Environmental Scan to Inform the CDC-ASTHO Syphilis Communication Campaign Planning Project

September 2023

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In collaboration with the Association of State and Territorial Health Officials (ASTHO) and the Centers for Disease Control and Prevention (CDC), Trillium is working with four states—with input from cities, counties, and tribes within them—to develop syphilis prevention communication campaign "blueprints," which will include a campaign plan as well as draft messages and creative concepts for testing. The blueprints will be used by the states—Arizona, Idaho, Michigan, and New York—and local jurisdictions for campaigns within their respective communities and form the basis of a potential national syphilis prevention campaign.

In preparation for this work, Trillium conducted an environmental scan to gather useful background information about the current state of syphilis in the nation, syphilis prevention campaigns past and present, and media coverage of syphilis. The environmental scan is intended to inform the next step of the campaign blueprint development: key informant interviews with national, state, and local organizations that are involved in syphilis prevention or that reach populations at high risk for syphilis.

The environmental scan had three components, each included for specific purposes:

- **Online search:** Gather latest syphilis statistics and trends; identify past and current syphilis prevention campaigns.
- **Literature review:** Find lessons learned from past syphilis prevention campaigns.
- **Media scan:** Discover how syphilis is covered in the media, including types of outlets, positioning, main messages/calls to action, spokespersons used, and frequency of coverage.

This report provides an overview of the scan's findings and includes four appendices that serve as separate environmental scans for each of the four states selected (Arizona, Idaho, Michigan, New York). Although Trillium aimed to collect similar information about each state, there was some inconsistency in the availability and presentation of state data and facts.

Syphilis Statistics and Trends

Syphilis is a sexually transmitted disease (STI) spread by direct contact with a syphilis sore during vaginal, anal, or oral sex and can affect anyone who is sexually active. This environmental scan uses the following CDC definitions of syphilis and the stages of infection:

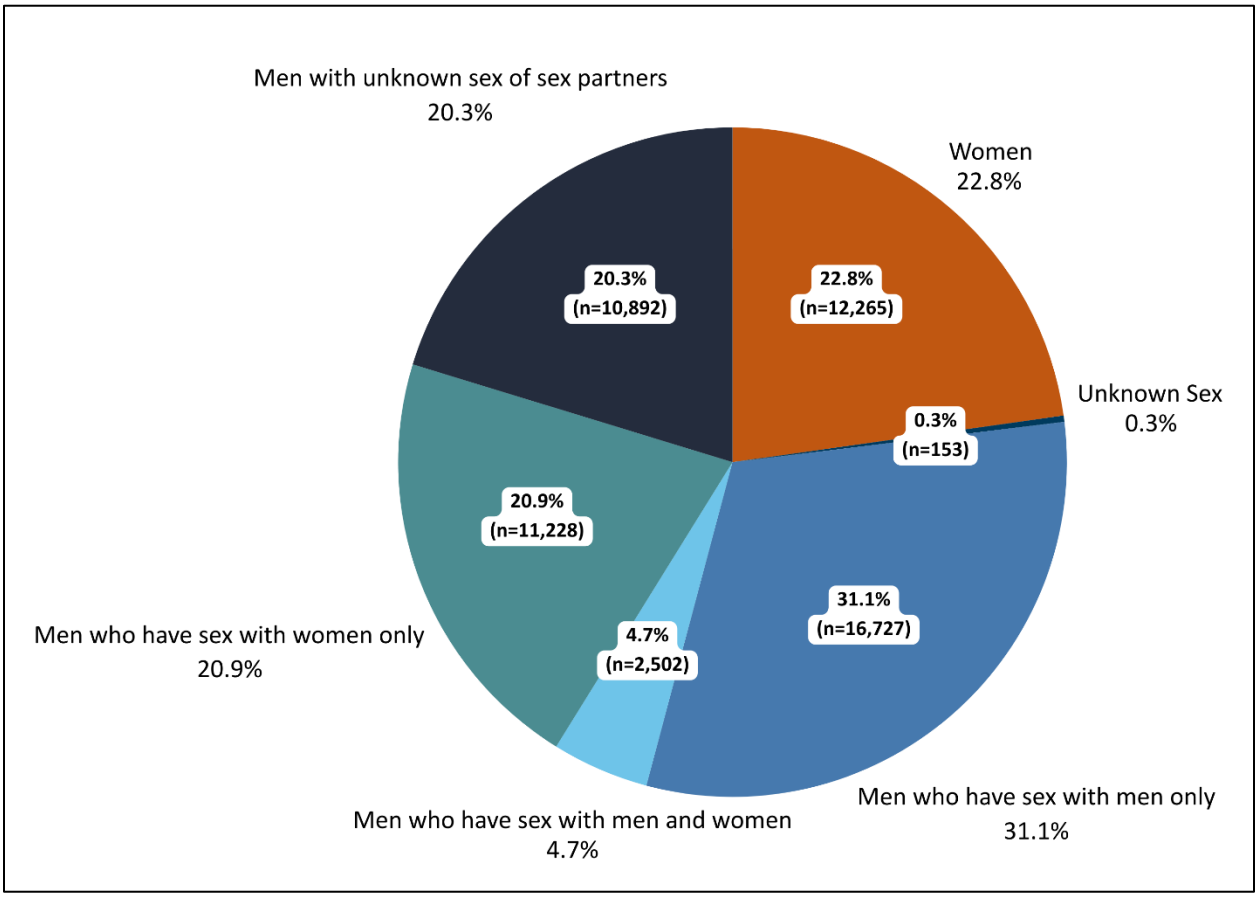
- The first two stages are presented combined as "Primary and Secondary Syphilis" and represent the most infectious stages of syphilis.

- "Early Syphilis" combines primary and secondary syphilis diagnoses with syphilis diagnosed within the first year of infection that had progressed past the primary and secondary stages (a.k.a. "early non-primary non-secondary"). Individuals diagnosed with "early non-primary non-secondary" may or may not have been experiencing clinical manifestations of syphilis at the time of their diagnosis.
- Congenital syphilis occurs in infants who acquire the infection from pregnant persons infected with syphilis. Congenital syphilis can cause severe medical complications during pregnancy and can result in birth defects and/or death to the fetus/infant.

The following data highlights provide insight into the syphilis rates of infection and trends throughout the United States. Data are taken from CDC's Preliminary Surveillance Data for 2021.[i,ii] Although some references are to general syphilis rates, the data focus on primary and secondary (P&S) syphilis, the most infectious stages of the disease.

- Syphilis has increased rapidly between 2020 and 2021, consistent with the general five- and 10-year trend. In 2021 there were 171,074 new cases of syphilis reported in the United States, a 27.5% increase from 2020.
- Syphilis cases are highest in the West, but the Midwest has experienced the greatest rate increases over one-, five-, and 10-year periods (42.5%; 103.3%; 275.8%).
- Men account for the most cases of syphilis, with the majority of cases being among men who have sex with men (MSM).
    - Men who have sex with men only, combined with men who have sex with both men and women, accounted for 35.8% of all P&S syphilis cases.
    - Men who have sex with women only or for whom the gender of their sexual partners was not reported accounted for 41.2% of all P&S syphilis cases.
    - Women account for 22.8% of all P&S syphilis cases.
    - MSM and men who have sex with partners of unknown sex (MSU) are more likely than others to also be HIV positive.

Exhibit 1: P&S Syphilis — Distribution of Cases by Sex and Sex of Sex Partners, United States, 2021

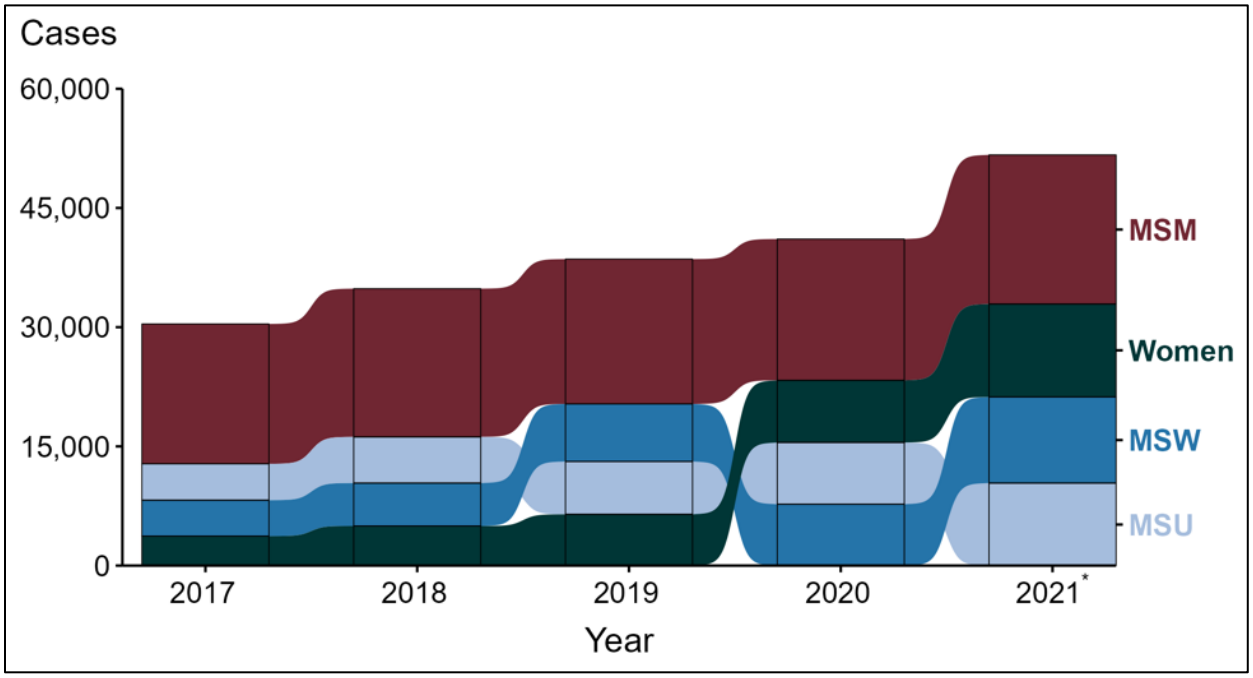


Centers for Disease Control and Prevention. *Sexually Transmitted Disease Surveillance 2021.* Atlanta, GA: U.S. Department of Health and Human Services. 2023.

- There has been a rise in heterosexual syphilis transmission.
  - Men who have sex with only women (MSW) had the greatest increase in syphilis. Men and women for whom the sex of their partners is unknown had a similarly large increase in syphilis. This is true for 2020 – 2021, and 2017 – 2021.
  - During 2020 to 2021, the number of cases among MSM increased 7.0% (17,968 in 2020 to 19,229 in 2021), while the number of cases increased 43.9% among men who have sex with women only (MSW; 7,801 in 2020 to 11,228 in 2021), 38.3% among men with unknown sex of sex partners (MSU; 7,877 in 2020 to 10,892 in 2021), and 55.2% among women (7,901 in 2020 to 12,265 in 2021).
  - During 2017 to 2021, the number of cases among MSM increased 8.4% (17,736 in 2017 to 19,229 in 2021), while the number of cases increased 146.9% among MSW (4,548 in 2017 to 11,228 in 2021), 136.7% among MSU (4,601 in 2017 to 10,892 in 2021), and 229.5% among women (3,722 in 2017 to 12,265 in 2021).

- The syphilis rates among women have increased more than among men over the past 10 years (P&S syphilis, 677.8% vs. 162.5%).

Exhibit 2: P&S Syphilis — Reported Cases by Sex and Sex of Sex Partners, United States, 2016–2020



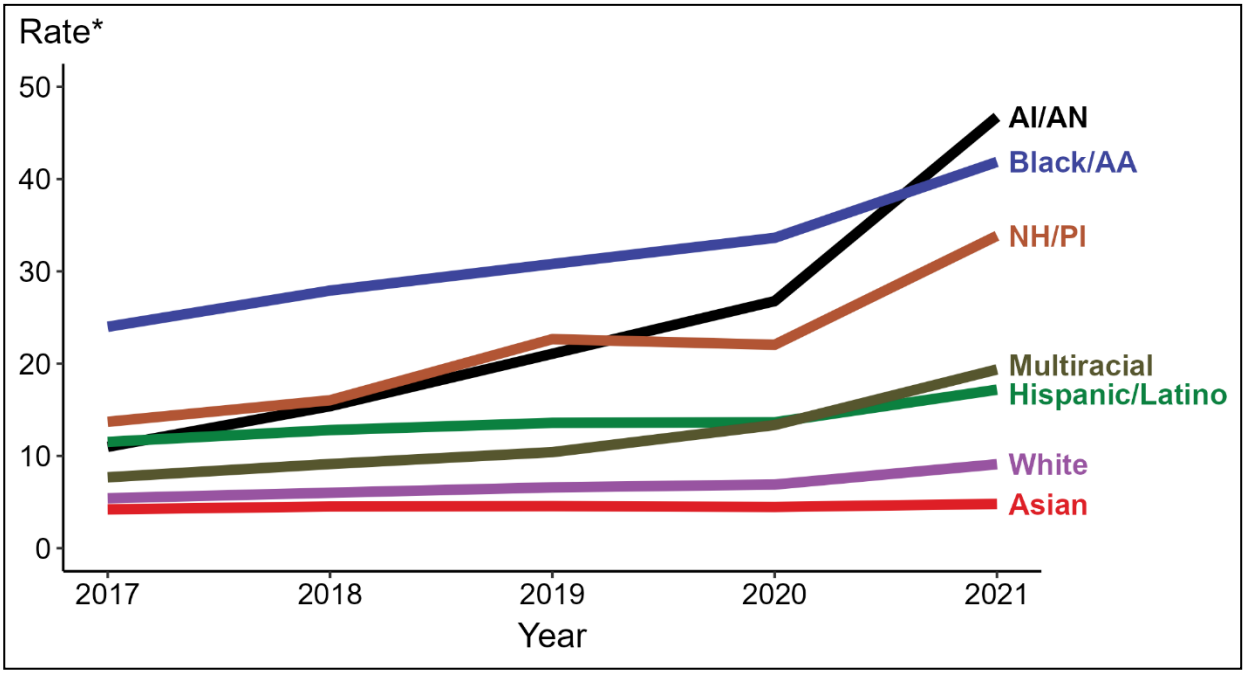
Centers for Disease Control and Prevention. *Sexually Transmitted Disease Surveillance 2021.* Atlanta, GA: U.S. Department of Health and Human Services. 2023.

- Young adults 25 – 29 have the highest rates of syphilis, but those 35 – 44 have experienced the greatest increases.
  - Women aged 25 – 29 have the highest rates of P&S syphilis among women, with those aged 35 – 44 experiencing the greatest increase in one year.
  - Men aged 25 – 29 have the highest rates of P&S syphilis among men, just slightly higher than men aged 30 – 34. Among all men, from 2020 – 2021, the rates increased the most among those aged 35 – 44.

- The highest rates of syphilis are among American Indian or Alaska Natives, followed by Black or African Americans.
  - The highest rate of reported P&S syphilis cases per 100,000 persons was among non-Hispanic American Indian or Alaska Native persons (46.7), followed by non-Hispanic Black or African American persons (41.9).

- The greatest one-year (2020 – 2021) increase in rate of reported P&S syphilis cases per 100,000 persons was among non-Hispanic American Indian or Alaska Native persons (26.8 to 46.7; 74.3% increase). Non-Hispanic American Indian or Alaska Native persons also had the greatest five-year increase in rate of reported P&S syphilis (11.0 to 46.7; 324.5% increase from 2017).

Exhibit 3: P&S Syphilis — Rates of Reported Cases by Year of Birth, Race/Hispanic Ethnicity, United States, 2017–2021*

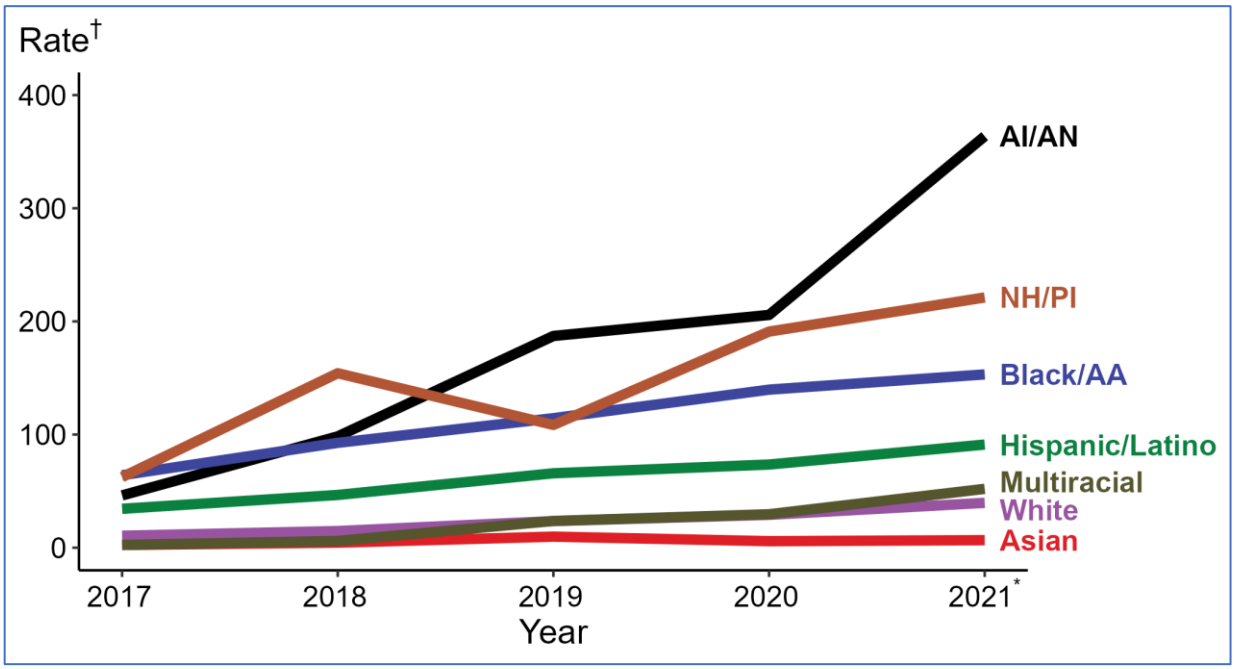


Centers for Disease Control and Prevention. *Sexually Transmitted Disease Surveillance 2021.* Atlanta, GA: U.S. Department of Health and Human Services. 2023.
* Reported 2021 data are preliminary as of July 7, 2022
† Per 100,000 live births
Abbreviations: AI/AN = American Indian/Alaska Native; Black/AA = Black or African American; NH/PI = Native Hawaiian/Pacific Islander

- Congenital syphilis has increased rapidly with a 24.1% increase since 2020 and a 701.5% increase since 2012.
  - Congenital syphilis is highest in states across the Sun Belt and in Alaska. The 10 states with the highest rates include (in order) New Mexico, Arizona, Texas, Nevada, Oklahoma, California, Louisiana, Mississippi, Alaska, and Hawaii.
  - Congenital syphilis was highest among mothers who were non-Hispanic American Indian or Alaska Native (363.7 cases per 100,000 live births; 76.8% increase from 2020), followed by mothers who were non-Hispanic Native Hawaiian or Other Pacific Islander (221.1 cases per 100,000 live births; 15.8% increase from 2020). These

groups were followed in order by non-Hispanic Black or African American mothers, mothers who were Hispanic or Latino and of any race, mothers who were non-Hispanic and of multiple races, mothers who were non-Hispanic White, and mothers who were non-Hispanic Asian.

Exhibit 4: Congenital Syphilis — Rates of Reported Cases by Year of Birth, Race/Hispanic Ethnicity of Mother, United States, 2017–2021*



Centers for Disease Control and Prevention. Sexually Transmitted Disease Surveillance 2021. Atlanta, GA: U.S. Department of Health and Human Services. 2023.
* Reported 2021 data are preliminary as of July 7, 2022.
† Per 100,000 live births.
Abbreviations: AI/AN = American Indian/Alaska Native; Black/AA = Black or African American; NH/PI = Native Hawaiian/Pacific Islander

  - Mothers who were non-Hispanic and of multiple races had the greatest five-year increase in rates of reported cases of congenital syphilis (2.4 to 52.0 per 100,000 live births; 2,066.7% increase from 2017).
  - Timely prenatal care, syphilis testing, and maternal treatment are missed prevention opportunities among mothers delivering infants with congenital syphilis.
- More people with syphilis are reporting drug use. Rates of drug use were highest among women, followed by MSW, and then MSM.
  - To understand the increasing trend of P&S syphilis among women, CDC analyzed self-reported risk behaviors of women, MSW, and MSM diagnosed with P&S syphilis from 2013 – 2017.[iii] The data showed a doubling in rates for reported methamphetamine,

injection drugs, and heroin use over the five-year period for women and MSW, but not for MSM. For women with syphilis, use of these drugs increased in every region and was notably highest in the West for both men and women. They concluded that "a substantial percentage of heterosexual syphilis transmission is occurring among persons who use these drugs, particularly methamphetamine" and suggest that "collaboration between STI control programs and partners that provide substance use disorder services will be important to address recent increases in heterosexual syphilis."[iv]

- In 2020, 9.9% of P&S syphilis cases reported methamphetamine use, 5.9% reported injection drug use, 3.5% reported cocaine use, 2.4% reported heroin use, and 1.3% reported crack use.
- Among women with syphilis, 16.1% reported methamphetamine use, 10.4% reported injection drug use, 5.6% reported heroin use, 4.6% reported cocaine use, and 3.2% reported crack use.
- For MSW with syphilis, 12.4% reported methamphetamine use, 7.0% reported injection drug use, 4.4% reported cocaine use, 3.7% reported heroin use, and 1.6% reported crack use. Finally, for MSM, 7.5% reported methamphetamine use, 3.7% reported injection drug use, 3.0% reported cocaine use, 0.8% reported heroin use, and 0.7% reported crack use.

Syphilis Campaigns

Methods

To identify syphilis campaigns, we conducted a search using Google, Google Scholar, and PubMed. Current campaigns were most readily identified through a Google search, a National Coalition of STI Directors memo, and links found on CDC's website. Past campaigns were identified on Google, Google Scholar, and PubMed through professionally published articles that focused on evaluations of the campaigns. We limited campaigns to those conducted in the United States and limited the evaluations to those conducted from 2000 onward. The search terms used to identify syphilis campaigns and publications of their evaluations included syphilis plus one or more of the following:

- STI
- STD
- Sexually transmitted disease
- Communication(s)
- Health campaign
- Message
- Prevention
- Education
- Government

Results

Using these search terms, we identified eight articles that evaluated syphilis health communication or social marketing campaigns. All of the evaluated campaigns were conducted between 1998 – 2009. We also identified 20 campaigns more current than 2009; however, we did not find evidence that these have been formally evaluated. All campaigns aimed to increase awareness and knowledge about syphilis while normalizing testing, treatment, and prevention (reducing sexual risk behaviors). It is notable that almost all of the earlier campaigns focused on MSM, while the later campaigns have a heavier emphasis on women and congenital syphilis.

Syphilis Prevention Campaigns, 1998 – 2009

The eight evaluated campaigns (see Appendix 1) were conducted in four cities or metropolitan areas: San Francisco, CA; Los Angeles, CA; Houston, TX; and Fort Lauderdale/Miami, FL. The organizations involved in developing these campaigns were local health departments in partnership with local advertising agencies. The campaign goals almost always included increasing awareness and knowledge about syphilis, with some behavioral changes suggested (e.g., get tested and treated, reduce risky sexual behaviors). All but one of the campaigns focused on MSM; the one that did not focus on MSM was focused on African Americans. Campaign components were numerous, with most hosting an informational website and encouraging testing through new testing locations or extended clinic hours. Overall, the campaigns resulted in increased awareness and some increase in testing. (The increase in awareness should be qualified to say that many sites measured awareness of the campaign, not awareness of the seriousness of syphilis.)

The following summaries provide more details on these eight campaigns. It should be noted that the campaigns varied greatly in funding (from $60,000 – $1.02 million) and in scope.

Syphilis campaigns conducted between 1998 – 2009 largely focused on MSM, reflecting the prevalence and incidence data at that time. Six of the eight evaluated campaigns we located focused on MSM (see Exhibit 5), although one of those campaigns also included general at-risk populations. The priority audiences for the other two campaigns were different, with one focusing on the general “at-risk” population and the other focusing on African Americans. It is notable that none of these earlier campaigns focused on pregnant women or congenital syphilis.

Exhibit 5: Earlier Syphilis Campaigns—Name, Location, Date, and Priority Audience

Campaign Name	Location/Date	Priority Audience
South Florida Syphilis Campaign	Ft. Lauderdale and Miami, FL, November 2003 – October 2004	MSM and general at-risk population (English- and Spanish-speaking)
Small Media Syphilis Campaign	Houston/Harris County, TX, 1998 – 2000	African Americans in two urban communities with high syphilis rates
Syphilis Testing Campaign	Los Angeles County, CA, June 2002 – unknown	MSM
Stop the Sores	Los Angeles County, CA, June 2002 – 2005	Ethnically diverse MSM
Check Yourself	Los Angeles County, CA, 2007 – 2009	MSM in two neighborhoods segmented by language and HIV status
Syphilis Is Back in SF	San Francisco, CA, 2002	At-risk MSM population in San Francisco
Healthy Penis	San Francisco, CA, 2002 – 2005; and then San Francisco and Santa Clara County, CA, Seattle, WA, Cleveland, OH, Philadelphia, PA, and Winnipeg, Canada (dates unknown)	MSM
Dogs Are Talking (Update to Healthy Penis campaign)	San Francisco, CA, July 2007 – October 2008	MSM in two San Francisco neighborhoods

Syphilis campaigns within a city sometimes overlapped, targeting slightly different audiences or providing basic information online in one campaign and doing more aggressive outreach in another. Although each campaign was distinct with its own name, goals, and campaign components, in some cities (Los Angeles and San Francisco) the different campaigns overlapped. In Los Angeles the overlap reflected the continued presence of information on the health department website, while in San Francisco the overlap reflected different priority audiences.

San Francisco and Los Angeles deliberately developed simultaneous syphilis campaigns to expand their combined reach. The Healthy Penis campaign, which started in San Francisco, was developed in conjunction with the Stop the Sores campaign in LA. The Healthy Penis campaign then expanded to other areas in California (Santa Clara) as well as Seattle, Washington, Cleveland, Ohio, and Winnipeg, Canada. There also was an attempt to update the Healthy Penis campaign in 2007 focusing on a specific group of MSM in San Francisco (dog owners).

Campaigns used different messaging techniques to reach their audiences about syphilis testing and treatment. For some, humor tested well. Others preferred straightforward messages with clinical imagery. The messages, all tested before use in the campaigns, were varied but most focused on getting tested and treated. Some campaigns used an upbeat tone and humor to get their point across. Perhaps the campaign most noted for this was the Healthy Penis campaign,

which used cartoon comic strips with characters such as Healthy Penis and Phil the Sore.[v] These comic strips were placed in local MSM publications. Healthy Penis, like some other campaigns, also made the link between syphilis and HIV-positive status. Many campaigns were provocative and edgy, using graphic images to accompany a message like "*Got a sore or a rash?"* or positively framing the situation *("Wrap it Up!").* One evaluation noted that clinical images on banner ads got more clicks than humorous messages and images. The authors concluded that directly talking about syphilis is more relevant than humor.[vi]

Campaigns used many strategies and components, but most offered online information about syphilis and increased testing availability. Although all of the campaigns focused on increasing awareness and knowledge about syphilis and emphasized the need for testing, treatment, and prevention, there were a wide range of different campaign components used. Most of the campaigns had campaign websites (seven of eight) and/or offered additional testing sites or clinic hours (six of eight). All but one campaign used a minimum of six different campaign components or strategies. Half of the campaigns used posters or billboards that were placed outdoors, on transit or in transit shelters, or at bars and sex venues frequented by MSM. Similarly, half used online banners that were placed on online MSM dating/meetup sites or other online sites that MSM were likely to visit. Exhibit 6 indicates the variety of campaign components used as well as the number of campaigns using each component.

Exhibit 6: Earlier Campaign Components

Campaign Components	# of Campaigns (n = 8)
Campaign website with information about syphilis, testing, and treatment	7
New testing sites/extended clinic hours	6
Posters/billboards (bars, transit, sex venues)	4
Online banners (on dating and other MSM websites)	4
Outreach (individual/events)	3
Chat room outreach	2
Online testing site locators or testing coupons	2
Media advocacy (newspapers, radio, television)	2
Local personality spokesperson	2
Condom distribution	2
Telephone hotline	1
Merchandise (matchbooks, coasters, T-shirts)	1
Print brochures	1
Comic strip in publications	1

Campaign evaluations generally focused on awareness and behavior change as opposed to impact on prevalence rates. Evaluations of the campaigns limited themselves to assessing awareness, knowledge, and behavior change but did not attempt to assess the impact of the campaigns on the syphilis incidence or prevalence rates in their communities. Their focus was on awareness of the campaign, knowledge about syphilis, testing as a result of the campaign, testing without awareness of the campaign, information-seeking behaviors, and change in condom use.

However, using the example from Los Angeles County, MSM syphilis morbidity data analyzed after the completion of their campaigns indicate that, while morbidity may have leveled off or even decreased slightly during some campaign periods, it continued to increase over time.[vii]

All campaigns successfully attracted attention and raised some awareness of the problem. Some campaigns led to an increase in testing. As presented in Exhibit 7, the majority of campaigns found that the priority audience demonstrated campaign awareness. As most evaluations did not conduct pre- and post-tests, they were unable to accurately assess individuals' increase in knowledge or awareness about syphilis, but three evaluations indicated that their priority audiences demonstrated syphilis awareness and knowledge. Five campaign evaluations indicated an increase in testing among the priority audience, with three of those campaigns associating the increase directly to campaign awareness. Both the Healthy Penis and Stop the Sores campaign evaluations noted a sustained level of awareness or testing (three years for the Healthy Penis campaign and two years for the Stop the Sores campaign). Aside from testing, other behavior changes noted in some campaigns included increased information seeking (from a hotline) and change in condom use.

A few campaigns noted that campaign awareness and subsequent testing or condom use was greater among those at higher risk (MSM who were HIV positive or reported drug use).

Exhibit 7: Campaign Outcomes

Campaign Outcome Measured	# of Campaigns (n = 8)
Campaign awareness	6
Awareness or knowledge of syphilis	3
Testing associated with campaign awareness	3
Testing (no association with campaign awareness)	2
Information seeking (hotline or online)	2
Change in condom use	1

Campaigns benefited by developing strong community partnerships with local businesses and social or health service organizations. Many of the campaigns worked with local organizations and businesses to be able to get the campaign messages to their priority audience. Although several evaluations mention the importance of these partnerships, one evaluation found that the

campaign had strengthened the community partner's resolve to continue to address the issue of syphilis even after the campaign had ended.

Campaign awareness did not affect some MSM's decisions about testing or other prevention behaviors. Regardless of awareness of the campaign or the topic of syphilis in general, MSM choose not to get tested for various reasons. In San Francisco, the following were cited by MSM who had awareness of the Healthy Penis campaign:[viii]

- Low or no risk (22%)
- Monogamous (14%)
- No symptoms, feel healthy (12%)
- No need (12%)
- Not getting around to it (9%)
- Tested > 6 months ago (7%)
- Not convenient (4%)

In-depth interviews with MSM in Los Angeles County who had been diagnosed with syphilis two to five times in a five-year period showed that, despite their knowledge about syphilis, many were fatalistic about being infected again and did not plan to change their sexual risk behaviors.[ix]

Tailoring campaign messages, images, and product placement to specific priority audiences improved the success of the syphilis campaigns. Each of the reviewed campaigns highlighted the efforts they used to appeal to their specific priority audiences. They partnered with community health resources and businesses frequented by their priority audiences to best get the message out. They also used images, formats, and styles (i.e., humor, clinical depictions) that would best appeal to their specific priority audiences. The inclusion of these factors in campaign development and of the use of formative testing was mentioned by many evaluators of the campaigns and is best summarized by Nanin *et al.* (2009): "Results of this study provide further evidence of the need for targeted social marketing campaigns for gay and bisexual men. Public health is dependent not only on how the public reacts to the messages being conveyed to them but also on how and to whom the conveyors deliver these messages."[x]

Recent or Current Syphilis Campaigns

Unlike the earlier campaigns described in this report, more recent campaigns do not seem to have been evaluated nor written up in any detail. The following analysis is based on our review of campaign websites or other information found on the internet.

Recent or current campaigns have a greater, but not exclusive, focus on congenital syphilis. There were 23 campaigns identified through the Google search, the National Coalition of STI Directors memo, and CDC links (see Exhibit 8). They include two national campaigns, 10 statewide campaigns, 10 local (city/county) campaigns, and one campaign across 41 tribes in three states.

Similar to campaigns run in the 2000s, the campaign goals focus on increasing awareness and knowledge of syphilis and encouraging people to get tested and treated. However, unlike the earlier campaigns, these campaigns do not focus on reducing risky behaviors. There is also a greater focus in these campaigns on congenital syphilis, with 12 campaigns focusing on pregnant women and two others including them as a priority audience. Other audiences include men, MSM, Black women, people paying for sex, and the general population.

Exhibit 8: Recent or Current Campaigns—Campaign Name, Location, Sponsor, and Priority Audience

Campaign Name	Location	Sponsor	Priority Audience(s)
Congenital Syphilis in Alabama	Alabama	Alabama Dept. of Public Health	Pregnant women
STDAZ.com	Arizona	Maricopa County Dept. of Public Health	Pregnant women
Think Syphilis	Maricopa County, AZ	Maricopa County Health Department	Pregnant women
Syphilis	Tucson, AZ	Pima County Health Department	MSM
Girl, Get Tested.	California	Essential Access Health	Black women
Syphilis in Women	Los Angeles, CA	Los Angeles County Dept. of Public Health	Pregnant women
Syphilis	San Mateo, CA	San Mateo Medical Center	General population
STIs	Florida	Florida Dept. of Health	Pregnant women
Get Tested. Get Treated for Syphilis	Miami-Dade County, FL	Florida Miami-Dade County Department of Health	Pregnant women
Protect Your Baby From Syphilis	Chicago, IL	Chicago Dept. of Health	Pregnant women
Spread Love, Not Syphilis!	Washington County, MD	Washington County Dept. of Health, Maryland	Pregnant women
“Be Cool” (Men) “Unexpected” (Women) (different ads for men and women)	Missouri	Missouri Dept. of Health & Senior Services	Pregnant women; Men
Protect Your Baby From Syphilis	New Jersey	New Jersey Dept. of Health	Pregnant women
I Have Syphilis	New York	New York State Dept. of Health	MSM
One Two Punch: Knocking Out Syphilis and HIV	North Carolina	American Sexual Health Association	General population
Pay for Sex? Get Tested!	Toledo, OH	Toledo-Lucas County Health Department	People paying for sex
SyphAware.org	Oregon	Oregon Health Authority	MSM

Campaign Name	Location	Sponsor	Priority Audience(s)
My Prenatal Promise	Houston, TX	Houston Health Department	Pregnant women
Do You Have Syphilis? Only a Test Can Answer That.	Virginia	Virginia Dept. Of Health	General Population
Syphilis Is Rising	Seattle, WA (King, Pierce & Snohomish Counties)	Seattle-King County Health Department	MSM; Pregnant women
Stop Syphilis	43 tribes of Oregon, Washington, and Idaho	Indian Country ECHO (Project of the Northwest Portland Area Indian Health Board)	Pregnant women; Native Americans
Protect Yourself and Your Baby From Syphilis	National	March of Dimes	Pregnant women
Syphilis Can Be Fatal to Your Baby	National	AIDS Health care Foundation	Pregnant women

Campaign messages call for people to be aware that syphilis is a current problem, to know the facts about syphilis, and to get tested and treated. The messages used in these campaigns tend to be straightforward, providing information and a call to action. Some are short and to the point: "The risk is not knowing. Get tested today." Others are more detailed: "Talk to your doctor. Use condoms. Get tested in first and third trimesters. Get treated." or "Don't wait for the unexpected when you're expecting. Test for syphilis during your first and third trimester. Get tested. Take control." Some messages called people's attention to the fact that syphilis is a local problem: "Miami-Dade women, syphilis is on the rise. Can be passed to infants during pregnancy. Can be life threatening. Get tested three times during pregnancy. Syphilis can be cured." Campaigns seemed to use images relatable to their different priority audiences with some campaigns providing information in multiple languages. Several campaigns provide information directed to healthcare providers as well as to the specific priority audience. For example, the tribal campaign includes materials with a message stating: "You can make a difference by sharing these syphilis resources!"

Campaign components are more focused on providing information than on conducting direct outreach. Campaign components (see Exhibit 9) are varied, with 17 of the 21 campaigns hosting websites and 13 campaigns using posters for billboards, transit displays, or indoor display. Similar designs are used for social media ads, along with banner ads that are placed on various sites. Two campaigns prepared both audio and video public service announcements to share with local media, and two other campaigns engage in direct outreach through a mobile van or condom distribution. Several campaigns utilize CDC's syphilis materials (e.g., posters).

Exhibit 9: Components of Current Campaigns

Campaign Component	# of Campaigns
Website	17
Posters/billboards	13
Print materials	5
Banner ads (web and social media)	5
Audio/video ads	2
Symptom quiz	1
Mobile testing van	1
Condom distribution	1

Several states and local jurisdictions also are developing screening programs for women at greatest risk by providing testing at locations where they are likely to be present for other reasons. In Los Angeles, women in the county jail are screened for syphilis, and screening events are being set up at facilities for the homeless. Arizona, Texas, and North Carolina require syphilis testing during first- and third-trimester visits as well as at delivery. In Phoenix, a nursery for babies suffering from opioid withdrawal partnered with health departments to increase screening. The University of Chicago Medical Center started screening patients in the emergency room, and public health workers in Multnomah County, Oregon conduct outreach in homeless encampments and shelters.

Media Scan for Articles about Syphilis

Methods

To identify syphilis articles, we conducted a news search using Google, as well as visited websites of top publications for women and MSM to search the websites individually. Originally the intent was to search for a full year from March 2022 – February 2023. We extended this period through May 16, 2023, to capture additional articles that were published before our analysis began. Articles included discussed syphilis specifically or included a reference to the rise of cases of syphilis within larger STI stories. Simple mentions of syphilis were not included. The Google search focused on national articles and the four identified states of Arizona, Idaho, Michigan, and New York. Audience-specific publications for women's lifestyle, women's health, and LGBTQ+ were also searched via publication website. The search terms used to identify syphilis articles included "syphilis" plus one or more of the following:

- STI
- STD
- Sexually transmitted disease
- Communication(s)
- Health campaign
- Message
- Prevention
- Education
- Government

Results

National media coverage around syphilis is usually limited, with 63 articles identified from March 1, 2022, through May 16, 2023. Of the 63 identified national media articles, 41 discuss syphilis directly, with the remaining 22 referencing syphilis within larger STI stories.

Coverage is usually driven by newly released CDC data, such as annual surveillance noting a spike in cases. Other topics commonly covered through media include potential new treatment options (doxycycline) and prevention (decline in condom use, meningitis vaccine protecting against STIs). When discussing the increase in syphilis cases, the COVID-19 pandemic is referenced in most articles as a reason, and some mention a decline in condom use and a decline in overall fear of STIs because they are now treatable.

The highest concentration of articles (15) occurred in April 2023, due to the release of CDC surveillance data that specifically highlighted the rise of syphilis. We also saw spikes of coverage during February 2023 (11 total articles, of which 8 reference a surge of congenital syphilis in Mississippi) and September 2022 (10 articles, including an Associated Press syndicated article following release of new CDC data). Coverage of syphilis appears to be trending up in 2023 compared to 2022, likely due to the data releases.

Most articles were found within national news outlets, with some also appearing in outlets targeting healthcare providers. The audiences most named in the articles are MSM and pregnant women or babies.

It is important to note that when searching for syphilis articles, a number of results referenced the U.S. Public Health Service Syphilis Study at Tuskegee. These articles usually did not focus on the current issues around syphilis and STIs and thus were not included in our search results.

Although MSM and pregnant women/babies are key audiences discussed, articles about syphilis are not generally found in LGBTQ+ media or lifestyle media targeting women and pregnant women. During the reporting period, two LGBTQ+ outlets (*HIV Plus Magazine* and *Them*) included articles about the rise in STI/syphilis cases, with three additional outlets (*Queerty*, *The Advocate*, *Queer in the World*) referencing syphilis within articles about STI prevention/safe sex practices in general. Many articles mentioned syphilis when discussing the current monkeypox outbreaks and MSM; most were not included in results because content did not go beyond a syphilis mention. Two articles about syphilis were identified in media outlets for pregnant women (The Bump and BabyCenter). Women's health and lifestyle publications do include general information pages about STIs including syphilis, but not often news articles. Four articles were identified in three women's publications (HealthyWomen.org, Self.com, *InStyle*), and these referenced syphilis within larger STI stories.

Local coverage varies and continues to be driven by data and local public health response. We reviewed coverage in the selected markets of Arizona, Idaho, Michigan, and New York. These states may be mentioned in national coverage about the overall rise in cases if they are a state with one of the highest rates of incidence; national coverage has not gone further in depth from a state perspective outside of the 900% increase in congenital syphilis reported in Mississippi. Locally, broadcast media is the largest driver of coverage.

In a search capturing articles published May 9, 2022 – May 9, 2023, we found the following state media coverage:

- **Arizona:** We identified 11 articles in Arizona publications, with eight referencing a rise in cases of syphilis and STIs. The remaining three articles discussed testing. Arizona is referenced in national coverage as being one of the "worst states" for syphilis incidence.
- **Idaho:** Idaho had 19 articles, 16 of which referenced a rise in cases of syphilis. The remaining three articles focused on testing and treatment. A March 2, 2023, announcement from Central Health District officially declared an outbreak of syphilis and sparked 11 of the 19 articles, concentrating much of the coverage in March and April 2023.
- **Michigan:** Six articles were identified in Michigan media outlets. One article was identified in April 2022 and the remaining five articles ran in April and May 2023, illustrating the importance of STI Awareness Month for media coverage. Four articles reference the rise in cases and the importance of testing, and the remaining two reference a shortage of antibiotics and its potential impact on syphilis and other infections.

- **New York:** Eight articles were identified in local New York media. We excluded New York-based national media from the search (i.e., *The New York Times*) and instead included articles from this publication under national media. New York coverage included reposts of syndicated national Associated Press stories, as well as articles about New York being among the "top 5 states with most STIs."

Conclusions and Considerations

The information gathered about syphilis, syphilis prevention campaigns, and media coverage tell the story of a changing landscape. In the early 2000s, men—especially MSM—were the main focus of prevention campaigns following the statistical patterns of the time. More than 20 years later these trends are changing. Syphilis has increased rapidly between 2020 – 2021, consistent with the general five- and 10-year trend. Men still account for the most cases of syphilis, with the majority of cases among MSM. However, when compared to gay, bisexual, and other MSM, there was a greater increase among men who have sex with women only (MSW) as well as among women and men for whom the sex of their partners is unknown (MSU). Congenital syphilis has increased rapidly, with a 24.1% increase since 2020 and a 701.5% increase since 2012.

Nationally the top three groups for all P&S syphilis cases and congenital syphilis are non-Hispanic American Indian or Alaska Native, non-Hispanic Black or African American, and non-Hispanic Native Hawaiian or Other Pacific Islander. For congenital syphilis, the rates among non-Hispanic Black or African American mothers are considerably lower than among the other two ethnic/racial groups. Both men and women aged 25 – 29 have the highest rates of P&S syphilis, with those aged 35 – 44 experiencing the greatest increase in one year. MSM and MSU are more likely than others to also be HIV positive.

Timely prenatal care, syphilis testing, and maternal treatment are missed prevention opportunities among mothers delivering infants with congenital syphilis. There is an upward trend of those with syphilis reporting drug use. Rates of drug use were highest among women, followed by MSW and then MSM.

Prevention campaigns are typically implemented by state or local health departments and include a wide variety of campaign strategies to reach their priority audiences. Tailoring messages, materials, and product placements (e.g., location of testing and treatment services) was important. It is clear from the evaluations, as well as from the media scan, that media is not frequently used to get the message out to the public and might be an opportunity.

The evaluated campaigns we profiled had success in raising awareness of the problem. Some led to an increase in testing. However, as we saw in the study that assessed why MSM did not get tested for syphilis despite awareness of the issue, it will be important to remember that knowledge does not necessarily translate into behavior change. Behaviors such as seeking testing, following through on treatment, and engaging in safer sex are difficult to change, particularly today when an increasing percentage of the priority audiences report using drugs.

Finally, many of the earlier campaign evaluations described community partnerships with businesses and various other social service or health resources or partnerships across local jurisdictions as factors that resulted in wider and more consistent dissemination of messages during and even after the official end of the campaign. Several of the evaluations also highlighted the lack of continued funding as a reason for ending the campaign. Therefore, it will be important to build sustainability of the campaigns beyond funding as an important focus of the campaign planning process.

Appendix 1: Campaign Evaluations

Check Yourself
Plant A, Javanbakht M, Montoya JA, *et al*. "Check yourself: a social marketing campaign to increase syphilis screening in Los Angeles County." *Sexually Transmitted Diseases.* 2014. 41:50-57. Available at https://doi.org/10.1097/olq.0000000000000069. Accessed 8-22-2023.

Dogs Are Talking
Stephens SC, Bernstein KT, McCright JE, Klausner JD. "Dogs are talking: San Francisco's social marketing campaign to increase syphilis screening." *Sexually Transmitted Diseases.* 2010. 37:173-176. Available at https://doi.org/10.1097/olq.0b013e3181bf5a80. Accessed 8-22-2023.

Healthy Penis
Ahrens K, Kent CK, Montoya JA, *et al*. "Healthy Penis: San Francisco's social marketing campaign to increase syphilis testing among gay and bisexual men." *PLoS Medicine.* 2006. 3:e474. Available at https://doi.org/10.1371/journal.pmed.0030474. Accessed 8-22-2023.

Small Media Syphilis Campaign
Ross MW. "A community level syphilis prevention programme: outcome data from a controlled trial." *Sexually Transmitted Infections.* 2004. 80:100-104. Available at https://doi.org/10.1136/sti.2003.006171. Accessed 8-22-2023.

South Florida Syphilis Campaign
Darrow, WW, Biersteker S. "Short-term impact evaluation of a social marketing campaign to prevent syphilis among men who have sex with men." *Am J Public Health.* 2008. 98:337-343. Available at https://doi.org/10.2105/ajph.2006.109413. Accessed 8-22-2023.

Stop the Sores
Montoya JA, Kent CK, Rotblatt H, *et al*. "Social marketing campaign significantly associated with increases in syphilis testing among gay and bisexual men in San Francisco." *Sexually Transmitted Diseases.* 2005. 32:395-399. Available at https://doi.org/10.1097/01.olq.0000154507.58437.40. Accessed 8-22-2023.

Syphilis Is Back in SF
Klausner JD, Levine DK, Kent CK. "Internet-based site-specific interventions for syphilis prevention among gay and bisexual men." *AIDS Care*. 2004. 16:964-970. Available at https://doi.org/10.1080/09540120412331292471. Accessed 8-22-2023.

Syphilis Testing Campaign
Chen JL, Kodagoda D, Lawrence AM, Kerndt PR. "Rapid public health interventions in response to an outbreak of syphilis in Los Angeles." *Sexually Transmitted Diseases*. 2002. 29:277-284. Available at https://doi.org/10.1097/00007435-200205000-00005. Accessed 8-22-20.

[i] Centers for Disease Control and Prevention. *Sexually Transmitted Disease Surveillance: Preliminary 2021 Data*. Atlanta, GA: U.S. Department of Health and Human Services. 2022.
[ii] Centers for Disease Control and Prevention. *Syphilis Surveillance Supplemental Slides, 2016–2020.* Atlanta, GA: U.S. Department of Health and Human Services. 2022.
[iii] Kidd SE, Grey JA, Torrone EA, Weinstock HS. "Increased methamphetamine, injection drug, and heroin use among women and heterosexual men with primary and secondary syphilis—United States, 2013–2017." *MMWR Morb Mortal Wkly Rep*. 2019. 68:144-148. Available at http://dx.doi.org/10.15585/mmwr.mm6806a4external icon. Accessed 8-22-2023.
[iv] Ibid.
[v] Ahrens K, Kent CK, Montoya JA, *et al*. "Healthy Penis: San Francisco's social marketing campaign to increase syphilis testing among gay and bisexual men." *PLoS Medicine*. 2006. 3:e474. Available at https://doi.org/10.1371/journal.pmed.0030474. Accessed 8-22-2023.
[vi] Klausner JD, Levine DK, Kent CK. "Internet-based site-specific interventions for syphilis prevention among gay and bisexual men." *AIDS Care*. 2004. 16:964-970. Available at https://doi.org/10.1080/09540120412331292471. Accessed 8-22-2023.
[vii] Rotblatt H, Wohlfeiler D. "MSM and syphilis: what's the message?" Presented at California Syphilis Prevention Summit. 2017.
[viii] Montoya JA, Kent CK, Rotblatt H, *et al*. "Social marketing campaign significantly associated with increases in syphilis testing among gay and bisexual men in San Francisco." *Sexually Transmitted Diseases*. 2005. 32:395-399. Available at https://doi.org/10.1097/01.olq.0000154507.58437.40. Accessed 8-22-2023.
[ix] Plant A, Javanbakht M, Montoya JA, *et al*. "Check yourself: a social marketing campaign to increase syphilis screening in Los Angeles County." *Sexually Transmitted Diseases.* 2014. 41:50-57. Available at https://doi.org/10.1097/olq.0000000000000069. Accessed 8-22-2023.
[x] Nanin JE, Bimbi DS, Grov C, Parsons JT. "Community reactions to a syphilis prevention campaign for gay and bisexual men in Los Angeles County." *J Sex Res*. 2009. 46:525-34. Available at https://doi.org/10.1080/00224490902829590. Accessed 8-22-2023.