

Wisconsin Hepatitis C Virus (HCV) Surveillance Summary



Cases reported 1/1/2012 through 12/31/2012

WISCONSIN DEPARTMENT OF HEALTH SERVICES
DIVISION OF PUBLIC HEALTH
P-00440 (10/13)

Table 1. Hepatitis C Virus reports, 2012.

Case definition	Number
Hepatitis C, Past or Present*	2608
Hepatitis C, Acute	26
Total	2634

*Includes 1927 confirmed and 681 probable.
All acute cases are classified as confirmed.

Table 2. History of HCV reports, 2003-2011.

Year	Past or Present	Acute	Total
2003	3713	4	3717
2004	3168	2	3170
2005	2769	2	2771
2006	2354	1	2355
2007	2379	0	2379
2008	2425	2	2427
2009	2445	3	2448
2010	2487	11	2498
2011	2605	15	2620

Data is displayed in Figure 2.

Table 3. Gender of HCV cases, 2012.

Gender	Number	%
Female	1049	40
Male	1585	60
Total	2634	100

Table 4. Age at report of HCV positive test, 2012.

Age group (Years)	Number	%
0-9	11	0
10-19	71	3
20-29	554	21
30-39	396	15
40-49	445	17
50-59	773	29
60-69	293	11
70-79	62	2
80+	30	1
Total	2634	100

Case Definitions and Classification:

Hepatitis C, Past or Present, can be found at: [National Notifiable Diseases Surveillance System, Hepatitis C, Past or Present](#)

Hepatitis C, Acute, can be found at: [National Notifiable Diseases Surveillance System, Hepatitis C, Acute](#)

Technical Notes:

a. This report is compiled by the Wisconsin Adult Viral Hepatitis Program and is based on reports of hepatitis C virus (HCV) infection submitted by laboratories and local health departments (LHDs). HCV infection is a reportable communicable disease by Wisconsin administrative rule (DHS 145). When cases are reported, LHDs contact persons with HCV infection to provide health education, risk reduction counseling, hepatitis A and B vaccine and medical referral as needed.

b. Many cases of HCV infection are reported by laboratories. Since laboratories do not generally report demographic data such as region, race, or age, surveillance summary data by demographic characteristics are often incomplete.

c. Most reported cases of HCV infection represent chronic disease in persons who were infected years ago. Persons with acute infection are often unaware of their infection because it presents with few if any symptoms.

d. This report is based on HCV surveillance data from the Wisconsin Electronic Disease Surveillance System (WEDSS) as of 9/25/2013. HCV case numbers used in other reports or individual county reports may vary depending on the date data is accessed, as WEDSS is not a static database and cases can be updated daily.

Table 5. Race and ethnicity of HCV cases, 2012.

Race/Ethnicity	Number	%
White	1655	63
Black or African American	346	13
Hispanic or Latino	138	5
American Indian or Alaska Native	63	2
Asian	40	2
Native Hawaiian or Pacific Islander	1	0
Multiple Races	18	1
Unknown	373	14
Total	2634	100

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Table 6. Reported HCV cases, by county, 2012.

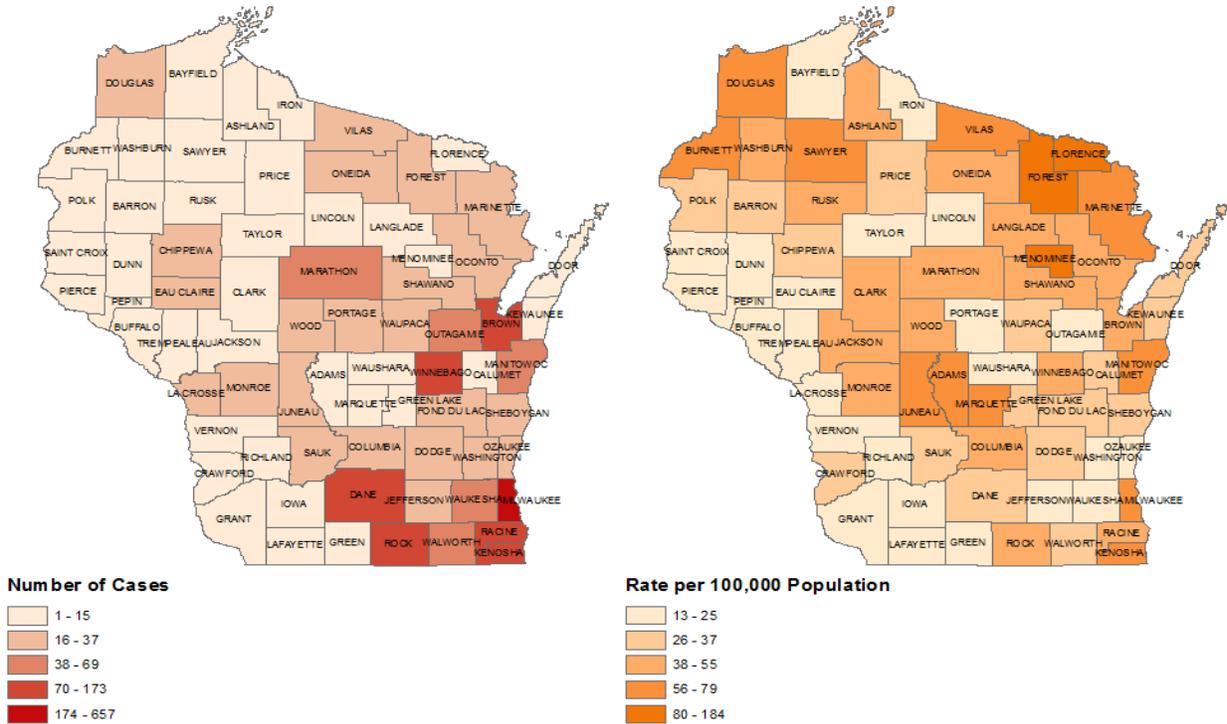
County of Residence	Number*	%	County of Residence	Number*	%
Adams	16	1	Marinette	31	1
Ashland	6	<1	Marquette	8	<1
Barron	13	<1	Menominee	7	<1
Bayfield	<5	<1	Milwaukee	651	25
Brown	106	4	Monroe	21	1
Buffalo	<5	<1	Oconto	19	1
Burnett	9	<1	Oneida	20	1
Calumet	14	1	Outagamie	47	2
Chippewa	22	1	Ozaukee	17	1
Clark	13	<1	Pierce	9	<1
Columbia	25	1	Polk	13	<1
Crawford	5	<1	Portage	14	1
Dane	171	6	Price	5	<1
Dodge	27	1	Racine	109	4
Door	8	<1	Richland	5	<1
Douglas	28	1	Rock	87	3
Dunn	10	<1	Rusk	6	<1
Eau Claire	25	1	Sauk	23	1
Florence	6	<1	Sawyer	12	<1
Fond du Lac	31	1	Shawano	18	1
Forest	17	1	Sheboygan	36	1
Grant	8	<1	St. Croix	14	1
Green Lake	7	<1	Taylor	<5	<1
Green	7	<1	Trempealeau	6	<1
Iowa	<5	<1	Vernon	<5	<1
Iron	<5	<1	Vilas	17	1
Jackson	9	<1	Walworth	41	2
Jefferson	18	1	Washburn	8	<1
Juneau	17	1	Washington	32	1
Kenosha	94	4	Waukesha	69	3
Kewaunee	6	<1	Waupaca	19	1
La Crosse	28	1	Waushara	<5	<1
Lafayette	<5	<1	Winnebago	85	3
Langlade	11	<1	Wood	30	1
Lincoln	5	<1	Unknown	22	1
Manitowoc	49	2	Correctional system [¶]	233	9
Marathon	61	2	Total	2634	100

*The number of cases is not shown for counties that reported fewer than 5 cases.

[¶]Includes cases reported from the Department of Corrections statewide, and the Federal Correctional Institution in Adams County, WI.

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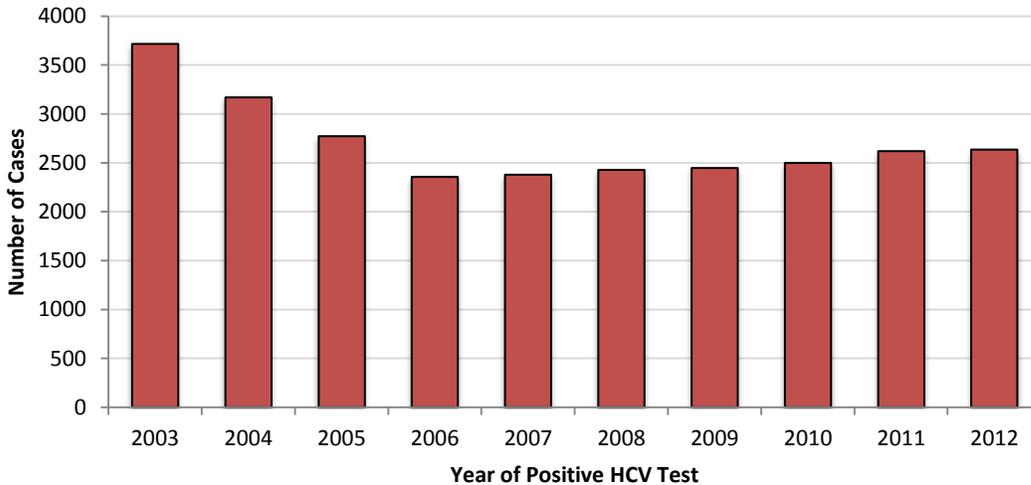
Figure 1. Hepatitis C Virus reports, by county, 2012.



Population data for 2012 were obtained from the Wisconsin Interactive Statistics on Health. Cases reported from the Department of Corrections or the Federal Correctional Institution are not shown. County case numbers and rates may be influenced by differences in the amount of resources dedicated to HCV surveillance.

In 2012, HCV cases were reported in all 72 counties. Reports were more frequent from the Southeastern and Southern regions, which accounted for 37% and 15% of the cases in Wisconsin, respectively (cases in the correctional system not included). The rate of reported HCV in Wisconsin was 46 per 100,000.

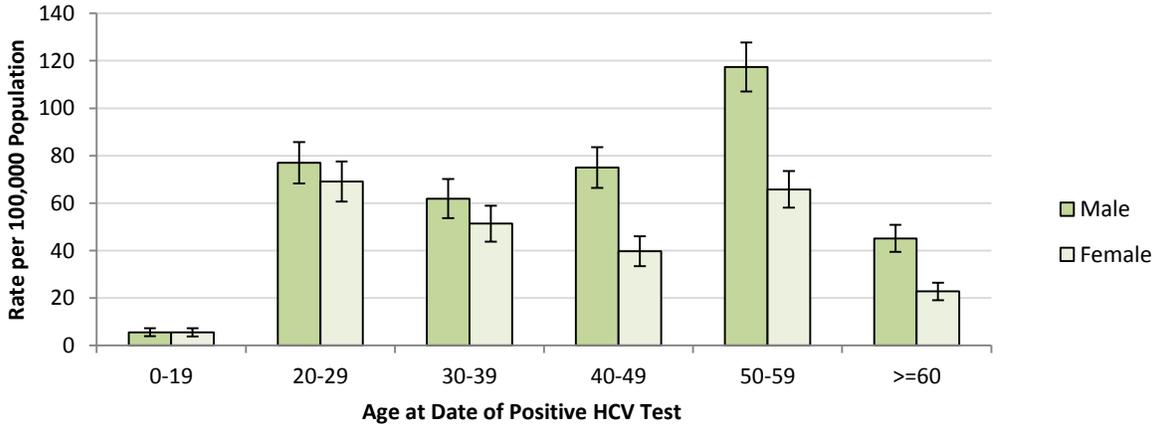
Figure 2. History of HCV reports, 2003-2012.



The bars represent reports of HCV “past or present” and “acute” case definitions. The numbers for this figure can be found in Table 2.

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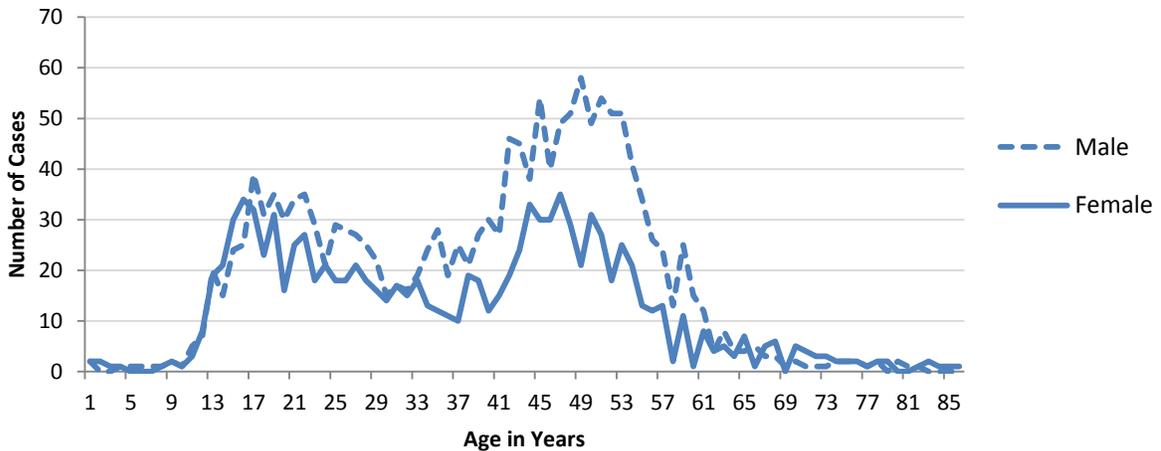
Figure 3. Rate of reported HCV per 100,000, by gender and age, 2012.



Error bars show 95% confidence intervals for the rate. If error bars overlap, the rate of HCV for male and female in the age category do not differ, significantly.

This figure shows the population-based rate of HCV reports in males and females, by different age groups. In 2012, males and females were reported at similar rates for the age groups: 0-19, 20-29 and 30-39 years. Hepatitis C in males age 40 years and older was reported at a higher rate than in females age 40 years and older.

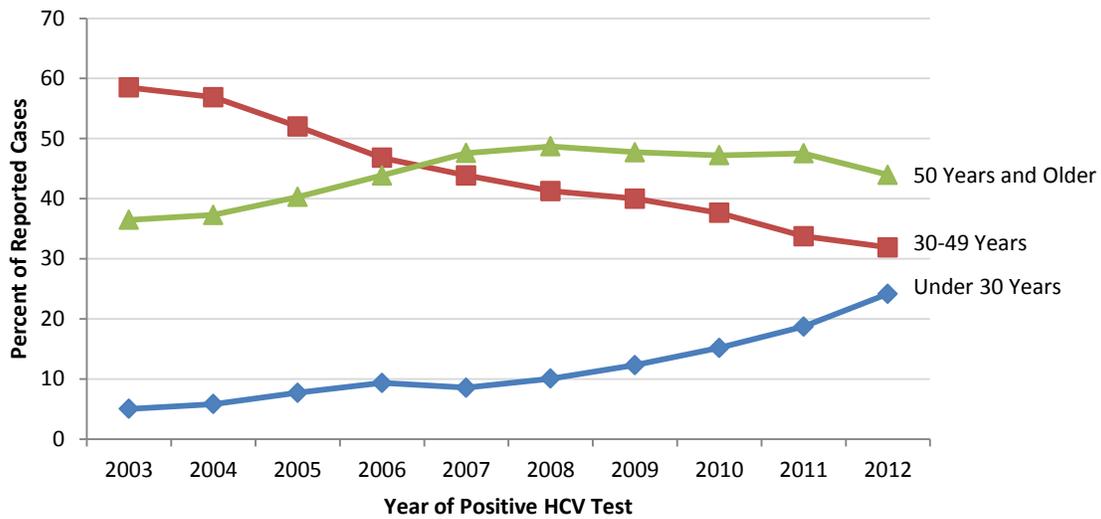
Figure 4. Distribution of HCV cases reported, by age and gender, 2012.



In 2012, the distribution of cases by age was bimodal for both males and females. The first peak of cases contains those age 15-30 and the second peak, larger for males than females, contains those age 40-60.

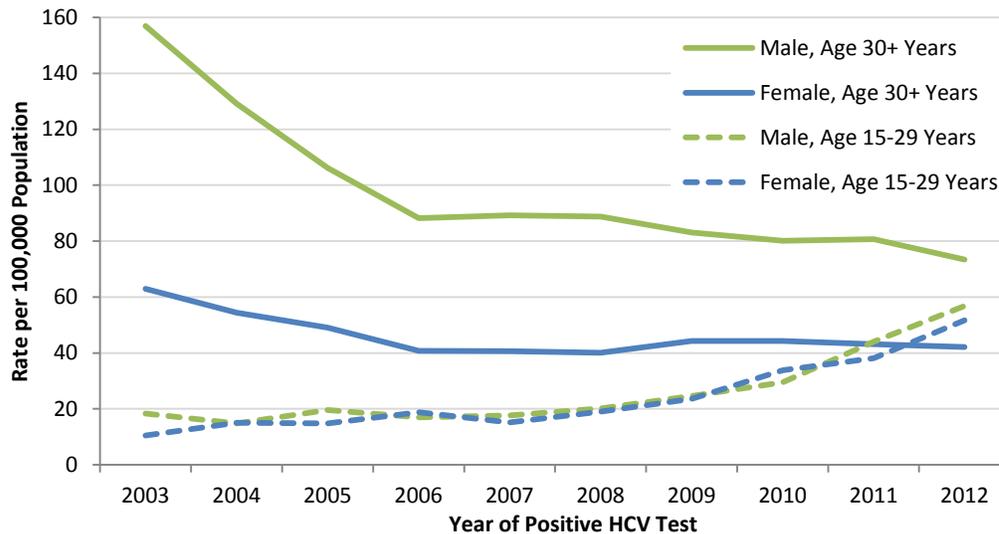
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Figure 5. Trend in Age of Reported HCV, 2003-2012.



This figure shows the trend in the age of reported HCV cases. Cases age 50 and older comprised the majority (44%) of reported cases in 2012. Over time, the percentage of HCV cases age 30-40 has declined steadily from 58% in 2003 to 32% in 2012. In contrast, the percentage of cases younger than 30 increased from 5% in 2003 to 24% in 2012.

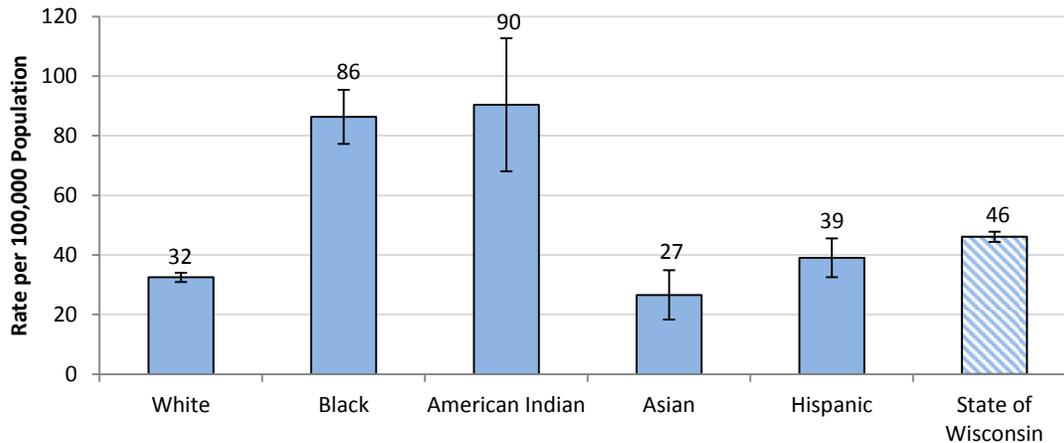
Figure 6. Trend in rate of HCV cases reported, by gender and age, 2003-2012.



Historically, the rate of HCV reported in older males (age 30 years and older) has been higher than that of older females (age 30 years and older). The rate in younger males (age 15-29) has been similar to that of younger females (age 15-29) since 2003. The rate in this younger age group has increased 4-fold from 2003 to 2012. Rates in 2012 for younger males and younger females were 57 and 52 per 100,000, respectively.

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Figure 7. Rate of reported HCV per 100,000, by race, 2012.



Numbers shown above each bar are the rate, per 100,000 population. The error bars show 95% confidence intervals for the rate. If error bars overlap, categories are not significantly different from each other. Rates were not calculated for Multiple race (n=18) due to small sample size. Race was unknown in 373 reports (14%).

Rates of HCV vary by race and ethnicity. In 2012, HCV was reported in Blacks and American Indians at a higher rate compared to Whites, Asians or Hispanics. The rates for Blacks and American Indians were both greater than the average rate of HCV reported in Wisconsin.

Summary: Hepatitis C is a liver disease caused by the hepatitis C virus (HCV). HCV is spread primarily by exposure to blood from an infected person. It is the most common blood borne infection in the United States and it is the number one reason for liver transplantation. Today, most people become infected with HCV by sharing needles or other equipment used to inject drugs. Although less common, it can also be spread sexually or from an infected mother to her infant.

The Centers for Disease Control and Prevention estimates approximately 3.2 million people in the United States are living with a chronic hepatitis C infection. Infection is most prevalent among those born between the years 1945 and 1965, the majority of whom were likely infected during the 1970s and 1980s when rates were highest. However, the age distribution is changing and recent cases reported in Wisconsin are younger than in previous years. Historically a disease prominently of males, hepatitis C is now frequently reported in women. The true number of individuals infected with HCV in Wisconsin is unknown. Improvements in surveillance, test methodology (i.e., the availability of a rapid HCV antibody test in 2012) and electronic laboratory reporting are improving detection of HCV infection and the understanding of the epidemiology in Wisconsin.

For more information: Questions regarding Wisconsin hepatitis C virus data may be directed to Lauren Stockman, Hepatitis C Epidemiologist, lauren.stockman@wi.gov, 608-267-0359. Questions regarding the Wisconsin Viral Hepatitis Program may be directed to Sheila Guilfoyle, Viral Hepatitis Program Coordinator, sheila.guilfoyle@wi.gov, 608-266-5819.

Additional resources:

Wisconsin Department of Health Services:

<http://www.dhs.wisconsin.gov/communicable/ViralHepatitis/HepCInfection.htm>

Centers for Disease Control and Prevention: <http://www.cdc.gov/hepatitis/HCV/index.htm>

National Notifiable Diseases Surveillance System: <http://wwwn.cdc.gov/NNDS/script/casedefDefault.aspx>