

2023 Ohio Hepatitis B: Surveillance Summary

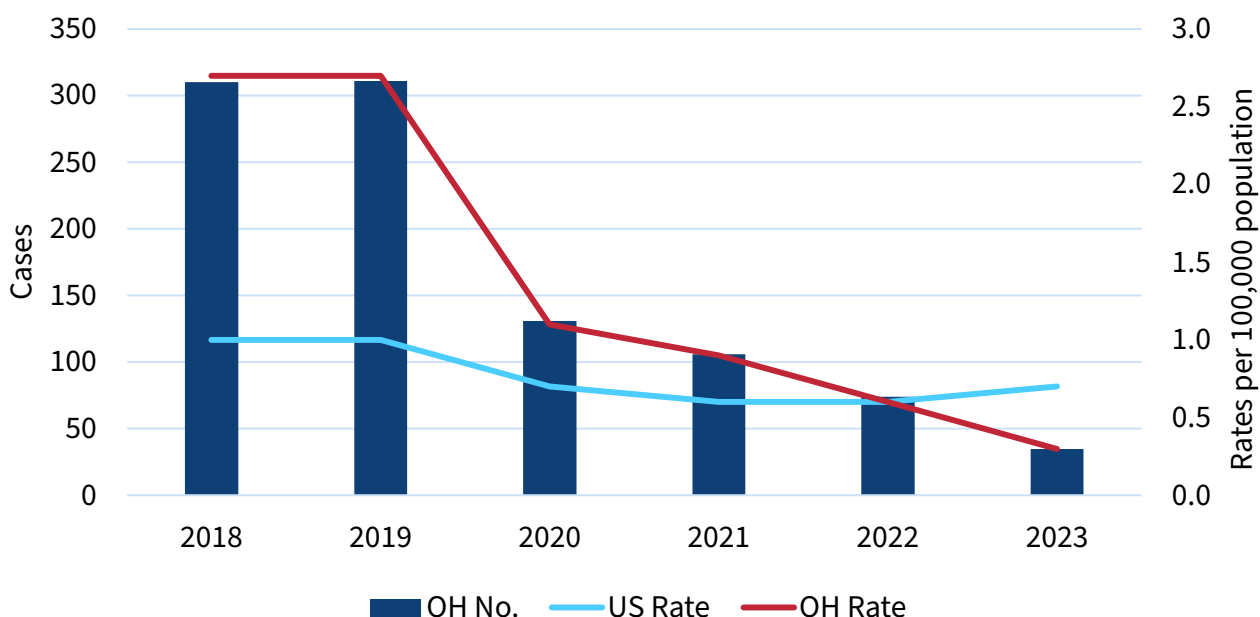
The hepatitis B virus (HBV) is a nationally notifiable disease and is classified as a Class B reportable disease in Ohio. Maintaining complete and accurate data on cases and suspected cases is necessary for understanding the epidemiology of hepatitis B virus (HBV) and is essential in detecting outbreaks. All healthcare providers and medical laboratories are required to report cases or suspect cases of Hepatitis B by the end of the next business day. The Ohio Administrative Code details legal requirements for Reportable Disease Notification. Provider and laboratory reports should be sent to the health jurisdiction in which a patient resides. It is the responsibility of the health departments to report the information to the Ohio Department of Health (ODH) via the Ohio Disease Reporting System (ODRS).

Hepatitis B National Trends

The Centers for Disease Control and Prevention's (CDC) National Notifiable Diseases Surveillance System (NNDSS) monitors and provides reports for acute and chronic HBV infections to determine cases newly infected with HBV. Participating states submit data to the NNDSS where that information is analyzed, and annual reports reflecting state and national data are produced. The most recent national surveillance report shows that national rates of HBV remained relatively stable from 2010 to 2018 before decreasing in 2019 and 2020 and remaining stable again from 2021 to 2023 (CDC, 2025). According to the CDC, there were 2,214 acute HBV cases reported in 2023. However, after adjusting for under-ascertainment and under-reporting, an estimated 14,400 new acute HBV infections occurred in 2023 with a case rate of 0.7 per 100,000 population. An acute HBV infection is the six-month period following a recent HBV exposure in a person not previously reported with HBV (CDC, 2021). Though HBV is a vaccine preventable disease, it is estimated that 880,000 to 1.89 million people are chronically infected in the United States (U.S. Department of Health and Human Services, 2023).

Ohio case rates of newly reported acute HBV cases have decreased from 2019-2023 from a rate of 2.7 to 0.7 per 100,000 population. However, unlike national data, acute HBV cases have not remained stable during this period and have continued to decrease through 2023 (**Figure 1**).

Figure 1. Acute HBV by Year, Ohio vs. United States, 2018-2023



Note. Data are from Centers for Disease Control and Prevention (2024) and Centers for Disease Control and Prevention (2025). Rates are shown per 100,000 persons and were calculated using census estimates for that year.

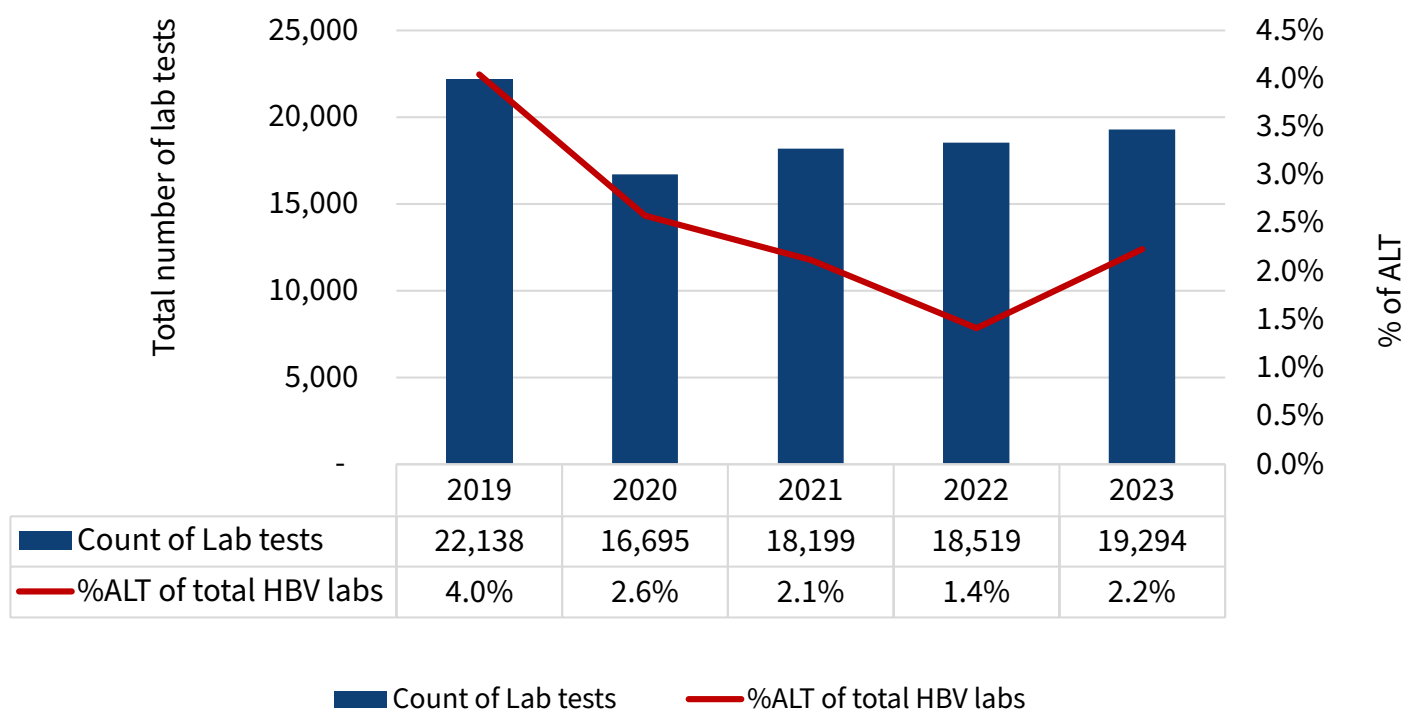
Prior to 2024, acute HBV case classification required symptoms and clinical information including the presentation of jaundice or an Alanine aminotransferase (ALT) level >100 IU/L. This required clinical information necessitates that local health department (LHD) partners perform a wide range of follow-up activities to verify if information pertaining to clinical presentation in a patient is available. Despite the importance of follow-up activities for acute HBV, it is not consistently performed due to varying reasons including limited staff, resources and funding, mixed priorities, inconsistent policies and protocols across jurisdictions, and undefined gaps in care. During the COVID-19 pandemic, hepatitis prevention and surveillance limitations were exacerbated as health department activities were reprioritized, and staff members were reassigned to respond to the demands of the pandemic. This reallocation of services away from hepatitis is partially shown in the decrease in acute hepatitis case rates and testing.

Laboratory Testing

The Ohio Department of Health (ODH) Viral Hepatitis Surveillance program examined test results received and reported to ODH for total HBV to investigate factors that may have contributed to decreases in Ohio case counts and rates from 2018 to 2023. Notably during the first year of the COVID-19 pandemic, from 2019 to 2020, Ohio saw a 24.6% decrease in lab test results reported for suspected HBV cases with slow gains in laboratory testing through 2023, though testing has not returned to 2019 levels. Overall, from 2019 to 2023, lab test results decreased by 12.8%.

ALT test results are important for determining if an HBV case meets the acute case definition as it is an indicator of liver function. Test results for ALT are not typically submitted to ODH via Electronic Lab Reporting, therefore the need for LHDs to perform follow up activities to obtain that information is pertinent. Further supporting the decline in reported acute HBV cases from 2019-2020, ODH saw a 52% decrease in the number of ALT test results reported. Decreases in ALT test results plateaued in 2022 where there was a 70.8% decrease from 2019-2022. Since then, there have been small gains with 2023 increasing to 2020 levels (**Figure 2**).

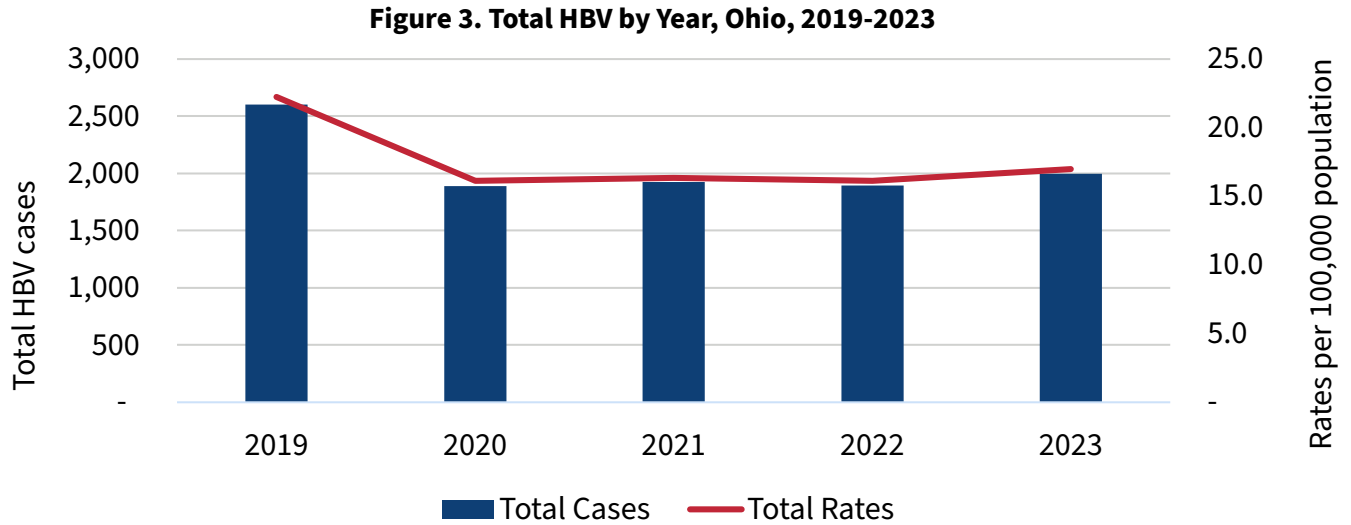
Figure 2. Total HBV Lab Tests Received, Ohio, 2019-2023



Note. Data from Ohio Department of Health, Viral Hepatitis Surveillance program (2025b).

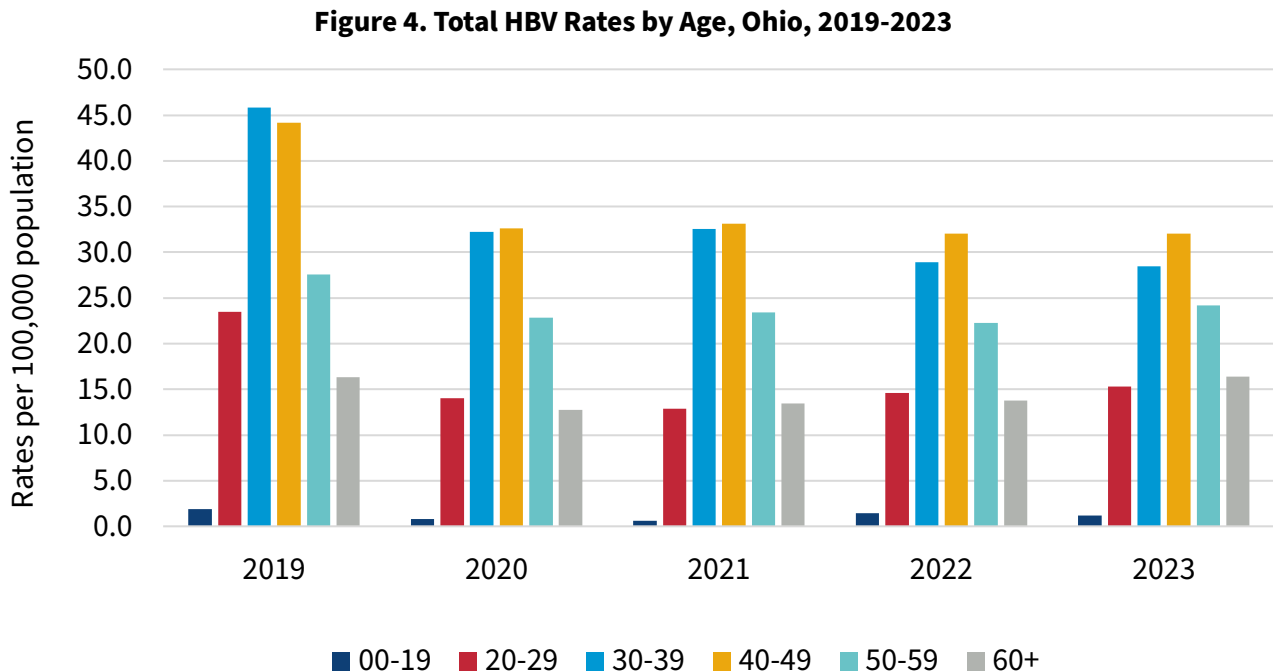
Ohio HBV Demographic Information

- When including all reported HBV case classifications (acute, chronic, confirmed, and probable), overall total HBV cases for Ohio decreased by 23.2% from 2019 to 2023.
- For Ohio, the rate of positive total HBV cases was highest in 2019, decreasing by 27.4% between 2019 and 2020 (**Figure 3**).



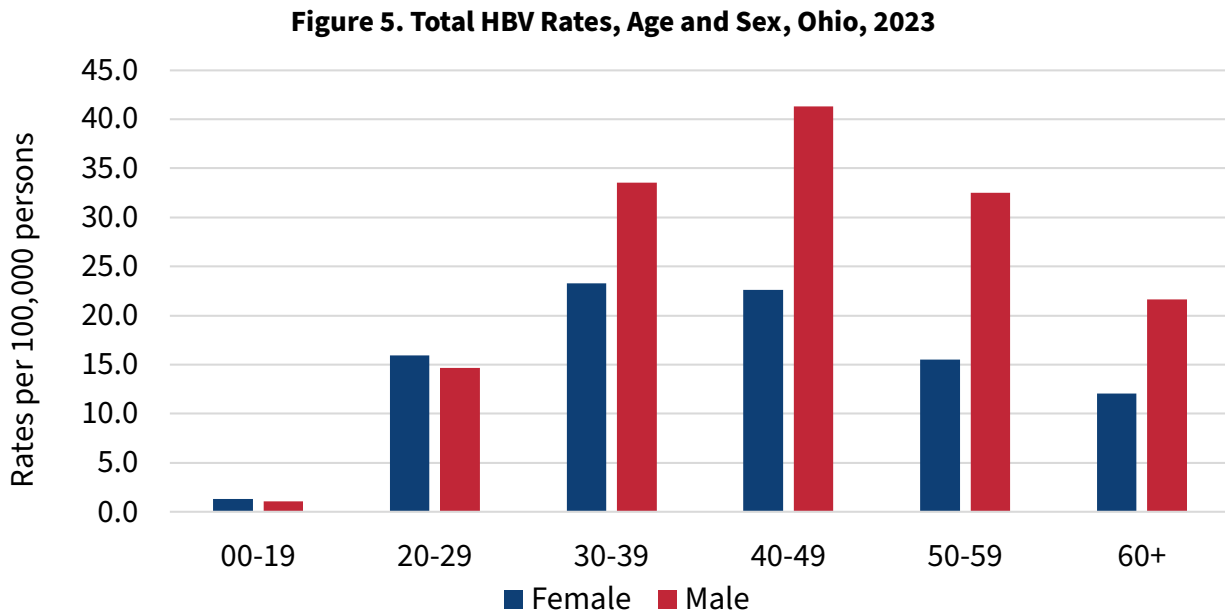
Note. Data from Ohio Department of Health, Viral Hepatitis Surveillance program (2025a). Rates are shown per 100,000 persons and were calculated using census estimates for that year.

- 2019 had the highest case rates in the 30-39 age group, followed by the 40-49 year olds.
- 2022-2023 had the highest rates for 40-49, followed by 30-39 year olds (**Figure 4**).



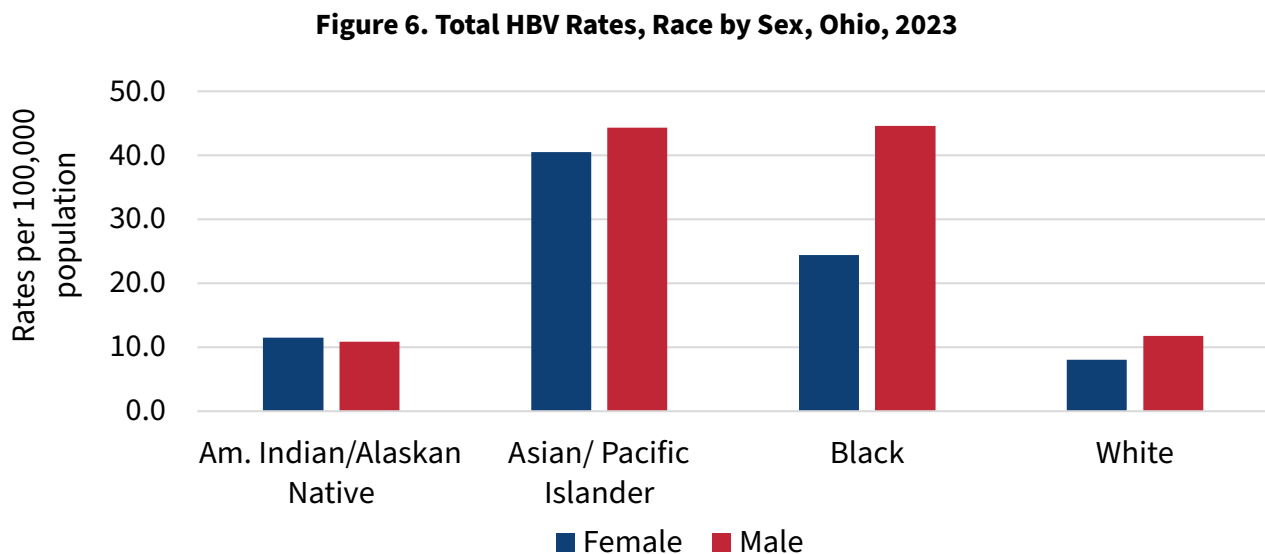
Note. Data from Ohio Department of Health, Viral Hepatitis Surveillance program (2025a).

- In 2023, males ages 30-60+ have higher case rates than females, yet females ages 0-29 had higher case rates than males in the same year (**Figure 5**).



Note. Data from Ohio Department of Health, Viral Hepatitis Surveillance program (2025a).

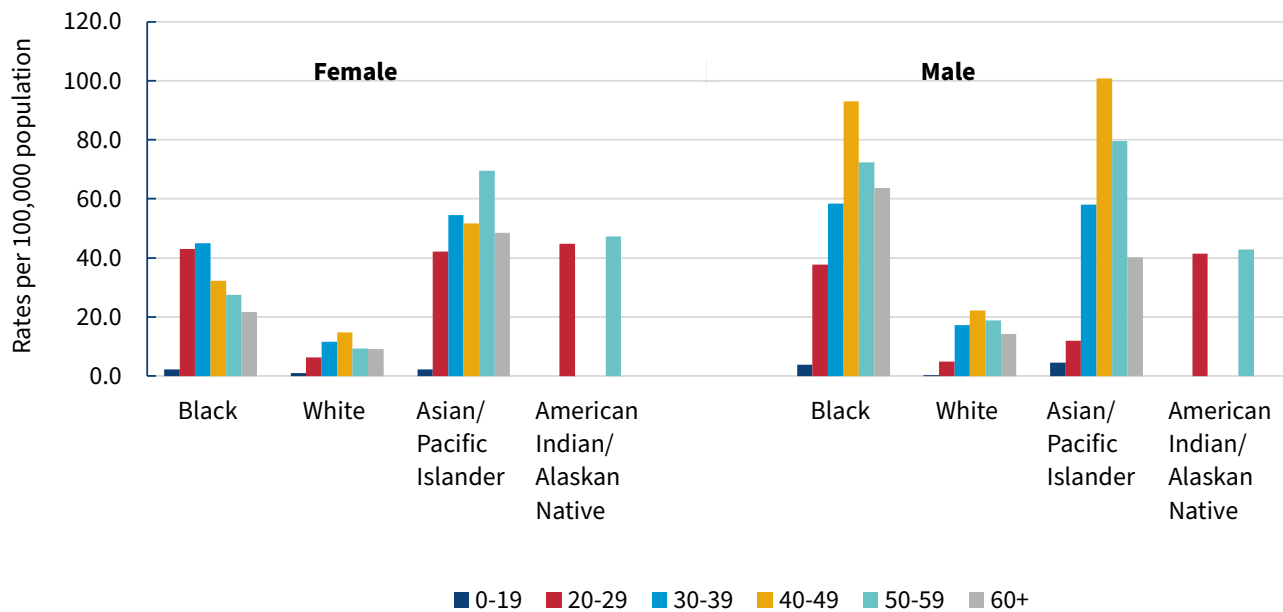
- Total HBV rates were highest for Asian/Pacific Islander males and Black males, 44.3 and 44.6 respectively, followed by Asian/Pacific Islander females at 40.5 per 100,000 population (**Figure 6**).



Note. Data from Ohio Department of Health, Viral Hepatitis Surveillance program (2025a).

- The highest total case rates by race, sex and age in 2023 are in Asian/Pacific Islander males age 30-59 and black males ages 30-60+, followed by Asian/Pacific Islander females ages 30-60+ (**Figure 7**).
- American Indian/Alaskan Native females and males ages 20-29 and 50-59 have the highest case rates among all American Indian/Alaskan Native age groups.

Figure 7. Total HBV Rates, by Race, Sex, and Age, Ohio, 2023



Note. Data from Ohio Department of Health, Viral Hepatitis Surveillance program (2025a).

- **Table 1** shows the demographic breakdown of Ohioans diagnosed with total HBV between 2019 and 2023, by age group, race, ethnicity, and sex.

Table 1. Demographic Summary, Total HBV cases in Ohio, 2019-2023

	2019 No.	2020 No.	2021 No.	2022 No.	2023 No.	Rates
Age						
0-19	54	24	19	41	34	1.2
20-29	365	216	196	225	235	15.3
30-39	677	482	497	443	436	28.5
40-49	613	449	461	445	445	32.1
50-59	425	347	358	332	361	24.2
60+	465	369	392	407	485	16.4
Not Specified	1	0	0	1	0	-
Race						
American Indian/Alaskan Native	7	4	8	3	4	11.2
Asian/Pacific Islander	179	158	189	164	137	41.3
Black/African American	546	369	430	466	535	34.2
White	1,466	1,053	960	895	939	9.9
Other	79	62	73	85	98	-
Not Specified	322	241	263	281	283	-
Ethnicity						
Hispanic/Latino	59	35	39	38	46	8.8
Non-Hispanic/Non-Latino	1,883	1,370	1,416	1,336	1,391	12.4
Not Specified	658	482	468	520	559	-
Sex						
Female	970	717	720	733	780	13.1
Male	1,630	1,166	1,200	1,146	1,212	20.9
Not Specified	0	4	3	15	4	-
Total	2,600	1,887	1,923	1,894	1,996	17.0

Note. Data from Ohio Department of Health, Viral Hepatitis Surveillance program (2025a).

Rates are shown per 100,000 persons and were calculated using census estimates for that year.

HBV Risk Factor Information

According to the CDC, nationally only 41% of reported acute cases had an identified risk behavior in 2023. The most reported risk factors were for injection drug use (IVDU), multiple sexual partners and male-to-male sexual contact. In Ohio, 71.4% of acute cases and 8.2% of chronic cases had an identified risk behavior. However, 81.7% of total HBV cases newly reported in Ohio had no risk identified (CDC, 2025).

Table 2 shows the breakdown of select risk factor behaviors for Ohioans reported with HBV in 2023.

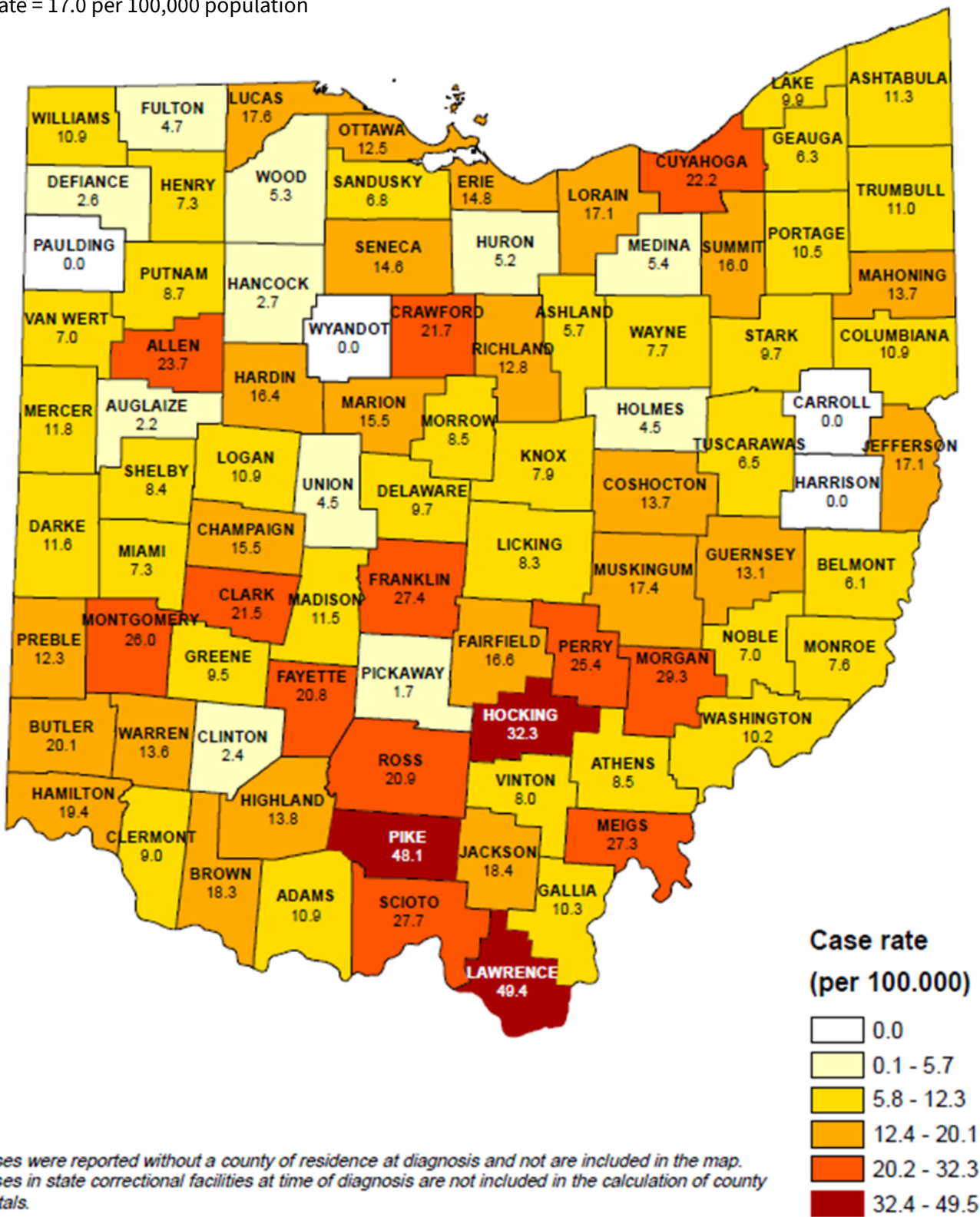
Table 2. Risk Factor Summary, Ohio, 2023

Acute Risk Behavior (n=35)	Risk positively identified n (%)	No Risk identified n (%)	Risk information missing n (%)
Injection drug use	3 (8.6%)	17 (48.6%)	15 (42.9)
Street drugs (non-injection)	7 (20.0%)	15 (42.9%)	13 (37.1%)
Contact with HBV positive person	6 (17.1%)	9 (25.7%)	20 (57.1)
Ever had Sexually Transmitted Disease	6 (17.1)	10 (28.6%)	19 (54.3%)

Chronic Risk Behavior (n=1,961)	Risk positively identified n (%)	No Risk identified n (%)	Risk information missing n (%)
Injection drug use	76 (3.9%)	91 (4.6%)	1,794 (91.5%)
Contact with HBV positive person	30 (1.5%)	52 (2.6%)	1,879 (95.8%)
Household contact (non-sexual)	15 (0.7%)	6 (0.3%)	1,940 (98.9%)
Ever incarcerated	81 (4.1%)	70 (3.6%)	1,810 (92.3%)
Ever had Sexually Transmitted Disease	141 (7.2%)	63 (3.2%)	1,757 (89.6%)

Ohio Total Hepatitis B Case Rates by County, 2023

Ohio Rate = 17.0 per 100,000 population



1) 27 cases were reported without a county of residence at diagnosis and not are included in the map.

2) 24 cases in state correctional facilities at time of diagnosis are not included in the calculation of county cases totals.

Provisional data. Numbers subject to change when additional information is gained.

Source: Ohio Department of Health, Viral Hepatitis Surveillance Program. Data reported as 2/7/2025.

CITATIONS

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