

# Rates of Primary and Secondary Syphilis by State and Race/Ethnicity Among Men who have Sex with Men — United States, 2014

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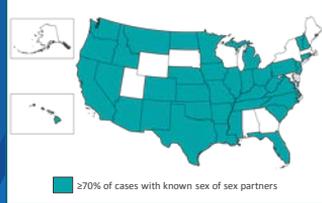
## BACKGROUND

Gay, bisexual, or other men who have sex with men (MSM) accounted for over 60% of reported primary and secondary (P&S) syphilis cases in the United States in 2014. When restricted to cases with known sex of sex partners, the MSM percentage was 75.2%. Of MSM P&S syphilis cases with known race/ethnicity, 94.7% were either non-Hispanic white (40.3%), non-Hispanic black (32.2%), or Hispanic/Latino (22.2%). To examine rates of P&S syphilis among these three racial/ethnic categories of MSM, we combined national surveillance data with estimates of the number of MSM by race/ethnicity. We then compared national and state rates of P&S syphilis between the three groups in order to examine disparities and identify divergent geographic patterns.

## METHODS

- Case counts of P&S syphilis were from national case report data.
- We calculated rates of P&S syphilis in adult MSM (age ≥18) who reported being white (non-Hispanic), black (non-Hispanic), or Hispanic/Latino.
- We restricted our analyses to 38 states for which at least 70% of reported P&S syphilis cases had complete data on sex of sex partners (Figure 1).
- We updated our published method<sup>†</sup> to produce race/ethnicity-specific estimates of MSM in each state as well as 95% confidence intervals (CIs).
- We created choropleth maps of rate quintiles to examine P&S syphilis rates by state for all MSM and for the three racial/ethnic groups specifically.
- Groups with fewer than 100 estimated persons were suppressed.

FIGURE 1. 38 states with sufficient reporting (≥70%) of sex of sex partners of P&S syphilis cases – United States, 2014



## RESULTS

- The overall rate of reported P&S syphilis cases among MSM in the 38 states with sufficient reporting of sex of partners was 261.9 (95% CI: 232.8-295.7) per 100,000 in 2014.
- Rates of P&S syphilis per 100,000 among the three racial/ethnic groups most represented among MSM cases in the 38 states were (Figure 2):
  - 179.9 (95% CI: 159.3-203.7) for non-Hispanic White MSM
  - 632.7 (95% CI: 546.2-735.3) for non-Hispanic Black MSM
  - 294.8 (95% CI: 253.1-346.3) for Hispanic/Latino MSM
- Of the 36 states with unsuppressed data on all three groups, black MSM had the highest rate of reported P&S syphilis of the three racial/ethnic groups in 30 states (83%).
- 95% CIs around national rate estimates did not overlap, suggesting that differences between the three racial/ethnic groups remain when variability is taken into account.
- Iowa, Nevada, and South Carolina were in the highest rate quintile for all three racial/ethnic groups (Figure 3).
- Idaho and North Dakota were in the lowest rate quintile for all three racial/ethnic groups.

FIGURE 2. Reported P&S syphilis rates among non-Hispanic white, non-Hispanic black, and Hispanic/Latino MSM—38 US states, 2014

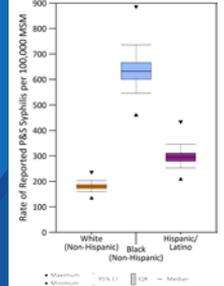
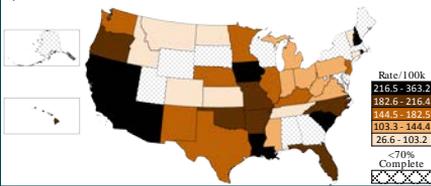


FIGURE 3. Reported P&S syphilis rates among (A) all MSM and among (B) non-Hispanic white MSM, (C) non-Hispanic black MSM, and (D) Hispanic/Latino MSM, by state – United States, 2014

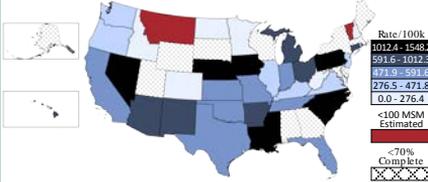
A) MSM of all races/ethnicities



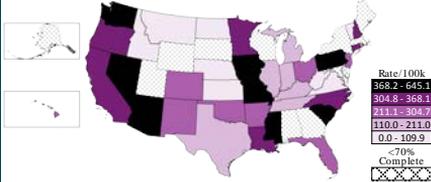
B) White MSM



C) Black MSM



D) Hispanic/Latino MSM



## LIMITATIONS & CONCLUSIONS

- These are the first race/ethnicity-specific rates of P&S syphilis among MSM to be estimated at the state level.
- Black MSM had the highest P&S syphilis rate of the three racial/ethnic groups of MSM nationally and in most states.
- Geographic patterns of P&S syphilis rates among MSM differed within racial/ethnic categories of MSM.
- Analyses were limited by suboptimal reporting of sex of sex partners in 12 states and the District of Columbia.

## REFERENCE

†Grey JA, Bernstein KT, Sullivan PS, Purcell DW, Chesson HW, Gift TL, Rosenberg ES. Estimating the population sizes of men who have sex with men in US states and counties using data from the American Community Survey. *JMIR Public Health Surveill.* 2016; 2(1): e14.

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