

Region 8 Syphilis Quarterly Report

2025 1st Quarter



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Division of Epidemiology and Assessment

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Date Reported: June 2025

Syphilis Surveillance Background

Hamilton County Public Health conducts syphilis surveillance and mitigation in seven counties (Brown, Butler, Clermont, Clinton, Hamilton, Highland, and Warren) known as Region 8. This quarterly report was created as a surveillance effort to track and prevent new cases of syphilis within Region 8 counties and provide a basis for syphilis prevention efforts. When a person is determined to have a new syphilis infection in Region 8, disease intervention specialists from Hamilton County Public Health attempt to contact that person and offer partner services (e.g., patient interview, contact tracing, partner testing, and linkage to treatment). Only new cases of syphilis were counted for analysis purposes in this report. Some syphilis cases are unable to be located for an interview, which may impact data collection. The following report features total new syphilis counts, demographic data, and risk factor data for Region 8 counties from 2021 through the 1st quarter of 2025.

The purpose of collecting and distributing demographic and risk factor data is to inform programming, community partners, and stakeholders so the best effort can be made to diagnose, prevent, and treat syphilis infections in our community. These data can provide a snapshot of syphilis surveillance in the region, but do not always tell the entire story. To fully understand the situation, community voices, stakeholders, and other sources should be considered.

Syphilis cases for this report are newly diagnosed infections which can include first time infections or re-infections.

These data are provisional and subject to change as there is a lag time in reporting and cases may be added or removed. Ohio Department of Health specifically disclaims responsibility for analyses, interpretations, or conclusions.

Data downloaded from Ohio Disease Reporting System (ODRS) on 05/28/2025.

For HIV or other STI testing information please call the HCPH Clinic at 513-946-7610

Email HCPH.ID@HAMILTON-CO.ORG with any questions regarding this report.

Stages of Syphilis

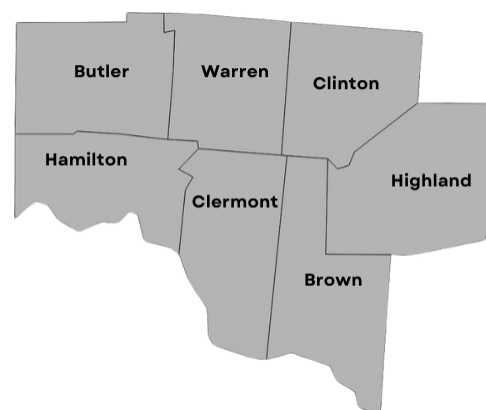
Syphilis infections are categorized into different stages based on the clinical presentation of disease and duration of infection.

Congenital Syphilis: This stage includes, but is not limited to, when syphilis is transferred from mother to infant during pregnancy or delivery, or when the mother of a child had untreated/inadequately treated syphilis at delivery regardless of signs in the infant.

Early Syphilis: This stage is when a person has been infected for less than a year. The stages include Early Latent (no signs or symptoms, but infected for less than a year), Primary (symptoms include a painless sore, called a chancre), and Secondary (symptoms include, but is not limited to, a rash on hands and feet). In particular, primary and secondary infections are considered highly infectious stages.

Late Latent: This stage is when a person has been infected for longer than a year. During this stage, the patient may no longer be infectious, and have no symptoms; however if the patient does not receive appropriate treatment the disease could develop into neurological problems, possibly leading to death. Syphilis cases staged as “unknown duration” are grouped together with “late syphilis” for the purposes of surveillance.

Region 8 Map



Syphilis Quarterly Report: Region 8

Overview of Syphilis in Region 8

Table 1. Region 8 Total Syphilis by Year

| 2021 | 2022 | 2023 | 2024 | 2025 |
|------|------|------|------|------|
| 400 | 754 | 807 | 674 | 127* |

*Q1 Only

Table 1 shows total new syphilis cases in Region 8 from 2021 through the 1st quarter of 2025. The most recent data are highlighted in light green.

Figure 1 is a line graph of syphilis cases from 2021 through the 1st quarter of 2025. The dotted line signifies that 2025 data is not yet complete.

Figure 1. Region 8 Syphilis Counts

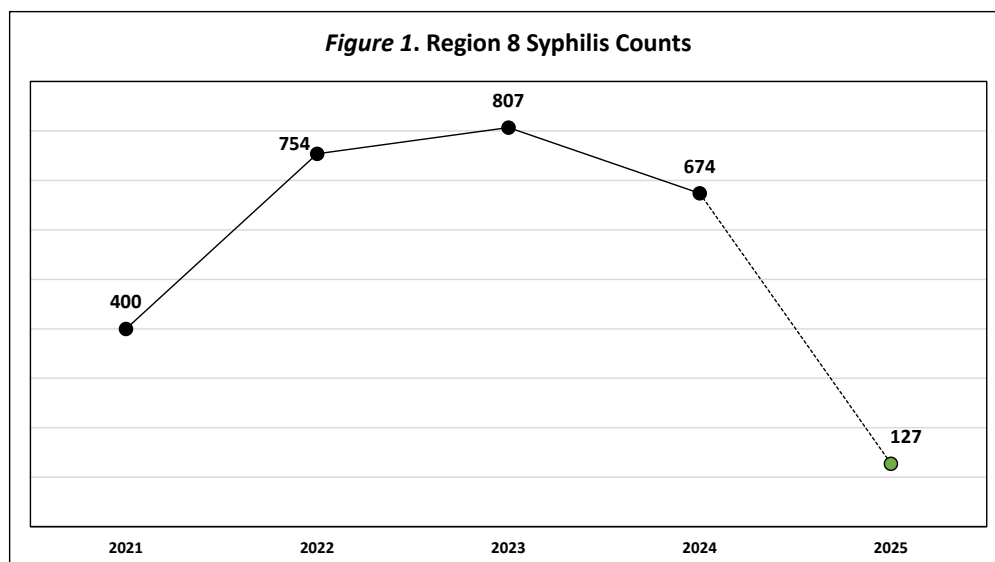


Table 2 is a comparison of the 1st quarters (Q1) of 2024 and 2025. There were **29.8% fewer** new syphilis cases in Q1 2025 compared to 2024 during this time period.

Table 2. Region 8 Q1 Comparisons

| 2024 | 2025 | % Change |
|------|------|----------|
| 181 | 127 | -29.8%↓ |

Table 3 displays the breakdown of new syphilis cases for Region 8 from 2024 through the 1st quarter by month. In 2024 the highest number of cases was seen in August (67 cases). In 2025, the highest number of syphilis cases have occurred in January (49 cases).

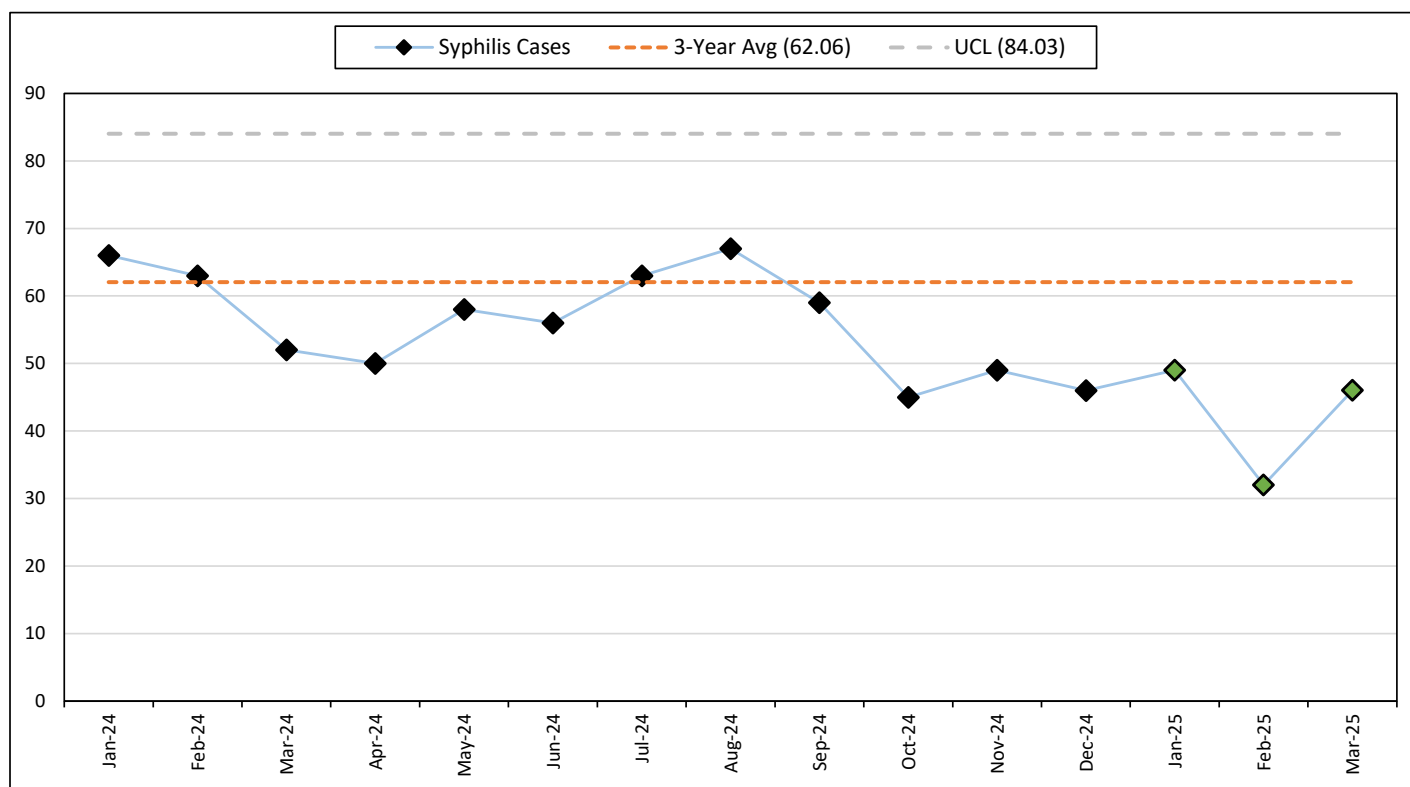
Table 3. Region 8 Total Syphilis by Month

| Month | 2024 | 2025 |
|--------------|------------|------------|
| January | 66 | 49 |
| February | 63 | 32 |
| March | 52 | 46 |
| April | 50 | – |
| May | 58 | – |
| June | 56 | – |
| July | 63 | – |
| August | 67 | – |
| September | 59 | – |
| October | 45 | – |
| November | 49 | – |
| December | 46 | – |
| Total | 674 | 127 |

Figure 2 shows a surveillance control chart. The dashed orange line shows the average number of new syphilis cases per month for the past 3 years (2022, 2023, and 2024). The previous 3-year average is 62.06 new syphilis cases per month. The dashed gray line is the upper control limit (UCL) with a value of 84.03. A single point above or near the UCL may signal anomalies that need to be investigated. The diamonds on the blue line graph show the actual number of new syphilis infections by month. The green diamonds are the months from the most recent quarter.

Analysis: For Q1 2025, all months were **below** the 3-year average. Consecutive points above the average may signal anomalies that need to be investigated. All months in Q1 2025 have been **below** the UCL which indicates no anomalies related to the UCL for this time frame. When there are only a small number of cases, it may be difficult to distinguish random fluctuations in disease incidence from true changes in the underlying risk for the disease.

Figure 2. Region 8 Syphilis Infection Control Chart



The average is found using syphilis counts by month for the previous 3 years. A standard deviation is calculated using the same time frame. The upper control limit is determined by multiplying the standard deviation by 2 and adding the 3-year average.

Syphilis Quarterly Report: Region 8



Table 4 shows syphilis stages, demographics, and risk factor data in Region 8. The category showing the highest percentage of new syphilis cases is highlighted in **blue**. For Q1 2025 Male (61.5%), Black (45.7%), and 25-34 year old (34.6%) individuals made up the highest percentage of new syphilis cases. For risk factors, high risk heterosexual (HRH) had the highest percentage of new syphilis cases (51.2%). The “Unknown” risk factor category could be due to a disease intervention specialist not being able to determine the risk factors of the patient. See additional information below the table.

| Table 4. Region 8 Syphilis Morbidity | | | | |
|--------------------------------------|------|-------|---------|-------|
| | 2024 | | 2025 Q1 | |
| | # | % | # | % |
| Syphilis Stages | | | | |
| Early Latent | 161 | 23.9% | 35 | 27.6% |
| Primary | 74 | 11.0% | 12 | 9.0% |
| Secondary | 114 | 16.9% | 18 | 14.2% |
| Late/Unknown | 310 | 46.0% | 60 | 47.2% |
| Congenital | 15 | 2.2% | 2 | 1.6% |
| Gender | | | | |
| Male | 455 | 67.5% | 78 | 61.5% |
| Female | 219 | 32.5% | 49 | 38.5% |
| Race | | | | |
| Black | 333 | 49.4% | 58 | 45.7% |
| White | 285 | 42.3% | 57 | 44.9% |
| Multi | 5 | 0.7% | 2 | 1.6% |
| Other | 47 | 7.0% | 10 | 7.9% |
| Unknown | 4 | 0.6% | 0 | 0.0% |
| Age Group | | | | |
| <1 | 15 | 2.2% | 2 | 1.6% |
| 1-14 | 0 | 0.0% | 0 | 0.0% |
| 15-24 | 86 | 12.8% | 13 | 10.2% |
| 25-34 | 212 | 31.5% | 44 | 34.6% |
| 35-44 | 188 | 27.9% | 38 | 29.9% |
| 45-54 | 106 | 15.7% | 21 | 16.5% |
| 55-64 | 49 | 7.3% | 6 | 4.7% |
| 65+ | 18 | 2.7% | 3 | 2.4% |
| Risk Factor | | | | |
| MSM | 182 | 27.0% | 34 | 26.8% |
| HRH | 238 | 35.3% | 65 | 51.2% |
| PWID | 42 | 6.2% | 5 | 3.9% |
| Unknown | 212 | 31.5% | 23 | 18.1% |

Percentages may not total to 100 due to rounding. Percentages are based on availability of data for all cases. MSM are men who have sex with men. High risk heterosexuals (HRH) are determined by factors including but not limited to: having a previous STI, sex while intoxicated, exchanging sex for drugs, or having anonymous sexual partners. PWID is a person who injects drugs. Early syphilis cases include early latent, primary, and secondary stages. Early syphilis cases are cases where a person has been infected for less than a year.

Overview of Syphilis in Hamilton County

Table 5. Hamilton County Total Syphilis by Year

| 2021 | 2022 | 2023 | 2024 | 2025 |
|------|------|------|------|------|
| 283 | 562 | 591 | 496 | 92* |

*Q1 Only

Table 5 shows total new syphilis cases in Hamilton County from 2021 through the 1st quarter of 2025. The most recent data are highlighted in light green.

Figure 3 is a line graph of syphilis cases from 2021 through the 1st quarter of 2025. The dotted line signifies that 2025 data is not yet complete.

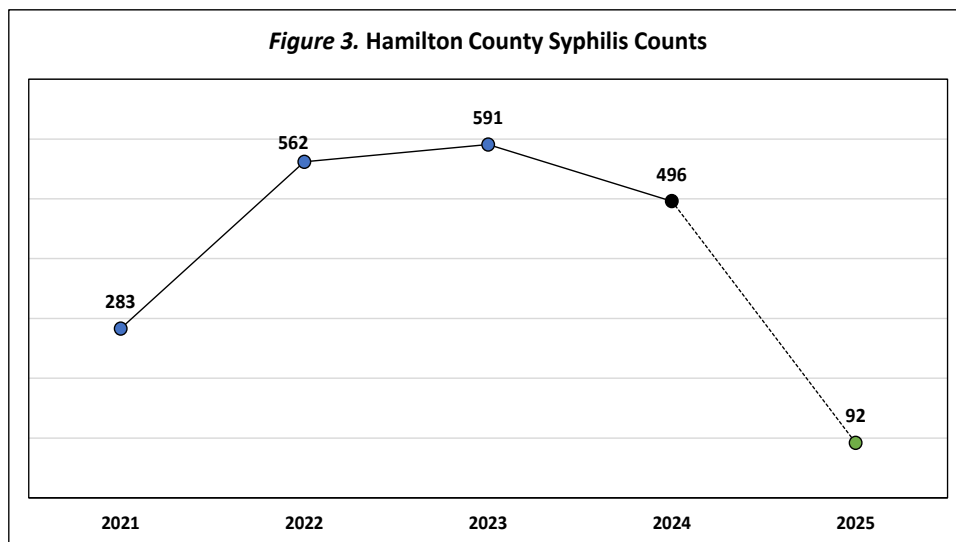


Table 6 is a comparison of the 1st quarters (Q1) of 2024 and 2025. There were **29.8% fewer** new syphilis cases in Q1 2025 compared to 2024 during this time period.

Table 6. Hamilton County Q1 Comparisons

| 2024 | 2025 | % Change |
|------|------|----------|
| 131 | 92 | -29.8%↓ |

Table 7 displays the breakdown of new syphilis cases for Hamilton County from 2024 through the 1st quarter of 2025 by month. In 2024, the highest number of cases was seen in January (50 cases). In 2025, the highest number of syphilis cases have occurred in January (34 cases).

Table 7. Hamilton County Total Syphilis by Month

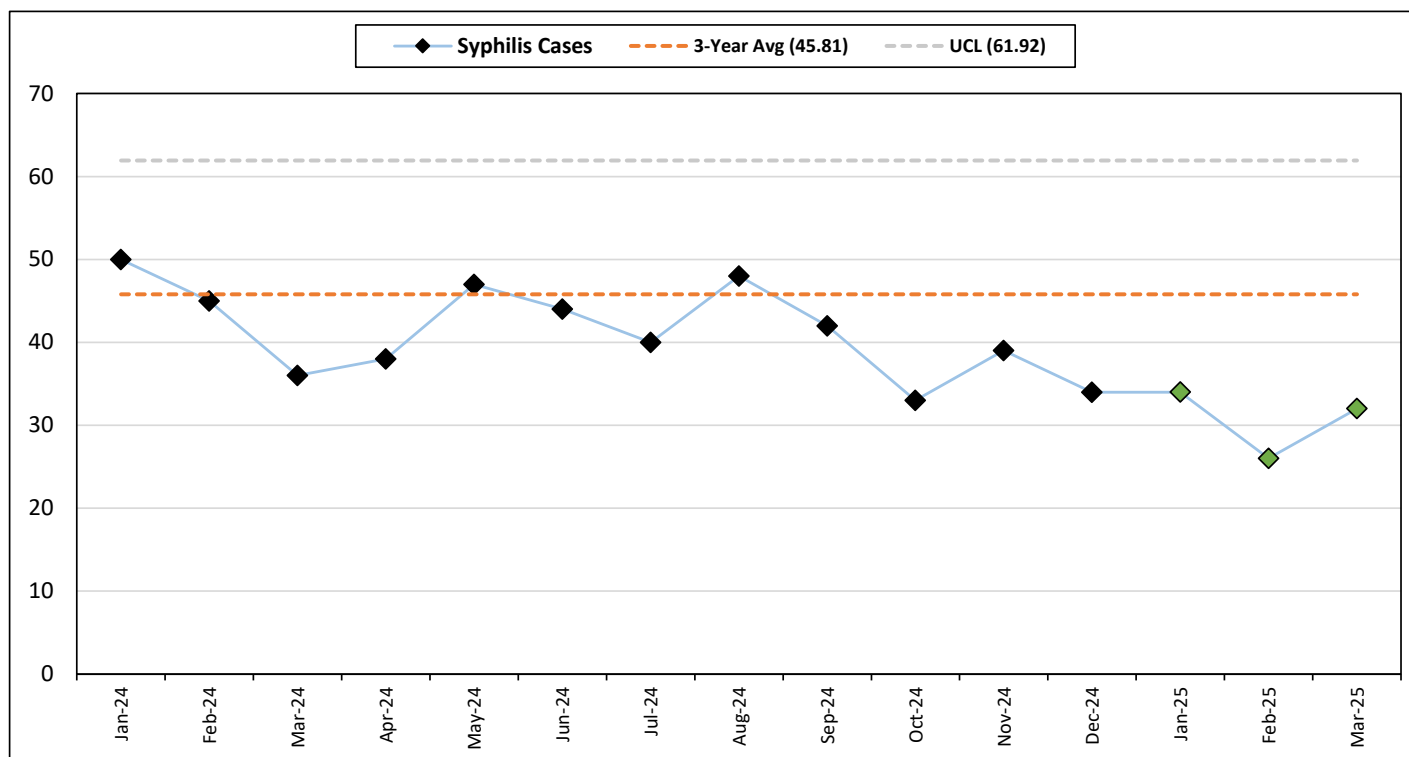
| Month | 2024 | 2025 |
|--------------|------------|-----------|
| January | 50 | 34 |
| February | 45 | 26 |
| March | 36 | 32 |
| April | 38 | – |
| May | 47 | – |
| June | 44 | – |
| July | 40 | – |
| August | 48 | – |
| September | 42 | – |
| October | 33 | – |
| November | 39 | – |
| December | 34 | – |
| Total | 496 | 92 |

Syphilis Quarterly Report: Hamilton County

Figure 4 shows a surveillance control chart. The dashed orange line shows the average number of new syphilis cases per month for the past 3 years (2022, 2023, and 2024). The 3-year average is 45.81 new syphilis cases per month. The dashed gray line is the upper control limit (UCL) with a value of 61.92. A single point above or near the UCL may signal anomalies that need to be investigated. The diamonds on the blue line graph show the actual number of new syphilis cases by month. The green diamonds are the months from the most recent quarter.

Analysis: For Q1 2025, all months were **below** the 3-year average. Consecutive points above the average may signal anomalies that need to be investigated. All months in Q1 2025 have been **below** the UCL which indicates no anomalies related to the UCL for this time frame. When there are only a small number of cases, it may be difficult to distinguish random fluctuations in disease incidence from true changes in the underlying risk for the disease.

Figure 4. Hamilton County Syphilis Infection Control Chart



The average is found using syphilis counts by month for the previous 3 years. A standard deviation is calculated using the same time frame. The upper control limit is determined by multiplying the standard deviation by 2 and adding the 3-year average.

Syphilis Quarterly Report: Hamilton County

Table 8 shows syphilis stages, demographic, and risk factor data. The category showing the highest percentage of new syphilis cases is highlighted in blue. For Q1 2025, Male (63.1%), Black (55.4%), and 25-34 year old (35.9%) individuals made up the highest percentage of new syphilis cases. For risk factors, high risk heterosexual (HRH) had the highest percentage of new syphilis infections (54.3%). The “Unknown” risk factor category could be due to a disease intervention specialist not being able to determine the risk factors of the patient. See additional information below the table.

| Table 8. Hamilton County Syphilis Morbidity | | | | |
|---|------|-------|---------|-------|
| | 2024 | | 2025 Q1 | |
| | # | % | # | % |
| Syphilis Stages | | | | |
| Early Latent | 122 | 24.6% | 27 | 29.3% |
| Primary | 54 | 10.9% | 8 | 8.7% |
| Secondary | 81 | 16.3% | 14 | 15.2% |
| Late/Unknown | 228 | 46.0% | 42 | 45.7% |
| Congenital | 11 | 2.2% | 1 | 1.1% |
| Gender | | | | |
| Male | 338 | 68.1% | 58 | 63.1% |
| Female | 158 | 31.9% | 34 | 36.9% |
| Race | | | | |
| Black | 316 | 63.7% | 51 | 55.4% |
| White | 137 | 27.6% | 32 | 34.8% |
| Multi | 4 | 0.8% | 2 | 2.2% |
| Other | 37 | 7.5% | 7 | 7.6% |
| Unknown | 2 | 0.4% | 0 | 0.0% |
| Age Group | | | | |
| <1 | 11 | 2.2% | 1 | 1.1% |
| 1-14 | 0 | 0.0% | 0 | 0.0% |
| 15-24 | 61 | 12.3% | 10 | 10.9% |
| 25-34 | 167 | 33.7% | 33 | 35.9% |
| 35-44 | 141 | 28.4% | 26 | 28.3% |
| 45-54 | 70 | 14.1% | 15 | 16.3% |
| 55-64 | 33 | 6.7% | 4 | 4.3% |
| 65+ | 13 | 2.6% | 3 | 3.3% |
| Risk Factor | | | | |
| MSM | 140 | 28.2% | 26 | 28.3% |
| HRH | 195 | 39.3% | 50 | 54.3% |
| PWID | 21 | 4.2% | 2 | 2.2% |
| Unknown | 140 | 28.2% | 14 | 15.2% |

Percentages may not total to 100 due to rounding. Percentages are based on availability of data for all cases. MSM are men who have sex with men. High risk heterosexuals (HRH) are determined by factors including but not limited to: having a previous STI, sex while intoxicated, exchanging sex for drugs, or having anonymous sexual partners. PWID is a person who injects drugs. Early syphilis cases include early latent, primary, and secondary stages. Early syphilis cases are cases where a person has been infected for less than a year.

Syphilis Quarterly Report: Butler County

Overview of Syphilis in Butler County

Table 9. Butler County Total Syphilis by Year

| 2021 | 2022 | 2023 | 2024 | 2025 |
|------|------|------|------|------|
| 71 | 133 | 135 | 134 | 26* |

*Q1 Only

Table 9 shows total new syphilis cases in Butler County from 2021 through the 1st quarter of 2025. The most recent data are highlighted in light green.

Figure 5 is a line graph of syphilis cases from 2021 through the 1st quarter of 2025. The dotted line signifies that 2025 data is not yet complete.

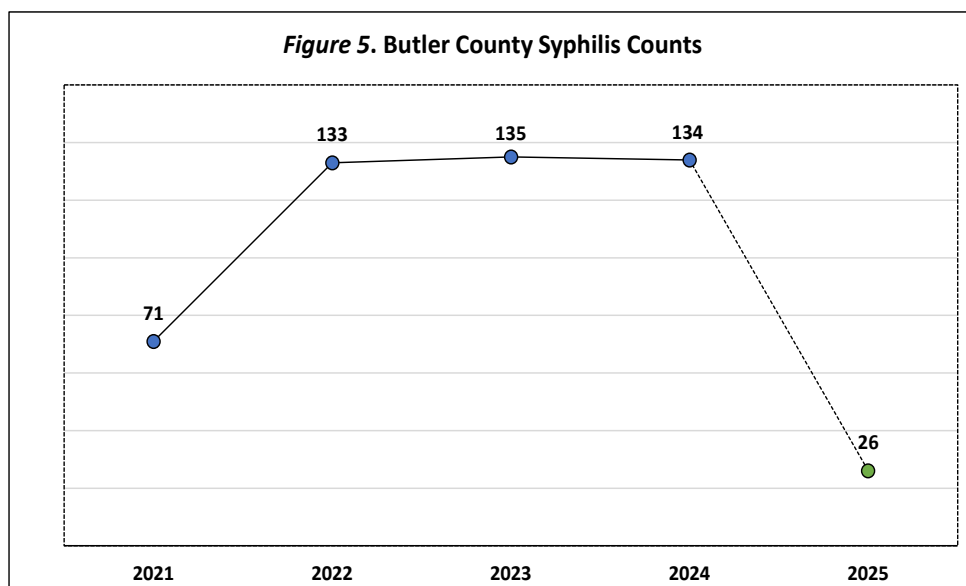


Table 10 is a comparison of the 1st quarters (Q1) of 2024 and 2025. There was a **25.7% decrease** of new syphilis cases in Q1 2025 compared to 2024 during this time period.

Table 10. Butler County Q1 Comparisons

| 2023 | 2024 | % Change |
|------|------|----------|
| 35 | 26 | -25.7%↓ |

Table 11 displays the breakdown of new syphilis cases for Butler County from 2024 through the 1st quarter of 2025 by month. In 2024, the highest number of new cases were seen in July (18 cases). In 2025, the highest number of new cases have occurred in January (11 cases).

Table 11. Butler County Total Syphilis by Month

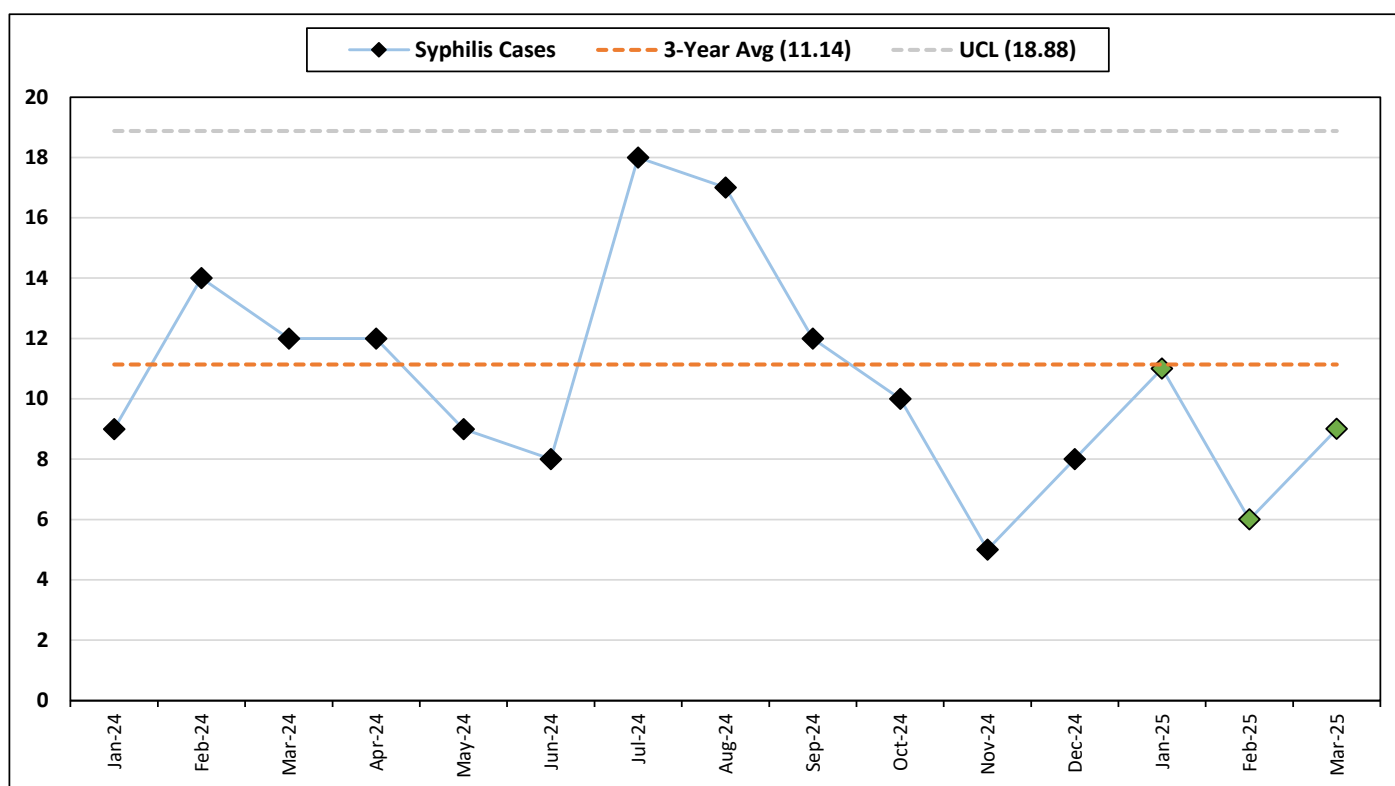
| Month | 2024 | 2025 |
|--------------|------------|-----------|
| January | 9 | 11 |
| February | 14 | 6 |
| March | 12 | 9 |
| April | 12 | - |
| May | 9 | - |
| June | 8 | - |
| July | 18 | - |
| August | 17 | - |
| September | 12 | - |
| October | 10 | - |
| November | 5 | - |
| December | 8 | - |
| Total | 134 | 26 |

Syphilis Quarterly Report: Butler County

Figure 6 shows a surveillance control chart. The dashed orange line shows the average number of new syphilis cases per month for the past 3 years (2022, 2023, and 2024). The 3-year average is 11.14 new syphilis cases per month. The dashed gray line is the upper control limit (UCL) with a value of 18.88. A single point above or near the UCL may signal anomalies that need to be investigated. The diamonds on the blue line graph show the actual number of new syphilis infections by month. The green diamonds are the months from the most recent quarter.

Analysis: For Q1 2025, January was **slightly below** the 3-year average. Consecutive points above the average or a point above the UCL may signal anomalies that need to be investigated. All months in Q1 2025 were **below** the UCL. When there are only a small number of cases, it may be difficult to distinguish random fluctuations in disease incidence from true changes in the underlying risk for the disease.

Figure 6. Butler County Syphilis Infection Control Chart



The average is found using syphilis counts by month for the previous 3 years. A standard deviation is calculated using the same time frame. The upper control limit is determined by multiplying the standard deviation by 2 and adding the 3-year average.

Syphilis Quarterly Report: Butler County

Table 12 shows syphilis stages, demographic, and risk factor data. The category showing the highest percentage of new syphilis cases is highlighted in **blue**. For Q1 2025, Male (50%) and Female (50%) individuals made up equal amounts of new cases. White (65.4%), 25 -34 year old (30.8%) and 35-44 year old (30.8%) individuals made up the highest percentage of new syphilis cases. For risk factors, high risk heterosexuals (HRH) individuals made up the highest percent of new cases (53.8%). The “Unknown” risk factor category could be due to a disease intervention specialist not being able to determine the risk factors of the patient. See additional information below the table.

| Table 12. Butler County Syphilis Morbidity | | | | |
|--|------|-------|---------|-------|
| | 2024 | | 2025 Q1 | |
| | # | % | # | % |
| Syphilis Stages | | | | |
| Early Latent | 31 | 23.1% | 7 | 26.9% |
| Primary | 14 | 10.4% | 3 | 11.5% |
| Secondary | 23 | 17.2% | 4 | 15.4% |
| Late/Unknown | 62 | 46.3% | 12 | 46.2% |
| Congenital | 4 | 3.0% | 0 | 0.0% |
| Gender | | | | |
| Male | 86 | 64.3% | 13 | 50.0% |
| Female | 48 | 35.7% | 13 | 50.0% |
| Race | | | | |
| Black | 14 | 10.4% | 7 | 26.9% |
| White | 109 | 81.3% | 17 | 65.4% |
| Multi | 1 | 0.7% | 0 | 0.0% |
| Other | 8 | 6.0% | 2 | 7.7% |
| Unknown | 2 | 1.5% | 0 | 0.0% |
| Age Group | | | | |
| <1 | 4 | 3.0% | 0 | 0.0% |
| 1-14 | 0 | 0.0% | 0 | 0.0% |
| 15-24 | 20 | 14.9% | 3 | 11.5% |
| 25-34 | 35 | 26.1% | 8 | 30.8% |
| 35-44 | 34 | 25.4% | 8 | 30.8% |
| 45-54 | 25 | 18.7% | 5 | 19.2% |
| 55-64 | 13 | 9.7% | 2 | 7.7% |
| 65+ | 3 | 2.2% | 0 | 0.0% |
| Risk Factor | | | | |
| MSM | 32 | 23.9% | 5 | 19.2% |
| HRH | 31 | 23.1% | 14 | 53.8% |
| PWID | 19 | 14.2% | 2 | 7.7% |
| Unknown | 52 | 38.8% | 5 | 19.2% |

Percentages may not total to 100 due to rounding. Percentages are based on availability of data for all cases. MSM are men who have sex with men. High risk heterosexuals (HRH) are determined by factors including but not limited to: having a previous STI, sex while intoxicated, exchanging sex for drugs, or having anonymous sexual partners. PWID is a person who injects drugs. Early syphilis cases include early latent, primary, and secondary stages. Early syphilis cases are cases where a person has been infected for less than a year.

Overview of Syphilis in Brown, Clermont, Clinton, Highland, and Warren

Table 13: Select Region 8 Counties Syphilis Cases by Quarter

| | Brown | Clermont | Clinton | Highland | Warren |
|--------------|----------|-----------|----------|----------|-----------|
| 2024 | | | | | |
| Q1 | 0 | 6 | 3 | 1 | 5 |
| Q2 | 1 | 1 | 1 | 0 | 3 |
| Q3 | 1 | 5 | 0 | 0 | 6 |
| Q4 | 1 | 4 | 0 | 2 | 4 |
| Total | 3 | 16 | 4 | 3 | 18 |
| 2025 | | | | | |
| Q1 | 1 | 2 | 2 | 2 | 2 |
| Q2 | – | – | – | – | – |
| Q3 | – | – | – | – | – |
| Q4 | – | – | – | – | – |
| Total | 1 | 2 | 2 | 2 | 2 |

Table 13 shows total new syphilis cases in select Region 8 counties by quarter for 2024 and 2025. For Q1 2024, Clermont, Clinton, Highland, and Warren Counties all had the highest number of new syphilis cases (2 cases).

Table 14. Select Region 8 Counties Syphilis Morbidity

| | 2024 | | 2025 Q1 | |
|------------------------|------|-------|---------|-------|
| | # | % | # | % |
| Syphilis Stages | | | | |
| Early Latent | 8 | 18.2% | 1 | 11.1% |
| Primary | 6 | 13.6% | 1 | 11.1% |
| Secondary | 10 | 22.7% | 0 | 0.0% |
| Late/Unknown | 20 | 45.5% | 6 | 66.7% |
| Congenital | 0 | 0.0% | 1 | 11.1% |
| Gender | | | | |
| Male | 31 | 70.2% | 7 | 77.8% |
| Female | 13 | 29.8% | 2 | 22.2% |
| Race | | | | |
| Black | 3 | 6.8% | 0 | 0.0% |
| White | 39 | 88.6% | 8 | 88.9% |
| Multi | 0 | 0.0% | 0 | 0.0% |
| Other | 2 | 4.5% | 1 | 11.1% |
| Unknown | 0 | 0.0% | 0 | 0.0% |
| Age Group | | | | |
| <1 | 0 | 0.0% | 1 | 11.1% |
| 15-24 | 5 | 11.4% | 0 | 0.0% |
| 25-34 | 10 | 22.7% | 3 | 33.3% |
| 35-44 | 13 | 29.5% | 4 | 44.4% |
| 45-54 | 11 | 25.0% | 1 | 11.1% |
| 55-64 | 3 | 6.8% | 0 | 0.0% |
| 65+ | 2 | 4.5% | 0 | 0.0% |
| Risk Factor | | | | |
| MSM | 10 | 22.7% | 3 | 33.3% |
| HRH | 12 | 27.3% | 1 | 11.1% |
| PWID | 2 | 4.5% | 1 | 11.1% |
| Unknown | 20 | 45.5% | 4 | 44.4% |

Table 14 shows demographic and risk factor data for the aggregate of the select Region 8 counties. The category showing the highest percentage of new syphilis cases is highlighted in blue. For Q1 2025, Male (77.8%), White (88.9%), and 35-44 year old (44.4%) individuals made up the highest percentage of new syphilis infections. For risk factors (excluding “Unknown”), men who have sex with men (MSM) had the highest percentage of new syphilis cases (33.3%). Risk factor definitions are on previous pages.