

Office of Infectious Disease Disparities Report 2022

HIV, Hepatitis C, Syphilis and
Gonorrhea



Washington State Department of

Health

DOH 150-159 March 2020

Introduction

What is the Office of Infectious Disease?

The Office of Infectious Disease (OID) is a public health team housed within WA DOH's Division of Disease Control and Health Statistics. OID is tasked with collecting data, coordinating resources, and advising policy for the conditions of HIV, hepatitis C, syphilis, gonorrhea and chlamydia. OID also provides direct services through ADAP and direct funding of community-service organizations for people living with HIV and people who inject drugs.

Why a disparities report?

The conditions that OID oversees are not evenly distributed in Washington state and disproportionately affect certain groups of people. This means that the tools and programs OID supports need to be thoughtfully directed to ensure that they are reaching the populations that need them. The purpose of this report is to describe the relationship between several sources of health disparities and OID's infectious conditions. By developing a more complete understanding of the context and determinants of these diseases we can more accurately focus our treatment and prevention efforts and to ensure that our programs are providing the services that our communities need.

How do I use this report?

This report is intended to give a brief introduction to the disparities that affect the populations that OID serves and the data we have to support program efforts. If you have further questions or have additional data needs, please contact the current health disparities epidemiologist (steven.erly@doh.wa.gov).



Table of Contents

Introduction.....	1
Racism.....	3
Substance Use.....	4
Poverty and Class.....	5
Homelessness.....	6
Coinfection.....	7
Rurality.....	8
Gender Identity: Transgender Women.....	9
Data Index.....	10

Racism

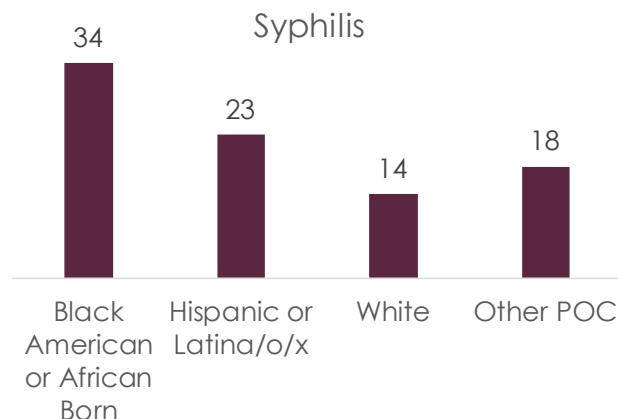
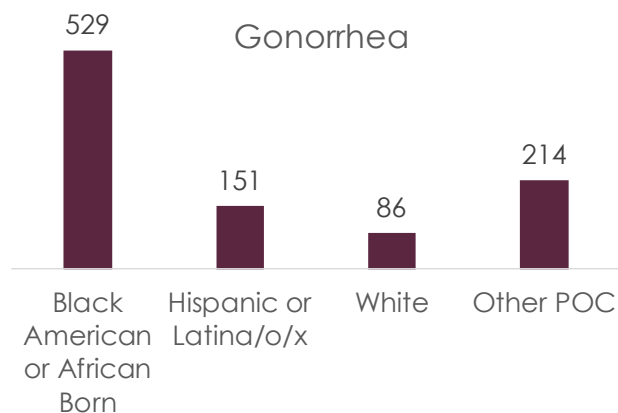
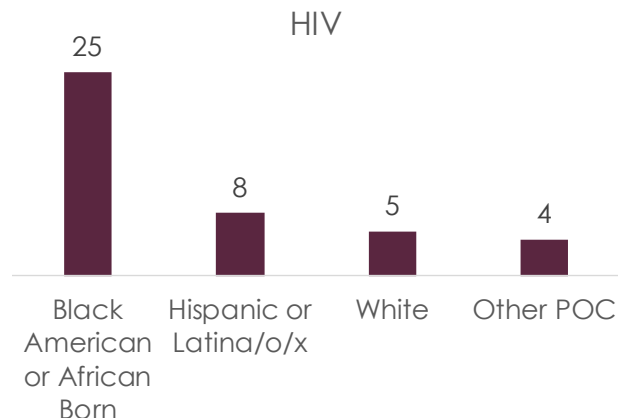
Racism creates sharp divides in health outcomes that fuel disparities in the conditions our office oversees. Taken together and compared to people who identify as white, people of color are:

- 1.6 times more likely to be diagnosed with HIV;
- 1.7 times more likely to be diagnosed with syphilis; and
- 1.4 times more likely to be diagnosed with gonorrhea than the average person in Washington state.

These disparities are multifactorial and stem from many different aspects of our society. The simplest and most powerful factor is the existing prevalence of these diseases within social networks. Although this is a large contributor towards racial disparities, other factors such as income, education, trauma, stigma, and access to healthcare are higher in certain racial groups and can affect a person's ability to make their own choices and take appropriate precautionary measures.

One factor that does not vary by race is personal risk behavior. In a population survey of Washingtonians, people of color were no more likely to engage in high risk behaviors (such as unprotected sex or injection drug use) than other groups of people. This serves to emphasize that the context in which a behavior is performed can have a large impact on its risk.

**Number of New Cases Per Year
Per 100,000 Washingtonians**

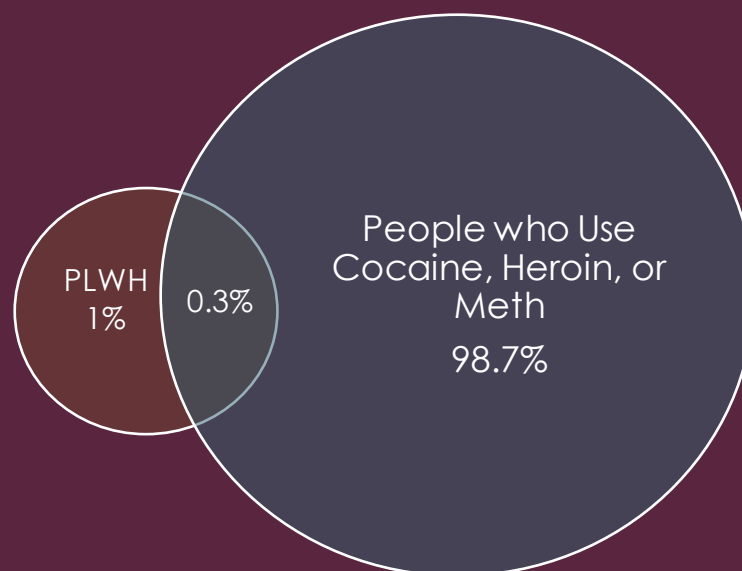


Substance Use

Substance use is a growing contributor to the burden of HIV, gonorrhea, chlamydia, and Hepatitis C in Washington state, and people who use injection drugs are at particularly high risk of these conditions. The link between injection drug use, HIV, and hepatitis C is straightforward; syringes are a direct mechanism for introducing HIV and hepatitis C into the bloodstream. In Washington state, 14% of HIV and 79% of acute hepatitis C diagnoses are associated with injection drug use. Substance use is also associated with STD diagnoses. In King County, where additional information is collected on certain topics, 6% of people who inject drugs had been diagnosed with an STI in the past 12 months.

In addition to increasing the risk of acquiring these illnesses, substance use can also make it difficult to access treatment. Treatment for HIV and hepatitis C require consistent medical appointments, laboratory testing, and access to a pharmacy. Substance use can introduce barriers and competing priorities in people's lives which can make completing these tasks more challenging. This puts the health of an individual at risk and also increases the chance that they transmit these diseases to people around them. Although almost everyone is eligible for hepatitis C treatment, only 23% of people who inject drugs with diagnosed hepatitis C have started or completed treatment. People who inject drugs who have HIV also have the lowest rate of successful HIV treatment; on average, 26% are not virally suppressed at a given time.

Intersection of People who Use Substances and People living with HIV, Washington State (1.4% of WA Population)



Description: People who use substances make up a large proportion of people living with HIV (PLWH), but PLWH make up only a small part of people who use substances.

Poverty and Class

Although the infectious diseases overseen by OID are biological processes, a person's social context has a large impact on their risk of disease. Poverty is interconnected with an overwhelming number of factors that affect disease transmission, which include access to healthcare, competing priorities, and health education. It comes as no surprise then, that people with lower income have higher rates of HIV, STD's, and hepatitis C. On a community level, people in the poorest part of each county had 2.3 times the risk of being diagnosed with HIV as compared to the most wealthy.

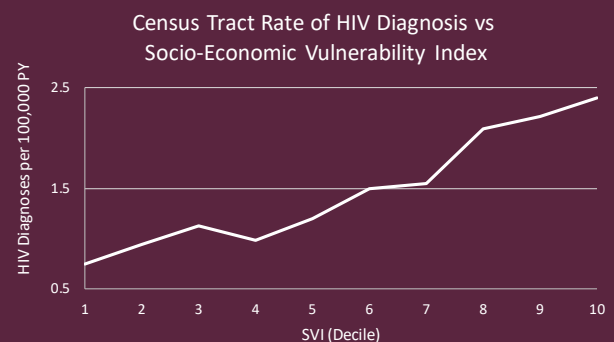
HIV, Hepatitis C, and STI's also contribute to poverty. The average cost of HIV treatment in the United States is \$26,000 a year, and the cost of the medication to treat hepatitis C can cost up to \$100,000. This places treatment out of reach for many people who do not have health insurance and may be a significant financial burden for those who do. Untreated, these conditions also impact a person's ability to work and provide for themselves, which can induce further financial strain. In a survey of people living with HIV in Washington, 35% of people living with HIV have income below the federal standard for poverty.



Contextual Determinants of Health

In addition to poverty, there are many other aspects of a community that can have negative impacts on a person's health. This can be a product of many factors: from how close a person lives to a hospital to whether they have sidewalks in their neighborhood. This can be broadly described as a person's "contextual determinants of health".

Since there are many ways that neighborhoods can be different, a person's context can be a difficult concept to measure. One way it is commonly described is with the CDC's social vulnerability index (SVI). When we make a graph of HIV diagnosis rate by SVI score, we start to see how context matters. People who live in areas with low SVI are more likely to acquire and be diagnosed with HIV. This highlights the interplay of individual factors combined with community factors such as healthcare access, stigma, and health education.



Description: Communities with a higher social vulnerability score, which are communities with more poverty and fewer resources, have a higher rate of HIV incidence

Homelessness

People who are homeless are in a vulnerable and challenging position that can mean making tradeoffs between healthy choices and day-to-day survival. A particular challenge for people taking antiretroviral therapy is finding a safe place to keep their medication. 44% of homeless people living with HIV are not virally suppressed, which is almost twice the proportion of other people living with HIV (24%).

Although there is scant data on population-level homelessness, there is reason to believe that the populations our office serves are disproportionately impacted by homelessness. From surveys of people living with HIV we can estimate that 10% of PLWH have experienced homelessness in the past 12 months. We also know that homelessness disproportionately affects younger people and people of color who already have higher rates of HIV, hepatitis C, and STD's.



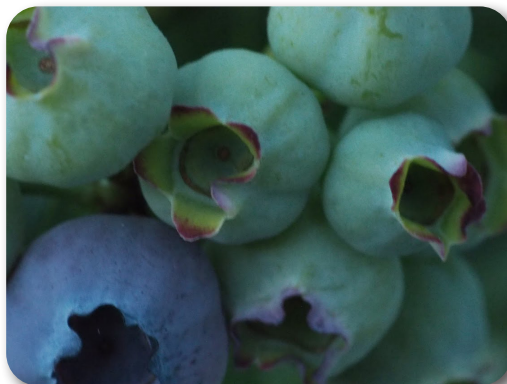
Coinfection

The infectious conditions discussed in this report do not exist independently of one another and interact on an individual and community level. In some cases, having one condition, such as gonorrhea or syphilis, can induce biological processes that make it easier for HIV transmission to occur. In other cases, there is no biological interaction, but there is significant overlap in the populations that have these diseases. For example, an estimated 14% of PLWH have or have had hepatitis C.

In all, people who are at high risk for one disease are likely at high risk for others. Finding and addressing a person's needs to prevent one condition is an important step towards ensuring their health against other conditions.

What is a Person's 5-Year Probability of Acquiring Each Infectious Condition?

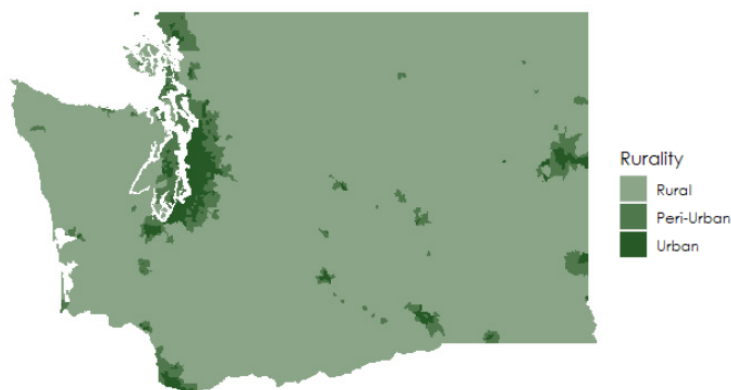
Current Health State	New Condition		
	HIV	Gonorrhea	Syphilis
None	<1%	1%	<1%
Living with HIV	0%	12%	8%
Diagnosed with Gonorrhea	8%	31%	6%
Diagnosed with Syphilis	8%	41%	23%



Rurality

Another dimension of health that affects our work is the distinction between urban and rural parts of our state. Although most people have a concept in their mind of what “rural” and “urban” mean, there is no nationwide consensus on an precise definition. For this report, we divided the state into “Rural”, “Peri-Urban”, and “Urban” using community factors that people generally associate with rural areas (see map). Using our classification system, 14% of Washingtonians live in rural areas, 21% live in peri-urban areas, and 64% live in urban areas. PLWH disproportionately live in urban areas; 6% of PLWH live in rural areas, 12% live in peri-urban areas, and 82% live in urban areas.

Transmission of HIV, syphilis, and gonorrhea is less common in rural areas; people in urban areas are 4 times more likely to be diagnosed with syphilis and HIV, and 3 times more likely to be diagnosed with gonorrhea as compared to in rural areas. However, diagnosis and treatment of these diseases can be more difficult in rural areas where people may have to travel further for healthcare and sexual health services.



How is the HIV Epidemic Different in Rural, Peri-Urban, and Urban Areas?

79% of PLWH living in urban areas of the state are virally suppressed, which is the highest of the three classifications. People who live in urban areas tend to have access to a wider range of services than those in remote regions. In Washington, urban areas are also the areas with the highest amount of diversity. Just under 50% of PLWH in urban areas identify as something other than white, as compared to 25% in rural areas. This may mean that services in urban areas need to be able to accommodate different cultural needs and the products of racism that disproportionally impact these populations.

78% of PLWH living in peri-urban areas of the state are virally suppressed, which falls between the values for urban and rural areas. PLWH who live in peri-urban areas have markedly higher rates of poverty and the barriers to care associated with poverty. 68% of PLWH in peri-urban areas have an income below the federal poverty level, as compared to 54% in other areas. PLWH in peri-urban areas are 50% more likely to need or use emergency housing and 80% more likely to need or use substance use disorder treatment, domestic violence services, and mental health services than PLWH in rural or urban areas.

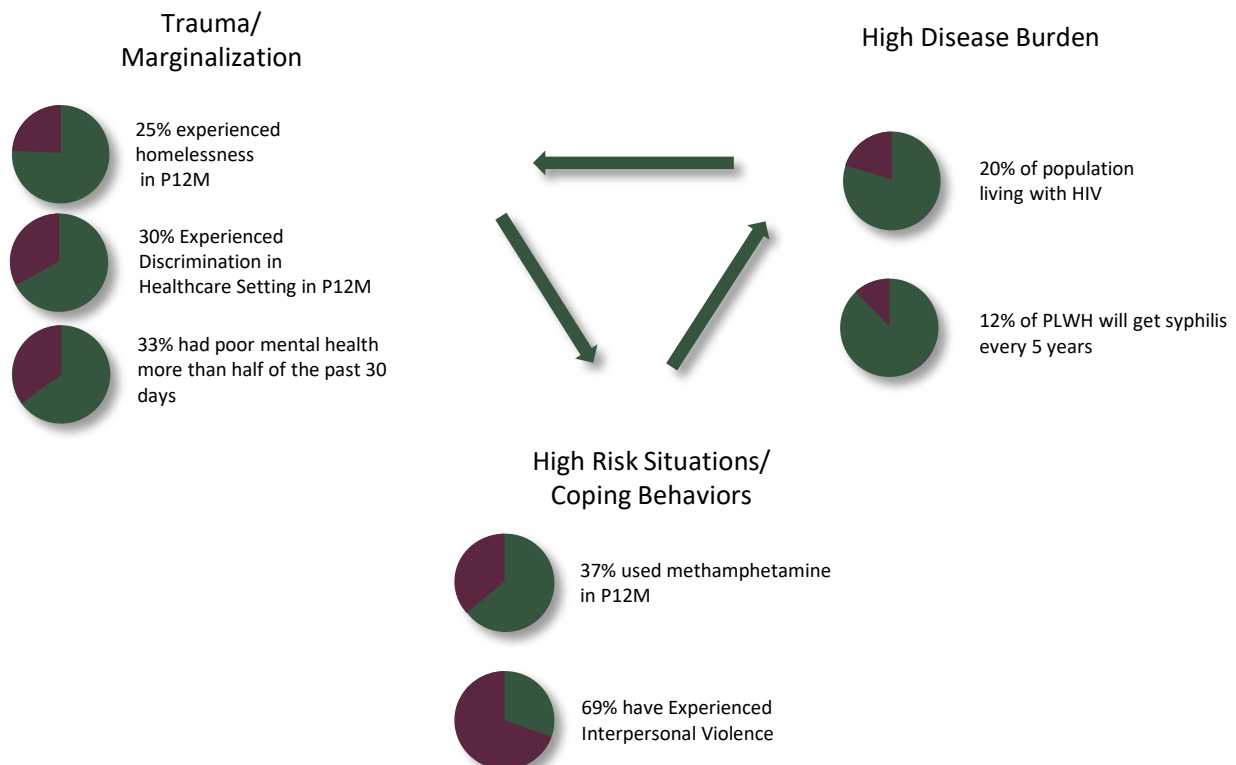
74% of PLWH living in rural areas of the state are virally suppressed, which is the lowest of the three classifications. PLWH who live in rural areas may have to travel a long distance to obtain HIV care and may have less access to support services. From MMP interviews, we also find that PLWH who live in rural areas also experience a higher amount of stigma and have a larger unmet need for peer group support. This suggests that PLWH in rural areas may experience isolation and social barriers to HIV prevention and care.

Gender Identity: Transgender Women

Despite the large amount of research that has been conducted about people living with or at risk of HIV, STI, and Hepatitis C, we have very little data about transgender women in Washington state. Most of what we can say comes from the experience of these women nationally; in the United States, transgender women live in a society where they face significant stigma and discrimination, which pushes them into situations that greatly increase their risk of acquiring sexually transmitted and blood-borne infections and limit their ability to obtain adequate care. These situations are familiar to those working in harm reduction, but include drug use, sex work, incarceration, unstable housing, poor mental health, negative health care encounters, lack of familial support, and violence.

Not surprisingly, surveys of transgender women find high rates of HIV infection. In King County, the HIV prevalence among a sample of transgender women was 20%, which is consistent with studies in other regions and internationally. Although we cannot estimate it directly, there is reason to believe that transgender women are also at high risk of gonorrhea and syphilis; the rate of diagnosis of these conditions among transgender women living with HIV is between 10-20 times as high as other women living with HIV and similar to that of men who have sex with men.

How do Disease, Trauma, and Behavior Interact? Relationships among Transgender Women Living with HIV in Washington



Data Index

Page 3, Racism: HIV Surveillance Data 2015-2019, STD Surveillance Data 2015-2019, ACS Population Estimates, 2015-2019, BRFSS 2019 Assessment of HIV Risk (adjusted for age, sex, and income)

Page 4, Substance Use: HIV Surveillance Data 2015-2019, STD Surveillance Data 2015-2019, Hepatitis C Surveillance Data 2015-2019, NHBS Injection Drug Use Cycle 5

Page 5, Poverty: IV Surveillance Data 2015-2019, STD Surveillance Data 2015-2019, ACS Data 2015-2019, CDC Social Vulnerability Index 2018, MMP 2015-2019

Page 6, Homelessness: MMP 2015-2019, Washington Department of Commerce Homeless Point in Time Count 2019

Page 7, Coinfection: HIV Surveillance Data 2015-2019, STD Surveillance Data 2015-2019, MMP 2015-2019

Page 8, Rurality: HIV Surveillance Data 2015-2019, STD Surveillance Data 2015-2019, MMP 2015-2019, ACS Data 2015-2019, EPA National Walkability Index, CDC Daily Census Tract PM2.5 Estimations

Page 9, Gender Identity (Transgender Women): MMP 2015-2020, NHBS 2019-2020 Transgender Cycle, Human Rights Campaign *"Transgender People and HIV: What We Know"*