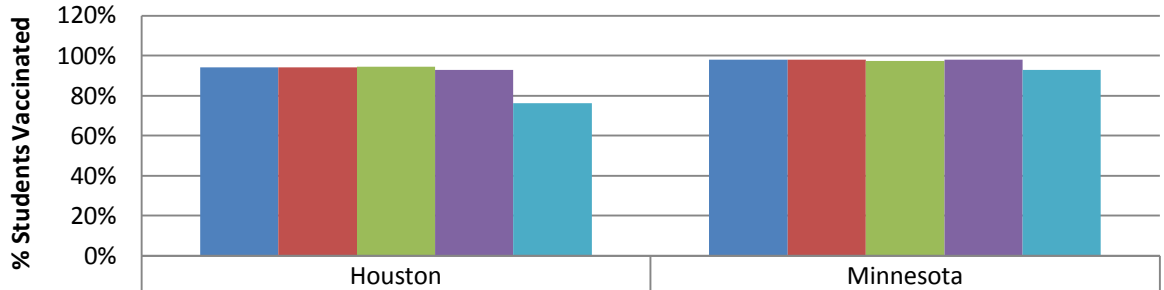


	Houston	Minnesota
DTap	92.5%	96.9%
Polio	91.7%	96.8%
MMR	83.1%	93.9%
Hepatitis B	90.9%	97.0%
Varicella	81.8%	93.3%

Source: Minnesota Department of Health, School Immunization Data Archive

The chart below shows the percentage of vaccinated seventh grade students in Houston County and for the state of Minnesota. The state of Minnesota had higher vaccination rates for all vaccination types when compared to Houston County.

Seventh Grade Immunization Rates, Public Schools, Minnesota, 2012-2013 School Year



	Houston	Minnesota
DTap	94.3%	98.0%
Polio	94.1%	98.1%
MMR	94.5%	97.4%
Hepatitis B	92.8%	98.0%
Varicella	76.4%	92.9%

Source: Minnesota Department of Health, School Immunization Data Archive

Revised on 2/22/2016

HPV Immunization

In addition to immunizations for people age birth through 18 years, the Advisory Committee on Immunization Practices (ACIP) recommends the Human Papillomavirus (HPV) vaccination. The HPV vaccinate is a series of three and is now recommended for children ages 11 or 12 years. Moreover, ACIP recommends the HPV vaccination for females aged 13 through 26 years, as well as males aged 13 to 21 years, that have not been previously vaccinated. HPV is associated with cervical, vulvar, and vaginal cancer in females, penile cancer in males, and anal cancer and oropharyngeal cancer in both females and males.

Nationally, the CDC found that for adolescent girls 13 through 17 years of age, 53.8% received at least one dose of the HPV vaccine in 2012. This rate increased to 57.3% in 2013.[xxiii] However, rates in which adolescent girls received the recommended three doses increased slightly during the same timeframe but remained low (33.4% in 2012 to 37.6% in 2013)[xxiii]. In general, HPV vaccination rates were higher for Hispanics than for whites.[xxiii] In addition, the HPV three-dose series completion was similar between white and Hispanic girls, but was lower among Black adolescent females. This means among teen girls who started getting HPV vaccinations, Black girls were less likely than white or Hispanic girls to finish getting all the recommended doses.[xxiii]

Among males aged 13 to 17, there was a 13.8% increase for receiving at least one dose of the HPV vaccination (from 20.8% in 2012 to 34.6% in 2013).[xxiii] 13.9% of this same demographic received all three recommended disease of HPV vaccine in 2013 (compared to 6.8% in 2012). Coverage for one, two, or three doses of HPV vaccine was greater among black and Hispanic boys compared to whites.[xxiii] Overall, coverage for all doses of HPV vaccine was greater among boys living below the poverty level compared to those living at or above the poverty level.[xxiii]

Substance Use, Abuse, and Dependency — Indicator 4

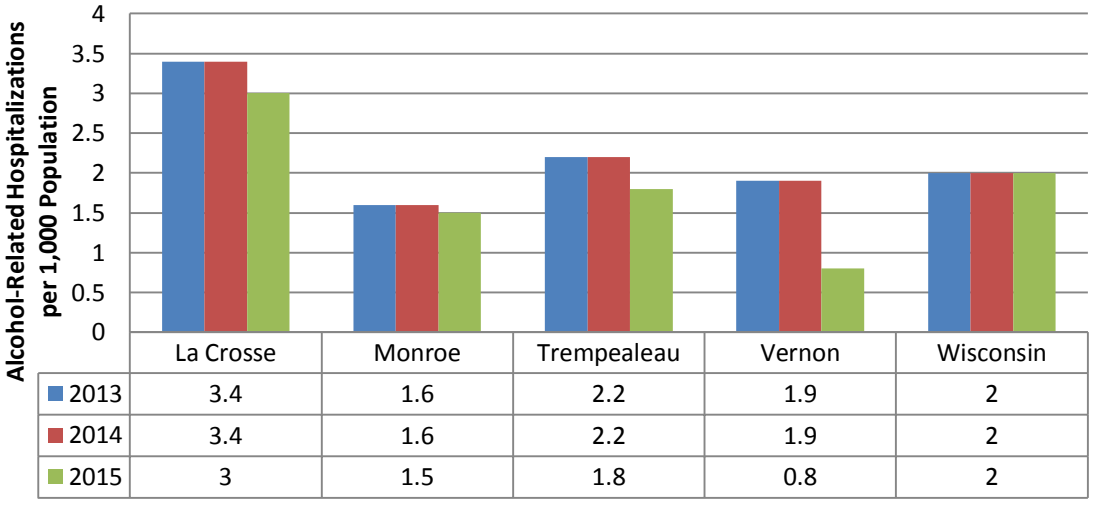
BACKGROUND

The World Health Organization (WHO) defines **substance abuse** as the harmful or hazardous use of psychoactive substances, including alcohol and illicit drugs.[xxiv] Psychoactive substance use can lead to dependence syndrome - a cluster of behavioral, cognitive, and physiological phenomena that develop after repeated substance use and that typically include a strong desire to take the drug, difficulties in controlling its use, persisting in its use despite harmful consequences, a higher priority given to drug use than to other activities and obligations, increased tolerance, and sometimes a physical withdrawal state. The National Institute of Health defines **substance dependence** as a state in which one functions normally only in the presence of the drug. When the drug is removed, physical disturbance (withdrawal) occurs.

Alcohol

Moderate consumption of alcohol is defined as consuming one drink per day for women and two drinks per day for men. Excessive alcohol use can increase a person's risk of developing serious health problems which may include sleep disturbances, personality changes, depression, heart arrhythmias, anxiety, hypertension, pancreatitis, coma, stroke, or death. There are a number of reasons someone may be admitted to a hospital due to alcohol-related issues. Reasons for hospitalization include alcohol psychoses, alcohol dependence syndrome, alcohol abuse, alcoholic polyneuropathy, alcoholic cardiomyopathy, alcoholic gastritis, chronic liver disease and cirrhosis, and excessive blood level of alcohol. The measure is displayed as the alcohol-related hospitalization rate per 1,000 population. The chart below shows alcohol-related hospitalizations for the Great Rivers Region and the state of Wisconsin between 2013 and 2015. La Crosse County continuously has higher rates of alcohol-related hospitalizations.

Alcohol-Related Hospitalizations, Wisconsin



	La Crosse	Monroe	Trempealeau	Vernon	Wisconsin
2013	3.4	1.6	2.2	1.9	2
2014	3.4	1.6	2.2	1.9	2
2015	3	1.5	1.8	0.8	2

Source: Public Health Profiles-State of Wisconsin

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The table below shows the number of deaths related to alcohol and other drug abuse for the Great Rivers Region and state of Wisconsin from 2008 to 2012. A death with more than one of these causes mentioned is counted for each one. For instance, a death that mentions both alcohol and tobacco will be counted in both categories.

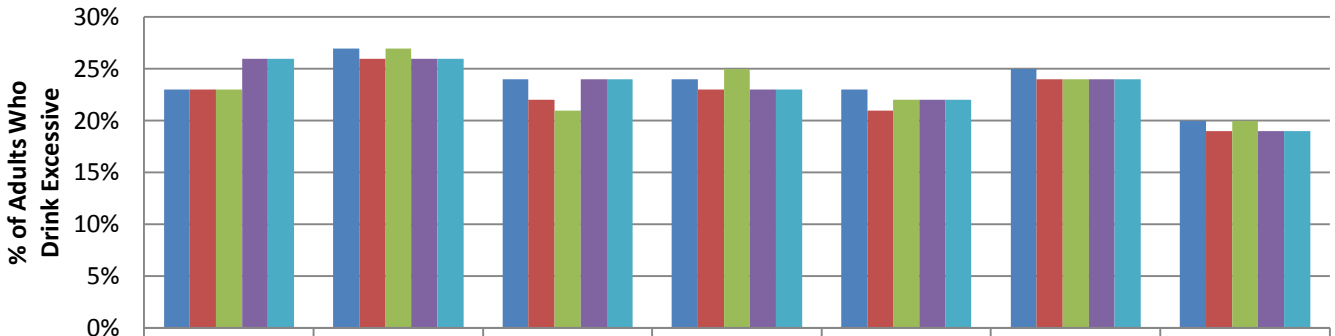
Alcohol and Drug Abuse as Underlying or Contributing Cause of Death, Wisconsin

Underlying or Contributing Cause of Death	2008	2009	2010	2011	2012
Number of Alcohol-Related Deaths					
La Crosse	18	24	33	26	26
Monroe	9	5	4	7	8
Trempealeau	2	4	1	3	4
Vernon	4	2	5	4	5
Wisconsin	886	832	917	933	952
Number of Tobacco-Related Deaths					
La Crosse	151	137	152	145	128
Monroe	76	78	96	70	77
Trempealeau	37	43	30	33	47
Vernon	60	51	50	52	45
Wisconsin	7,676	7,669	8,095	8,290	8,246
Number of Deaths Related to Other Drugs					
La Crosse	6	11	11	12	9
Monroe	4	8	4	8	5
Trempealeau	2	1	0	3	2
Vernon	0	2	6	2	0
Wisconsin	526	556	576	636	633

Source: Wisconsin Department of Health Services, State of Wisconsin Public Health Profiles

Excessive drinking is the percentage of adults that report either binge drinking, defined as consuming more than 4 (women) or 5 (men) alcoholic beverages on a single occasion in the past 30 days, or heavy drinking, defined as drinking more than one (women) or 2 (men) drinks per day on average. The chart below shows the rates of excessive drinking that were reported among adults who completed the Behavioral Risk Factor Surveillance Survey. Wisconsin residents generally reported higher rates of excessive drinking than Minnesota residents. Of the five counties in the Great Rivers Region, Monroe County consistently reported higher rates of excessive drinking, except for in 2015 in which 26% of both La Crosse and Monroe residents reported excessively drinking.

Percentage of Adults Who Reported Excessive Drinking in Past 30 Days



	La Crosse	Monroe	Trempealeau	Vernon	Houston	Wisconsin	Minnesota
2011	23%	27%	24%	24%	23%	25%	20%
2012	23%	26%	22%	23%	21%	24%	19%
2013	23%	27%	21%	25%	22%	24%	20%
2014	26%	26%	24%	23%	22%	24%	19%
2015	26%	26%	24%	23%	22%	24%	19%

Source: Behavioral Risk Factor Surveillance System

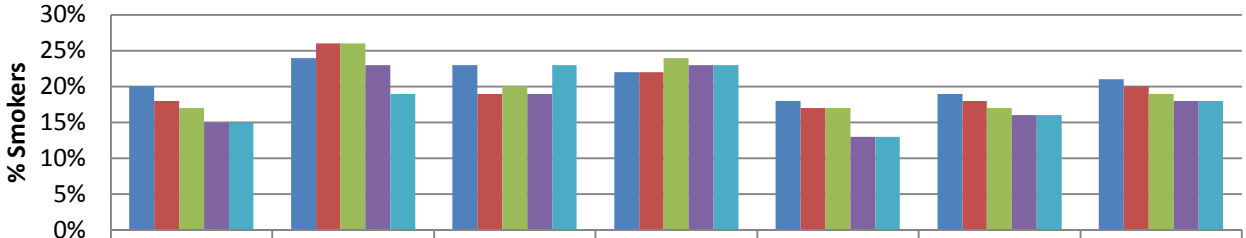
Tobacco

Tobacco use is the leading cause of preventable death in the United States.[xxv] If not only affects those who choose to use tobacco, but also people who live and work around tobacco.[xxv] Each year approximately 480,000 Americans die from tobacco use. This includes about 41,000 deaths from secondhand smoke.[xxv] Smoking causes cancer, heart disease, stroke, diabetes, and lung diseases such as emphysema, bronchitis, and chronic airway obstruction, and can lead to lung cancer and heart disease in those exposed to secondhand smoke. On average, smokers die 10 years earlier than nonsmokers.[xxv] Tobacco use has vast economic impacts for individuals and communities. It costs the United States approximately $133 billion annually to treat tobacco-related illnesses, and another $156 billion in productivity losses.[xxv]

According to the U.S. Department of Health and Human Services, nine out of ten smokers began smoking before the age of 18, and 98% start smoking by age 26. In addition, in 2011, it was estimated that 19% of the total U.S. adult population were cigarette smokers.

The chart on the next page shows the percentage of adults who reported smoking every day or most days, and/or have smoked at least 100 cigarettes in their lifetime. Monroe County had the highest rates of smoking adults between 2011 and 2015, with an average of 23.6%. Houston County had the lowest five-year average with 15.6% of adults reporting smoking.

Percentage of Adults Who Reported Smoking

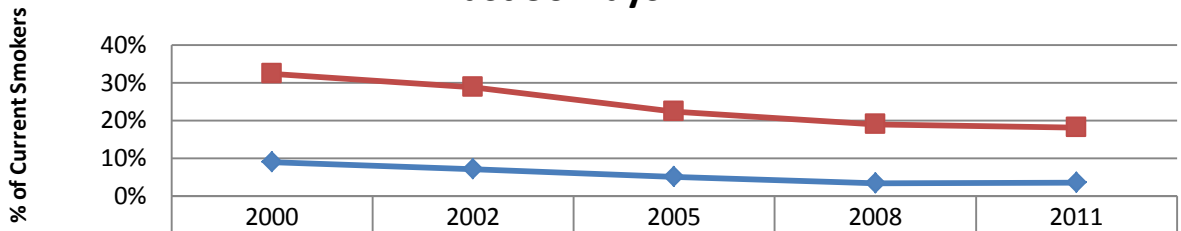


	La Crosse	Monroe	Trempealeau	Vernon	Houston	Minnesota	Wisconsin
2011	20%	24%	23%	22%	18%	19%	21%
2012	18%	26%	19%	22%	17%	18%	20%
2013	17%	26%	20%	24%	17%	17%	19%
2014	15%	23%	19%	23%	13%	16%	18%
2015	15%	19%	23%	23%	13%	16%	18%

Source: Behavioral Risk Factor Surveillance System

The chart below shows the percentage of Minnesota students who smoked cigarettes in the past 30 days. Between 2008 and 2011, the percentage of students who smoked cigarettes in the past 30 days remained the same in middle school and declined slightly from 19.1% to 18.1% in high school. While rates of cigarette smoking have declined since 2000, there has been no change in the percentage of students smoking cigars, cigarillos, or little cigars and little change in the percentage of students using smokeless tobacco.

Percent of Minnesota Students Who Smoked Cigarettes in Last 30 Days



	2000	2002	2005	2008	2011
Middle School	9.1%	7.2%	5.2%	3.4%	3.7%
High School	32.4%	28.9%	22.4%	19.1%	18.1%

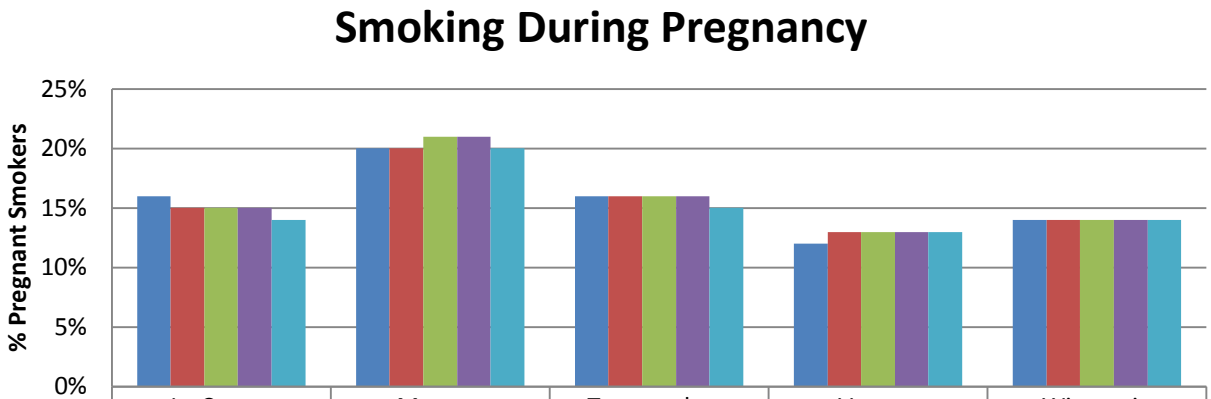
Source: Minnesota Department of Health, Center for Health Statistics, *Teens and Tobacco in Minnesota, 2011 Update*

Smoking During Pregnancy

Tobacco use is harmful to anyone who participates in this behavior. However, pregnant women have the additional concern of the developing fetus to be concerned with. According to the CDC, women who smoke during pregnancy are more likely to miscarry, have an increased risk of problems with the placenta, increased risk of premature birth and/or delivering a low birthweight baby, increases the risk of Sudden Infant Death Syndrome (SIDS), and are more like to deliver a baby with cleft lip or cleft palate.

In the 2011 Pregnancy Risk Assessment and Monitoring System (PRAMS), which was conducted by the CDC and looked at data from 24 states, approximately 10% of women reported smoking during the last three months of pregnancy. Of those women, 55% quite during pregnancy, however, 40% relapsed within six months of delivery.

The chart below represents the percentage of mothers who reported smoking during pregnancy. Monroe County consistently had higher rates of smoking during pregnancy than any other county in the Great Rivers Region and the state of Wisconsin. The rates for La Crosse, Trempealeau, and Vernon counties, and the state of Wisconsin, stayed fairly constant.



	La Crosse	Monroe	Trempealeau	Vernon	Wisconsin
2011	16%	20%	16%	12%	14%
2012	15%	20%	16%	13%	14%
2013	15%	21%	16%	13%	14%
2014	15%	21%	16%	13%	14%
2015	14%	20%	15%	13%	14%

Source: County Health Rankings, Wisconsin Interactive Statistics on Health (WISH)

Data for Houston County and Minnesota was unavailable.

Other Tobacco Products (OTP)

There are a wide variety of other tobacco products that may appeal to people who prefer a non-cigarette option. According to the Department of Health and Human Services, from 2000 to 2011, the use of non-cigarette smoked tobacco products increased dramatically.[xxvi] Almost 6% of young adults use smokeless tobacco and half of new users are younger than 18.[xxvi]

Cigars and Pipes

The largest increase of non-cigarette smoked tobacco products in recent years has been the use of pipe tobacco and large cigars. Cigars are rolled bundles of dried and cured tobacco. In the U.S., there are three major types of cigars sold —large cigars, cigarillos, and little cigars.[xxvi] Like cigarettes, cigars and pipe tobacco smoke contains toxic and cancer causing chemicals that are harmful to both smokers and nonsmokers. Unlike cigarettes, cigars sold in the United States are permitted to be manufactured with flavors, which can mask the harshness of tobacco and appeal particularly to youth and young adults.[xxvi]

Bidis and Kreteks (Clove Cigarettes)

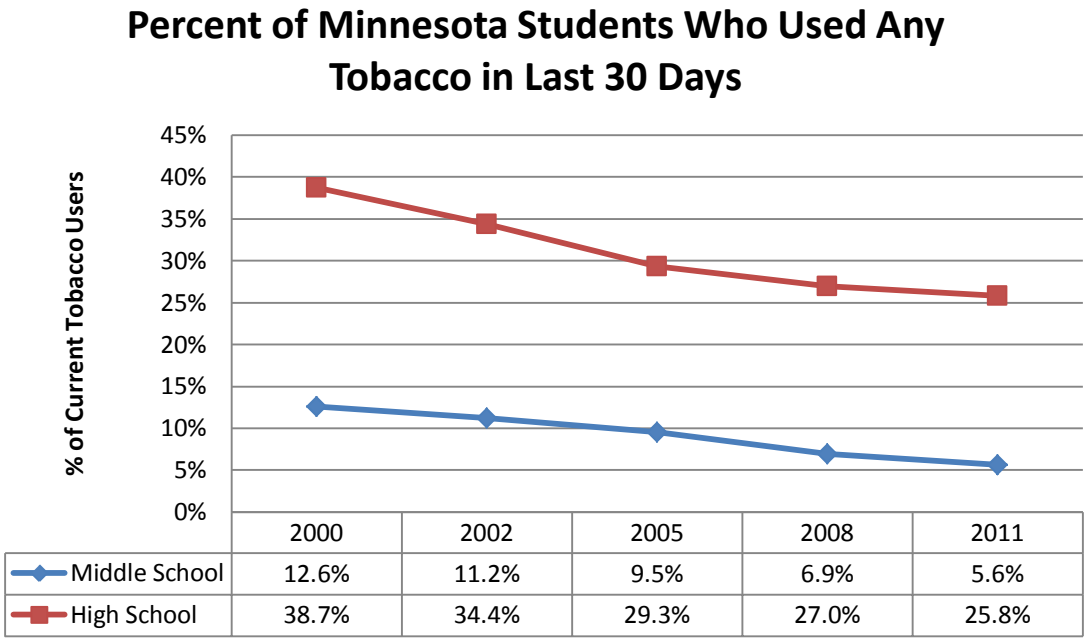
Bidis are small, thin, hand-rolled cigarettes primarily imported to the United States from India and other Southeast Asian countries. They are tobacco wrapped in a leaf and may be tied with colorful string at one or both ends. Bidis can be flavored—such as chocolate, cherry, or mango—or unflavored. Kreteks or clove cigarettes are imported from Indonesia. They typically contain about 60% tobacco and 40% ground cloves.[xxvi] To this point, there has only been a limited amount of research conducted in the U.S. on the long-term health effects of bidis and kreteks. However, research studies from India show that bidi smoking is associated with cancer and other health conditions. Additionally, research studies from Indonesia show that kretek smoking is associated with lung problems.[xxvi]

Hookahs

Hookahs or water pipes, are used to smoke specially made tobacco that is available in a variety of flavors. A typical modern hookah has a head (with holes in the bottom), a metal body, a water bowl, and a flexible hose with a mouthpiece. Tobacco smoke is drawn through water or ice in the water bowl and cooled before it is inhaled.[xxvi] Some hookah users consider this form of tobacco use less harmful than smoking cigarettes, however, hookahs deliver the addictive drug nicotine and users may actually absorb higher concentrations of the toxins found in cigarette smoke. A typical 1-hour-long hookah smoking session involves inhaling 100–200 times the volume of smoke inhaled from a single cigarette.[xxvi]

Tobacco and OTP in the Great Rivers Region

According to the 2011 Minnesota Youth Tobacco and Asthma Survey, 5.6% of middle school students (grades 6-8) are current tobacco users, meaning they used any form of tobacco in the past 30 days; 3.% are current cigarette smokers. 25.8% of high school students (grades 9-12) used tobacco in the past 30 days. 18.1% of these students smoked cigarettes, 13% smoked cigars, cigarillos or little cigars, and 8.4% used smokeless tobacco in the past 30 days. Males are considerably more likely to use various tobacco products than females. Although there has been a decade of sharp decline in tobacco use among teens, progress in reducing tobacco use appears to be slowing. The chart below shows the percentage of Minnesota students who reported using any tobacco products in the last 30 days.



	2000	2002	2005	2008	2011
Middle School	12.6%	11.2%	9.5%	6.9%	5.6%
High School	38.7%	34.4%	29.3%	27.0%	25.8%

Source: Minnesota Department of Health, Center for Health Statistics, *Teens and Tobacco in Minnesota, 2011 Update*

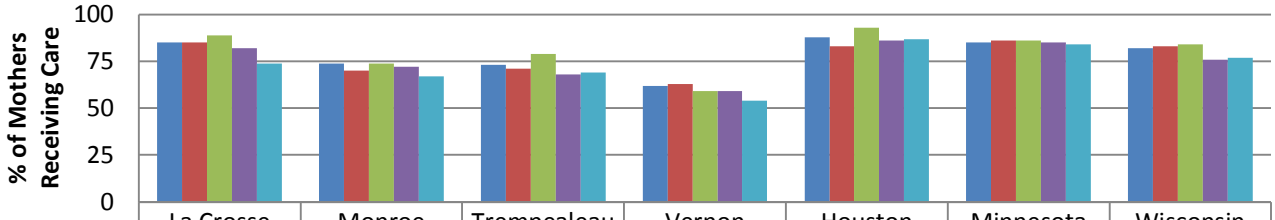
Prenatal Care — Indicator 5

BACKGROUND

Participating in preconception and prenatal care, such as physical exams and weight checks, can reduce many risks for both mother and baby. These benefits extent through pregnancy, delivery, and postpartum.

The chart below shows the percentage of births to mothers who received first-trimester prenatal care for the five counties with the Great Rivers Region, as well as the state of Wisconsin. In 2012, county rates of first-trimester prenatal care were the lowest they have been over the five-year period, except for Houston County. Overall, first-trimester prenatal care rates were on the decline for Great Rivers United Way counties, except Houston County which stayed somewhat consistent over this time period. During this same timeframe the state of Minnesota had consistent rates of mothers receiving first-trimester prenatal care. However, Wisconsin rates dropped from 82% to 77% between 2008 and 2012. Vernon County has consistently had the lowest rates, with only 54% of pregnant mothers receiving prenatal care in 2012. Houston County has consistently had the highest rates among all counties.

Percentage of Mothers Who Received First-Trimester Prenatal Care



	La Crosse	Monroe	Trempealeau	Vernon	Houston	Minnesota	Wisconsin
2008	85	74	73	62	88	85	82
2009	85	70	71	63	83	86	83
2010	89	74	79	59	93	86	84
2011	82	72	68	59	86	85	76
2012	74	67	69	54	87	84	77

Source: Wisconsin Department of Health Services, State of Wisconsin Public Health Profiles; Minnesota Department of Health, Minnesota County Health Tables

The table below shows the timing of prenatal care initiation by maternal education for 2011 in the U.S. It appears that the more education a mother has, the sooner in pregnancy she will begin prenatal care. The opposite can also be said in that the less education a mother has, the more likely it is for her to begin prenatal care later in pregnancy or not at all.

Timing of Prenatal Care Initiation, by Maternal Education, United States, 2011			
Maternal Education	**Percent of Mothers, 1st Trimester**	**Percent of Mothers, 2nd Trimester**	**Percent of Mothers, 3rd Trimester or No Care**
Less Than High School Diploma or GED	58.0%	30.7%	11.3%
High School Diploma or GED	68.6%	24.3%	7.1%
Some College or Technical School	76.1%	19.1%	4.8%
Bachelor's Degree or Higher	86.3%	11.1%	2.6%
Total	73.7%	20.3%	6.0%
Source: Centers for Disease Control and Prevention, National Center for Health Statistics. Natality Public Use File.			

The table below shows the percentage of women receiving prenatal care during the first trimester by race. All four counties and the state of Wisconsin experienced a decrease in the percentage of white mothers receiving first trimester prenatal care between 2008 and 2012. The largest decrease was in Monroe County which experienced an 11% decrease. Although data from other racial/ethnic groups is unavailable for comparison, there was the same general trend among the counties and years this data was available. For example, among the counties with Black/African American data available, although rates increased between 2008 and 2010, there was again a general decrease in first trimester prenatal visit rates, the largest being a 13% decrease in La Crosse County. This data was unavailable for Houston County and the state of Minnesota.

Percentage of Mothers Participating In First Trimester Prenatal Visit, by Race					
	2008	**2009**	**2010**	**2011**	**2012**
La Crosse					
White	88%	87%	92%	53%	78%
Black/African American	71%	64%	85%	-	58%
American Indian	71%	60%	75%	-	-
Hispanic	85%	86%	66%	83%	52%
Asian	63%	68%	70%	-	52%
Two or More Races	-	-	-	-	62%
Other	-	-	-	-	-

Monroe					
White	77%	72%	75%	74%	68%
Black/African American	40%	67%	50%	-	-
American Indian	73%	78%	80%	57%	-
Hispanic	44%	43%	50%	60%	57%
Asian	50%	80%	-	57%	71%
Two or More Races	-	-	-	67%	63%
Other	-	-	-	-	-
Trempealeau					
White	78%	77%	82%	73%	74%
Black/African American	-	-	-	-	-
American Indian	-	-	-	-	-
Hispanic	36%	42%	56%	42%	48%
Asian	-	-	-	60%	-
Two or More Races	-	-	-	-	-
Other	-	-	-	-	-
Vernon					
White	62%	63%	59%	60%	53%
Black/African American	-	-	-	-	-
American Indian	-	-	-	-	-
Hispanic	44%	50%	56%	17%	83%
Asian	-	-	83%	-	-
Two or More Races	-	-	-	-	-
Other	-	-	-	-	-
Wisconsin					
White	86%	87%	88%	81%	81%
Black/African American	70%	73%	74%	56%	60%
American Indian	72%	77%	72%	62%	64%
Hispanic	71%	74%	75%	62%	64%
Asian	70%	73%	74%	64%	66%
Two or More Races	-	-	-	66%	69%
Other	33%	51%	71%	56%	57%

Source: Wisconsin Department of Health Services, State of Wisconsin Public Health Profiles; Minnesota Department of Health, Minnesota County Health Tables

2011 was the first year the 'two or more races' category was available for selection. Similar data was unavailable for Houston County and the state of Minnesota. Not reported if race category has fewer than 5 births.

The table below shows the percentage of mothers who reported smoking during pregnancy. Over this five year period, there has been an increase in mothers who reported smoking during pregnancy for all regions except Vernon County, which stayed relatively the same over this time period. The largest increase was seen in Monroe County which increased by 10%.

Smoking Status of Mother, Percentage					
	2008	**2009**	**2010**	**2011**	**2012**
La Crosse					
Smoker	14%	14%	13%	19%	19%
Nonsmoker	85%	85%	86%	80%	81%
Unknown	<0.5%	1%	<0.5%	1%	<0.5%
Monroe					
Smoker	21%	19%	20%	27%	31%
Nonsmoker	78%	81%	79%	72%	68%
Unknown	1%	<0.5%	1%	<1%	<0.5%
Trempealeau					
Smoker	15%	15%	15%	24%	19%
Nonsmoker	84%	84%	85%	75%	80%
Unknown	<0.5%	1%	1%	<0.5%	<0.5%
Vernon					
Smoker	16%	12%	13%	17%	15%
Nonsmoker	84%	88%	87%	83%	85%
Unknown	0%	1%	0%	0%	<0.5%
Houston					
Smoker	17.3%	17.1%	14.7%	16.7%	14.4%
Nonsmoker	82.7%	82.9%	85.3%	83.3%	85.6%
Unknown	-	-	-	-	-
Minnesota					
Smoker	10%	9.9%	10%	14.2%	12%
Nonsmoker	90%	90.1%	90%	85.8%	88%
Unknown	-	-	-	-	-
Wisconsin					
Smoker	14%	14%	13%	19%	19%
Nonsmoker	85%	85%	86%	80%	81%
Unknown	<0.5%	1%	<0.5%	1%	<0.5%

Source: Wisconsin Department of Health Services, State of Wisconsin Public Health Profiles; Minnesota Department of Health, Minnesota County Health Tables

Teen Births Indicator 6

BACKGROUND

A teenage pregnancy is generally thought of as a pregnancy that occurs in a girl who is between the ages of 13-19. In general, it refers to girls who have not legally reached adulthood. However, the cultural concept of adulthood varies across the world.

Teenage pregnancies have an impact on the young of the infant, the infant born to an adolescent parent, the families of those young parents, and the community at large. Teenage girls who have a child are less likely to finish high school, more likely to rely on public assistance, more likely to be poor adults, and more likely to have children who have poorer educational, behavioral, and health outcomes over the course of their lives than do children born to older parents.[xxvii]

Although there were 273,000 babies born to teenage mothers in 2013, according to the CDC, teen births have generally been falling since the 1950s. For example, the rate fell 57% between 1991 and 2013.[xxviii] This decline translates into an estimated 4 million fewer births to teens. The costs of teen childbearing in the United States are extremely substantial, estimated at $9.4 billion in 2010 alone.[xxviii]

The Guttmacher Institute advances sexual and reproductive health and rights through an interrelated program of research, policy analysis and public education designed to generate new ideas, encourage enlightened public debate, and promote sound policy and program development. The Institute's overarching goal is to ensure the highest standard of sexual and reproductive health for all people worldwide. According to the Guttmacher Institute:

- The decline in teen pregnancy rates in the United States is due primarily to teens' improved contraceptive use.[xxix]
- Despite having declined, the U.S. teen pregnancy rate continues to be one of the highest in the developed world. It is more than twice as high as rates in Canada (28 per 1,000 women aged 15–19 in 2006) and Sweden (31 per 1,000).[xxx]
- 82% of teen pregnancies are unplanned and teens account for about one-fifth of all unintended pregnancies annually.[xxxi]
- 60% of pregnancies among 15–19-year-olds in 2010 ended in birth, and 26% in abortion; the rest end in miscarriage.[xxxii]

Title X of the Public Health Service Act serves as the sole federal program devoted entirely to family planning. Through Title X the federal government sets family planning policy, and its flexible grant funds not only subsidize direct client services, but are critical to putting family planning centers in communities and to supporting their ongoing infrastructure needs. Without these services, unintended pregnancies and abortion in the United States would be 35% higher.[xxxiii] In 2010, 332,520 Wisconsin women were in need of publically supported contraceptive services and supplies.[xxxiii] Of these Wisconsin women, 13% were uninsured.

In 2010, contraceptive services provided at Title X-supported centers in Wisconsin helped women avoid 13,300 unintended pregnancies, which would have resulted in 6,600 births and 4,500 abortions.[xxxiii]

The table below shows the average birth rates to women age 15-19 years old by time period. All counties within the Great Rivers Region, with the exception of Monroe County, have lower teen birth rates than the state average. Monroe County is consistently higher than county and state averages. Nonetheless, all regions are experiencing declining teen birth rates.

Teen Births

Report Area	Female Population Ages 15-19	Births to Mothers Ages 15-19	Teen Birth Rate (per 1,000 Population)
Report Area	8,912	179	20.09
La Crosse	4,973	79	15.9
Monroe	1,456	79	15.9
Trempealeau	859	26	30.1
Vernon	968	14	14.9
Houston	656	10	14.7
Wisconsin	194,406	5,346	27.5
Minnesota	179,235	4,266	23.8
United States	10,736,677	392,962	36.6

Note: This indicator is compared with the lowest state average.

Data Source: US Department of Health & Human Services, Health Indicators Warehouse. Centers for Disease Control and Prevention, National Vital Statistics System. Accessed via CDC WONDER. 2006-12.

Counts for this indicator represent the annual average births over the 5-year period 2007-2011. Original data was tabulated by the CDC based on information reported on each birth certificate. Rates represent the number of births per 1,000 female population based on the following formula:
Rate = [Births to Mothers Age 15-19] / [Female Population Age 15-19] * 1,000

Another at-risk population for teenage pregnancy includes the daughters of teenage mothers. According to a study conducted by the Department of Psychology at Yale University, the daughters of teenage mothers are 66% more likely to become teenage mothers themselves.[xxxiv] Individual (school performance), family (maternal education, marital status, number of children), peer (dating history), and environmental (race, enrichment) factors predicted teenage childbearing. Risks specific to daughters of teenage mothers were deviant peer norms, low parental monitoring, Hispanic race, and poverty.[xxxiv]

There are also risks associated with being a sister of a teenage mother. The Guttmacher Institute conducted a study in which they surveyed 127 Latina and black adolescent females and three different points in time. This study set out to determine the extent to which young women's risk of adolescent pregnancy is associated with having a mother who was a teenage parent, a sister who was a teenage parent, or both. It was found that young women who only

had a sister who became a teenage mother had greater odds of pregnancy than young women who had only a mother who had had a teenage birth.[xxxiii] Having both a mother and a sister who had had teenage births was independently associated with an elevated risk of pregnancy.[xxxiii] Frequent companionship with an older sister was associated with increased odds of teenage pregnancy; frequent conflict with an older sister who had had a teenage birth was marginally associated with decreased odds of the outcome.[xxxiii]

Women, Infants, and Children (WIC) Participants Indicator 7

BACKGROUND

WIC is a federally funded program to states for supplemental foods, health care referrals, and nutrition education for low-income pregnant, breastfeeding, and non-breastfeeding postpartum women, and to infants and children up to the age of five who are found to be at nutritional risk. The table below shows WIC participation for Wisconsin counties for years 2008 through 2012. In total, there were 7,506 WIC participants in the Great Rivers Region in 2012, 763 (10%) were not English speaking residents. Children ages one to four years were the largest group of WIC participants.

WIC Participation

County/Year	Pregnant/ Postpartum	Infants	Children, Age 1-4	Do Not Speak English	Speak English	Total
La Crosse						
2008	1,194	790	2,038	311	3,591	4,022
2009	1,146	743	1,991	313	3,575	3,880
2010	1,152	781	2,009	308	3,634	3,942
2011	1,077	730	1,961	278	3,490	3,768
2012	1,028	704	1,839	295	3,276	3,571
Monroe						
2008	567	394	1,023	153	1,750	1,984
2009	525	375	971	170	1,705	1,871
2010	523	347	992	140	1,722	1,862
2011	542	358	990	125	1,765	1,890
2012	511	343	946	131	1,669	1,800
Trempealeau						
2008	430	291	660	269	1,012	1,381
2009	343	249	636	276	956	1,228
2010	333	233	639	286	919	1,205
2011	340	216	629	289	896	1,185
2012	320	233	567	309	811	1,120
Vernon						
2008	336	217	603	24	1,071	1,156
2009	312	199	618	39	1,094	1,129
2010	287	179	617	35	1,048	1,083
2011	246	184	560	25	965	990
2012	285	191	539	28	987	1,015

Source: Wisconsin Department of Health Services, Public Health Profiles

The table below shows WIC participation for Houston County between years 2012 and 2014. In 2014, Houston had 431 participants.

WIC Participation, Houston County				
County/Year	**Pregnant/ Postpartum**	**Infants**	**Children, Age 1-4**	**Total**
Houston				
2012	131	131	77	470
2013	111	124	55	414
2014	126	127	51	431

Minnesota Department of Health, WIC Program

The Minnesota Department of Health data collection system was changed in 2011. The new data collection methods are more comparable to Wisconsin methods.

This indicator reports the number of food stores and other retail establishments per 100,000 population that are authorized to accept WIC Program benefits and that carry designated WIC foods and food categories. This indicator is relevant because it provides a measure of food security and healthy food access for women and children in poverty as well as environmental influences on dietary behaviors. The table below shows the number of WIC-authorized food stores in the Great Rivers Region, as well as the WIC-authorized food store rate per 100,000. Houston County has the highest rate of WIC-authorized food stores in the Great Rivers Region at 26.4 per 100,000 population, slightly higher than the state average of 22.4 per 100,000 population. La Crosse County has the lowest rate with 14.7 WIC-authorized food stores per 100,000 population. Overall, all counties in the Great Rivers Region (except La Crosse and Monroe) as well as Minnesota and Wisconsin have higher rates of WIC-authorized food stores than the United States average of 15.6.

WIC-Authorized Food Stores		
County/Region	**Number of WIC-Authorized Food Stores**	**WIC-Authorized Food Store Rate (per 100,000 Population)**
La Crosse	17	14.7
Monroe	7	15.5
Trempealeau	7	24.1
Vernon	6	20.0
Houston	5	26.4
Wisconsin	1,287	23.4
Minnesota	1,259	22.4
United States	50,042	15.6

Source: US Department of Agriculture, Economic Research Service, USDA - Food Environment Atlas. 2011. Source geography: County

Revised on 2/22/2016

Mental Health Indicator 8

BACKGROUND

Mental health is an extremely comprehensive issue. The Centers for Disease Control and Prevention define mental health as "a state of well-being in which the individual realizes his or her own abilities, can cope with the normal stresses of life, can work productively and fruitfully, and is able to make a contribution to his or her community."[xxxv] It is estimated that only 17% of the U.S. adult population is considered to be in a state of optimal mental health.[xxxvi]

Contrarily, mental illness is defined as "collectively all diagnosable mental disorders" or "health conditions that are characterized by alterations in thinking, mood, or behavior (or some combination thereof) associated with distress and/or impaired functioning."[xxxvi] Depression is the most common type of mental illness, affecting more than 26% of the U.S. adult population.[xxxvii] It has been estimated that by the year 2020, depression will be the second leading cause of disability throughout the world, trailing only ischemic heart disease.[xxxviii] Evidence has shown that mental disorders, especially depressive disorders, are strongly related to the occurrence, successful treatment, and course of many chronic diseases including diabetes, cancer, cardiovascular disease, asthma, and obesity[xxxix] and many risk behaviors for chronic disease; such as, physical inactivity, smoking, excessive drinking, and insufficient sleep.

Common Types of Mental Health Issues

Some of the more well-known mental health issues include anxiety, depression, and suicide. There are a variety of anxiety disorders. According to the National Health Institute, **General Anxiety Disorder (GAD)** sometimes runs in families, but no one yet knows why some people are impacted by GAD while others are not. Researchers are continuing to learn more about the fear and anxiety areas of the brain to determine better treatments. People with GAD have difficulty getting rid of their concerns even once they realize their anxiety is more intense than the situation warrants. Some of the signs and symptoms of GAD are:[xl]

- Trouble falling and/or staying asleep
- Fatigue
- Headaches
- Muscle tension and aches
- Difficulty swallowing
- Irritability
- Sweating and/or hot flashes
- Nausea
- Lightheadedness

GAD affects approximately 3.1% of American adults age 18 years and older. Overall, GAD affects about 6.8 million Americans, including twice as many women as men. The average age of onset is 31 years old. The years of highest risk are between childhood and middle age.[xl]

People suffering from **panic disorder** have sudden and repeated attacks of fear that last for several minutes. These episodes are referred to as panic attacks, which are characterized by fear of disaster or of losing control even when there is no real danger.[xli] Sometimes there is a strong physical reaction associated with a panic attack which may be described as similar to having a heart attack. A person with panic disorder may become discouraged and feel ashamed because he or she cannot carry out normal routines and may interfere with work or school. Some signs and symptoms of a panic disorder may include:[xli]

- Sudden and repeated attacks of fear
- A feeling of being out of control during a panic attack
- An intense worry about when the next attack will happen
- A fear or avoidance of places where panic attacks have occurred in the past
- Physical symptoms during an attack, such as a pounding or racing heart, sweating, breathing problems, weakness or dizziness, feeling hot or a cold chill, tingly or numb hands, chest pain, or stomach pain

Panic disorder affects about 6 million American adults and is twice as common in women as men. Panic attacks often begin in adolescents and early adulthood, but not everyone who experiences panic attacks will develop panic disorder. The tendency to develop panic attacks appears to be inherited.[xli]

Social phobia or **social anxiety disorder** is a strong fear of being judged by others and of being embarrassed. This fear is so strong that it gets in the way of going to work or school or doing other everyday things.[xlii] People with social phobia are afraid of doing common things in front of other people. Sometimes they end of staying away from places or events where they think they might have to do something that will embarrass them. For some, social anxiety disorder is a problem only in certain situations, while others have symptoms in almost any social situation. Sign and symptoms of social anxiety disorder include:[xlii]

- Be very anxious about being with other people and have a hard time talking to them, even though they wish they could
- Be very self-conscious in front of other people and feel embarrassed
- Be very afraid that other people will judge them
- Worry for days or weeks before an event where other people will be
- Stay away from places where there are other people
- Have a hard time making friends and keeping friends
- Blush, sweat, or tremble around other people
- Feel nauseous or sick to their stomach when with other people

Social anxiety disorder runs in families, but no one knows for sure why some people have it while others don't. Researchers are focusing on parts of the brain responsible for fear and anxiety in hopes of creating better treatments. About 15 million American adults are impacted by social anxiety disorder and men are equally as likely as women to be effected.

Childhood and early adolescence are usually when first symptoms are seen. Social anxiety disorder is often accompanied by other anxiety disorder or depression. Substance abuse may also develop if people try to self-medicate their anxiety.[xlii]

Although it is normal for people to feel blue or sad at times, those suffering from **depression** are impacted by these feelings on a regular and ongoing basis. There are several forms of depressive disorder.[xliii] Most likely, depression is caused by a combination of genetic, biological, environmental, and psychological factors.

Major depression includes severe symptoms that interfere with one's ability to work, sleep, study, eat, and enjoy life. An episode can occur only once in a person's lifetime but more often than not someone suffering from major depression experiences several episodes throughout their lifetime.[xliii]

Persistent depressive disorder is a depressed mood that lasts for at least two years. A person with persistent depressive disorder may have episodes of major depression along with periods of less severe symptoms, but symptoms must last for two years.

There are several forms of depression and may develop under unique circumstances. They include:[xliii]

- **Psychotic depression**: occurs when a person has severe depression plus some form of psychosis, such as having disturbing false beliefs or a break in reality (delusions), or hearing or seeing upsetting things that others cannot hear or see (hallucinations)
- **Postpartum depression**: unlike the "baby blues," postpartum depression occurs when hormonal and physical changes of caring for a newborn become unmanageably overwhelming. It is estimated that 10-15% of women experience postpartum depression after giving birth.
- **Seasonal Affective Disorder (SAD)**: is the onset of depression during the winter months, when there is less natural sunlight. The depression generally lifts during spring and summer. SAD may be effectively treated with light therapy but nearly half of those with SAD do not get better with this approach alone. Antidepressant medication and psychotherapy can reduce SAD symptoms, either alone or in combination with light therapy.

Bipolar disorder, or manic-depressive illness, is not as common as major depression or persistent depressive disorder. Bipolar disorder is characterized by cycling mood changes—from extreme highs (mania) to extreme lows (depression).

Just like the spectrum of depression illnesses, there is also a wide range of symptoms that are included. Some signs and symptoms include:

- Persistent sad, anxious, or "empty" feelings
- Feelings of hopelessness or pessimism
- Feelings of guilt, worthlessness, or helplessness
- Irritability, restlessness
- Loss of interest in activities or hobbies once pleasurable
- Fatigue or decreased energy
- Difficulty concentrating, remember details, making decisions
- Insomnia, early-morning wakefulness, or excessive sleeping
- Overeating or appetite loss
- Thoughts of suicide or suicide attempts
- Aches or pains, headaches, cramps, or digestive problems that do not ease with treatment

As the public is becoming more aware of the immense impact mental health has on our society, there are a growing number of resources being devoted specifically to screening, diagnosis, and treatment of mental illness than mental health. However, little has been done to protect the mental health of those free of mental illness. Researchers suggest that there are indicators of mental health, representing three domains.[xliv, xlv, xlvi, xlvii] These domains include the following:

1. Emotional Well-Being (e.g. perceived life satisfaction, happiness, cheerfulness, peacefulness)
2. Psychological Well-Being (e.g. self-acceptance, personal growth including openness to new experiences, optimism, hopefulness, purpose in life, control of one's environment, spirituality, self-direction, and positive relationships)
3. Social Well-Being (e.g. social acceptance, beliefs in the potential of people and society as a whole, personal self-worth and usefulness to society, sense of community)

Mental Health in the Great Rivers Region

Access to Mental Health Services

According to the Department of Health and Human Services, 30% of the population lives in a county designated as a Mental Health Professional Shortage Area (HPSA). As the mental health parity aspects of the Affordable Care Act create increased coverage for mental health services, many anticipate increased workforce shortages.[xlviii]

Mental Health Providers is the ratio of the county population to the number of mental health providers including psychiatrists, psychologists, licensed clinical social workers, counselors, marriage and family therapists and advanced practice nurses specializing in mental health care. In 2015, marriage and family therapists and mental health providers that treat alcohol and other drug abuse were added to this measure. The table on the next page shows the number and the ratio of mental health providers in the Great Rivers Region. Over the past five years, the ratio of mental health providers available has improved immensely. This is true for all

counties in the Great Rivers Region, as well as the state ratios for Minnesota and Wisconsin. The greatest improvement was seen in Trempealeau County, which, until 2013, did not have a mental health provider available in the county. Monroe County also shows significant improvement in that they went from a mental health provider ratio of 43,421:1 in 2011 to 755:1 in 2015.

Mental Health Providers					
Region	**Year**				
	2011	**2012**	**2013**	**2014**	**2015**
La Crosse					
Number of Mental Health Providers	19	19	51	139	276
Mental Health Provider Ratio	5,914:1	5,917:1	2,252:1	838:1	423:1
Monroe					
Number of Mental Health Providers	1	1	5	43	60
Mental Health Provider Ratio	43,432:1	43,432:1	8,952:1	1,049:1	755:1
Trempealeau					
Number of Mental Health Providers	0	0	4	11	15
Mental Health Provider Ratio	27,684:0	27,684:0	7,216:1	2,663:1	1,972:1
Vernon					
Number of Mental Health Providers	4	4	11	28	37
Mental Health Provider Ratio	7,268:1	7,268:1	2,663:1	1,081:1	820:1
Houston					
Number of Mental Health Providers	5	5	2	2	4
Mental Health Provider Ratio	3,862:1	3,862:1	9,511:1	9,419:1	4,700:1
Minnesota					
Number of Mental Health Providers	-	-	-	-	-
Mental Health Provider Ratio	1,306:1	1,306:1	1,732:1	748:1	529:1
Wisconsin					
Number of Mental Health Providers	-	-	-	-	-
Mental Health Provider Ratio	8,437:1	8,437:1	2,714:1	1,024:1	623:1
Source: U.S. Department of Health and Human Services, Area Resource File					

Revised on 2/22/2016

It should be noted that there are numerous gaps around mental health data that currently exist. However, with a growing awareness on the importance of mental health and the profound impact it has on an individual and their community, more comprehensive information may be increasingly available in the near future.

BACKGROUND

Chronic Disease

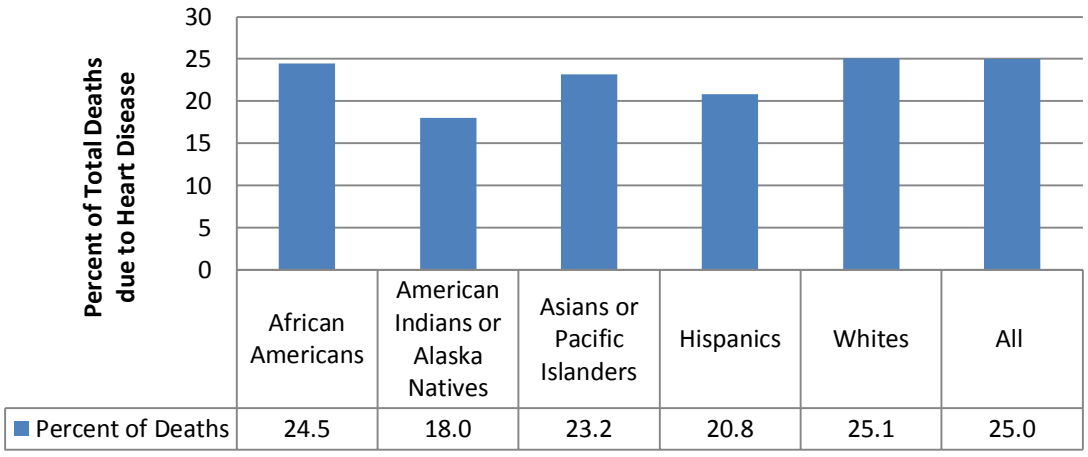
According to the U.S. National Center for Health Statistics, a chronic disease is one lasting three months or longer. The most common, costly, and preventable types of chronic disease include heart disease, cancer, diabetes, stroke, and arthritis.[xlix] Generally incurable and ongoing, chronic disease affect approximately 133 million Americans, representing more than 40% of the total population of this country.[l] By 2020, this number is project to grow to an estimated 157 million, with 81 million having multiple conditions.[42] Overall, seven of the top 10 causes of death in 2010 were chronic diseases.[li]

Heart Disease

The combination of heart disease and cancer accounted for 48% of all deaths.[li] Approximately 610,000 people, or one in every four deaths, in the United States each year are related to heart disease.[lii] Moreover, heart disease continues to be the leading cause of death for both men and women.[lii]

Deaths from heart disease vary by ethnicity. Heart disease is the leading cause of death for African Americans, Hispanics, and whites. For American Indians or Alaska Natives and Asians of Pacific Islanders, heart disease is second only to cancer. Below is a graphic showing the percent of deaths due to heart disease by race of ethnic group.

Percent of Deaths by Race of Ethnic Group, 2008



Source: Heron M. *Deaths: Leading Causes for 2008*, National Vital Statistics Reports. 2012; 60(6)

High blood pressure, high LDL cholesterol, and smoking are key risk factors for heart disease. About 49% of Americans have at least one of these three risk factors.[liii] Some additional medical conditions and lifestyle choices can put people at higher risk for heart disease. These include:[liii]

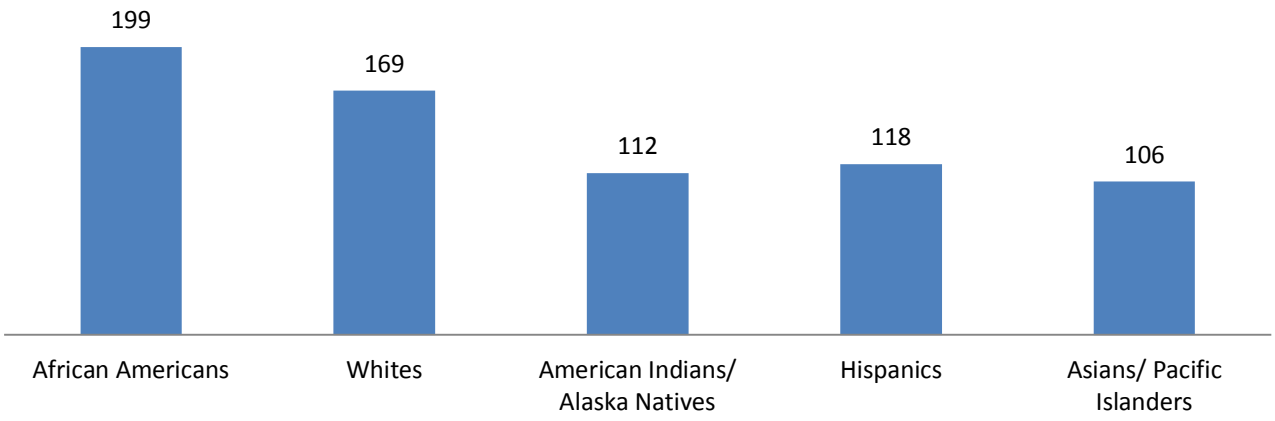
- Diabetes
- Overweight and Obesity
- Poor Diet
- Physical Inactivity
- Excessive Alcohol use

Cancer

Cancer is the second leading cause of death in the United States, exceeded only by heart disease. According to the CDC, more than 575,000 people died of cancer in 2011, and more than 1.5 million people had a diagnosis of cancer.[liv]

Cancer can affect men and woman of all ages, races, and ethnicities. However, it does not impact these groups equally. Below is a table showing the age-adjusted death rates per 100,000 people for all types of cancer combined for 2011. From this table one can see that African Americans are more likely to die of cancer than people of any other race or ethnicity.

Age-Adjusted Death Rate per 100,000 People for All Types of Cancer Combined, 2011



Source: Centers for Disease Control and Prevention, Cancer: Addressing the Burden of Cancer at a Glance

Diabetes

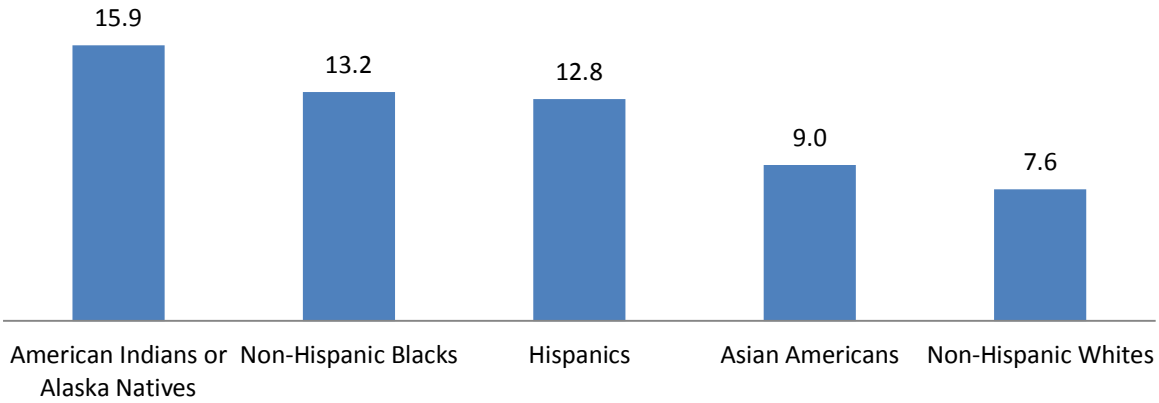
Over the past 32 years, from 1980 to 2012, the number of adults with diagnosed diabetes in the United States has nearly quadrupled, from 5.5 million to 21.3 million. Among adults, about 1.7 million new cases of diabetes are diagnosed each year. If this trend continues, one out of every three adults in the United States will have diabetes by 2050.[lv]

There are two types of diabetes. **Type 1 diabetes** develops when the cells in the pancreas that produce insulin are destroyed. The destruction of the beta cells limits the making and release of insulin, a hormone that helps lower blood sugar. This disease can occur at any age but the peak ages for diagnosis are in the middle teens. There is no known way to prevent type 1 diabetes.[lv]

Type 2 diabetes is most common, accounting for 90%-95% of diagnosed diabetes in U.S. adults. It usually begins as insulin resistance, a disorder in which cells, primarily within the muscles, liver, and fat tissue, do not use insulin properly. The risk of developing type 2 diabetes is associated with aging, obesity, family history of diabetes, a personal history of gestational diabetes, not being physically active, and race and ethnicity.[lv]

Compared with non-Hispanic whites, members of racial and ethnic minority groups are more likely to have diagnosed diabetes. During their lifetime, half of all Hispanic men and women and non-Hispanic black women are predicted to develop diabetes.[lv] Below is a table showing the percentage of U.S. adults aged 20 or older with diagnosed diabetes by racial and ethnic group based on averages calculated between the years 2010 through 2012. The percentages are age-adjusted to the 2000 U.S. standard population.

Percentage of U.S. Adults Aged 20 or Older with Diagnosed Diabetes, by Racial and Ethnic Group, 2010-2012



Source: National Health Interview Survey, 2010-2012, and the Indian Health Service's National Patient Information Reporting System, 2012.

Stroke

Stroke is the fifth leading cause of death for Americans and each year 795,000 people in the United States have a stroke. Of those, approximately 130,000 die as a result of having a stroke. This accounts for roughly one out of every twenty deaths.[lvi] Stroke is the leading cause of serious long-term disability.[lvii]

The risk of having a stroke is nearly twice as high for blacks than for whites, and blacks are more likely to die following a stroke than whites.[lvii] Hispanics' risk for stroke falls between that of whites and blacks.[lvii] American Indians, Alaska Natives, and blacks are more likely to have had a stroke than are other groups.[lviii]

Lifestyle behaviors can contribute to the risk of having a stroke. High blood pressure, high cholesterol, and smoking are major risk factors for stroke. About half of Americans (49%) have at least one of these risk factors.[lix]

Health Risk Behaviors that Cause Chronic Diseases

According to the CDC, health risk behaviors are unhealthy behaviors one can change. Four of these health risk behaviors—lack of exercise or physical activity, poor nutrition, tobacco use, and drinking too much alcohol—cause much of the illness, suffering, and early death related to chronic diseases and conditions.

Lack of Exercise or Physical Activity

In 2011, more than half (52%) of adults aged 18 years or older did not meet recommendations for aerobic exercise of physical activity. In addition, 76% did not meet recommendations for muscle-strengthening physical activity.[lx]

Poor Nutrition

In 2011, more than one-third (36%) of adolescents and 38% of adults said they ate fruit less than once a day, while 38% of adolescents and 23% of adults said they ate vegetables less than one a day.[lxi]

Tobacco Use

More than 42 million adults—close to 1 of every 5—said they currently smoked cigarettes in 2012.[lxii] Cigarette smoking accounts for more than 480,000 deaths each year.[lxii] Each day, more than 3,200 youth younger than 18 years smoke their first cigarette, and another 2,100 youth and young adults who smoke every now and then become daily smokers.[lxii]

Consuming Too Much Alcohol

Drinking too much alcohol is responsible for 88,000 deaths each year, more than half of which are due to binge drinking.[lxiii,lxiv] About 38 million U.S. adults report binge drinking an average of 4 times a month, and have an average of 8 drinks per binge, yet most binge drinkers are not alcohol dependent.[lxv]

Cost of Chronic Diseases and Health Risk Behaviors

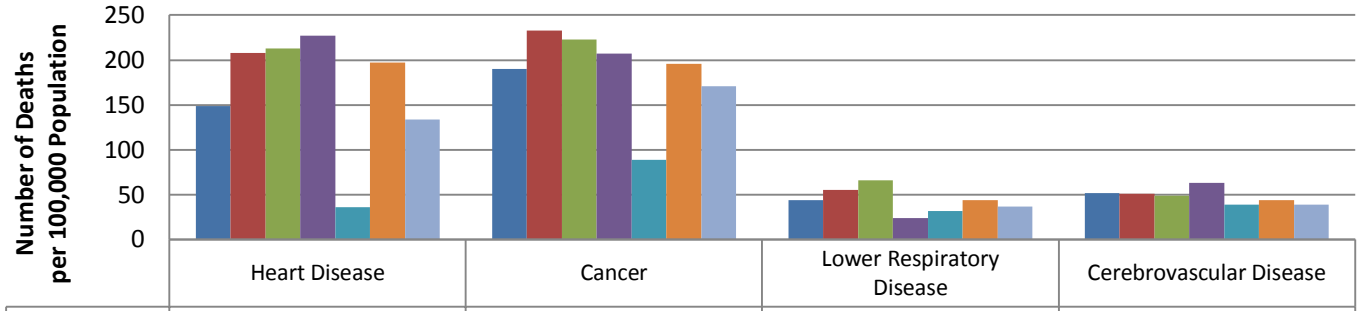
According to the CDC, in the United States, chronic diseases and their related health risk behaviors that cause them account for most health care costs. Below are some supporting statistics.

- In fact, in 2010, 86% of all health care spending was for people with one or more chronic medical conditions.[lxvi]
- The total costs of heart disease and stroke in 2010 were estimated to be $315.4 billion. From this cost, $193.4 billion was for direct medical costs, not including costs of nursing home care.[lxvii]
- Cancer care costs alone were $157 billion that same year.[lxviii]
- In 2012, the total estimated cost of diagnosed diabetes was $254, including $176 billion in direct medical cost and $69 billion in decreased productivity. Loss of productivity includes costs associated with people being absent from work, being less productive while at work, or not being able to work at all because of diabetes.[lxix]

Chronic Diseases in the Great Rivers Region

According to the Centers for Disease Control and Prevention, in 2013 the top five causes of death in the United States were disease of the heart, cancer, chronic lower respiratory diseases, unintentional injuries, and stroke. The table below shows how some of these chronic diseases impact the Great Rivers Region. Cancer is the leading cause of death in the Great Rivers Region in 2012 for all counties except Vernon County, in which heart disease is responsible for the most deaths. Heart disease is the second leading cause of death for La Crosse, Monroe, and Trempealeau counties. Cancer is the second leading cause of death for Vernon County and cerebrovascular (stroke) is the second leading cause of death in Houston County. Both heart disease and cancer contribute to Wisconsin death tolls almost equally. For the state of Minnesota, cancer is the leading cause of death, followed by heart disease.

Deaths per 100,000 Population, by County, 2012



	Heart Disease	Cancer	Lower Respiratory Disease	Cerebrovascular Disease
La Crosse	149	190	44	52
Monroe	208	233	55	51
Trempealeau	213	223	66	49
Vernon	227	207	24	63
Houston	36	89	32	39
Wisconsin	197	196	44	44
Minnesota	134	171	37	39

Source: Wisconsin Department of Health Services, Division of Public Health, Office of Health Informatics, Health Analytics Section. Public Health Profiles, Wisconsin 2012; Minnesota Department of Health, 2012 Minnesota County Health Tables

Cancer rates reported in the Wisconsin Health Profiles are defined as trachea/bronchus/lung, colorectal, and female breast.

Suicide Indicator 10

BACKGROUND

A suicide attempt indicates something is severely wrong in a person's life. It is thought that eight out of ten people considering suicide give some sign of their intentions such as verbal suicide threats, personality changes, depression, lack of interest in future plans, or daring/risk-taking behavior. According to Mental Health America, the most common underlying disorder is depression, with 30% to 70% of all suicide victims suffering from major depression or bipolar disorder. In fact, it is generally acknowledged that 90% of individuals who die by suicide experience mental health illness.

The CDC defines suicide as a death caused by self-directed injurious behavior with an intent to die as a result of the behavior. A suicide attempt is a non-fatal, self-directed, potentially injurious behavior with an intent to die as a result of the behavior but may not result in injury.[lxx] Furthermore, suicidal ideation is thinking about, considering, or planning suicide.[lxx]

The CDC collects data about mortality in the U.S., including deaths by suicide specifically. In 2013, there were 41,149 suicides reported making suicide the 10th leading cause of death for Americans. In other words, someone in the U.S. died by suicide every 12.8 seconds.[lxxi] Although the national suicide rate dropped from 12.5 to 10.4 deaths per 100,000 population between 1986 and 2000, between 2000 and 2012 the rate increased and by 2013 has stood at 12.6 deaths per 100,000.[lxxi]

Suicide Rates by Demographic

Suicide rates vary drastically among different groups of people. The CDC reports suicide rates by age, sex, race/ethnicity, and geographic region/state.

Suicide Rates by Age

In 2013, the highest rate of suicide in the United States (19.1 per 100,000 population) was among people 45 to 64 years old.[lxxi] The second highest rate (18.6 per 100,000) was among those 85 years and older.[lxxi] Although rates among younger groups have consistently been lower, adolescents and young adults are another age group at risk. In 2013, the suicide rate among those aged 15 to 24 years old was 10.9 per 100,000.[lxxi]

According to the CDC National Center for Health Statistics System, between 2004 and 2010 the annual crude suicide rate for adolescents aged 15 to 24 years old in Wisconsin was 11.61 adolescent suicides per 100,000. The suicide rate for Minnesota during the same time period and for the same age group was very similar at 11.62 adolescent suicides per 100,000 population.

Suicide Rates by Gender

In general, the suicide rate is much higher for males than it is for females, on average, approximately four times higher. In 2013, the national rate for men was 20.2 per 100,000 population and women had a rate of 5.5 per 100,000.[lxxi] Of those who died by suicide in 2013, 77.9% were male and 22.1% were female.[lxxi] However, females are more likely than males to have suicidal thoughts.[lxxii]

Suicide Rates by Race/Ethnicity

In 2013, the highest U.S. suicide rate (14.2 per 100,000 population) was among Whites and the second highest rate (11.7 per 100,000) was among American Indians and Alaska Natives.[lxxi] Overall, white males accounted for 70% of all suicides in 2013.[lxxi] Among American Indians and Alaska Natives aged 15- to 34-years, suicide is the second leading cause of death.[lxxiii] The suicide rate among this age and ethnic group is 31 per 100,000 population, or 2.5 times higher than the national average for that age group (12.2 per 100,000).[lxxii]

Economic Impact of Completed and Attempted Suicides

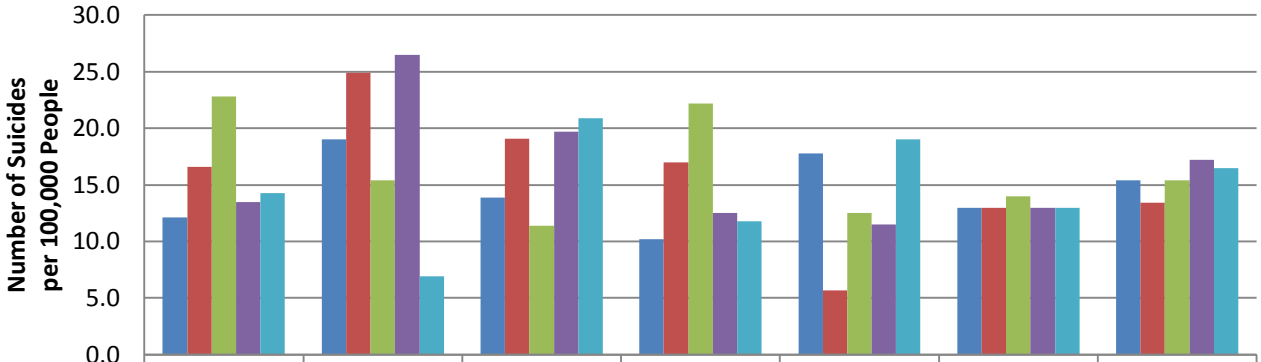
For 2010, the economic cost of suicide death in the U.S. was estimated to be more than $44 billion dollars annually.[lxxi] The heaviest burden falls on adults of working age, the cost to the economy results almost entirely from lost wages and work productivity.

Although the CDC does not have a complete count on suicide attempts, data is gathered annually from hospitals on non-fatal injuries from self-harm behavior. In 2013, there were 494,169 people who visited a hospital for injuries due to self-harm behavior. This number suggests that approximately 12 people harm themselves for every reported death by suicide.[lxxi] In total, this equals an estimated 650,000 hospital visits related to injuries sustained in one or more separate incidents of self-harm behavior.[lxxi] Non-fatal injuries from self-harm cost an estimated $2 billion for medical care and another $4.3 billion is spent for indirect costs, such as lost wages and productivity.[lxxi]

Suicide in the Great Rivers Region

The Great Rivers Region impacted by suicide like the rest of the nation. The table on the next page shows suicide rates per 100,000 population by county. Suicide rates throughout our region fluctuate quite a bit from year-to-year. Therefore, calculating the five-year average suicide rate allows for comparisons to be made. The average five-year suicide rate for 2008 through 2012 by county and state is as follows: La Crosse (15.9), Monroe (18.5), Trempealeau (17.0), Vernon (14.7), Houston (13.3), Minnesota (15.6), and Wisconsin (13.2). Based on these calculations, it appears that Monroe County had the highest suicide rates (18.5 per 100,000 population), while Houston County had the lowest (13.3 per 100,000 population). Wisconsin had lower rates of suicide than Minnesota (13.2 compared to 15.6 suicides per 100,000 population). It is important to note that all five Wisconsin counties had higher average suicide rates than the state of Wisconsin. However, Houston County generally had lower rates than the state of Minnesota.

Number of Suicides per 100,000 Population, by County



	La Crosse	Monroe	Trempealeau	Vernon	Houston	Wisconsin	Minnesota
2008	12.1	19.0	13.9	10.2	17.8	13.0	15.4
2009	16.6	24.9	19.1	17.0	5.7	13.0	13.4
2010	22.8	15.4	11.4	22.2	12.5	14.0	15.4
2011	13.5	26.5	19.7	12.5	11.5	13.0	17.2
2012	14.3	6.9	20.9	11.8	19.0	13.0	16.5

Source: Wisconsin Department of Health Services, Wisconsin Public Health Profiles; Minnesota Department of Health, County Health Tables

Oral Health Indicator 11

BACKGROUND

Oral health is an important indicator of health in a community because oral diseases do not stop at the mouth and teeth. According to the Office of Disease Prevention and Health Promotion, oral diseases are linked to oral health (particularly periodontal disease), diabetes, heart disease, and stroke. In addition, there is a link between pregnant women with poor oral health and the increased likelihood of them giving birth prematurely, as well as low birth weight babies.

Preventing Dental Diseases

According to the Minnesota Department of Health, to maintain clean, healthy teeth and gums one should:

- Visit a dentist at least once a year
- Brush teeth at least twice a day
- Floss at least once a day
- Consume a diet that includes fresh fruits and vegetables
- Drink fewer sugar-sweetened beverages and alcohol
- Avoid using recreational tobacco

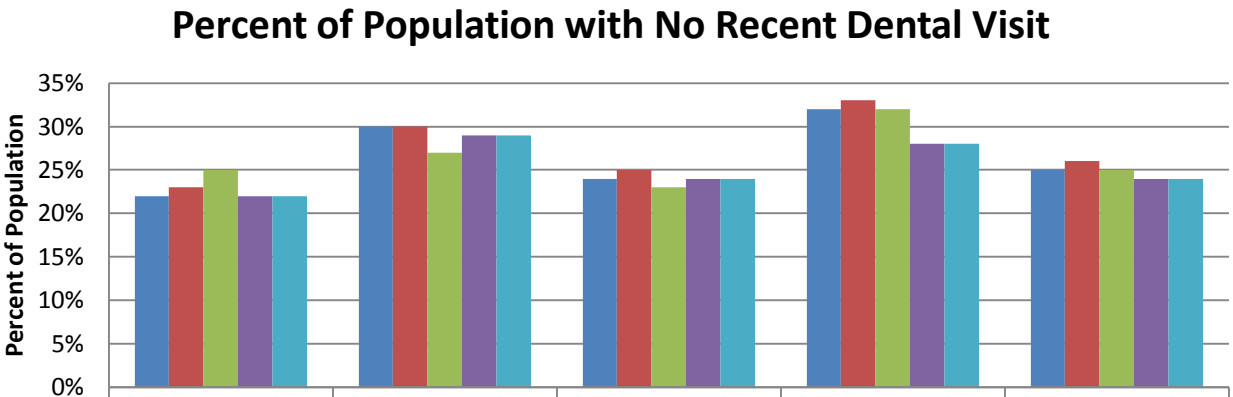
The County Oral Health Wisconsin Surveillance System (COWSS) report compiles all available oral health data into one page reports for all 72 Wisconsin counties and the state. These reports include data on demographics, Medicaid/BadgerCare+ enrollment, dental utilization rates, prevention programs, dental workforce, dental safety net, and oral disease burden. The table on the next page shows the results of some of these demographics for counties within the Great Rivers Region. The percent of adults suffering from tooth loss due to decay or gum disease is quite broad throughout the counties with La Crosse County having the lowest percentage at 36.1%, while Vernon County has the highest percentage at 51.6% of their total adult population effected by tooth loss due to decay or gum disease. The population to dentist ratio also varies quite a bit by county. The lowest ratio was seen in La Crosse County (1,260:1), while the highest ratio was found in Trempealeau County (4,117:1). The Medicaid/BadgerCare+ Population (who are continuously enrolled in the programs) to dentist ratio is another demographic that is quite different between the four Wisconsin counties in the Great Rivers Region. La Crosse County has the best ratio at 154:1; however, Trempealeau County has a much higher ratio at 531:1. Lastly, the age adjusted mortality rate per 100,000 from oral/pharyngeal cancer is quite different between all the counties. La Crosse and Monroe counties have similar rates (approximately 2.75 per 100,000 population), yet, Vernon County has a much higher rate of 24 per 100,000 population.

County Oral Health Wisconsin Surveillance System (COWSS)				
	La Crosse	Monroe	Trempealeau	Vernon
Percent of Adults with Tooth Loss Due to Decay or Gum Disease, 2006, 2008, & 2010	36.1%	50.1%	43.7%	51.6%
Number of Patient Visits to a Hospital Emergency Department for Non-Traumatic Dental Complaints, 2010	270	188	62	78
Mean Charge per Visit to Hospital Emergency Department for Non-Traumatic Dental Complaints, 2010	$415	$242	$389	$361
Percent of Total Population on Public Water Supply, 2011	78.6%	66.6%	53.9%	42.8%
Percent of Total Population (All Water Sources) with Access to Optimally Fluoridated water, 2011	74.8%	22.1%	60.4%	0%
Number of Schools with Fluoride Eligible for Seal-A-Smile Funding, 2010-2011	16	18	8	9
Number of Schools Funded by Seal-A-Smile Program, 2010-2011	0	0	8	0
Total Number Schools with Dental Sealant Program, 2010-2011	12	2	11	0
Number of Students Served by Fluoride Supplement Program, 2010-2011	0	0	5	0
Number of Medicaid/BadgerCare+ children (Age 0-8) with at least one fluoride varnish application by a dental provider, 2010	1,081	655	387	357
Number of Medicaid/BadgerCare+ Children (Age 0-8) with at Least One Fluoride Varnish Application by a Primary Care Provider, 2010	284	20	39	4
Number of Licensed Dentists, 2011	91	21	7	10
Number of Licensed Dental Hygienists, 2011	126	39	20	14
Population to Dentist Ratio	1,260:1	2,127:1	4,117:1	2,977:1
Medicaid/BadgerCare+ Population (Continuously Enrolled) to Dentist Ratio	154:1	292:1	531:1	420:1
Number of Tribal Health Center Dental Clinics	0	0	0	0
Number of Deaths from Oral/Pharyngeal Cancer, 2003-2007	16	6	*	7
Age Adjusted Mortality Rate per 100,000 from Oral/Pharyngeal Cancer, 2003-2007	2.9	2.6	9.8	24

Source: Wisconsin Department of Health Services, County Oral Health Wisconsin Surveillance System (COWSS)

- Above data is most current data available through the Wisconsin Department of Health Services.
- * indicates less than six were suppressed to protect confidentiality. In these cases regional mortality and/or incidence rates are presented.
- The Wisconsin Seal-A-Smile Program is the only data available regarding children with dental sealants at a local level. Programs that are not funded by the Seal-A-Smile Program are not required to provide any data. There are statewide and regional basic screening surveys of third grade students that assess whether a representative sample of students have sealants, but again these estimates are only available at the state and regional level.

Regular dental visits are an important form of preventative care because they help ensure teeth and gums stay healthy and strong. Home dental maintenance is important but a professional teeth cleaning is more thorough and removes plaque build-up. Plaque build-up is harmful because this sticky substance keeps acids in contact with one' teeth, ultimately breaking down enamel and causing tooth decay. The graph below shows the percentage of community members in the Great Rivers Region who have not had a recent dental visit. This measure represents those in the population who are two years of age or above that have not seen a dentist in the past twelve months.



	La Crosse	Monroe	Trempealeau	Vernon	Wisconsin
2011	22%	30%	24%	32%	25%
2012	23%	30%	25%	33%	26%
2013	25%	27%	23%	32%	25%
2014	22%	29%	24%	28%	24%
2015	22%	29%	24%	28%	24%

Source: Wisconsin Family Health Survey
Data unavailable for Minnesota.

Lifestyle Factors Indicator 13

BACKGROUND

Health is a multidimensional and complex thing. According to the World Health Organization (WHO) a culmination of factors affect the health of individuals and communities. Whether a person is healthy or not, is determined by their circumstances and environment. To a large extent, factors such as where we live, the state of our environment, genetics, our income and education level, and our relationships with friends and family all have considerable impacts on health, whereas the more commonly considered factors such as access and use of health care services often have less of an impact.[lxxiv] The determinants of health include:[lxxiv]

- The social and economic environment
- The physical environment
- The person's individual characteristics and behaviors

In the past, it was widely believed that genetics and biology were the most significant indicators of one's health. However, in recent years it has become apparent that a person's behaviors and lifestyle choices have a huge impact on both their short-term and long-term health outcomes.

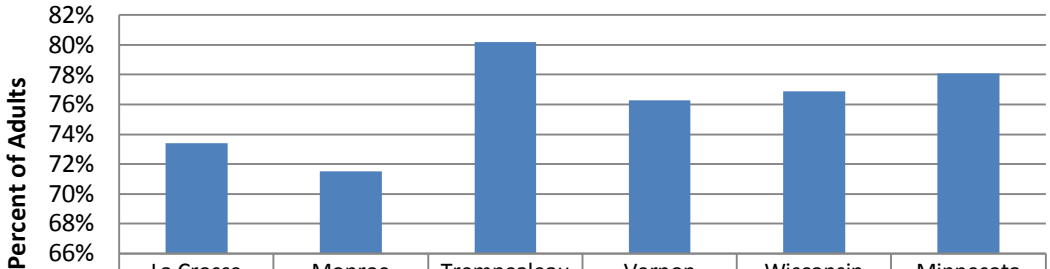
Optimal lifestyle choices include:

- Eating a healthy and well-balanced diet (variety of fruits and vegetables, whole grains, limiting high calorie and low-nutrient foods)
- Being physical active (approximately 2.5 hours per week for adults and 1 hour per day for children and teens)
- Practicing proper safety practices (wearing a helmet, seat belts, and sunscreen; washing hands with soap and water, avoiding smoking and breathing second-hand smoke)
- Utilizing proper stress management techniques (sleeping 7-9 hours each night, getting social support from friends and family, staying positive)

Fruit and Vegetable Consumption

Consuming a variety of fruits, vegetables, and whole grains is important because this behavior may reduce the risk of several chronic diseases including stroke, cardiovascular disease, Type 2 Diabetes, and certain cancers. Also, fruits and vegetables are great sources of fiber, a nutrient that may reduce one's risk of heart disease and promotes regularity.

Percent Adults with Inadequate Fruit/Vegetable Consumption, 2010



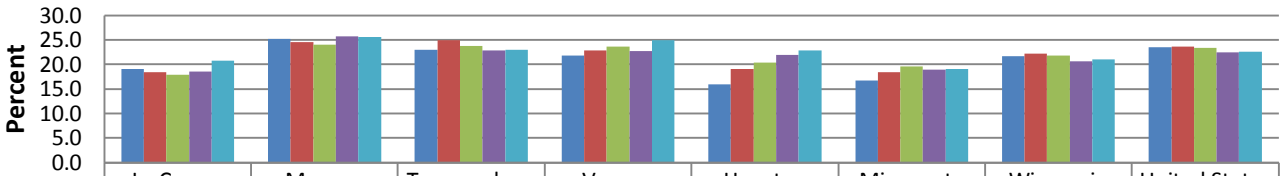
	La Crosse	Monroe	Trempealeau	Vernon	Wisconsin	Minnesota
Percent Adults with Inadequate Fruit/Vegetable Consumption	73.4%	71.5%	80.2%	76.3%	76.9%	78.1%

Source: Centers for Disease Control and Prevention, Office of Surveillance, Epidemiology, and Laboratory Services. Overview: BRFSS 2010.

Physical Activity

The benefits and necessity for physical activity are well documented. Adults who participate in physical activity requirements, or 150 minutes of moderate-intense aerobic physical activity each week,[lxxv] experience many of the perks including weight control/management, reduced risk for cardiovascular disease, reduced risk for Type 2 Diabetes, reduced risk of certain cancers, improved mental health and mood, improved ability to participate in daily activities, improved ability to prevent falls, and ultimately increasing chances of living longer.[lxxvi] The figure below shows the percent of adults who reported no leisure-time physical activity (running, golf, gardening, or walking for exercise). Between this five-year time period, 2008 through 2012, the average percent of adults who were physically inactive by county were: La Crosse (18.9%), Monroe (25%), Trempealeau (23.5), Vernon (23.2%), Houston (20.1%), Minnesota (18.5%), Wisconsin (21.5%), and United States (23.1%). Therefore, Monroe County had the highest percentage of adults reporting being physically inactive while La Crosse County had the lowest. In addition, the state of Minnesota had a lower percentage of inactive adults than Wisconsin did. The United States average was 23.1% which was higher than both Minnesota and Wisconsin.

Percent of Adults Who Self-Repored Physical Inactive

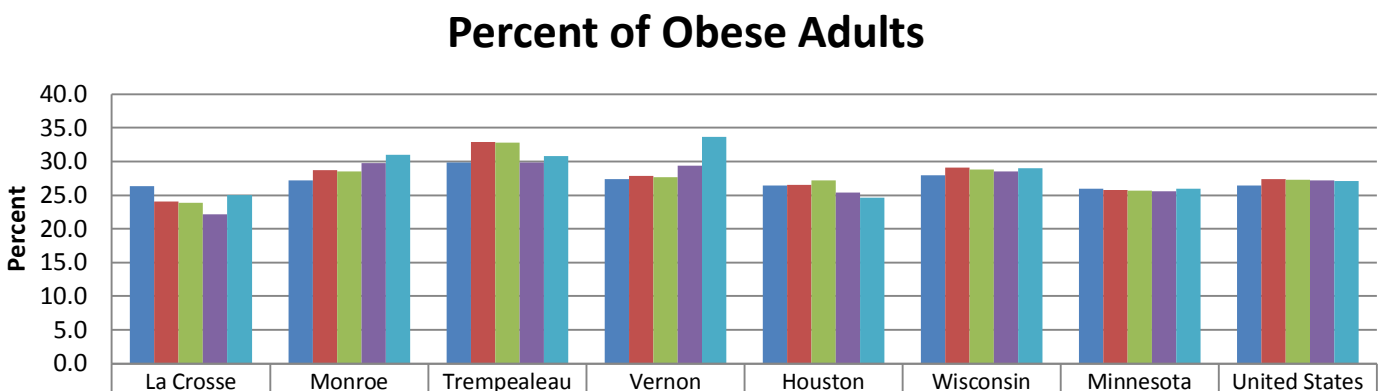


	La Crosse	Monroe	Trempealeau	Vernon	Houston	Minnesota	Wisconsin	United States
2008	19.1	25.2	23.0	21.8	16.0	16.7	21.7	23.5
2009	18.4	24.6	24.9	22.9	19.1	18.4	22.2	23.7
2010	17.9	24.1	23.8	23.6	20.4	19.6	21.8	23.4
2011	18.5	25.7	22.9	22.8	21.9	18.9	20.6	22.5
2012	20.8	25.6	23.0	24.9	22.9	19.1	21.0	22.6

Source: Centers for Disease Control and Prevention, Diabetes Data & Trends: Frequently Asked Questions, (2012) Revised on 2/22/2016

Obesity

In 2012, 27.85% of adults aged 20 and older self-reported that they had a Body Mass Index (BMI) greater than 30.0% (obese) in the Great Rivers Region. Excess weight may indicate an unhealthy lifestyle and puts individual at risk for future health issues. Some of these health issues include coronary heart disease, high blood pressure, stroke, Type 2 Diabetes, cancer, osteoarthritis, sleep apnea, and reproductive problems. The figure below shows the percent of obese adults by county in the Great Rivers Region. Between this five-year time period, 2008 through 2012, the average percent of adults who self-reported being obese were as follows: La Crosse (24.3%), Monroe (29.0%), Trempealeau (31.3%), Vernon (29.2%), Houston (26.0%), Wisconsin (28.7%), Minnesota (25.8%), and the United States (27.1%). Therefore, the county reporting the highest obesity rates were Trempealeau and the county reporting the lowest rates of obesity was La Crosse. Wisconsin was slightly higher than Minnesota and the United States averages.



	La Crosse	Monroe	Trempealeau	Vernon	Houston	Wisconsin	Minnesota	United States
2008	26.3	27.2	29.9	27.4	26.4	28.0	26.0	26.4
2009	24.1	28.7	32.9	27.9	26.5	29.1	25.8	27.4
2010	23.9	28.5	32.8	27.7	27.2	28.8	25.7	27.3
2011	22.2	29.8	29.9	29.4	25.4	28.5	25.6	27.2
2012	25.0	31.0	30.8	33.7	24.6	29.0	26.0	27.1

Source: Centers for Disease Control and Prevention, Behavioral Risk Factor Surveillance Survey. Additional data analysis by the Center for Applied Research and Environmental Systems.

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