

Evaluation of Chlamydia Case Report Data: Completeness of Key Variables—United States, 2012

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Objective

To assess the completeness of key variables included in *Chlamydia trachomatis* (chlamydia) case report data submitted to the Centers for Disease Control and Prevention (CDC) during 2012.

Introduction

Chlamydia, a sexually transmitted infection which can lead to adverse reproductive health outcomes if untreated, is the most commonly reported nationally notifiable disease in the United States.[1] Complete and valid demographic, geographic, and diagnosis-related data are needed to identify trends, describe populations most impacted by disease, identify inequities, and inform and evaluate prevention activities.

Methods

We reviewed all cases of chlamydia reported to CDC by 51 jurisdictions (50 states and the District of Columbia) in 2012. We selected key demographic (age, gender, and race/ethnicity), geographic (ZIP code), and diagnosis-related variables (source of case report, date of specimen collection, and specimen anatomic site) and determined the proportion cases that had complete responses by jurisdiction. Completeness was defined as not missing and with a reasonable value (e.g., age <110 years). We report the median jurisdiction-specific proportion complete and the interquartile range (IQR).

Results

In 2012, there were 1,422,976 cases of chlamydia reported nationally. Most demographic variables reviewed were complete. The median jurisdiction-specific proportion complete for age was 100% (IQR: 99.9%, 100%) and for gender was 100% (IQR: 99.8%, 100%). Race/ethnicity was more frequently incomplete (median proportion complete: 77.6%, IQR: 67.0%, 87.1%). A ZIP code was available for most reported cases (median proportion complete: 96.6%, IQR: 93.3%, 99.2%). Source of report (i.e., the type of facility where the infection was diagnosed) was also complete for most reported cases (median proportion complete: 99.1%, IQR: 90.6%, 99.9%); however, in 4 jurisdictions less than 25% of reported cases had this information. Date of diagnosis was complete for >90% of cases in the majority of jurisdictions (median proportion valid: 99.2%, IQR: 97.0%, 100%). The median jurisdiction-specific proportion complete for anatomic specimen site (e.g., cervix) was only 60.6% (IQR: 33.1%, 88.6%). One jurisdiction did not report any values for the geographic or diagnosis-related variables reviewed.

Conclusions

Most of the reviewed demographic and geographic variables provided to CDC on 2012 chlamydia case reports had complete values. Diagnosis-related variables provided on case reports were less complete, in particular anatomic specimen site. Further investigation is needed to identify barriers to submitting complete data. Variables which are most useful for prevention programing and evaluation should be identified and prioritized for quality improvement. Jurisdictions able to submit a large proportion of cases with complete data could be encouraged to share techniques and experiences. Finally,

additional evaluation of validity (e.g., accuracy) of data provided is needed to fully evaluate chlamydia case report data.

Keywords

chlamydia; surveillance evaluation; notifiable disease

References

1. CDC. Summary of notifiable diseases - United States, 2011. MMWR Morb Mortal Wkly Rep. 2013 Jul 5;60(53):1-117.

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