

Guidance on Reporting Case Status for STD Case Reports

Background

State and local jurisdictions report cases of notifiable conditions to the Centers for Disease Control and Prevention (CDC)'s Nationally Notifiable Disease Surveillance System (NNDSS). All case reports must contain information on the status of the case that identifies the case as “probable” or “confirmed” per the Council of State and Territorial Epidemiologists (CSTE) surveillance case definitions [1] or as “unknown case status” or “suspect.”

Inclusion of reported cases in CDC's *MMWR* publications is based, in part, on the case status variable and varies by condition [2]. Currently, reported cases of nationally notifiable sexually transmitted diseases (STDs) (chlamydia, gonorrhea, syphilis, and chancroid) have an “All Report” publication criterion, meaning that all cases reported to CDC, regardless of reported case status, are included for publication. This “All Report” publication criterion also applies to STD case report data published in CDC's Division of STD Prevention (DSTDP) annual STD surveillance report [3] and on the NCHHSTP Atlas Plus [4].

To investigate what proportion of reported STDs did not meet CSTE case definitions, CDC reviewed national case data by the case status variable. Criteria for meeting the CSTE case definition varied by STD (e.g., chlamydia cases can only be confirmed cases; gonorrhea cases can be confirmed or probable cases; early non-primary, non-secondary syphilis cases can only be probable cases). See Table 1 for information on case classifications that meet current (as of January 2018) case definitions for each nationally notifiable STD.

In 2017, the majority (97%) of STDs reported to CDC had a case status that met the current CSTE case definition. Overall, 0.7% had an unknown case status and 0.7% had a suspect case status (not valid for any nationally notifiable STD). Overall, the proportion with a case status that did not meet the case definition (as of 2017) varied by STD:

- *Chlamydia*: 28,145 cases (1.7% of all chlamydia cases) were coded as probable, suspect, or unknown
- *Gonorrhea*: 9,859 cases (1.8% of all gonorrhea cases) were coded as suspect or unknown
- *Syphilis, primary*: 188 cases (1.8% of all primary syphilis cases) were coded as suspect or unknown
- *Syphilis, secondary*: 311 cases (1.6% of all secondary syphilis cases) were coded as suspect
- *Syphilis, early latent*: 17,807 cases (52.4% of all early latent syphilis cases) were coded as confirmed, suspect, or unknown
- *Syphilis, late latent*: 15,756 cases (44.5% of all late latent syphilis cases) were coded as confirmed, suspect, or unknown
- *Syphilis, late with clinical manifestations*: 104 cases (55.0% of all late latent syphilis cases) were coded as confirmed, suspect, or unknown

Additionally, the proportion of cases with a case status that did not meet the case definition varied by jurisdiction. For example, in 2017, one jurisdiction had 5.4% of their chlamydia cases identified as suspect.

Based on preliminary investigations into these cases with select jurisdictions, it appears that many of the cases reported with a case status that did not meet the case definition did, in fact, meet the CSTE case definition and should have been counted as a case; however, the value for the case status variable was inaccurate when the case was reported to CDC. Barriers to appropriate coding of case status include mapping issues to the National Electronic Telecommunications System for Surveillance (NETSS) record layout and lack of data quality checks on the variable. However, in at least one jurisdiction, cases that did not meet the case definition were reported to CDC with the assumption that they would be excluded from publication.

Statement of action to be taken

Jurisdictions should be aware that CDC’s current publication criteria for nationally notifiable STDs is to include “All Reports”[2]. Therefore jurisdictions should only report cases of STDs that meet the CSTE case definition for inclusion in national reporting.

In the future, CDC’s DSTDP may consider limiting inclusion in national reporting to only STD cases with a case status that meets the current CSTE case definitions (e.g., STD case reports reported as “suspect” would not be included in national case counts). When making modifications to their surveillance information system, including transitioning to the message mapping guides (MMGs), jurisdictions should ensure that the case status variable accurately reflects the case status.

Table 1. Case status classifications that meet current* CSTE case definitions for each nationally notifiable STD

| | Confirmed | Probable | Suspect |
|---|-----------|----------|---------|
| Chlamydia | ✓ | ✗ | ✗ |
| Gonorrhea | ✓ | ✓ | ✗ |
| Primary syphilis | ✓ | ✓ | ✗ |
| Secondary syphilis | ✓ | ✓ | ✗ |
| Syphilis, early, non-primary, non-secondary | ✗ | ✓ | ✗ |
| Syphilis, unknown duration or late | ✗ | ✓ | ✗ |
| Syphilis, congenital | ✓ | ✓ | ✗ |
| Chancroid | ✓ | ✓ | ✗ |
| *As of January, 2018 | | | |
| ✓: valid case status classification; ✗: invalid case status classification | | | |

References

1. Notifiable disease case definitions available at <https://wwwn.cdc.gov/nndss/case-definitions.html>
As of January, 2018, the following were the current STD case definitions
 - Chlamydia: <https://wwwn.cdc.gov/nndss/conditions/chlamydia-trachomatis-infection/>
 - Gonorrhea: <https://wwwn.cdc.gov/nndss/conditions/gonorrhea/case-definition/2014/>
 - Syphilis: <https://wwwn.cdc.gov/nndss/conditions/syphilis/case-definition/2018/>
 - Congenital syphilis: <https://wwwn.cdc.gov/nndss/conditions/congenital-syphilis/case-definition/2015/>
 - Chancroid: <https://wwwn.cdc.gov/nndss/conditions/chancroid/case-definition/1996/>
2. Adams DA, et al. Summary of Notifiable Infectious Diseases and Conditions - United States, 2015. MMWR Morb Mortal Wkly Rep. 2017 Aug 11;64(53):1-143. doi: 10.15585/mmwr.mm6453a1. Available at: <https://www.cdc.gov/mmwr/volumes/64/wr/mm6453a1.htm> [See Box 2, page 4]
3. Centers for Disease Control and Prevention. Sexually Transmitted Disease Surveillance 2016. Atlanta: U.S. Department of Health and Human Services; 2017. Available at: <https://www.cdc.gov/std/stats16/default.htm>
4. NCHHSTP Atlas Plus. <https://www.cdc.gov/nchhstp/atlas/index.htm>

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