Investigating the impact of using an alternate classification method for race and Hispanic ethnicity on rates of reported gonorrhea

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The findings and conclusions in this report are those of the authors and do not necessarily represent the official positions of the Centers for Disease Control and Prevention.

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Reporting of Race and Hispanic Ethnicity of Cases

Data on race and Hispanic ethnicity (HE) of reported cases of sexually transmitted diseases (STDs), including gonorrhea, are captured in the National Notifiable Diseases Surveillance System database through several variables that collect information in both Office of Management and Budget (OMB) and non-OMB compliant race categories (Table A). Beginning in 2007, data on STDs could be reported in the 1997 OMB race categories using separate variables for each race (*White, Black, Asian, Native Hawaiian/Other Pacific Islander* [NHOPI], *American Indian/Alaska Native* [AI/AN], *Other*, and *Unknown*) and a single Hispanic ethnicity variable (*Hisplat*). Cases reported using the OMB compliant race categories could be reported with more than one race to identify persons who are Multirace. Prior to 2007, and continuing past 2007 for jurisdictions who had not fully transitioned to reporting using the OMB compliant categories, cases could only be reported in two non-OMB compliant variables. These include: 1) a single race variable (*Netrace*) that allowed for selection of one race (White, Black, Asian/Pacific Islander, AI/AN, Other, or Unknown) but identification of Multirace cases impossible, and 2) a single Hispanic ethnicity variable (*Hispanic*).

Assigning Race and Hispanic Ethnicity to Cases by Classification Strategy

1. Current Classification

This is the strategy currently used in the US Centers for Disease Control and Prevention's annual STD surveillance reports. In this strategy, OMB compliant variables are prioritized over non-OMB compliant variables, and Hispanic ethnicity takes precedence over race (Table B). To assign race and Hispanic ethnicity, first the OMB compliant Hispanic ethnicity variable was considered. If a case was reported as Hispanic (*Hisplat*=1), this case was classified as Hispanic, regardless of race. If the case was reported as non-Hispanic (*Hisplat*=2) or with unknown Hispanic ethnicity (*Hisplat*=9), this case was classified as

non-Hispanic. Race for cases classified as non-Hispanic was assigned by considering the OMB compliant race variable. For example, cases reported as non-Hispanic (*Hisplat*=2 or *Hisplat*=9) and with only Black race (*Black*=1; all other race variables=2 or 9) were classified as NH-Black. Non-Hispanic cases reported with more than one race variable, including *Other*, were classified as NH-Multirace. For example, cases reported as NH-Black and NH-Other were classified as NH-Multirace. However, non-Hispanic cases reported with Other as their only race (*Other*=1; all other race variables=2 or 9) were classified as Unknown race since we were unable to determine what their race was.

Use of non-OMB compliant race and Hispanic ethnicity variables

Cases missing data for all OMB compliant race and Hispanic ethnicity variables were assigned race/HE using the non-OMB compliant Hispanic ethnicity variable (*Hispanic*) and race categories *Black*, *White*, and *Al/AN* if available. The same prioritization used for the OMB compliant categories was applied to the non-OMB compliant categories, except that cases reported as *NH-Asian/Pacific Islander* and *NH-Other* were classified as Unknown race because we were unable to determine their specific race. More information on classification of cases reported as *NH-Asian/Pacific Islander* and *NH-Other* is provided below.

Asians, Native Hawaiians, and Other Pacific Islanders

In the OMB compliant race categories, Native Hawaiians are combined with Other Pacific Islanders in one variable (*NHOPI*) and there is a separate variable for Asians. In the non-OMB compliant race variable (*Netrace*), Asians and Pacific Islanders are combined into one category (Asian/Pacific Islander). Cases whose OMB compliant race/HE were unknown and who were reported as Hispanic in the non-OMB compliant Hispanic ethnicity variable were classified as

Hispanic. Cases whose OMB compliant race/HE were unknown and who were reported as NH-Asian/Pacific Islander in the non-OMB compliant race/HE variables were classified as Unknown race because it was not possible to determine whether they were Asian or Pacific Islanders.

Other Race and Multirace

Cases reported only as Other in the OMB compliant race variables were classified as Unknown race; cases reported with more than one race, including Other, were classified as Multirace.

Cases whose OMB compliant race/HE were unknown and who were reported as NH-Other in the non-OMB compliant race/HE variables were classified as Unknown race. Information on Multirace cases was not collected in the non-OMB compliant race variable, as it only allowed for selection of one race per case.

Unknown race and Hispanic ethnicity

Cases classified as unknown race/HE included: 1) cases reported with unknown Hispanic ethnicity <u>and</u> unknown race and 2) cases reported as non-Hispanic or unknown Hispanic ethnicity and with race reported only as Other.

2. Alternate classification strategy

This classification strategy separates race categories by Hispanic ethnicity. Like the Current classification, OMB compliant variables were prioritized and non-Hispanics were defined the same (Table B). However, unlike the Current classification, race categories were classified as either Hispanic or non-Hispanic. For example, cases reported as Hispanic and Black were considered H-Black; while cases reported as Black and non-Hispanic or with unknown Hispanic ethnicity were considered NH-

Black. A similar procedure as in the Current classification was applied for cases with unknown OMB compliant race/HE, except that race categories were additionally classified as either Hispanic or non-Hispanic.

Unknown race and Hispanic ethnicity

Cases classified as Unknown race/HE included: 1) cases reported as non-Hispanic or with unknown Hispanic ethnicity <u>and</u> Unknown race or Other reported as the only race, and 2) cases reported as Hispanic <u>and</u> Unknown race or Other reported as the only race.