

# Public Health Impact

## Chlamydia, Gonorrhea, and Syphilis Rates are Skyrocketing in Clackamas County

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### The silent epidemic

Each year, thousands of Clackamas County residents contract bacterial sexually transmitted infections (STIs), such as syphilis, gonorrhea, and chlamydia. In just over five years, rates of syphilis, gonorrhea, and chlamydia have peaked. The rise of STIs in Clackamas County mirrors national, statewide, and regional trends. In 2016, the Centers for Disease Control and Prevention (CDC) identified approximately 2 million cases of chlamydia, gonorrhea, and syphilis in the United States – the highest number ever recorded (Centers for Disease Control and Prevention, 2017b). In Oregon, diagnosed chlamydia infections have spiked in the last 20 years to nearly 18,000 cases in 2016. From 2007 to 2014, Oregon's rate of gonorrhea increased 78%. From 2014 to 2016, that rate increased another 85%. Between 2007 and 2014, Oregon's syphilis rate increased over 1,300%. The syphilis rate increased another 36% in the subsequent two years (Oregon Health Authority, 2015b, 2017, 2018b).

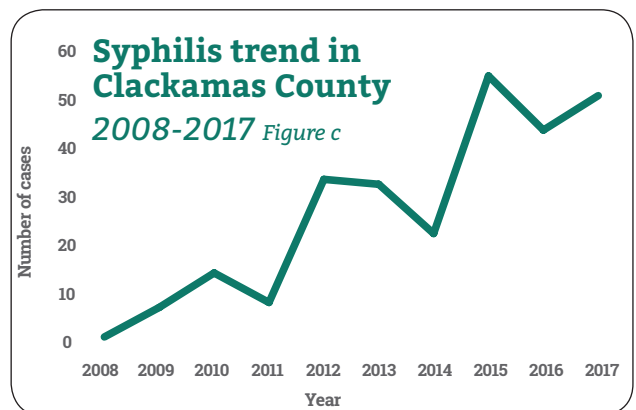
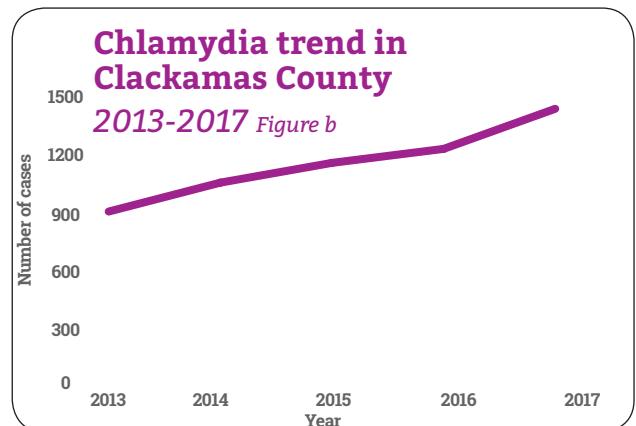
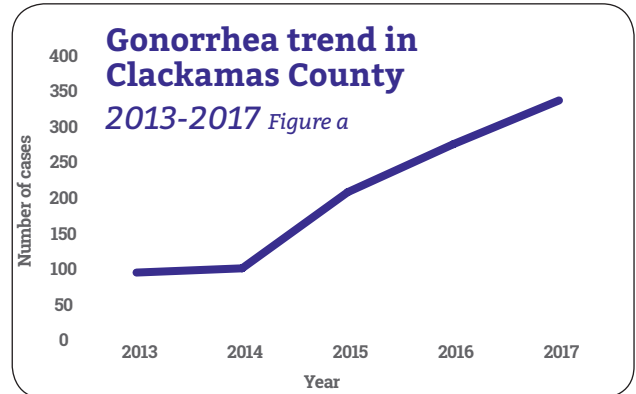
Bacterial STIs are frequently preventable and, at this point, treatable. However, when left untreated or improperly treated, STIs can cause serious reproductive health problems and produce drug-resistant bacteria, making first-line antibiotics less effective (Office of Disease Prevention and Health Promotion, 2018).

While rates of STIs are increasing across all populations in Clackamas County, certain groups, such as young people (ages 15 – 24), women, people of color, and LGBTQ+ individuals – particularly gay, bisexual, and other men who have sex with men (MSM) – are disproportionately impacted by STIs. The sexual health of these communities is largely influenced by the social conditions that unjustly affect non-dominant groups. Factors such as racism, homophobia, and sexism are shown to negatively affect sexual health outcomes (Centers for Disease Control and Prevention, 2017d; Unemo et al., 2017).

Clackamas County Public Health and our partners have a role to play to stop the transmission of STIs. This report outlines our initial steps.

### STI Facts for Clackamas County

- In five years (2012—2016), chlamydia rates increased 26% and gonorrhea rates increased 162%.
- The chlamydia rate for Black/African American populations is 75% higher than the county average.
- American Indian/Alaska Native populations experience 23% higher rates of gonorrhea than the county average.
- 55% of male syphilis cases occur in the MSM population.
- Over a quarter of chlamydia cases occur among teenagers between 15-19 years old.
- Almost 70% of all chlamydia cases occur in women.



### Numbers rising

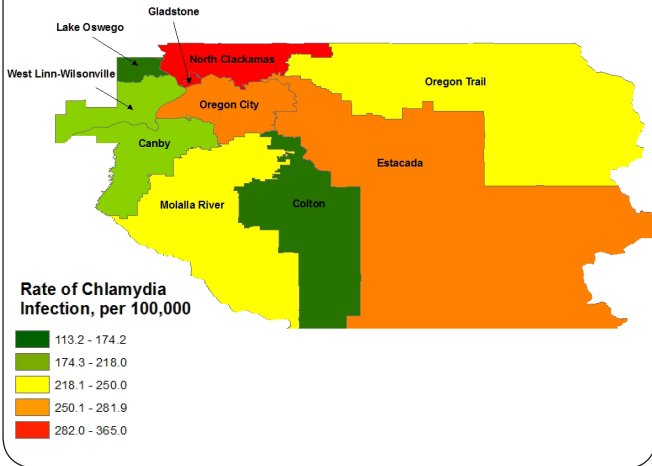
Over the last five years, the number of chlamydia, gonorrhea, and syphilis cases has increased dramatically in Clackamas County. In 2017, there were 1,441 cases of chlamydia, 340 cases of gonorrhea, and 56 cases of syphilis (figures a – c). The highest concentrations of known chlamydia cases occur in the northern, urban areas of the county – North Clackamas and Gladstone Health Equity Zones\*. The lowest rates of chlamydia occur in Lake Oswego and Colton Health Equity Zones (figure d).

Two cases of congenital syphilis have been reported in Clackamas County since the beginning of 2018. There were zero cases in the previous decade.

## Chlamydia incidence rates by Health Equity Zone

2013-2017, Figure d

Clackamas County Age-specific rate per 100,000



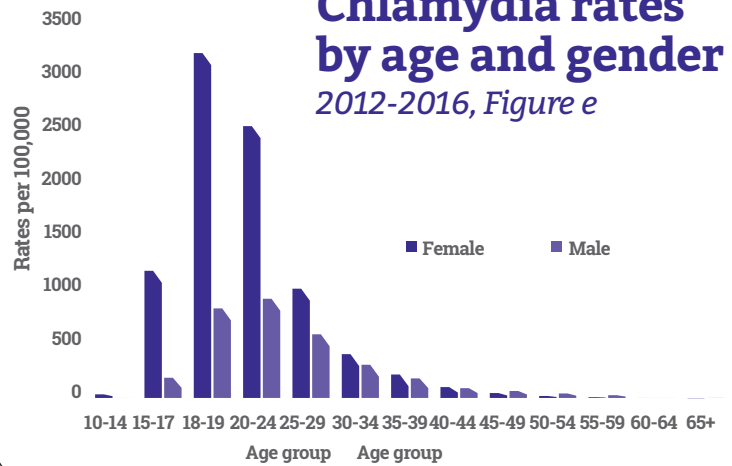
### Disparities examined

Young people, racial and ethnic minorities, the LGBTQ+ community, and women are more affected by STIs than other groups in Clackamas County. Nearly half of all new cases of gonorrhea and chlamydia in Clackamas County are reported in young people (figures e and f), although nationally they represent just 25% of the sexually active population (Centers for Disease Control and Prevention, 2013; Unemo et al., 2017). The Black/African American population in Clackamas County experiences disparately high rates of chlamydia and gonorrhea, followed by American Indian and Hispanic populations (figures g and h). Approximately 70% of chlamydia cases in Clackamas County occur in women (figure e).

Syphilis cases among Clackamas County women remain lower than men; however, syphilis in women of childbearing age is particularly concerning (Centers for Disease Control and Prevention, 2011). Pregnant women can pass the infection to their babies, which can cause severe physical and cognitive problems. Up to 40% of babies born to women with untreated syphilis may be stillborn or die from the infection as a newborn (Centers for Disease Control and Prevention, 2017a). In the first half of 2018, two cases of congenital syphilis have been reported in Clackamas County.

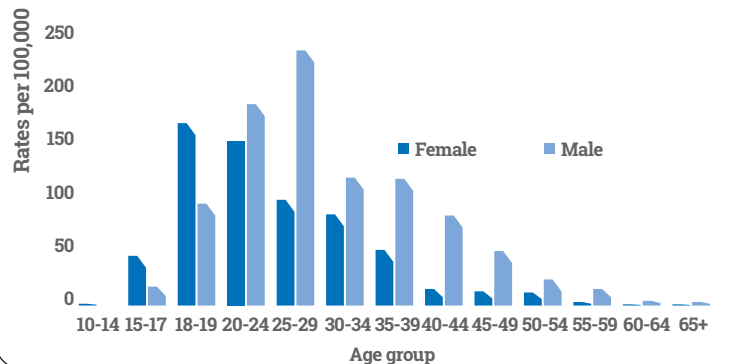
## Chlamydia rates by age and gender

2012-2016, Figure e



## Gonorrhea rates by age and gender

2012-2016, Figure f



Nationally, gonorrhea and syphilis rates are accelerating among men, particularly gay and bisexual men. In 2016, gay, bisexual, and other MSM accounted for 81% of male syphilis cases where the sex of the partner was known (Centers for Disease Control and Prevention, 2017c). The same is true in Clackamas County. Since 2014, MSM represent 55% of all male syphilis cases and 24% of male gonorrhea cases; however, 63% of men diagnosed with gonorrhea did not report the sex of their partner, so the proportion of MSM who test positive for gonorrhea is likely higher than reported. If left untreated, syphilis can affect multiple organ systems, including the brain, nerves, eyes, heart, blood vessels, liver, bones, and joints (Centers for Disease Control and Prevention, 2017b, 2017e).

\* Clackamas County is diverse and health outcomes vary widely across the county. Because of this, CCPH has developed Health Equity Zones (HEZ). HEZs are 10 distinct geographic regions in the county where we can examine the specific factors that impact the health of those living within the zone. HEZs allow us to identify health inequities so community members can take action to strengthen the social conditions that influence their health.

## Gonorrhea rates per 100,000 by Race/Ethnicity

2012 - 2016, Figure g

| Race/Ethnicity                 | Clackamas | Oregon |
|--------------------------------|-----------|--------|
| American Indian/ Alaska Native | 56        | 99     |
| Asian                          | 12        | 20     |
| Black/African American         | 196       | 303    |
| Hispanic                       | 39        | 52     |
| White                          | 32        | 54     |

## Chlamydia rates per 100,000 by Race/Ethnicity

2012 - 2016, Figure h

| Race/Ethnicity                 | Clackamas | Oregon |
|--------------------------------|-----------|--------|
| American Indian/ Alaska Native | 266       | 443    |
| Asian                          | 57        | 118    |
| Black/African American         | 531       | 763    |
| Hispanic                       | 219       | 333    |
| Pacific Islander               | 199       | 271    |
| White                          | 156       | 267    |

### Why are STI rates soaring?

Similar to other patterns of disease, there is not a single direct cause for the growing number of STIs or the disproportionate burden some populations face (Oregon Health Authority, 2018b). Rather, it is a combination of the many social, cultural, and structural factors that influence sexual behavior, risk, and transmission of STIs (Unemo et al., 2017).

- Racism, stigma, and poverty all increase the risk of STIs. Low-income populations face a combination of social, epidemiologic, and individual risk factors that can increase STI rates. Systemic factors such as institutional discrimination, health care provider bias, or distrust in health systems and health care providers all impact STI risk for people of color (Centers for Disease Control and Prevention, 2017d).

### There are four critical steps to stop the transmission of STIs in Clackamas County:

1. Strengthen community prevention activities, including surveillance; enhanced screening; focused testing for populations engaging in high-risk behavior; and public education and engagement about safer sex practices.
2. Educate and support people who test positive to seek medical treatment.
3. Expand case investigation, partner notification, and treatment services.
4. Develop a county-wide coalition that is grounded in health equity, unites community leaders and community-based organizations, and aligns efforts within and across the Health Equity Zones.

- A decrease in public health spending can lead to higher transmission rates of gonorrhea and syphilis (Gallet, 2017). Reduced capacity and infrastructure in local public health departments reduces the ability to investigate and provide follow-up for positive cases; notify, test, and treat people who have had sex with infected partners; provide sexual education services; and conduct comprehensive STI surveillance.
- Technology has changed the frequency and availability of sex. Researchers in Oregon cite that internet meet-up sites and mobile dating apps were associated with a 2014 syphilis outbreak in Multnomah County (DeSilva et al., 2016). A 2015 study also found that MSM who use social media sites to meet sexual partners are more likely to have unprotected sex (Holloway, Pulsipher, Gibbs, Barman-Adhikari, & Rice, 2015).
- Condom use is inconsistent. Among sexually active youth in Clackamas County, only 62% of 11th graders used a condom the last time they had intercourse (Oregon Health Authority, 2018a). Nationally, among 15 to 44 year olds who use condoms and no other prevention method, only 60% of women and 56% of men used a condom the last time they had vaginal intercourse (Copen, 2017). The use of long-acting reversible contraceptives might decrease condom use because their efficacy at preventing unintended pregnancies (Abma & Martinez, 2017; McNicholas, Klugman, Zhao, & Peipert, 2017). Similarly, pre-exposure prophylaxis (PrEP) – a course of anti-HIV drugs taken by HIV-negative people to prevent infection – might decrease condom use within the MSM population (Nguyen et al., 2018).

## Taking action in Clackamas County to reduce STI rates

Clackamas County Public Health and our partners must lead the way to prevent STIs. For long-term success, all partners need to strengthen and integrate our current efforts, and reimagine our approach to STI prevention. A vision for the future includes all of the work below.

- Clackamas County Public Health – Provides STI surveillance and monitoring, health education, and partner notification services. Beginning in January 2018, Clackamas County, along with Multnomah and Washington counties, received funding to enhance and expand HIV and STI investigation, testing, treatment, and prevention services for the region. Through this work, Clackamas County will deepen connections with community partners to identify, test, and treat those who are most at-risk of getting STIs.
- Health care clinics – Health clinics make STI testing and timely treatment a standard part of medical care, especially for women of childbearing age, pregnant women, and MSM. Providers collect sexual histories of patients and report positive cases of STIs. Clinics that receive Title X funds – like the Clackamas County Health Centers – primarily serve women, low-income, and young people. Health clinics play a critical role in reducing the number of STIs through evidence-based treatment methods like Expedited Partner Therapy – a practice of treating sex partners of persons who test positive for either chlamydia or gonorrhea with antibiotics, even if the partner has not undergone a medical evaluation (Mmeje, Wallett, Kolenic, & Bell, 2017; Oregon Health Authority, 2015a). Three HEZs (Canby, North Clackamas, Oregon City) currently have clinics that provide free or low-cost STI prevention, testing, and treatment services.
- Schools – Teach comprehensive sexual health education that focuses on STI prevention practices, participate in the Oregon Healthy Teens Survey, and provide access to a full spectrum of reproductive health care services in school based health centers (SBHC), including STI testing, treatment, sexual health education, and condoms. SBHCs are proven to have a positive impact on youth sexual health (Bersamin, Paschall, & Fisher, 2017). Clackamas County presently has four SBHCs operating in the Estacada, North Clackamas, Oregon City, and Oregon Trail HEZs. All provide different levels of reproductive health care services. Half of the HEZs currently participate in the Oregon Healthy Teens Survey, including Gladstone, North Clackamas, Oregon City, Canby, and Estacada.
- Community organizations – Conduct community-based STI testing. Community organizations also provide culturally-appropriate sexual health education services,

which involve safer sex practices, including the use of condoms, abstinence from sex, and routine testing for STIs. Community partners have a direct link with those who are most affected by the STI epidemic. Clackamas County Public Health plans to convene a coalition of community organizations in the future.

- Policymakers – Advocate for STI prevention funding and ensure that services are free or affordable, promote the use of evidence-based STI prevention and treatment methods, leverage public and private sector resources, and have the ability to improve the structural barriers that put certain populations at higher-risk of contracting STIs.

### Methods

By law, Oregon clinicians and laboratories must report diagnoses of bacterial STIs, including gonorrhea, syphilis, and chlamydia to local health departments. These data are entered into the Oregon Public Health Epidemiologists' User System (ORPHEUS). The data included in this report represent individuals who test positive for gonorrhea, syphilis, or chlamydia and reside in Clackamas County. All rates that are not age specific have been age-adjusted, unless otherwise noted.

### Limitations

Data at the local level regarding demographics (race/ethnicity), substance use, number of sexual partners, and the sex of partners is incomplete. There are inconsistent data collection methods and inherent challenges in underreporting. We can draw conclusions from data that is reported; however, the relative proportion of unknown or unanswered questions makes any correlations tenuous. Additionally, herpes, human papillomavirus (HPV), HIV, and viral hepatitis were excluded from this report either because they are not reportable diseases (herpes and HPV) or have a low incidence (HIV and sexually transmitted viral hepatitis).

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## About Health, Housing & Human Services

### Mission statement

The mission of the Health, Housing, and Human Services Department is to remove barriers for vulnerable individuals and families on their path to improved health, wellness, prosperity, and inclusion.

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