

Hep A and Hep B vaccination coverage among high-risk individuals in Wisconsin

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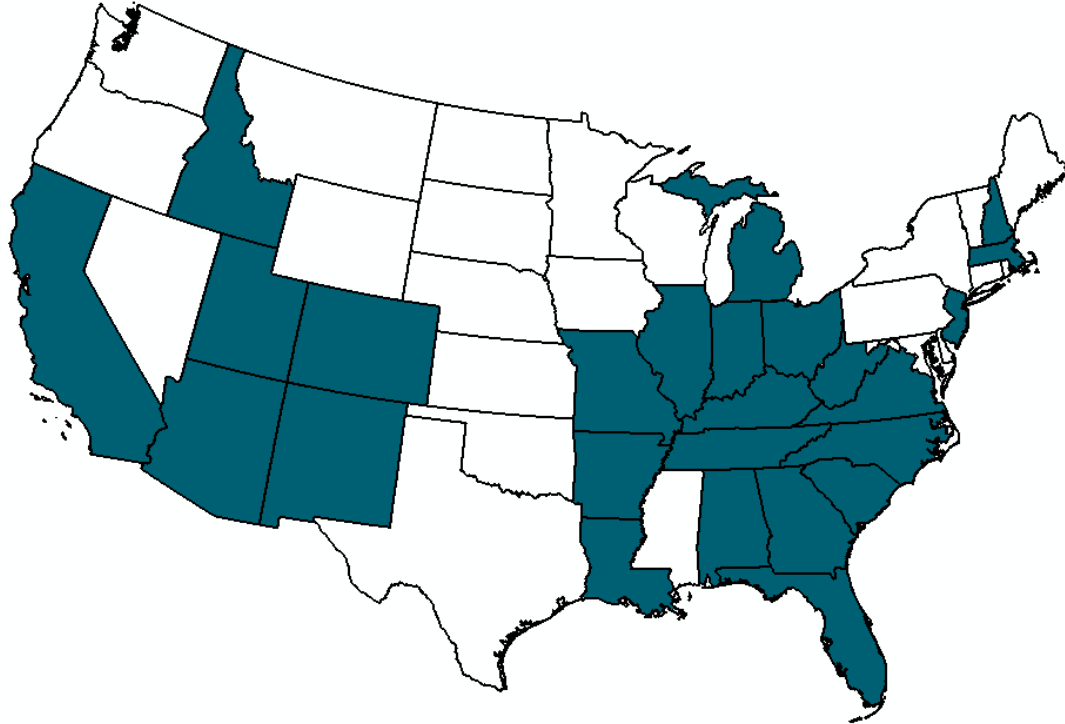
Abbreviations

PWID	people who inject drugs
Hep A	hepatitis A
Hep B	hepatitis B
Hep C	hepatitis C
SSP	syringe services program
WIR	Wisconsin Immunization Registry
ACIP	Advisory Committee on Immunization Practices

Background



Since March 2017, **25 states** have reported increases in **Hep A** infections.



Hep A Outbreak Information

Primary transmission routes:

- Persons who use drugs (injection and noninjection)
- Persons who are homeless
- Close contacts of individuals in the above categories

Characteristics of Hepatitis Virus

Characteristic	Hep A	Hep B	Hep C
Can survive outside the body for	Months	≥1 week	≥3 weeks
Transmission Route	<ul style="list-style-type: none">• Fecal-oral• Person-to-person	<ul style="list-style-type: none">• Birth to infected mother• Sexual contact• Sharing contaminated injection drug use equipment	Sharing contaminated injection drug use equipment
Vaccine	2 doses 1 dose in outbreak settings	2 or 3 doses depending on trade name	None available
Symptoms of acute infection	Fever, fatigue, loss of appetite, nausea, vomiting, abdominal pain, gray-colored stools, joint pain, jaundice		
Percent who become chronically infected	No potential for chronic infection	6–10% of newly infected adults	75–85% of newly infected

Hep A Vaccination in Adults

Trade Name	Vaccine Group	Dose Size	Number of doses in a series	Interval between doses
Havrix	Hep A	1.0 mL	2	6–12 months
Vaqta	Hep A	1.0 mL	2	6–12 months
Twinrix	Hep A and Hep B	1.0 mL	3	Dose 1–2:1 month Dose 2–3:5 months

Hep B Vaccination in Adults

Trade Name	Vaccine Group	Dose Size	Number of doses in a series	Interval between doses
Heplisav-B	Hep B	0.5 mL	2	1 month
Recombivax HB	Hep B	1.0 mL	3	Dose 1–2:1 month Dose 2 – 3: 4 months
Engerix-B	Hep B	1.0 mL	3	
Twinrix	Hep A and Hep B	1.0 mL	3	Dose 1–2:1 month Dose 2–3:5 months

Study Objective

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Among PWID in Wisconsin, what is their susceptibility to Hep A and Hep B?

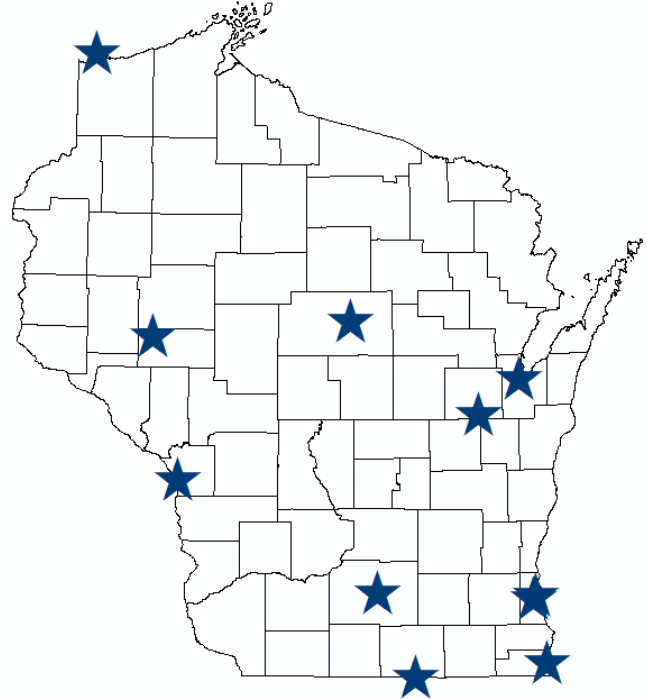
To accomplish this, we evaluated the percent of individuals who were fully vaccinated with Hep A and Hep B vaccines and compared the coverage to the general Wisconsin population.

Methods



Identifying PWID Population

- Since 2012, rapid Hep C testing has been offered at SSPs throughout Wisconsin.
- Persons with reactive test results are reported to the Hep C program.
- Staff members collected information regarding demographics and risk factors for all persons who receive a Hep C test.



Identifying PWID Population

- **81%** of individuals injected drugs within the past six months.
- **19%** of individuals injected drugs more than six months ago.
- **87%** reported ever being incarcerated.

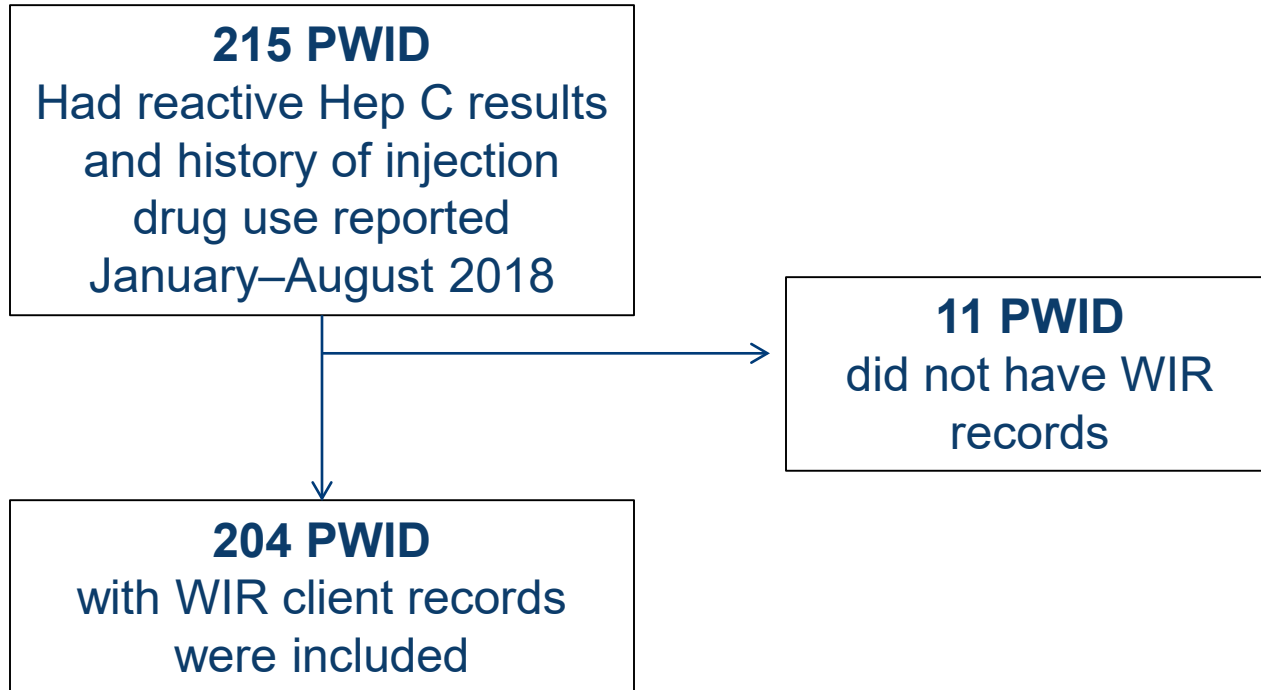
Finding Vaccination Records



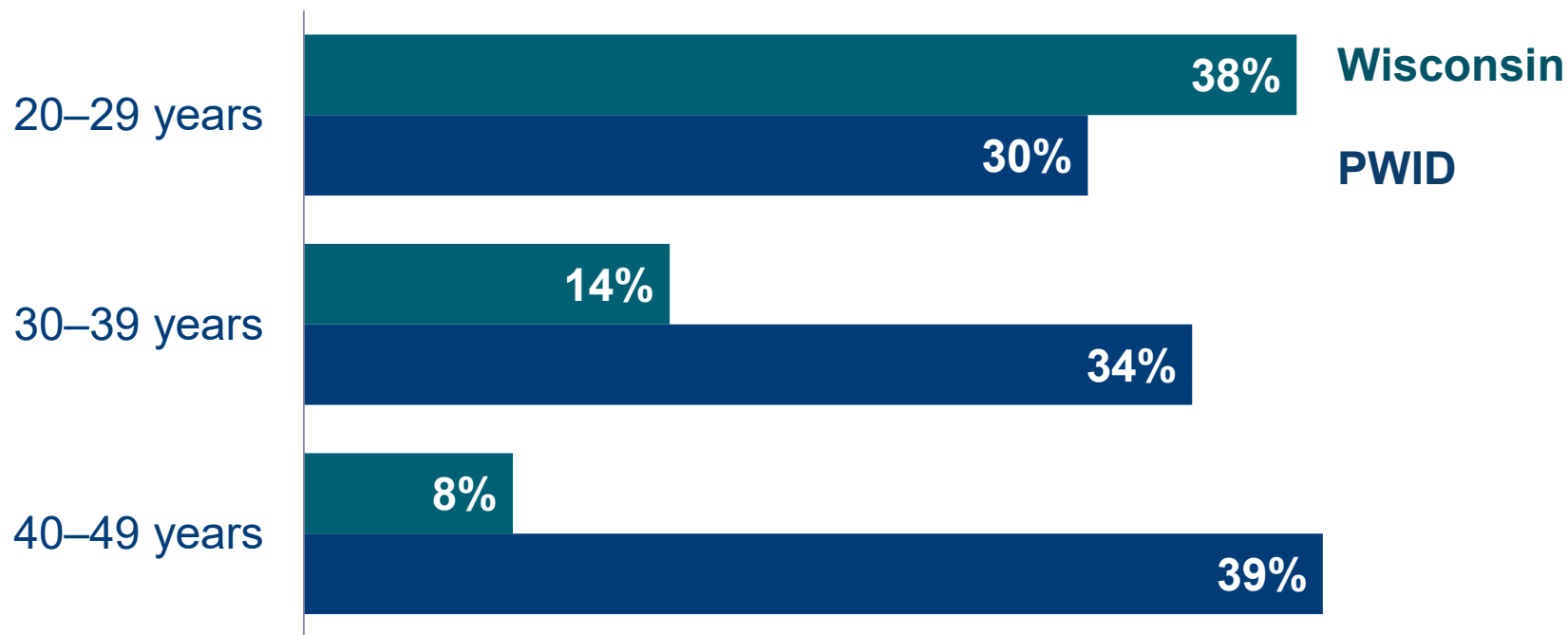
Results



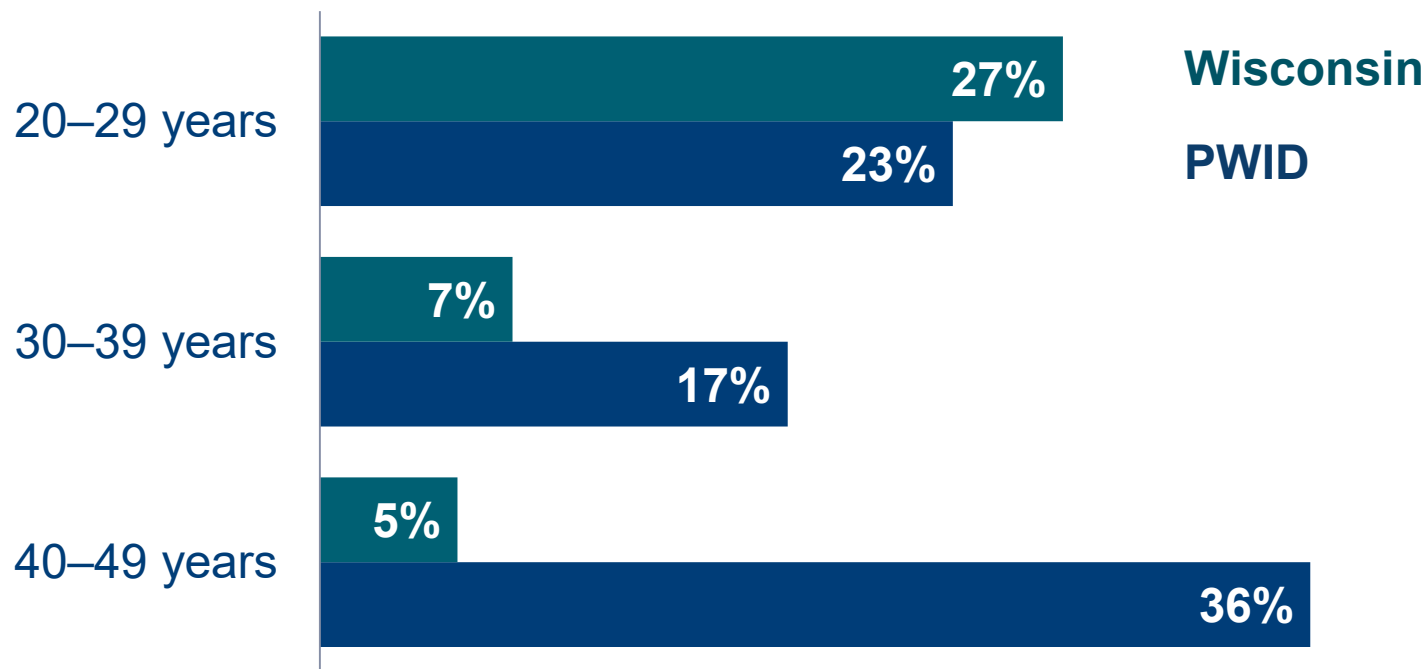
Inclusion of PWID



Hep A Vaccine ≥ 1 dose



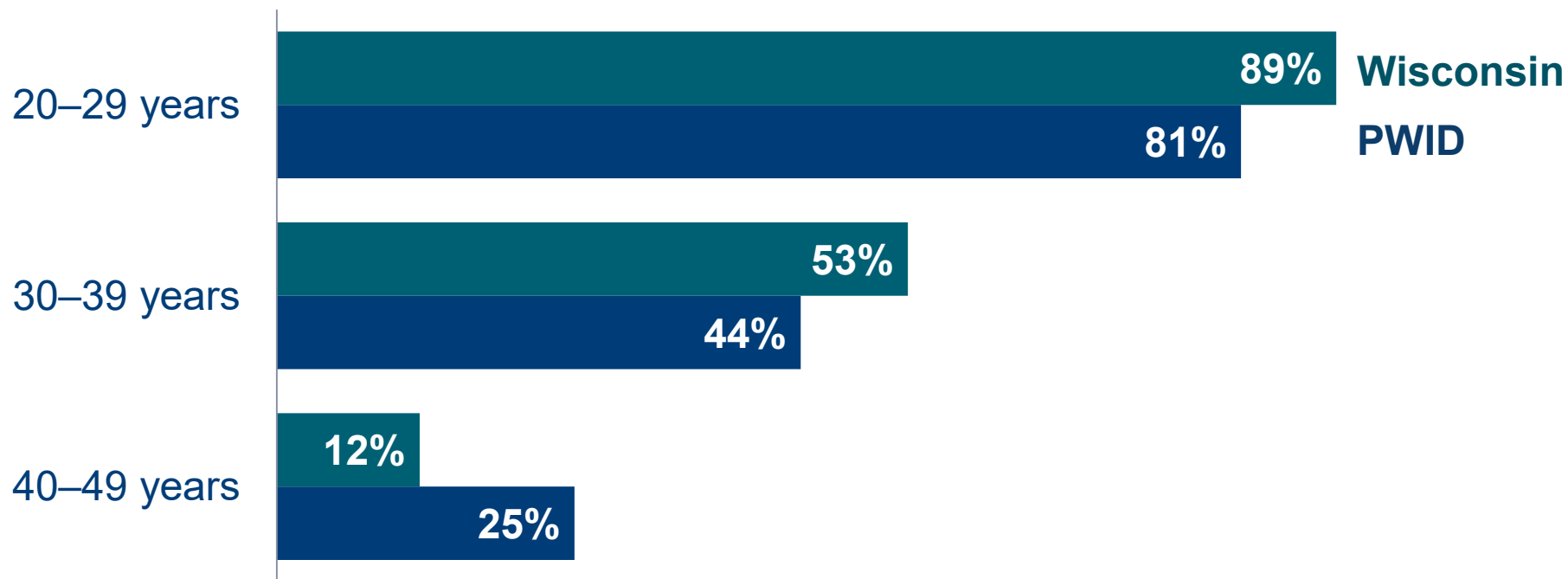
Hep A Vaccine 2 doses



Hep A ACIP Recommendations

Year	Type	Persons recommended for vaccination	Age in 2018 of persons impacted
1996	High risk only	Persons at high risk, including PWID	Any age
1996	High risk only	Children residing in high risk communities (in Wisconsin, this included the American Indian population)	40 and younger
1999	High risk only	Children residing in high risk states, counties, communities (in Wisconsin, this included children residing in the City of Milwaukee)	37 and younger
2006	Universal	All children, beginning at age 1 year	13 and younger

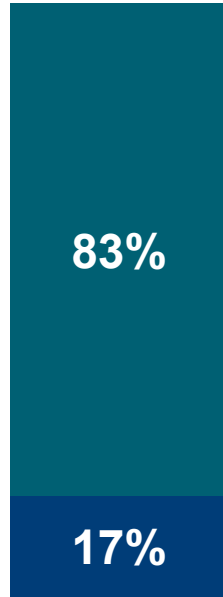
Hep B Vaccine 3 Doses



Hep B ACIP Recommendations

Year	From	Type	Persons recommended for vaccination	Age in 2018 of persons impacted
1982	ACIP	High risk only	Persons at high risk, including PWID	Any age
1991	ACIP	Universal	All infants	27 and younger
1995	ACIP	Universal	All children age 11-12 who have not already been vaccinated	35 and younger
1997-2004 phase in	WI state law	Universal	All children entering Wisconsin schools or licensed childcare centers	33 and younger
1999	ACIP	Universal	All children age 0-18 who have not already been vaccinated	37 and younger

Hep A and Hep B Vaccine Completion



Only 17% of the study population was complete for both Hepatitis A and Hepatitis B vaccine series.

Vaccination After Hep C Testing



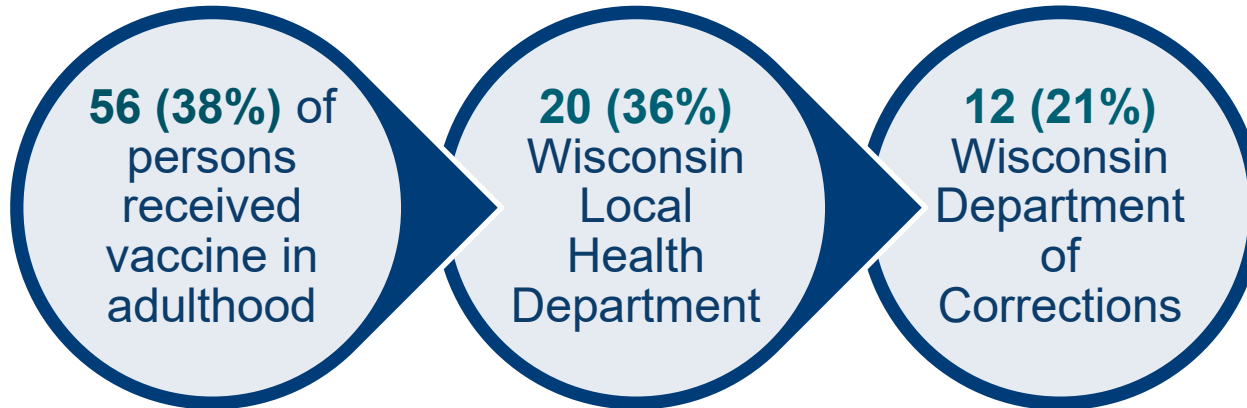
15%

10 (15%) persons with ≥ 1 dose of Hepatitis A vaccine received a dose after their testing date.

5%

7 (5%) persons with ≥ 1 dose of Hepatitis B vaccine received a dose after their testing date.

Hep A and Hep B Vaccinations in Adulthood



Summary

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- HepA and HepB susceptibility tend to follow trends of universal vaccination recommendations.
- Although PWID tended to be higher in certain age groups for vaccines, the percent of those vaccinated was still low leaving them vulnerable.
- Rates might be higher among this population of SSP clients with evidence of Hep C infection than among all PWID in Wisconsin.

At-Risk Adult Vaccination Locations in Wisconsin

Where can at-risk adults get vaccinated?

- Wisconsin Department of Corrections
Upon entry to state correctional facilities
- Local Health Departments
Uninsured and underinsured adults only
- Community-based organizations
10 local health departments received funds to partner with community-based organizations to provide state-supplied vaccine.

Questions?