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Editorial

Sexually Active Young People are Inadequately Screened for Sexually Transmitted Infection



US Preventive Services Task Force guidelines recommend asymptomatic gonorrhea and chlamydia screening of sexually experienced adolescents and young adult women [1]. The current US Preventive Services Task Force does not see sufficient evidence to support a recommendation for screening of men who have sex with women exclusively. However, the Centers for Disease Control and Prevention (CDC) recommends screening for men who have sex with men, transgender persons depending on their anatomy, and allows for routine screening of heterosexual young men “in high prevalence clinical settings such as adolescent clinics, correctional facilities, STI/sexual health clinic” [2].

Characteristics of an effective screening program are the ability to detect a preclinical phase of the disease, a highly sensitive and specific diagnostic test, and treatment that can prevent the progression of the disease. In the 1970s with the development of Thayer Martin medium and the detection of increasing prevalence of gonorrhea and gonorrhea-related pelvic inflammatory disease, the CDC began recommending screening of women for gonorrhea [3,4]. Chlamydia screening took a similar path. The development of new antigen-based diagnostics and the recognition of the association between chlamydia and infertility led in the late 1980s to the CDC’s recommendation of chlamydia screening for women [5].

Many factors over the years have impacted the ability to provide annual gonorrhea and chlamydia screening to adolescents and young adult women and men. Increased federal funding for chlamydia testing, inclusion of chlamydia screening in Healthcare Effectiveness Data and Information Set guidelines, the ability in many states for adolescents to consent for their own reproductive health services, and the advent of more sensitive nucleic acid amplification tests have all supported increased screening for chlamydia and gonorrhea for women. The use of urine-based nucleic acid amplification test diagnostics has made screening of men more acceptable.

However, more recently, the change in cervical Papanicolaou smear screening recommendations, the use of longer-acting

reversible contraception, and the assault on family planning and sexually transmitted infection (STI) clinics have the potential to have a negative impact on STI screening. There is an on-going need for valid data on the percentage of adolescent and young adult men and women who have received gonorrhea and chlamydia screening to assess the extent to which recommendations match services provided.

Valid information on the percentage of men and women screened is difficult to collect for reasons that affect the denominator (the number of men and women eligible to be screened) and the numerator (the number of eligible men and women who were screened). In a country with a national health registry where all clinical and laboratory tests were kept in a single database, these data would be relatively easy to obtain. However, no such registry exists in the United States. In the United States, we have registries of reportable infections (numerator only) and registries of sentinel surveillance systems that contain numerator and denominator data but only for limited samples of the target population.

In the United States, we need to rely on survey data to get a more complete view of screening among adolescents and young adults. A key variable in assessing the validity of the denominator depends on the design of the survey. When looking at a survey design, it is important to consider of what population are the surveyed respondents representative. There is a bias in favor of assigning high validity to household surveys for sexual behaviors. However, it is easy to recognize that a household sample would miss important populations of adolescents and young adults at higher risk for gonorrhea such as those with unstable housing and those incarcerated. Surveys specifically directed at these populations such as school-based surveys, clinic surveys, venue-based surveys, military personnel surveys, and correctional surveys also lack validity as they miss at-home youth. Finally, all surveys suffer from a concern about the validity of self-reported sexual activity, gender identity, and sexual orientation.

See Related Article on p.642

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Data on the numerator can come from two sources, self-report screening and review of the medical record. Self-report (besides suffering from potential recall bias) is affected by the fact that many youths do not know whether they were screened for an STI when they were (e.g., when providing urine) or may think they were when they were not (e.g., when blood was drawn). In addition, many may not know for what STI they were screened (e.g., HIV, gonorrhea, chlamydia, and/or trichomonas).

It is with all this in mind that one must view the paper by Pleasure et al. [6] in this issue of the journal. The investigators conducted an analysis of the data continuously collected between 2013 and 2019 as part of National Survey of Family Growth survey of US households. Through a series of conventional sampling steps, a cohort of 15- to 44-year-old participants were identified and interviewed; this study focused on a subsample of men and women aged 15–24 years. Participants who reported having had sex with a same sex or opposite sex partner in the last 12 months (the survey did not capture whether participants were transgender or nonbinary) were asked if they had received an STI test in the last 12 months. Participants were asked about sexual activity and STI testing by interviewer-administered and self-administered modes of questionnaire administration.

When combining the responses obtained by the two modes, 53% of women and 22% of men reported having had an STI test in the past 12 months. The history of STI testing was higher among men who reported to have sex with men than that among men reporting only opposite sex partners (43% vs. 21%). In addition, non-Hispanic Black women (70% received a test) were more likely to report having been tested than other women. Non-Hispanic Black men (41%) and Hispanic men (27%) were more likely to report being tested than other men.

These results align with other studies in that approximately half of sexually active adolescent and young adult women report having received an STI test in the past year and a lower percentage of men having received an STI test though the rate is higher among men who have sex with men [7–14]. For both women and men, the percentage tested was higher among non-Hispanic Black youth than that among other youth. This finding is somewhat encouraging given the significantly greater burden of infections borne by this group that includes men who have sex with men, the group with the greatest prevalence of STIs. Notably, women and White non-Hispanic youth were more likely to have received their test from a private provider (vs. publicly supported clinic) than other youth.

As discussed, the validity of the estimates must be taken with a bit of caution because of the survey design and the possibility of

respondents' confusion about what constitutes STI testing. But, taken at face value, this study shows that even for men and women at higher risk for an STI, the rates of testing are below CDC recommendations. Furthermore, given the sources of testing for those populations with higher burden of infection, it is essential that publicly supported clinics continue to receive funding.

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