

STDs and Low Socioeconomic Status Heterosexuals in the Portland Metropolitan Area

Results from Chime In (National HIV Behavioral Surveillance) 2016



Chime In

In 2016, the Portland metropolitan area participated in its first year of National HIV Behavioral Surveillance (NHBS). This system is locally known as Chime In. We surveyed and offered HIV tests to Portland metropolitan area residents using respondent-driven sampling (RDS). We described our experience using RDS elsewhere (www.chimeinsurvey.org).

How did we obtain these estimates?

To adjust for RDS biases, we created Poisson models with robust standard variances using generalized estimating equations (GEE) by clustering on recruiter and adjusting for network size in the model.

Who participated in 2016?

Our sample consisted of low socioeconomic status (SES) heterosexuals defined by the following:

- Residence within the Portland metropolitan area*
- Age 18 to 60 years
- Vaginal or anal sex with an opposite gender partner during previous 12 months
- Self-identified as male or female (not transgender)
- No injection drug use within the past 12 months
- Income at or below the federal poverty line or no more than a high school education

Who should be screened for STDs?

The Centers for Disease Control and Prevention recommends chlamydia and gonorrhea screening for the following:

- Annually for any sexually active women aged ≤ 24 , regardless of risk factors
- At least annually for any sexually active women aged ≥ 25 if at increased risk, including having a new sex partner, >1 sex partner, or a sex partner with concurrent partners.
- Young men in high prevalence clinic settings specifically for chlamydia

Table 1. STD testing* during the previous 12 months by gender, low socioeconomic heterosexuals in the Portland metropolitan area, 2016

| | Men % (95% CI) | Women % (95% CI) |
|---------------------------------|-------------------|---------------------|
| Overall† | 28.2 (22.8, 34.8) | 51.2 (45.5, 57.7) |
| Race/Ethnicity† | | |
| Non-Hispanic white | 20.7 (11.6, 36.8) | 45.0 (35.0, 57.8) |
| Non-Hispanic black | 36.9 (29.2, 46.6) | 52.2 (44.5, 61.2) |
| Hispanic | 13.2 (4.8, 36.4) | 47.4 (32.7, 68.7) |
| Non-Hispanic other/mixed | 15.5 (7.4, 32.2) | 53.5 (42.3, 67.7) |
| Casual sex partner‡ | | |
| No | 15.3 (9.9, 23.7) | 45.6 (37.3, 55.8) |
| Yes | 22.7 (15.4, 33.5) | 52.5 (44.3, 62.2) |
| Multiple sex partners‡ | | |
| No | 14.3 (8.4, 24.5) | 41.9 (33.8, 52.0) |
| Yes | 22.0 (15.3, 31.6) | 55.0 (46.6, 64.9) |
| Unprotected anal sex‡ | | |
| No | 20.4 (14.0, 29.9) | 46.6 (39.5, 54.9) |
| Yes | 17.8 (9.3, 34.0) | 60.3 (48.7, 74.8) |
| Unprotected vaginal sex‡ | | |
| No | 17.0 (10.0, 29.1) | 43.2 (31.8, 58.6) |
| Yes | 21.0 (14.4, 30.4) | 51.2 (43.7, 60.0) |

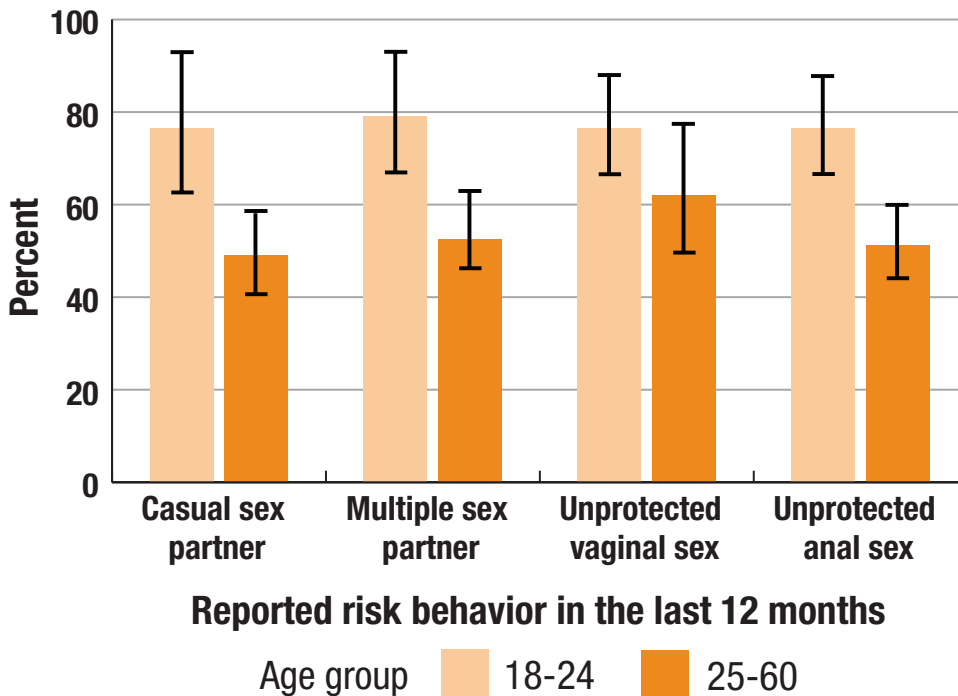
*STD test includes chlamydia, gonorrhea or syphilis, but not HIV

†Model adjusted for age

‡Reported in the last 12 months; Model adjusted for age and race/ethnicity

*For this project, the Portland metropolitan area includes includes Clackamas, Columbia, Multnomah, Washington, and Yamhill counties in Oregon and Clark and Skamania counties in Washington

Figure 1. Reported STD test previous year by sexual behavior, age group—low SES heterosexual women, Portland metropolitan area, 2016



Why are testing rates for women almost double those for men?

Women, especially those of child bearing age, are susceptible to long-term consequences of STDs such as gonorrhea and chlamydia. Undiagnosed gonorrhea or chlamydia can lead to pelvic inflammatory disease, infertility and chronic pelvic pain. Because of these serious reproductive outcomes, various guidelines recommend screening in young women and not men.

Table 2: Reported STDs by Gender—Low SES Heterosexuals and the General Population in the Portland metropolitan area 2016

| | Chime In men % (95% CI) | Reported cases in men [†] % | Chime In women % (95% CI) | Reported cases in women [†] % |
|--|-------------------------|--------------------------------------|---------------------------|--|
| Chlamydia, in the last 12 months* | 3.2 (1.6, 6.3) | 0.40 | 5.0 (2.9, 8.5) | 0.64 |
| Gonorrhea, in the last 12 months* | 2.9 (1.4, 6.1) | 0.24 | 4.1 (2.3, 7.2) | 0.10 |
| Syphilis, in the last 12 months* | 0.3 (0.8, 1.3) | 0.01 | 0.3 (0.0, 3.6) | 0.01 |
| Genital herpes, ever in life* | 1.1 (0.4, 3.4) | N/A | 5.3 (3.1, 9.0) | N/A |
| Genital warts, ever in life* | 2.0 (0.8, 4.8) | N/A | 4.3 (2.5, 7.4) | N/A |

*Model adjusted for age

†Represents proportion of women/men in the 5 Oregon counties of the Portland metropolitan between 18 and 60 years old who had a reported case of the disease

What does this mean?

Chime In data let us assess whether or not increases in risky sexual behavior correspond with increases in STD testing. Chime In data show very little significant association between risky behavior and STD testing among low SES heterosexuals in the Portland metropolitan area. Limited access to care, lack of education about STDs, or poor assessment of STD risk either by patients themselves or their providers might contribute to this.

While chlamydia, gonorrhea, and syphilis are all reportable infections, socioeconomic information is rarely collected from people with reported infections. Chime In provides a unique opportunity to assess burden of STDs on low SES heterosexuals in the Portland metropolitan area. Compared to the overall population of the metropolitan area, low SES heterosexual Chime In participants report a higher rate of STDs than the rates in the general population (Table 2). This population would benefit from increased use of evidence-based strategies to reduce disease incidence such as expedited partner therapy, increased access to frequent screening, and wider availability of free condoms.

Questions?

Contact Chime In's Data Manager at breanna.mcardle@state.or.us