

# NATIONAL STD TRENDS:

KEY INFORMATION ON SEXUALLY TRANSMITTED DISEASES FOR PUBLIC HEALTH LEADERSHIP



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## FOREWORD

The Association of State and Territorial Health Officials (ASTHO), in collaboration with CDC, developed this primer to provide health department leadership with a **snapshot of current trends** and issues related to sexually transmitted diseases (STDs) in the United States. Public health departments play a **critical role in preventing, detecting, and controlling STDs**, and are key in addressing the emerging threat of antibiotic-resistant gonorrhea and the disproportionate **burden of these diseases** in vulnerable populations. Please use the following information to explore opportunities to **reduce STD transmission** in your jurisdiction, and consider working with your STD program director to review local epidemiological data and **target interventions** accordingly.

## WHY ARE STDs A PROBLEM?

Despite progress made in previous decades, STDs are now at a record high in the United States. In 2019, cases of gonorrhea, syphilis, and chlamydia increased for the sixth consecutive year, with more than 2.5 million cases combined.<sup>1</sup> Although infection rates vary from state to state, most states have populations or regions that are disproportionately burdened by STDs (see Figures 1-3).

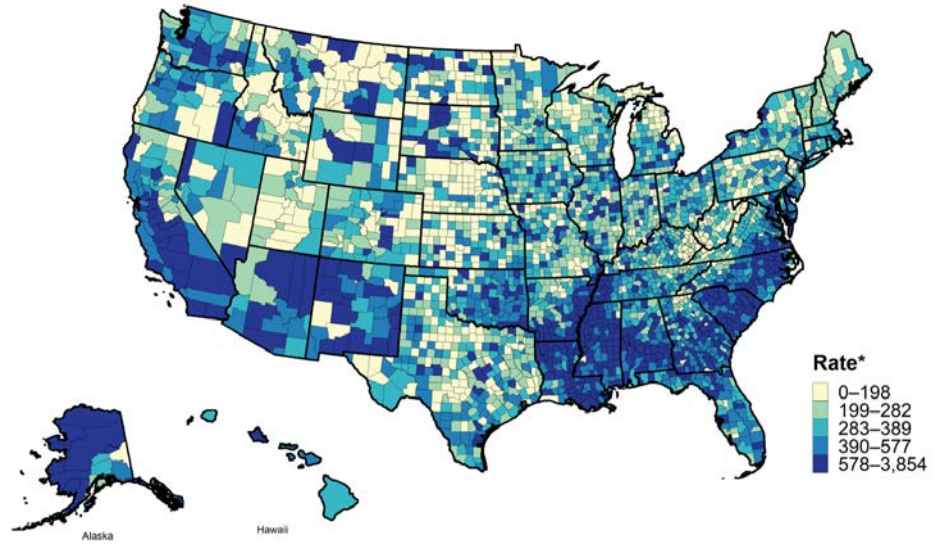
Health departments across the country are instrumental in fighting these infections by maintaining surveillance, investigating disease transmission, testing, linking individuals to care, and providing health education. For example, health departments can communicate effective strategies to prevent STDs, such as educating the public on the correct and consistent use of condoms. If an individual contracts an STD, treatment is critical to avoid health complications and the spread of infection. STD interventions, like expedited partner therapy (EPT)—an approach whereby healthcare providers can provide patients with treatment for their sexual partners without an intervening clinical assessment—are cost effective measures to reduce the spread of infection and the risk of reinfection.

### BY THE NUMBERS

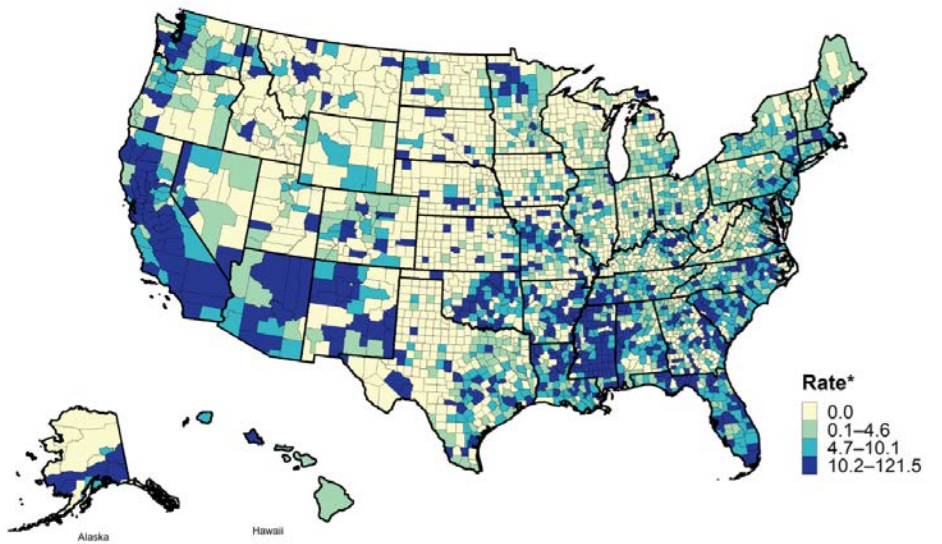
In 2019:<sup>2,3</sup>

- There were more than 1.8 million cases of chlamydia—the highest number of annual cases of any condition ever reported to the CDC.
- Primary and secondary syphilis cases increased by 11.2 percent over the last year, and cases of congenital syphilis increased by 41.4 percent.
- Gonorrhea cases increased by 5.7 percent, and more than half of all gonorrhea infections are resistant to at least one antibiotic.

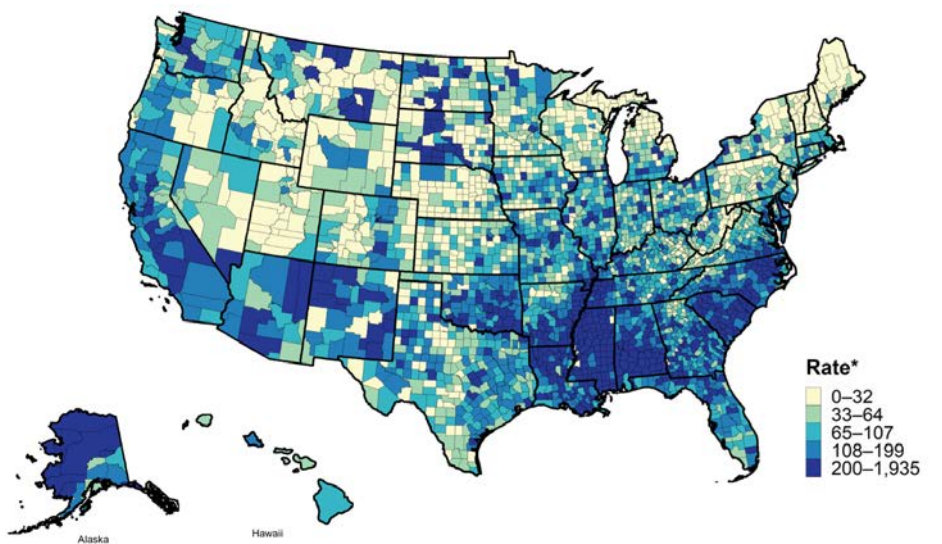
**FIGURE 1.**  
Chlamydia – Rates of Reported Cases by County, United States, 2019<sup>1</sup>



**FIGURE 2.**  
Primary and Secondary Syphilis – Rates of Reported Cases by County, United States, 2019<sup>1</sup>



**FIGURE 3.**  
Gonorrhea – Rates of Reported Cases by County, United States, 2019<sup>1</sup>



## COMPLICATIONS ARISING FROM STDs

STDs are associated with many complications, including facilitating HIV transmission and infertility. Chlamydia and gonorrhea, the two most common STDs in the United States, may cause pelvic inflammatory disease (PID), which is a major contributor to infertility, ectopic pregnancy, and chronic pelvic pain. STD cases that escalate to PID result in additional treatment costs of \$1,167 per case.<sup>4</sup> Syphilis may also cause complications including blindness, heart damage, and nerve tissue damage. Public health interventions play a critical role in reducing these complications.

Antibiotic resistance is an increasingly challenging issue for health departments, as gonorrhea has developed resistance to nearly all of the antibiotics used to treat it. In fact, over thirty percent of new gonococcal infections in the U.S. are likely resistant to at least one antibiotic.<sup>5</sup>

Today, there is only one recommended treatment regimen for gonorrhea. As drug resistance is emerging, it is imperative for the public health and medical communities to work together to protect our last line of treatment. Public health organizations at all levels must continuously monitor antibiotic resistance in gonorrhea, educate healthcare providers about screening and treatment guidelines, and encourage research and development of new treatment regimens.

## WHAT POPULATIONS ARE AFFECTED?

STDs represent a significant opportunity to improve health equity and health outcomes for diverse populations. To reduce the number of STDs, public health prevention efforts should continue to address at-risk populations and the social determinants that contribute to disparities among populations.

Young people are at disproportionate risk for infection. It is estimated that people between the ages of 15 and 24 acquire nearly half of all new STD cases. The higher prevalence of STDs among young people may stem from challenges in accessing effective STD prevention and treatment services (e.g., inability to pay, lack of transportation, discomfort or stigma associated with seeking STD services, and concerns about confidentiality). Chlamydia rates demonstrate the disproportionate burden of disease in young women (see Figure 4); however, higher STD screening rates among young women contribute in part to this difference.

Additionally, women and infants are disproportionately affected by complications associated with STDs. Infants born to mothers infected with STDs are at high risk for adverse health effects during and after birth. Transmission of syphilis during pregnancy can result in fetal death or physical and developmental disabilities.<sup>7</sup>

### FOR MORE INFORMATION

#### SEXUALLY TRANSMITTED DISEASE SURVEILLANCE 2019

This CDC report and its accompanying materials present STD statistics and trends in the United States through 2019. Available at: <https://www.cdc.gov/std/statistics/2019/default.htm>.

#### ANTIBIOTIC-RESISTANT GONORRHEA

CDC's web page outlines the emergence of antibiotic-resistant gonorrhea in the United States. Available at: [www.cdc.gov/std/gonorrhea/arg/](http://www.cdc.gov/std/gonorrhea/arg/).

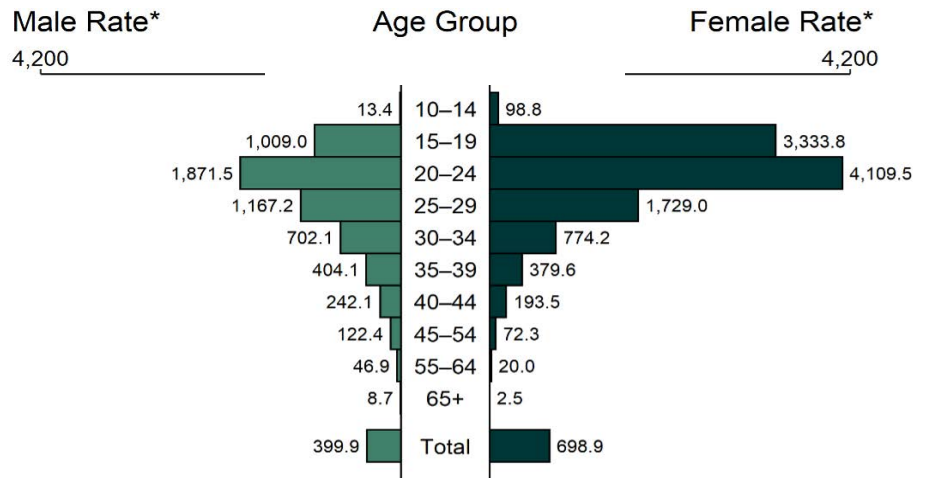
ASTHO's communication materials about antibiotic-resistant gonorrhea are designed to help health departments raise awareness about this emerging threat. Available at: [www.astho.org/ASTHOReports/Page/Antibiotic-Resistant-Gonorrhea-Communication-Tools-for-Health-Departments/](http://www.astho.org/ASTHOReports/Page/Antibiotic-Resistant-Gonorrhea-Communication-Tools-for-Health-Departments/).

### BY THE NUMBERS

In 2018:<sup>6</sup>

- Young people (ages 15-24) accounted for almost two-thirds of all reported cases of chlamydia.
- African Americans continue to experience higher gonorrhea rates than other racial and ethnic populations, with rates 7.7 times the rate among whites.
- Men who have sex with men (MSM) account for 53.5 percent of reported cases of primary and secondary syphilis.
- Rates of reported cases of congenital syphilis—by which syphilis infection is transmitted from mother to child during pregnancy—increased by 41.4 percent.

**FIGURE 4.**  
Chlamydia – Rates of Reported Cases by Age Group and Sex, United States, 2019<sup>1</sup>

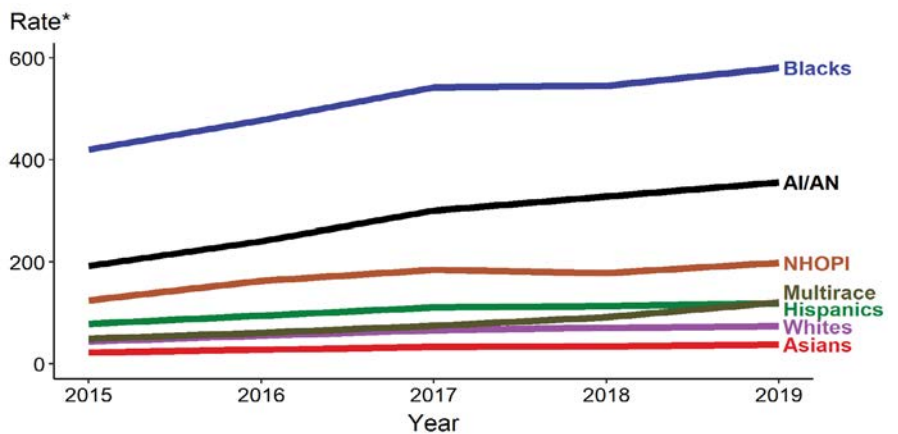


Social and economic conditions can make it difficult for individuals to protect their sexual health. National surveillance data show disproportionate STD rates amongst racial and ethnic minority communities. Potential contributors to the inequity include higher rates of poverty, mistrust of healthcare providers, and insurance status.<sup>8</sup>

The national trends in gonorrhea rates reflect these inequities (see Figure 5). Understanding and acknowledging the patterns of inequity in STD rates allows health officials to focus public health interventions accordingly, and is an important step in empowering communities to bridge the gap.

**FIGURE 5.**  
Gonorrhea – Rates of Reported Cases by Race/Hispanic Ethnicity, United States, 2015–2019<sup>1</sup>

Acronyms: AI/AN = American Indians/Alaska Natives; NHOPI = Native Hawaiians/Other Pacific Islanders.



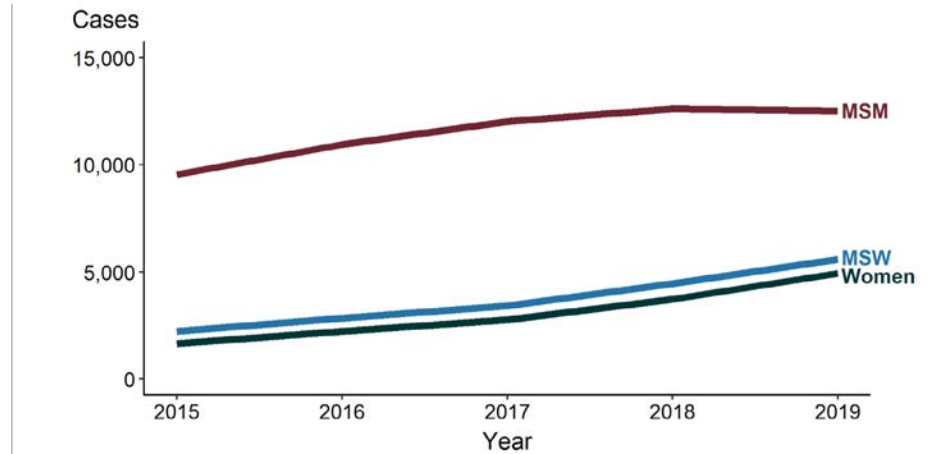
Men who have sex with men (MSM) are also disproportionately affected by STDs. A number of individual-level risk factors (e.g., number of lifetime sex partners, unprotected sex, and rate of partner change) and sexual network characteristics (e.g., high STD prevalence, interconnectedness of sex partners, and potentially limited healthcare access) significantly contribute to the ongoing disparities in MSM sexual health. MSM who have a lower economic status or belong to racial and ethnic minority populations are particularly vulnerable to poor health outcomes.<sup>9</sup> Homophobia and discrimination are barriers that negatively affect the quality and accessibility of healthcare resources for MSM, increasing their risk for infection.<sup>10</sup>

Syphilis case investigations by public health professionals can help to describe the disparities among MSM. In 2019, MSM accounted for 56.7 percent of all primary and secondary syphilis cases among males in which sex of sex partner was known.<sup>11</sup> As syphilis infection rates continue to increase and disproportionately affect MSM, it is important to invest in educational, screening, and health resources for public health providers and the MSM community.

**FIGURE 6.**  
**Primary and Secondary Syphilis — Reported Cases by Sex and Sex of Sex Partners, 31 States\*, 2015–2019<sup>1</sup>**

\* 31 states were able to classify ≥70% of reported cases of primary and secondary syphilis among males as either MSM or MSW for each year during 2015–2019.

Acronyms: MSM = Gay, bisexual, and other men who have sex with men (collectively referred to as MSM); MSW = Men who have sex with women only.



### FOR MORE INFORMATION

#### STD HEALTH EQUITY

This CDC web page discusses STD disparities related to race, ethnicity, income, gender, religion, sexual identity, and disability. Available at: [www.cdc.gov/std/health-disparities/default.htm](http://www.cdc.gov/std/health-disparities/default.htm).

### BY THE NUMBERS

Total estimated costs for the seven major STDs<sup>13</sup>

STD	ANNUAL COST ESTIMATE
HPV	\$1.7 billion
Herpes simplex virus type 2	\$540 million
Chlamydia	\$516 million
Gonorrhea	\$162 million
Hepatitis B virus	\$50 million
Syphilis	\$39 million
Trichomoniasis	\$24 million

## WHAT IS THE ECONOMIC IMPACT?

In addition to morbidity and mortality, STDs place a significant economic burden on society. Quantifying the direct medical costs can be helpful in assessing the economic impact of STDs in the United States. A 2013 study estimates an annual burden of nearly \$16 billion across seven STDs and HIV.<sup>12</sup>

**STD prevention is a good investment.** Studies have shown that federal investments in STD programs have resulted in reduced rates of disease and significant savings in healthcare spending. Over the past 15 years, federally-funded state and local STD programs have prevented 5.7 million cases of gonorrhea, syphilis, and chlamydia, as well as 3,300 STD-attributable HIV infections. STD programs have also averted an estimated \$1.3 billion in lifetime medical costs between 2002 and 2016.<sup>14</sup>

However, decreasing budgets are leaving state and local STD programs pressed to do more with less resources. According to the National Coalition of STD Directors, federal funding for STD prevention has decreased by \$21 million since 2003.<sup>15</sup> This decline in funding impedes health departments' abilities to control and respond to disease outbreaks. Funding cuts are also putting pressure on key public health STD workforce capacities, like clinics and disease intervention services.<sup>16</sup> For example, between 2011 and 2012, 62 percent of local STD programs experienced budget cuts, resulting in STD clinic closures, reduced screening, and staff decreases.<sup>17</sup> In order to protect more Americans from preventable STDs, investment in STD programs is crucial.

## WHAT CAN PUBLIC HEALTH LEADERS DO?

STDs are an important public health concern. Fortunately, there are several steps public health leaders can—and are—taking to improve STD prevention and treatment in communities across the United States.

- **Monitor and identify STD trends in your jurisdiction.** Engage with your health department's STD program to familiarize yourself with your jurisdiction's STD epidemiology and the potential for emerging drug-resistant infections, such as gonorrhea. Local health departments and community health clinics can also provide valuable information about disease hotspots.
- **Educate key stakeholders and the public with data and best practices.** Share best practices around prevention and control with community partners. State health departments can also support community stakeholders by providing local data about STD burden.
- **Partner with local community leaders and healthcare providers to raise awareness and reach target populations.** Healthcare providers are key partners in educating the public about STDs, increasing screening, and linking to care. Consider opportunities to engage non-traditional partners, including education departments, high schools, university health services, and corrections departments to raise awareness and promote available services to affected populations.
- **Align STD prevention and control efforts with related public health activities.** Work within your health department to connect your STD program with related public health programs addressing antibiotic resistance, health disparities, and maternal and child health.

### FOR MORE INFORMATION

#### STD PREVENTION ALLOCATION CONSEQUENCES ESTIMATOR

ASTHO and NCSD's customizable factsheet can be used to present outputs from the STD Prevention Allocation Consequences Estimator in a format that is accessible to decisionmakers, the media, and local audiences. Available at: [www.astho.org/ASTHOBriefs/Page/Investing-in-STD-Prevention-Making-the-Case-for-Your-Jurisdiction/](http://www.astho.org/ASTHOBriefs/Page/Investing-in-STD-Prevention-Making-the-Case-for-Your-Jurisdiction/).

#### SPOTLIGHT ON STD PREVENTION AND CONTROL PROGRAMS

This CDC resource highlights some of the key achievements of STD programs in state and local health departments. Available at: [www.cdc.gov/std/products/success/spotlight-on-std-programs-508c.pdf](http://www.cdc.gov/std/products/success/spotlight-on-std-programs-508c.pdf).

### FOR MORE INFORMATION

#### CDC CALL TO ACTION: LET'S WORK TOGETHER TO STEM THE TIDE OF RISING SYPHILIS IN THE UNITED STATES

This call to action from CDC outlines the role of health departments, healthcare providers, and other specific populations in combating syphilis. Available at: [www.cdc.gov/std/syphilis/syphiliscalltoactionapril2017.pdf](http://www.cdc.gov/std/syphilis/syphiliscalltoactionapril2017.pdf).

#### DIS CERTIFICATION PROJECT UPDATE

The Public Health Accreditation Board is convening national partners to explore approaches for DIS certification. This website shares updates on the certification project and resources describing the role of DIS. Available at: [www.phaboard.org/update-on-dis-certification/](http://www.phaboard.org/update-on-dis-certification/).

#### ENHANCING COLLABORATIONS BETWEEN PUBLIC HEALTH AND MEDICAID TO ADVANCE INNOVATIVE APPROACHES FOR PROVISION AND PAYMENT OF STD SERVICES

This ASTHO poster describes activities undertaken in Mississippi, Rhode Island, and Washington state to collaborate with Medicaid and private insurers for improved delivery and payment of STD services. Available at: [www.astho.org/Infectious-Disease/Hepatitis-HIV-STD-TB/Sexually-Transmitted-Diseases/STD-Medicaid-Poster/](http://www.astho.org/Infectious-Disease/Hepatitis-HIV-STD-TB/Sexually-Transmitted-Diseases/STD-Medicaid-Poster/).

- **Make the case for investing in STD program infrastructure.** STD infrastructure provides the framework by which health departments carry out STD prevention and control activities, including conducting disease surveillance, investigating new cases, offering STD screening, linking individuals to care, and providing health education. Communicate with decisionmakers about the value of STD prevention and share data about return on investment for STD programs. Use available tools to estimate the impact of budget cuts on STD burden and direct medical costs.<sup>18</sup>
- **Continue to support disease intervention specialists (DIS) as an integral part of STD programs.** DIS are public health outreach workers who are responsible for finding and counseling people with STDs and their contacts. Not only are DIS critical to preventing STDs, they are also in tune with community needs and can fill other roles in the event of a crisis.
- **Expand third party billing to include STD services.** Identify programs within the health agency that have already developed third party billing mechanisms and share those systems and lessons learned with the STD program. This is critical for developing a financially sustainable model for STD clinics, which provide safety-net services to populations that might otherwise experience challenges accessing care. Work with Medicaid offices and other payers to facilitate reimbursement for STD services, including extragenital (i.e., oral and rectal) testing.
- **Examine and remove policy and payment barriers to EPT in your jurisdiction.** EPT is an effective approach through which the sexual partners of a patient with a confirmed STD are given medication without a physical examination. This prevents reinfection of the patient and reduces further transmission. EPT can be implemented in two different ways, through a written prescription given to the patient to give to recent sexual partners, or by dispensing the medication to the patient to give to their recent sexual partners. Currently, there are several operational barriers, such as dispensing practices, hindering the implementation of EPT in many jurisdictions. Consult with policymakers and key stakeholders to resolve barriers to its use.

## FOR MORE INFORMATION

### INTEGRATION OF PUBLIC HEALTH AND PRIMARY CARE: A PRACTICAL LOOK AT USING INTEGRATION TO BETTER PREVENT AND TREAT SEXUALLY TRANSMITTED DISEASES

ASTHO collaborated with national partners and public health stakeholders on the state and local levels to discuss barriers to integration and best practices for STD prevention and treatment. This report summarizes key findings. Available at: [www.astho.org/Programs/Infectious-Disease/Hepatitis-HIV-STD-TB/Sexually-Transmitted-Diseases/STD-Integration-Report/](http://www.astho.org/Programs/Infectious-Disease/Hepatitis-HIV-STD-TB/Sexually-Transmitted-Diseases/STD-Integration-Report/).

### MAKING THE CASE FOR INFECTIOUS DISEASE INFRASTRUCTURE

ASTHO developed a toolkit that helps health departments increase awareness of and support for critical infectious disease infrastructure programs. Available at: [www.astho.org/Programs/Infectious-Disease/Infrastructure/Making-the-Case-for-Infectious-Disease-Infrastructure/](http://www.astho.org/Programs/Infectious-Disease/Infrastructure/Making-the-Case-for-Infectious-Disease-Infrastructure/).



# NATIONAL ORGANIZATIONS ENGAGED IN STD WORK

## **American Sexual Health Association (ASHA)**

ASHA aims to advance sexual health through educating the public, collaborating with partners, and advocating for sound policies.

## **Centers for Disease Control and Prevention (CDC)**

CDC is the nation's health protection agency and provides a wealth of both STD information and funding opportunities.

## **National Alliance of State and Territorial AIDS Directors (NASTAD)**

NASTAD represents state health department staff working on HIV/AIDS or viral hepatitis. It works toward reducing incidence of HIV/AIDS and viral hepatitis, improving quality of care, and promoting responsible public policy.

## **National Association of Community Health Centers (NACHC)**

NACHC works with state health centers and primary care organizations to advocate for health centers, educate public about health centers, provide technical assistance, and develop alliances with other stakeholders.

## **National Association of County and City Health Officials (NACCHO)**

NACCHO is comprised of nearly 3,000 local health departments across the country. It works with its members as a leader, partner, catalyst, and voice in public health topics such as community health, environmental health, public health infrastructure and systems, and public health preparedness.

## **National Coalition for Sexual Health (NCSH)**

NCSH is comprised of professional organizations and individuals who share a common goal of improving sexual health. The coalition provides tools to support providers and the public in starting conversations about sexual health. NCSH also manages the Sexual Health Resource Exchange, a database that houses multimedia tools for public awareness and education.

## **National Coalition of STD Directors (NCSD)**

NCSD represents health department STD programmatic staff and works to develop the nation's STD system and promote awareness of policies that influence STDs.

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