

# STD SURVEILLANCE TIPS

Tips on select STD surveillance topics address frequently asked questions from STD program staff working in state, local, and territorial public health agencies. If you have problems accessing content, please email [std\\_surv\\_inquiry@cdc.gov](mailto:std_surv_inquiry@cdc.gov).

**Note:** Previous versions of the STD Surveillance Tips were e-mailed to STD programs via the monthly STD Surveillance and Data Science Updates from CDC’s Division of STD Prevention (DSTDP). The content on this website includes minor edits to the original content.

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## GENERAL AND MISCELLANEOUS STD SURVEILLANCE TIPS

The STD Surveillance Capacity Framework Guidance describes the foundational and enhanced activities critical for STD surveillance, as well as available resources, technical assistance materials, and standards to assist with carrying out these activities.

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### WANT TO KNOW MORE?

After conducting a key informant evaluation of STD surveillance activities in 2017, the Council of State and Territorial Epidemiologists (CSTE), in collaboration with state and local STD programs and CDC's Division of STD Prevention, created a guidance document to describe a STD surveillance capacity framework for state and local health departments. To improve the quality of STD surveillance and maximize the impact of disease prevention, the STD Surveillance Capacity Framework identifies foundational and enhanced activities for STD surveillance for six categories: (1) policy and infrastructure; (2) data collection; (3) data management; (4) data analysis and visualization; (5) data sharing and dissemination; and (6) evaluation and quality improvement.

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### EVEN MORE?

Read the STD Surveillance Capacity Framework Guidance on CSTE's website: [https://cdn.ymaws.com/www.cste.org/resource/resmgr/std/Capacity\\_Framework\\_Survey.pdf](https://cdn.ymaws.com/www.cste.org/resource/resmgr/std/Capacity_Framework_Survey.pdf).

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### NEED HELP?

Email CDC STD Surveillance SMEs at [STD\\_Surv\\_Inquiry@cdc.gov](mailto:STD_Surv_Inquiry@cdc.gov).

Tip originally e-mailed via the STD Surveillance and Data Science Updates on March 10, 2023.

STD case notifications should be sent to CDC's National Notifiable Diseases Surveillance System (NNDSS) by the jurisdiction of the case-patient's usual residence.

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#### WANT TO KNOW MORE?

When sending STD case notifications to CDC's NNDSS, jurisdictions should assign residency based on the [Council of State and Territorial Epidemiologists \(CSTE\) 2005 guidelines](#). In these guidelines, CSTE defines **usual residence** as the place where the case-patient lives and sleeps most of the time. In most instances, **usual residence** is straightforward and easy to determine.

However, there are scenarios where **usual residence** is less clear (e.g., people without housing, college students, people who reside in different states for part of the year). Since no case should be sent to CDC by multiple jurisdictions, CSTE established guidelines to determine which jurisdiction should notify CDC about a nationally notifiable STD case.

When the **usual residence** of a case-patient is ambiguous, a **reference point** should be used to help determine which jurisdiction should submit the case. It is recommended that the **reference point** use date of symptom onset, and if that is not available, the date of diagnosis, lab result date or the date the case was first reported to the health department. Once the **reference point** date has been set, the reporting jurisdiction becomes the place where the case-patient was staying on that date. Note, for cases of congenital syphilis, the reference point is the **usual residence** of the mother at time of delivery.

In some cases, different jurisdictions may need to collaborate to determine the **usual residence** and **reference point** to assure that a case is sent to CDC, and not reported by both jurisdictions.

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#### EVEN MORE?

Read the full 2005 Updated Guidelines for Determining the Jurisdiction Responsible for Reporting Notifiable Diseases to CDC under the National Notifiable Diseases Surveillance System (NNDSS) at: <https://cdn.ymaws.com/www.cste.org/resource/resmgr/PS/11-SI-04.pdf>, which includes detailed guidance for scenarios not easily resolved by **usual residence** and **reference point**.

For more information about determining residency for cases of congenital syphilis, watch the lesson *Assigning Residency for Congenital Syphilis Case Notifications* in the CSTE Case-based Surveillance for Syphilis course on [CSTE Learn](#).

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#### NEED HELP?

Email CDC STD Surveillance SMEs at [STD\\_Surv\\_Inquiry@cdc.gov](mailto:STD_Surv_Inquiry@cdc.gov).

Tip originally e-mailed via the STD Surveillance and Data Science Updates on October 7, 2022.

Identifying cases of chancroid is challenging, so all reported cases should be double-checked before data closeout to ensure they meet the current Council of State and Territorial Epidemiologists (CSTE) case definition.

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#### WANT TO KNOW MORE?

Chancroid is a sexually transmitted genital ulcer disease caused by infection with *Haemophilus ducreyi*, a fastidious, gram-negative bacillus. Chancroid has been a nationally notifiable condition since 1944, and national trends are influenced by changes in diagnostic capacity and case definitions. Currently, polymerase chain reaction (PCR) is the gold standard for chancroid diagnostic testing in the United States, but because no molecular assays have been cleared by the Food and Drug Administration for use in the United States, PCR is infrequently used. Diagnosis should be based on physical findings if culture media for *H. ducreyi* are unavailable. Clinical presentation of chancroid is very similar to other genital ulcerative infections like herpes and syphilis. The combination of limited use of PCR and the difficulty differentiating it from other ulcerative diseases makes clinical diagnosis of chancroid challenging.

During a recent evaluation of chancroid reporting via the National Notifiable Diseases Surveillance System (NNDSS), a CDC Epidemic Intelligence Service officer working with partners in state health departments discovered that none of six cases initially reported for 2020 met the CSTE chancroid case definition. All six cases were removed prior to 2020 NNDSS data closeout, so ultimately, there were no cases of chancroid reported nationally in 2020. As of August 2022, eight chancroid cases have been reported for 2021 through NNDSS and five cases have been reported for 2022. Extra scrutiny of these few cases identified in 2021 and 2022 cases may reveal similar issues requiring removal prior to data close out.

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#### EVEN MORE?

Read the current case definition for [chancroid \(\*Haemophilus ducreyi\*\)](#).

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#### NEED HELP?

Email CDC STD Surveillance SMEs at [STD\\_Surv\\_Inquiry@cdc.gov](mailto:STD_Surv_Inquiry@cdc.gov).

Tip originally e-mailed via the STD Surveillance and Data Science Updates on September 8, 2022.

National Notifiable Diseases Surveillance System (NNDSS) reconciliation is the process to finalize case counts for the previous *MMWR* year to maximize agreement between a reporting jurisdiction’s database and CDC’s NNDSS database.

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#### WANT TO KNOW MORE?

Final case counts from the NNDSS reconciliation process are published in CDC’s [annual STD surveillance report](#) and used for [NCHHSTP AtlasPlus](#). While CDC’s Center for Surveillance, Epidemiology, and Laboratory Services (CSELS) leads the reconciliation process for all nationally notifiable conditions, CDC’s Division of STD Prevention (DSTDP) collaborates with CSELS to reconcile STD data. In addition to CSELS’ reconciliation guidance packets, DSTDP emails specific STD data quality reports to jurisdictions to help improve surveillance data prior to finalizing case counts. While CSELS coordinates approval of final case counts for other conditions (e.g., arboviral, rabies), DSTDP sends sign-off letters via e-mail with final case counts to the jurisdictions’ STD Program Manager and State Epidemiologist to approve via signatures.

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#### EVEN MORE?

To aid in the reconciliation process, we encourage all state, local, and territorial health department staff who need to verify STD case counts or download line lists of STD cases to get access to the [Message Validation, Processing, & Provisioning System \(MVPS\) portal](#). In-depth [instructions](#) on MVPS portal use have been available since August 10, 2021. If you do not already have MVPS portal access, please request access from the NNDSS Data Manager in your jurisdiction. If you do not know who the NNDSS Data Manager is in your jurisdiction, please send an e-mail inquiry to [edx@cdc.gov](mailto:edx@cdc.gov). Your jurisdiction’s NNDSS Data Manager will initiate the request to grant MVPS access and assign user permissions and access to conditions in MVPS. The MVPS portal also hosts a “reconciliation” landing page that provides an overview of the process and other supporting documentation.

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#### NEED HELP?

Email CDC STD Surveillance SMEs at [STD\\_Surv\\_Inquiry@cdc.gov](mailto:STD_Surv_Inquiry@cdc.gov).

Tip originally e-mailed via the STD Surveillance and Data Science Updates on July 29, 2022.

Electronic case reporting (eCR) provides more complete case data than Electronic Laboratory Reporting (ELR) alone.

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#### WANT TO KNOW MORE?

Electronic Case Reporting is the automated generation of case reports of reportable conditions from electronic health records (EHRs) to be reported to public health agencies. CDC's Division of STD Prevention (DSTDP) has developed two different approaches of eCR for chlamydia and gonorrhea.

In one approach, the healthcare provider initiates reporting when the case definition for chlamydia or gonorrhea is met in the EHR. The other approach is for the public health agency to leverage ELRs reported to them to directly query the EHR of the clinical site where the patient was seen and extract additional case-relevant data.

Both approaches that also use eCR were found to report more complete data when compared to using ELR alone.

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#### EVEN MORE?

More information on these resources can be found on the [STI Connect: eCR website](#) which includes a toolkit that details the guidance and necessary logic to implement both approaches of eCR: the [triggering of eCRs from EHRs](#), and [leveraging ELRs to extract information from EHRs](#).

We piloted the automated [triggering of eCRs from EHRs](#) with the states of [Oregon](#) and [Illinois](#) and select clinics within their respective jurisdictions. We conducted a study of approach that [leveraged ELRs to extract information from EHRs](#) at the Medical University of South Carolina.

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#### NEED HELP?

Email CDC STD Surveillance SMEs at [STD\\_Surv\\_Inquiry@cdc.gov](mailto:STD_Surv_Inquiry@cdc.gov).

Tip originally e-mailed via the STD Surveillance and Data Science Updates on June 24, 2022.

Rates of reported cases of STDs can be calculated per 100,000 persons for seven race and ethnicity categories using annual population estimates from the US Census.

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#### WANT TO KNOW MORE?

Cases of reportable STDs can be grouped into the seven race and Hispanic ethnicity categories: Hispanic, American Indian/Alaska Native, Asian, Black/African American, Native Hawaiian/Pacific Islander, White, and Multiracial. These categories align with the state-level and county-level population estimates available from the US Census. The 2019 “[Population and Housing Unit Estimates](#)” provides links to many Census data sets and their documentation files. These are publicly available and can be used to calculate rates for each race and Hispanic ethnicity category.

Population estimates from the last decennial census to the current year are updated annually; however, updates can be delayed; because of this, national surveillance rates are typically calculated using a one-year lag in population (e.g., 2020 case rates are calculated using 2019 population denominators). We expect updated 2020 population estimates stratified by state, sex, age, and race and Hispanic ethnicity, based on the 2020 census, will become available in the future.

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#### EVEN MORE?

For state-level population estimates, use the file SC-EST219-ALLDATA6, under the link [State Population by Characteristics: 2010-2019 \(census.gov\)](#). Data sets for earlier years can be found at [Population data sets by year \(census.gov\)](#). Race and ethnicity data are also available at the county-level from the file CC-EST2019-ALLDATA, posted under [County Population by Characteristics: 2010-2019 \(census.gov\)](#).

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#### NEED HELP?

Email CDC STD Surveillance SMEs at [STD\\_Surv\\_Inquiry@cdc.gov](mailto:STD_Surv_Inquiry@cdc.gov).

Tip originally e-mailed via the STD Surveillance and Data Science Updates on May 24, 2022.

## CHLAMYDIA SURVEILLANCE TIPS

National standards for deduplicating chlamydia and gonorrhea case reports based on laboratory test results are described in current Council of State and Territorial Epidemiologists (CSTE) position statements for each condition: deduplicate case reports if there is a previously reported case with a specimen collection date or documented treatment date in the prior 30 days, AND no evidence of reinfection.

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### WANT TO KNOW MORE?

National deduplication standards on the minimum amount of time between positive laboratory test results to trigger a report of a new case are included in the 2022 *Chlamydia trachomatis* and 2023 *Neisseria gonorrhoeae* infection surveillance case definitions. The deduplication standards were informed by scientific literature on nucleic acid amplification tests (NAATs) that are commonly used to diagnose both infections, current CDC test of cure recommendations, a 2015 CDC assessment of STD surveillance practices in local and state jurisdictions, and feedback from STD surveillance programs during the process of updating the CSTE chlamydia and gonorrhea position statements. To strengthen national chlamydia and gonorrhea surveillance, CDC recommends that jurisdictions:

1. Learn about the national standards for deduplicating chlamydia and gonorrhea case reports based on laboratory test results that are described in the current CSTE position statements for each condition: deduplicate case reports if there is a previously reported case with a specimen collection date or documented treatment date in the prior 30 days, AND no evidence of reinfection.
2. Routinely review available laboratory, treatment completion, and partner services data to determine if a positive laboratory test result represents a prior, previously reported case that should not be reported as a new case.
3. Apply the national deduplication standards within STD surveillance programs, incorporating a deduplication algorithm into electronic surveillance information systems, if possible.
4. Ensure that chlamydia and gonorrhea case report data are reviewed and deduplicated as appropriate prior to data submission to CDC.

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### EVEN MORE?

Read the updated guidance: <https://www.cdc.gov/sti-informatics/media/pdfs/2024/07/deduplication-standards-for-chlamydia-and-gonorrhea-case-reports.pdf>.

Read the CSTE 2022 *Chlamydia trachomatis* infection case definition: [https://cdn.ymaws.com/www.cste.org/resource/resmgr/ps/ps2021/21-ID-06\\_ChlamydiaLGV.pdf](https://cdn.ymaws.com/www.cste.org/resource/resmgr/ps/ps2021/21-ID-06_ChlamydiaLGV.pdf).

Read the CSTE 2023 *Neisseria gonorrhoeae* infection case definition: [https://cdn.ymaws.com/www.cste.org/resource/resmgr/ps/ps2022/22-ID-03\\_Gonorrhea.pdf](https://cdn.ymaws.com/www.cste.org/resource/resmgr/ps/ps2022/22-ID-03_Gonorrhea.pdf).

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### NEED HELP?

Email CDC STD Surveillance SMEs at [STD\\_Surv\\_Inquiry@cdc.gov](mailto:STD_Surv_Inquiry@cdc.gov).

Tip originally e-mailed via the STD Surveillance and Data Science Updates on February 10, 2023.

Beginning in 2022, chlamydia case notifications sent to CDC must have a case classification status of “confirmed” in order to be counted in national reports.

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#### WANT TO KNOW MORE?

All case notifications sent to CDC’s National Notifiable Disease Surveillance System (NNDSS) must specify a case classification status that corresponds to the Council of State and Territorial Epidemiologists (CSTE) surveillance [case definitions](#). Case classification status (confirmed, probable, suspect, unknown, not a case) is factored into a condition’s print criteria, the standards upon which CDC can publish cases in national reports. Therefore, case classification status can help determine if a reported case is counted in CDC publications such as [MMWR’s Weekly and Annual Tables](#), [STD Surveillance Reports](#), [NCHHSTP AtlasPlus](#), and [NNDSS WONDER Tables](#).

Historically, reported cases of nationally notifiable STDs (chlamydia, gonorrhea, syphilis, and chancroid) had an “All Report” print criteria, meaning that all cases sent to CDC, regardless of case classification status, were included for publication. However, the [CSTE Position Statement](#) on which the revised [2022 chlamydia surveillance case definition](#) is based, specifies that only chlamydia cases submitted to CDC with a “confirmed” case classification status will be included in national reports beginning MMWR Week 1 of 2022.

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#### EVEN MORE?

Read the updated guidance: [Reporting Case Classification Status for STD Case Notifications](#).

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#### NEED HELP?

Email CDC STD Surveillance SMEs at [STD\\_Surv\\_Inquiry@cdc.gov](mailto:STD_Surv_Inquiry@cdc.gov).

Tip originally e-mailed via the STD Surveillance and Data Science Updates on January 25, 2022.

## GONORRHEA SURVEILLANCE TIPS

National standards for deduplicating chlamydia and gonorrhea case reports based on laboratory test results are described in current Council of State and Territorial Epidemiologists (CSTE) position statements for each condition: deduplicate case reports if there is a previously reported case with a specimen collection date or documented treatment date in the prior 30 days, AND no evidence of reinfection.

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### WANT TO KNOW MORE?

National deduplication standards on the minimum amount of time between positive laboratory test results to trigger a report of a new case are included in the 2022 *Chlamydia trachomatis* and 2023 *Neisseria gonorrhoeae* infection surveillance case definitions. The deduplication standards were informed by scientific literature on nucleic acid amplification tests (NAATs) that are commonly used to diagnose both infections, current CDC test of cure recommendations, a 2015 CDC assessment of STD surveillance practices in local and state jurisdictions, and feedback from STD surveillance programs during the process of updating the CSTE chlamydia and gonorrhea position statements. To strengthen national chlamydia and gonorrhea surveillance, CDC recommends that jurisdictions:

1. Learn about the national standards for deduplicating chlamydia and gonorrhea case reports based on laboratory test results that are described in the current CSTE position statements for each condition: deduplicate case reports if there is a previously reported case with a specimen collection date or documented treatment date in the prior 30 days, AND no evidence of reinfection.
2. Routinely review available laboratory, treatment completion, and partner services data to determine if a positive laboratory test result represents a prior, previously reported case that should not be reported as a new case.
3. Apply the national deduplication standards within STD surveillance programs, incorporating a deduplication algorithm into electronic surveillance information systems, if possible.
4. Ensure that chlamydia and gonorrhea case report data are reviewed and deduplicated as appropriate prior to data submission to CDC.

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### EVEN MORE?

Read the updated guidance: <https://www.cdc.gov/sti-informatics/media/pdfs/2024/07/deduplication-standards-for-chlamydia-and-gonorrhea-case-reports.pdf>.

Read the CSTE 2022 *Chlamydia trachomatis* infection case definition: [https://cdn.ymaws.com/www.cste.org/resource/resmgr/ps/ps2021/21-ID-06\\_ChlamydiaLGV.pdf](https://cdn.ymaws.com/www.cste.org/resource/resmgr/ps/ps2021/21-ID-06_ChlamydiaLGV.pdf).

Read the CSTE 2023 *Neisseria gonorrhoeae* infection case definition: [https://cdn.ymaws.com/www.cste.org/resource/resmgr/ps/ps2022/22-ID-03\\_Gonorrhea.pdf](https://cdn.ymaws.com/www.cste.org/resource/resmgr/ps/ps2022/22-ID-03_Gonorrhea.pdf).

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### NEED HELP?

Email CDC STD Surveillance SMEs at [STD\\_Surv\\_Inquiry@cdc.gov](mailto:STD_Surv_Inquiry@cdc.gov).

Tip originally e-mailed via the STD Surveillance and Data Science Updates on February 10, 2023.

Beginning in 2023, gonorrhea case notifications sent to CDC must have a case classification status of “confirmed” or “probable” in order to be counted in national reports.

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#### WANT TO KNOW MORE?

All case notifications sent to the CDC’s Nationally Notifiable Diseases Surveillance System (NNDSS) must specify a case classification status that corresponds to the Council of State and Territorial Epidemiologists (CSTE) surveillance [case definitions](#). Case classification status (confirmed, probable, suspect, unknown, not a case) is factored into a condition’s print criteria, the standards upon which CDC can publish cases in national reports. Therefore, case classification status can help determine if a reported case is counted in CDC publications such as *MMWR*’s Weekly and Annual Tables, STD Surveillance Reports, and NNDSS WONDER Tables.

Historically, reported cases of nationally notifiable STDs (chlamydia, gonorrhea, syphilis, and chancroid) had an “All Report” print criteria, meaning that all cases sent to CDC, regardless of case classification status, were included for publication. However, in 2021 and 2022, CSTE approved Position Statements for chlamydia and gonorrhea, respectively, to update the standardized case definitions that jurisdictions use for case reporting and national notification to CDC. In the updated Position Statements, each condition’s print criteria were changed and only cases meeting the case definition and submitted to CDC with a valid case classification status will be included in national reports when the new case definitions go into effect. This means that only chlamydia cases meeting the 2022 case definition and submitted to CDC with a “confirmed” case classification status will be included in national reports beginning [MMWR Week 1 of 2022](#). Likewise, only gonorrhea cases meeting the 2023 case definition and submitted to CDC with a “confirmed” or “probable” case classification status will be included in national reports beginning [MMWR Week 1 of 2023](#).

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#### EVEN MORE?

Read the updated guidance: <https://www.cdc.gov/sti-informatics/media/pdfs/2024/07/guidance-on-reporting-case-classification-status-for-std-case-notifications.pdf>.

Find the *MMWR* Fact Sheet and *MMWR* Weeks Calendar: [Event Codes & Other Surveillance Resources \(cdc.gov\)](#).

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#### NEED HELP?

Email CDC STD Surveillance SMEs at [STD\\_Surv\\_Inquiry@cdc.gov](mailto:STD_Surv_Inquiry@cdc.gov).

Tip originally e-mailed via the STD Surveillance and Data Science Updates on January 11, 2023.

## SYPHILIS SURVEILLANCE TIPS

Beginning January 2023, CDC will stop accepting National Notifiable Diseases Surveillance System (NNDSS) event codes 10314 (syphilis, late latent) and 10319 (syphilis, late with clinical manifestations) for 2023 cases and beyond.

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### WANT TO KNOW MORE?

Starting January 1, 2023, for 2023 cases and beyond, CDC will no longer accept event codes **10314** (syphilis, late latent) and **10319** (syphilis, late with clinical manifestations) for cases of syphilis submitted through the NNDSS.

When sending syphilis case notifications to CDC, jurisdictions should use active NNDSS event codes for syphilis case notifications that are aligned with the current [2018 Council of State and Territorial Epidemiologists \(CSTE\) case definition](#):

- 10311 (primary),
- 10312 (secondary),
- 10313 (early non-primary, non-secondary),
- 10316 (congenital), and
- 10320 (unknown duration or late).

**Beginning with cases reported for MMWR year 2023, jurisdictions should not use codes 10314 and 10319 to submit data to NNDSS for new STD cases.**

**Jurisdictions may continue using event codes 10314 and 10319 to send or update cases for MMWR year 2022.**

Beginning with MMWR year 2023, new 2023 cases sent to CDC with event codes 10314 and 10319 will get an error message in [Message Validation, Provisioning, and Processing System \(MVPS\)](#) for those cases, and these cases will not be included in CDC publications such as STD Surveillance Reports and weekly and annual NNDSS data tables on [CDC WONDER](#) and [data.CDC.gov](#).

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### EVEN MORE?

Read more about NNDSS event codes and find other surveillance resources at: <https://ndc.services.cdc.gov/event-codes-other-surveillance-resources/>.

Learn how [CDC calculates MMWR weeks and years](#).

For technical support with MVPS, contact [edx@cdc.gov](mailto:edx@cdc.gov).

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### NEED HELP?

E-mail CDC STD Surveillance SMEs at [STD\\_Surv\\_Inquiry@cdc.gov](mailto:STD_Surv_Inquiry@cdc.gov).

Tip originally e-mailed via the STD Surveillance and Data Science Updates on November 4, 2022.

## Syphilis record search and review algorithm is now available on GitHub.

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### WANT TO KNOW MORE?

Recently, CDC's Division of STD Prevention (DSTDP) collaborated with Florida Department of Health and New York City Department of Health and Mental Hygiene to develop a computational algorithm to prioritize syphilis serologies for further investigation by health departments.

Traditionally, reported serologies are prioritized for investigations based on local epidemiology and capacity, utilizing the nontreponemal test titer, age, and, in some instances, sex as criteria for the "reactor grid." These prioritized serologies further undergo manual record search and review, which can be resource intensive. However, "reactor grids" are widely acknowledged to be unreliable and prior studies have demonstrated that many potential cases were missed. The proposed algorithm significantly increased the accuracy (99.4% sensitive), and the automated process would replace the manual work and divert those resources for investigating the prioritized serologies.

This algorithm is now available on GitHub as a Python script in a Jupyter Notebook. The [GitHub page](#) contains detailed descriptions and instructions on how to test the algorithm. Jurisdictions can test the algorithm on their dataset.

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### EVEN MORE?

A [manuscript describing this algorithm](#) can be found in the journal *Sexually Transmitted Diseases*. The National Coalition of STD Directors held a webinar to describe this approach, entitled 'Should your jurisdiction automate a syphilis record search process? Yes!'. The recording of the webinar along with the slide deck can be found in the link above.

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### NEED HELP?

Please contact Dr. Saugat Karki ([skarki@cdc.gov](mailto:skarki@cdc.gov)) in DSTDP for any questions or assistance.

Tip originally e-mailed via the STD Surveillance and Data Science Updates on March 29, 2022.

## CONGENITAL SYPHILIS SURVEILLANCE TIPS

A syphilitic stillbirth occurs when a pregnant woman has untreated or inadequately treated syphilis at the time they deliver the stillborn fetus, AND the fetus meets ONE of the following criteria at time of delivery: gestational age is  $\geq 20$  weeks OR weight is  $> 500$  grams.

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### WANT TO KNOW MORE?

A reportable syphilitic stillbirth surveillance case is a fetal death affecting a pregnant woman with untreated or inadequately treated syphilis at the time of delivery. Adequate treatment is defined as completion of a penicillin-based regimen, in accordance with [CDC treatment guidelines](#), appropriate for stage of infection, initiated 30 or more days before delivery.

To meet criteria for surveillance reporting of a syphilitic stillbirth based on the 2018 Council of State and Territorial Epidemiologists (CSTE) syphilis case definition, the affected fetus needs to have either:

1. A gestational age of 20 weeks or more at the time of delivery; **OR**
2. A weight of greater than 500 grams at the time of delivery.

Of note, the fetus needs only one of these two elements to meet surveillance criteria. For example, a 450 gram, 21-week gestational age fetus is a reportable case of syphilitic stillbirth, as is a 510 gram, 19-week gestational age stillbirth. Fetal deaths that occur at gestational age of less than 20 weeks AND fetal weight of 500 grams or less are considered miscarriages, which are not included in the CSTE congenital syphilis case definition.

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### EVEN MORE?

Read the 2018 congenital syphilis and syphilitic stillbirth case definition here: <https://ndc.services.cdc.gov/case-definitions/syphilis-2018/>.

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### NEED HELP?

Email CDC STD Surveillance SMEs at [STD\\_Surv\\_Inquiry@cdc.gov](mailto:STD_Surv_Inquiry@cdc.gov).

Tip originally e-mailed via the STD Surveillance and Data Science Updates on April 14, 2023.

Infant nontreponemal (e.g., RPR) titers are monitored as part of congenital syphilis case follow-up. A decline in titer following appropriate treatment for congenital syphilis is likely a sign that the infant is responding well to therapy; however, decreases in infant titers should not affect if a treated infant should be reported as a case of congenital syphilis.

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#### WANT TO KNOW MORE?

Syphilis is a bacterial infection, which means after appropriate penicillin treatment, evidence of an active infection should disappear. When an infant's titers begin to decline following appropriate penicillin treatment for congenital syphilis, this is a sign that the infant's markers of inflammation are disappearing, and the active syphilis infection is waning. Stable or increasing titers following appropriate treatment suggests the need for additional clinical evaluation of the infant. (See [2021 STI Treatment Guidelines](#)) Although other perinatal infections, such as HIV, may require follow-up labs (e.g., at 18 months) to look for evidence of an 'established' infection, the [Council of State and Territorial Epidemiologists case definition for congenital syphilis](#) does not consider changes in an infant's nontreponemal titers when determining if an infant should be reportable as a case of congenital syphilis. Surveillance case identification for congenital syphilis is based on adequacy of maternal treatment and congenital syphilis related signs/symptoms in an infant born to a person with syphilis.

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#### EVEN MORE?

Watch the [Congenital Syphilis Case Classification webinar](#) .

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#### NEED HELP?

Email CDC STD Surveillance SMEs at [STD\\_Surv\\_Inquiry@cdc.gov](mailto:STD_Surv_Inquiry@cdc.gov).

Tip originally e-mailed via the STD Surveillance and Data Science Updates on December 15, 2021.

When investigating infants with possible congenital syphilis (CS), it's important to remember that not all jaundice in newborns is related to CS. CS-related jaundice—or 'jaundice due to syphilitic hepatitis'—can be identified in a baby's medical chart by looking for keywords such as 'conjugated hyperbilirubinemia,' 'direct hyperbilirubinemia,' or 'd.bili.'

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#### WANT TO KNOW MORE?

Jaundice—the medical term for the yellowing of skin and eyes—is relatively common in newborn babies. Jaundice is caused by high levels of the molecule, bilirubin, a red-orange pigment that is released when red blood cells break down in our bodies. Jaundice occurs for a variety of reasons. Sometimes jaundice can be a sign of CS, but only certain types of jaundice are associated with syphilitic infections. CS-related jaundice occurs when a particular type of bilirubin, known as conjugated—or direct—bilirubin builds up in the body due to inflammation of the liver from a syphilitic infection. This can also be referred to as 'jaundice due to syphilitic hepatitis.' Finding CS-related jaundice in a baby with a reactive nontreponemal test (e.g., RPR+) meets the definition of a reportable case of CS.

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#### EVEN MORE?

Watch the [Congenital Syphilis Chart Abstraction webinar](#).

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#### NEED HELP?

Email CDC STD Surveillance SMEs at [STD\\_Surv\\_Inquiry@cdc.gov](mailto:STD_Surv_Inquiry@cdc.gov).

Tip originally e-mailed via the STD Surveillance and Data Science Updates on November 10, 2021.