***Massachusetts Department of Public Health, Bureau of Infectious Disease and Laboratory Sciences***

**Summary for Worcester County, Massachusetts, 2022**

Worcester County is a county in the Commonwealth of Massachusetts, established in 1731. In 2020, the population was 862,111, making it the second-largest county in Massachusetts in terms of population (U.S. Census Bureau, 2020\*).

**Chlamydia**

Chlamydia is the most frequently reported sexually transmitted infection (STI) both in the Commonwealth and nationally.

**Since 2012, there has been an overall increase in reported chlamydia cases statewide except for 2020 due to COVID-19†, ranging from 23,930 cases in 2012 to 28,384 cases in 2022**. Worcester County also experienced an overall increase in reported chlamydia cases, ranging from 2,335 in 2012 to 2,657 in 2022. In 2022, the county incidence rate of chlamydia infection was 308.2 per 100,000, while the statewide rate was 403.8 per 100,000. These can be compared to the national rate of 495.0 per 100,000.‡

Incidence rate of reported chlamydia cases per 100,000 population by sex, Worcester County, MA, 2012–2022.

Graph above depicts chlamydia rates (per 100,000) in MA and Worcester County by sex between 2012 and 2022. There are four lines: (1) MA rates begins at 358.5 and finishes at 403.8; (2) Worcester County rates begins at 288.8 and finishes at 308.2; (3) Worcester female rates begin at 409.6 and finishes at 406.6; (4) Worcester male rates begin at 165.5 and finish at 206.2.

Data are current as of 12/15/2023 and are subject to change.

Population denominators: Strate S, et al. Small Area Population Estimates for 2011 through 2020 report, Oct 2016.

Data source: Massachusetts Department of Public Health/Bureau of Infectious Disease and Laboratory Sciences/Division of STD Prevention.

**The county incidence rate among females remained higher** compared to males. In 2022, the incidence rate of chlamydia among females in Worcester County (406.6 per 100,000) was almost double that of males (206.2 per 100,000).

**The chlamydia statewide and county incidence rate is highest among young adults**. In 2022, the incidence rate of chlamydia was highest among 20-to-24-year-olds in Worcester County (1,711.5 per 100,000).

**Gonorrhea**

Gonorrhea is the second most frequently reported STI both in the Commonwealth and nationally.

**Since 2012, there has been an overall increase of reported gonorrhea cases, ranging from 2,665 cases in 2012 to 9,129 cases in 2022**. Worcester County also experienced an overall increase of reported gonorrhea cases, ranging from 232 in 2012 to 684 in 2022. In 2022, the county incidence rate of gonorrhea infection was 79.3 per 100,000, while the overall state rate was 129.9 per 100,000. These can be compared to the national rate of 194.4 per 100,000.‡

**The incidence rate among males remained higher** compared to females in Worcester County. In 2022, males accounted for 64.4% of all gonorrhea cases with a rate of 103.3 per 100,000 while females had a rate of 55.6 per 100,000.

Incidence rate of reported gonorrhea cases per 100,000 population by sex, Worcester County, MA, 2012–2022.

Graph above depicts gonorrhea rates (per 100,000) in MA and Worcester County by sex between 2012 and 2022. There are four lines: (1) MA rates begins at 35.4 and finishes at 129.9; (2) Worcester County rates begins at 28.7 and finishes at 79.3; (3) Worcester female rates begin at 31.7 and finishes at 55.6; (4) Worcester male rates begin at 25.6 and finish at 103.3.

Data are current as of 12/15/2023 and are subject to change.

Population denominators: Strate S, et al. Small Area Population Estimates for 2011 through 2020 report, Oct 2016.

Data source: Massachusetts Department of Public Health/Bureau of Infectious Disease and Laboratory Sciences/Division of STD Prevention.

**The gonorrhea statewide and county incidence rate is highest among young adults.** In 2022, the number of cases and the incidence rate of gonorrhea in Worcester County was highest among 20-to-24 year-olds (299.3 per 100,000).

Incidence rate of reported gonorrhea cases per 100,000 population by sex and age, Statewide, MA, 2012, 2022.

This graph shows the highest gonorrhea rate among male in 2012 was in the 20–24-year-old age group, which shifted to the 35–39-year-old age group by 2022. Among females, the age group with the highest gonorrhea rate was 20–24 year-olds during 2012 and 2022.

Data are current as of 10/24/2022 and are subject to change.

Population denominators: Strate S, et al. Small Area Population Estimates for 2011 through 2020 report, Oct 2016.

Data source: Massachusetts Department of Public Health/Bureau of Infectious Disease and Laboratory Sciences/Division of STD Prevention.

**Early Syphilis¶**

Early syphilis has been on the rise in the Commonwealth and nationally since the early 2000s.‡

**Since 2012, there has been an overall increase of reported early syphilis** **cases, ranging from 561 cases in 2012 to 1,593 cases in 2022**.Worcester County also experienced an overall increase in reported early syphilis cases, ranging from 42 in 2012 to 135 in 2022.

**Since 2012, the statewide and county rate of reported early syphilis has increased.** In 2022, the county incidence rate of early syphilis infection was 15.7 per 100,000, while the statewide rate was 22.7 per 100,000. These can be compared to the national rate of 41.2 per100,000.‡

**In 2022, the county rate of reported early syphilis among males was much higher** compared to that among females. Males accounted for 84.3% of all early syphilis cases in Worcester County with a rate of 26.6 per 100,000, more than five times that of females with a rate of 4.8 per 100,000.

Incidence rate of early syphilis cases per 100,000 population by sex, Worcester County, MA, 2012–2022.

Graph above depicts syphilis rates (per 100,000) in MA and Worcester County by sex between 2012 and 2022. There are four lines: (1) MA rates begins at 8.4 and finishes at 22.7; (2) Worcester County rates begins at 5.2 and finishes at 15.7; (3) Worcester female rates begin at 1.0 and finishes at 4.8; (4) Worcester male rates begin at 9.5 and finish at 26.6.

Data are current as of 12/15/2023 and are subject to change.

Population denominators: Strate S, et al. Small Area Population Estimates for 2011 through 2020 report, Oct 2016.

Data source: Massachusetts Department of Public Health/Bureau of Infectious Disease and Laboratory Sciences/Division of STD Prevention.

**In 2022, the highest incidence rate of early syphilis in Worcester County was reported among 30-to-34 year-olds** (57.1 per 100,000).

Incidence rate of reported early syphilis per 100,000 population by sex and age, Statewide, MA, 2012, 2022.

This graph shows the highest early syphilis rate among males in 2012 and 2022 was in the 30–34-year-old age group. The highest early syphilis among females in 2012 was in the 25–29-year-old age group, which shifted to the 35–39-year-old age group by 2022.

Data are current as of 12/15/2023 and are subject to change.

Population denominators: Strate S, et al. Small Area Population Estimates for 2012 through 2020 report, Oct 2016.

Data source: Massachusetts Department of Public Health/Bureau of Infectious Disease and Laboratory Sciences/Division of STD Prevention.

**2022 Statewide Massachusetts**

Chlamydia cases have increased by 32% from 2012 to 2019 and decreased by 22% in 2020. From 2020 to 2022, there was a 15% increase in cases. This is possibly due to factors such as increased service utilization after health care clinics reopened following the end of the COVID-19 public health emergency.

Gonorrhea cases have increased 243% from 2012 to 2022 and was reported primarily among males.

Early syphilis cases have increased 184% from 2012 to 2022. From 2017 to 2022, a range of 25% (in 2022) to 37% (in 2017) of early syphilis cases were co-infected with HIV. In 2020, 2021, and 2022 congenital syphilis cases numbered 10, 9, and 11, respectively, after remaining between 0 and 4 from 2011 to 2018.

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\*2020 population estimates were used to calculate 2022 disease rates throughout this report because 2022 population estimates had not been released at the time this report was published.

†Please note the impact of the COVID-19 pandemic on infectious disease screening, treatment, and surveillance in the interpretation of 2020 and 2022 data.

‡Source: CDC: Sexually Transmitted Disease Surveillance, 2022.

¶Early syphilis is defined as primary, secondary and early syphilis not diagnosed in the primary or secondary stages within one year of infection.