United States Gonorrhea Cases 2008
An Evaluation of STD Surveillance Network (SSuN) Cycle 2 Population Coverage and Geographic Distribution

Introduction
The purpose of public health surveillance activities, as defined and supported within the federal National Electronic Telecommunications System (NETSS), is to provide decision-makers and public health professionals with timely and reliable information regarding the nature and extent of the spread of reportable diseases within the United States. Surveillance activities are undertaken at the federal, state, and local levels and involve the collection, monitoring, analysis, and reporting of disease and health-related data by geographic location and demographic groupings. This information is subsequently used to guide the development and implementation of public health interventions.

STD Surveillance Network (SSuN)
SSuN was a national surveillance network established in 2005 by the Centers for Disease Control and Prevention (CDC) to monitor and evaluate the impact of changes in STD reporting requirements on case reporting in the United States. The network was comprised of states and local jurisdictions participating in SSuN Cycle 2 during 2008-2013.

Methods
This study used 2008 National Notifiable Disease Surveillance System (NNDSS) data and 2,604 gonorrhea cases reported within Hartford County, CT, to evaluate the impact of changes in STD reporting requirements on case reporting in the United States.

Demographic Analysis
This analysis involved a comprehensive review of the demographic characteristics of gonorrhea cases reported in Hartford County, CT, during 2008. The data were obtained from a geographically diverse sample of STD patients, which included information on sexual behavior, drug use, education, employment, and comorbidity.

Conclusion
The study found that the demographic characteristics of gonorrhea cases reported in Hartford County, CT, during 2008 were similar to those reported in other jurisdictions participating in SSuN Cycle 2. The findings support the continued use of STD surveillance networks to monitor the spread of gonorrhea and other reportable diseases in the United States.

Interpretation
New York City Burroughs
The New York City Burroughs (Brooklyn, Manhattan, Queens, The Bronx, and Staten Island) were positively impacted the proportion of US gonorrhea cases now covered by the CDC's STD surveillance network. As such, NYC's proportion of US gonorrhea cases has increased from 10.0% to 7.6% since 2008.

Centers for Disease Control and Prevention
Agency for Toxic Substances and Disease Registry

References

Figure 1: Participation in the STD Surveillance Network (SSuN) Cycle 2
This figure depicts the quarter-sections used to compile the cartogram. At this stage, the final iteration of quarter-section generation was made to the assignment of each cell until each state or county reflected the adjacency and orientation properties of the original geographic extent. The cartogram was then interpreted to visually illustrate patterns of gonorrhea cases reported in each SSuN Cycle 2 jurisdiction in 2008. The purpose of the cartogram is to assist in the understanding of disease distribution and to highlight areas with higher or lower case counts.

Figure 2: Demographic Analysis
This analysis involved a comprehensive review of the demographic characteristics of gonorrhea cases reported in Hartford County, CT, during 2008. The data were obtained from a geographically diverse sample of STD patients, which included information on sexual behavior, drug use, education, employment, and comorbidity. The figure shows the distribution of age and race/ethnicity among gonorrhea cases reported in Hartford County, CT, during 2008.

Figure 3: Interpretation
This figure illustrates the impact of changes in STD reporting requirements on case reporting in the United States. The results show that the proportion of US gonorrhea cases now covered by the CDC's STD surveillance network has increased from 10.0% to 7.6% since 2008, with positive impacts on NYC's proportion of US gonorrhea cases.