

Syphilis: A Timeless Disease with Modern Challenges in Louisiana



HEALTH EQUITY THROUGH
A RURAL LENS – ECHO MINI
SERIES



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Syphilis

-STI caused by *Treponema pallidum*- spiral shaped bacteria described as a spirochete



Origin of Syphilis- debated- 2 main theories

- The Columbian Hypothesis- Columbus' seamen brought it back to Europe following exploration of the Americas
 - No evidence of this dz in the Old World prior to the 1500s
- Previously existed in Europe but went unrecognized

Reports of syphilis/similar illnesses can be found throughout most of recorded history



1st recorded outbreak- 1494/1495 Italy

- Occurred during a French invasion- known as “French Disease”
- Treponema pallidum identified as causative organism in 1905 in Berlin
- First “new” dz to be discovered after the invention of printing, and so news spread quickly
- Treatment with Salvarsan developed in 1910
- Penicillin in 1943

Treatment of syphilis- a brief history

- *Treponema pallidum* identified as causative organism in 1905
- Numerous natural remedies tried over the course of history. Mercury became a popular choice
- Salvarsan developed in 1910- 1st effective treatment
 - An organo-arsenic. Toxic, but “better than mercury”
- Penicillin discovered by Fleming in 1928. became treatment of choice by 1943* (*pay attention to this year)

Tuskegee study

“Tuskegee Study of Untreated Syphilis in the Negro Male.”

- 1932-1972
- 600 Black men (399 with syphilis)
- Informed consent **not** collected
 - Men told were being treated for “bad blood”
- Profoundly violated ethical standards
- Started before effective treatment, but the study did not offer therapy once penicillin proven to be effective
 - Penicillin accepted as tx of choice for syphilis by 1943
 - Many men died or suffered extreme morbidity
 - Many men infected wives/girlfriends

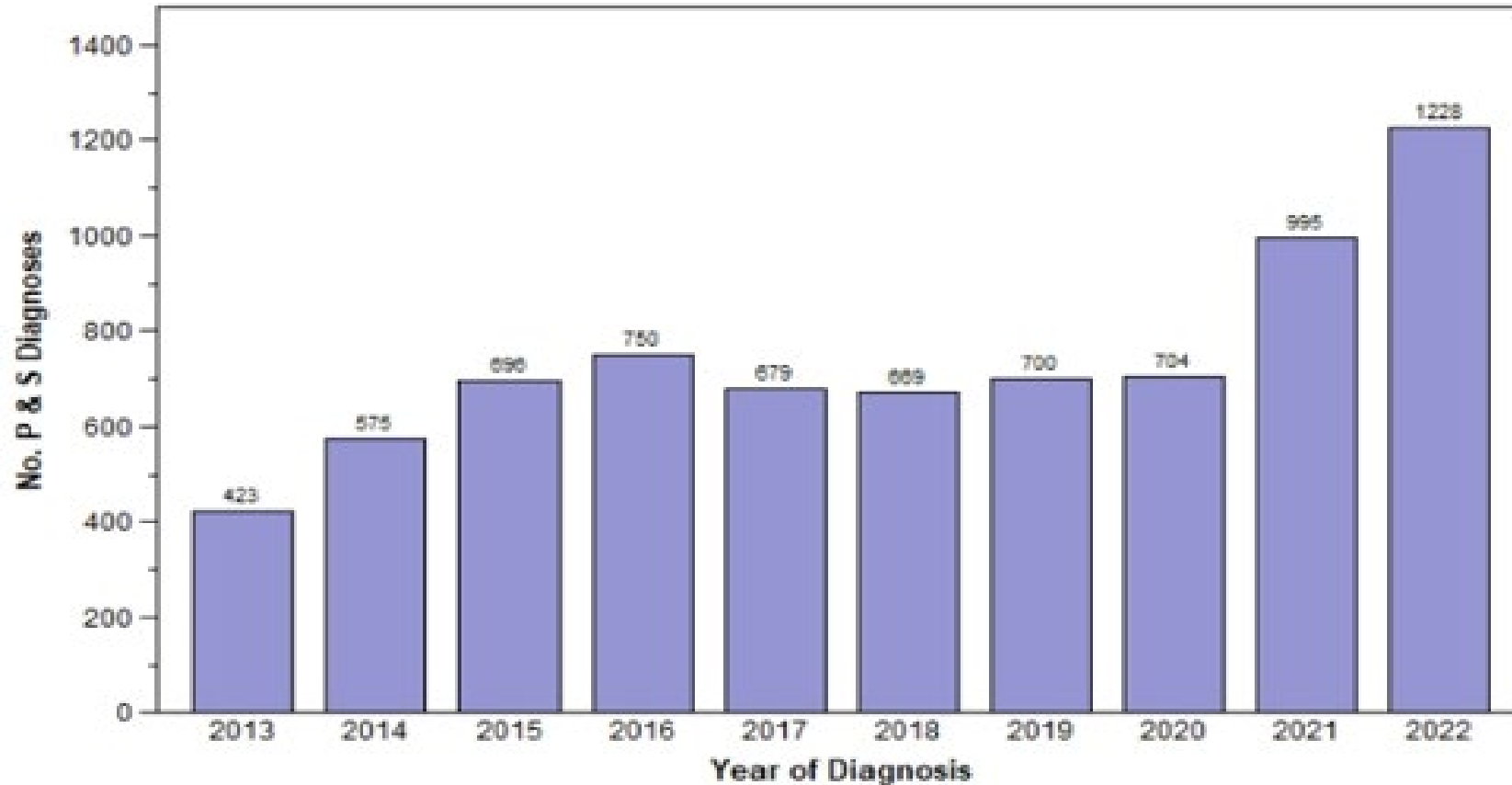
Health Disparity

- The Tuskegee Study is just one example in a long line of such disparities that continue to echo through modern healthcare
- More on this in a moment. First, a look at numbers.

Syphilis infection rates- an alarming trend

- Nationally, syphilis rates have climbed steadily since the early 2000s
 - 9% increase nationally- now at the highest rate since 1950
- In Louisiana, rates increased by 24% from 2021 to 2022
 - 26.5 per 100,000 population with primary or secondary syphilis
 - vs national rate of 17.7 per 100,000

10-year trend in primary and secondary syphilis diagnoses in Louisiana



Congenital Syphilis- Louisiana

Congenital syphilis rates increasing rapidly in Louisiana

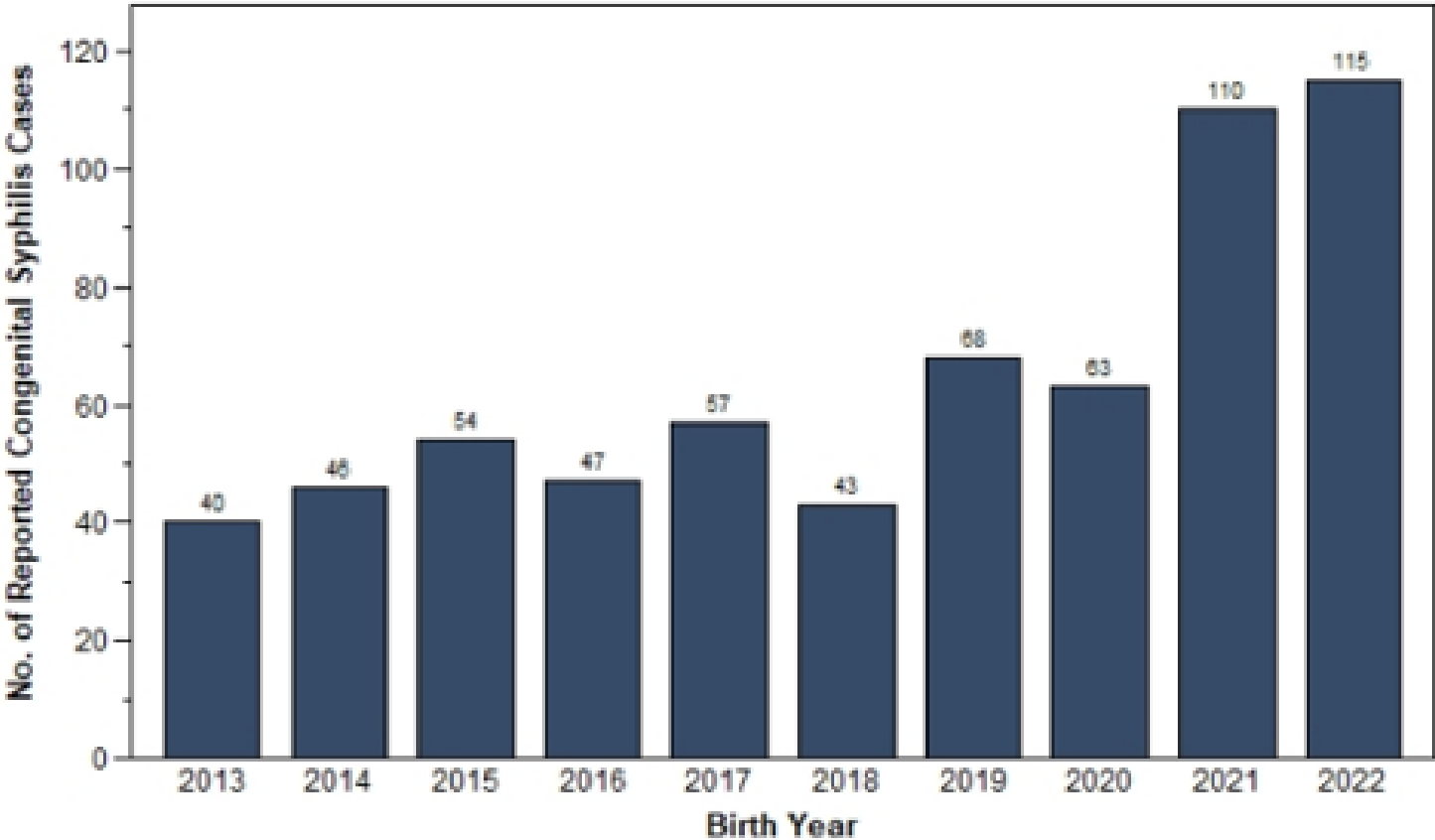
2021- LA had 3rd highest case rate of CS in the nation- 110 cases

2022- 115 cases in LA. 7 infant deaths

- That's 1 in 490 live births born with congenital syphilis

Congenital syphilis is a **PREVENTABLE** disease

10-year trend reported congenital syphilis in LA



Congenital Syphilis (CS)- definition

- 1. child has physical, laboratory or radiographic signs of CS
- OR
- 2. Born to a mother with untreated syphilis (or inadequately treated)
 - *this places these infants in the “presumed CS” category until workup proves otherwise



Congenital Syphilis (CS)

Annual Summary - 2022

Louisiana

Pregnant Mothers
Diagnosed with Syphilis
323

Congenital Syphilis Cases

115

Case count reflects the total number of individual infants

Infant Deaths Linked to
Congenital Syphilis
7

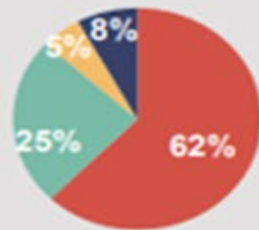
Of the 114 pregnant mothers linked to a 2022 CS case:

The majority (62%) were Black women.

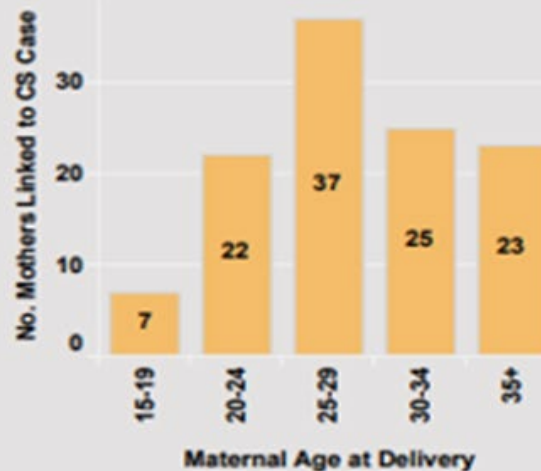
Almost one-third (32%) of mothers were between 25 to 29 years of age at delivery.

Almost one-third (32%) had a positive toxicology screen during pregnancy.

- Black
- White
- Hispanic
- Other



1 in 490
live births were born with
CS in 2022



2021 National Ranking
3rd
Highest Case Rate

Early Congenital Syphilis



Late Congenital Syphilis

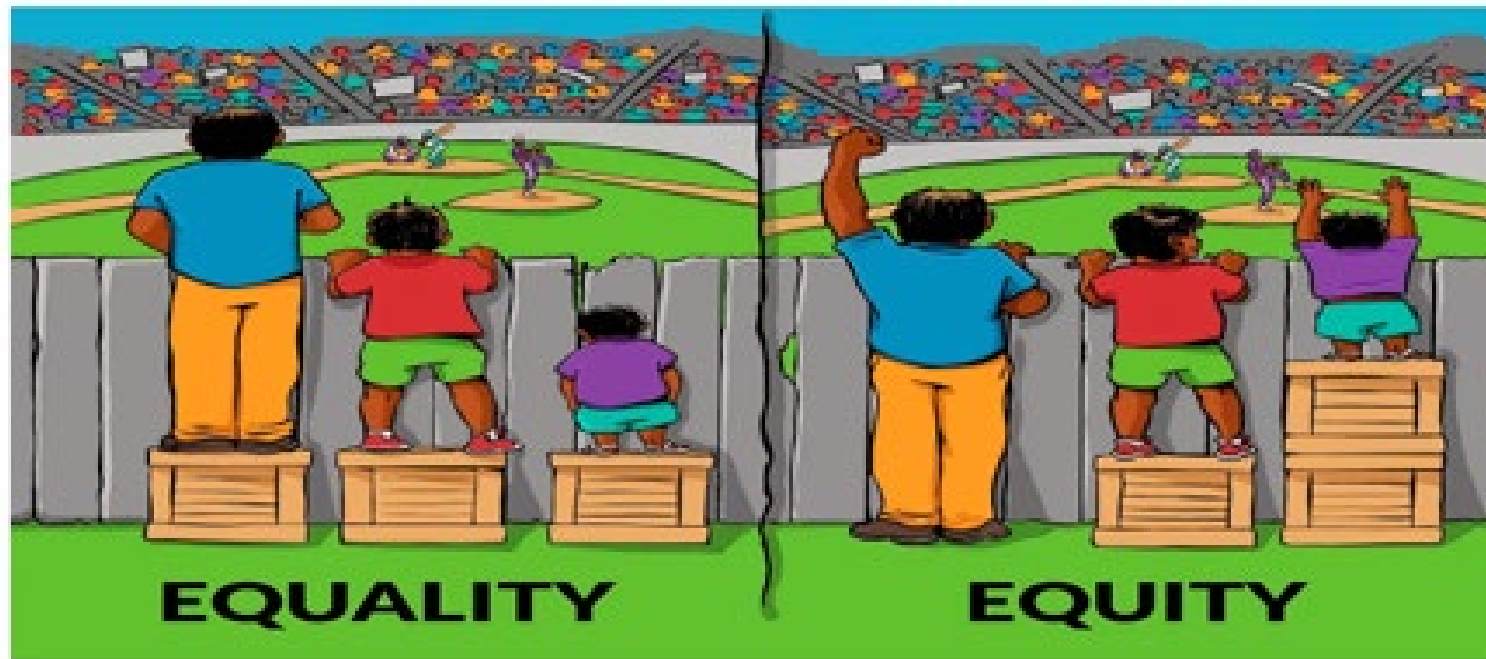


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Healthcare providers have moral responsibility to advocate for equitable access to healthcare

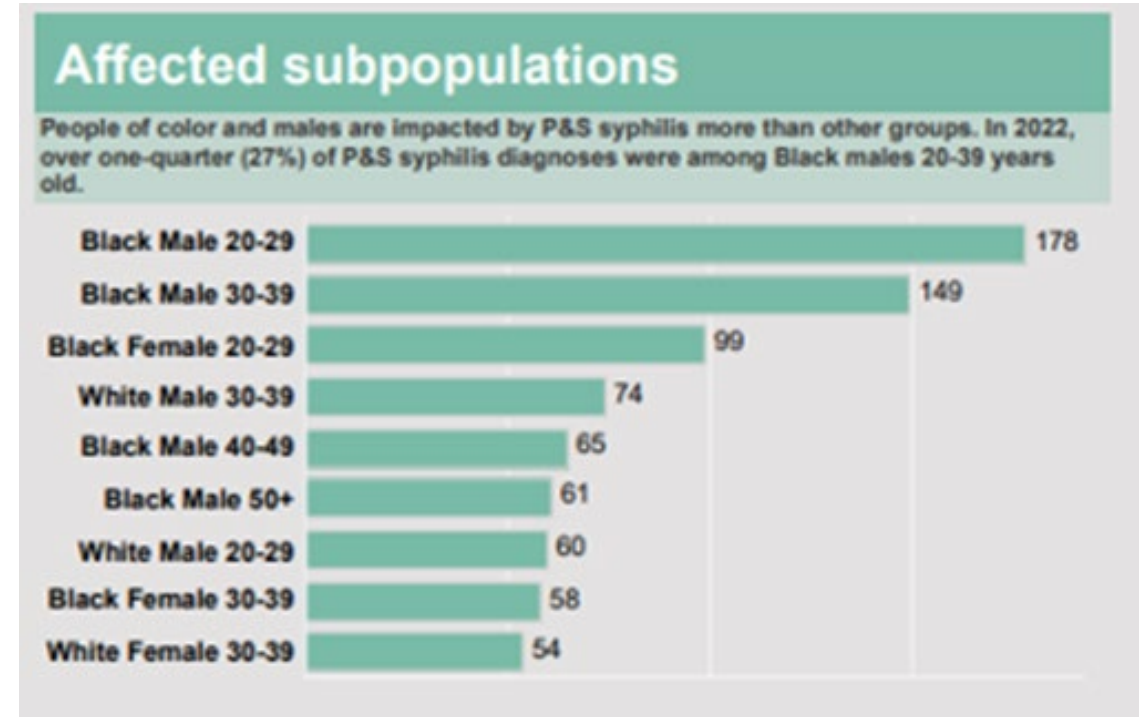
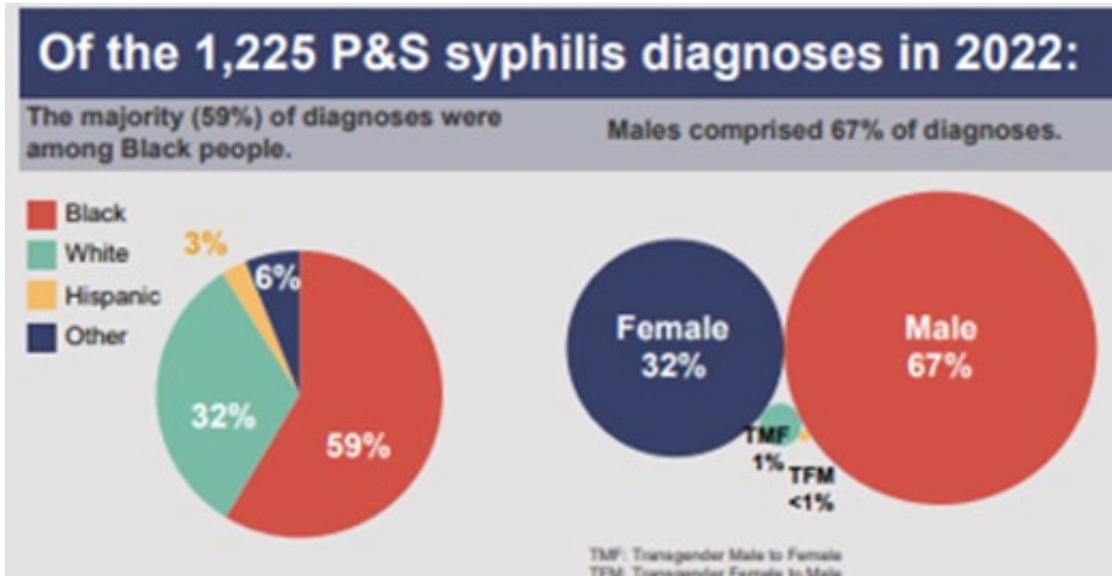
Health Equality versus Health Equity

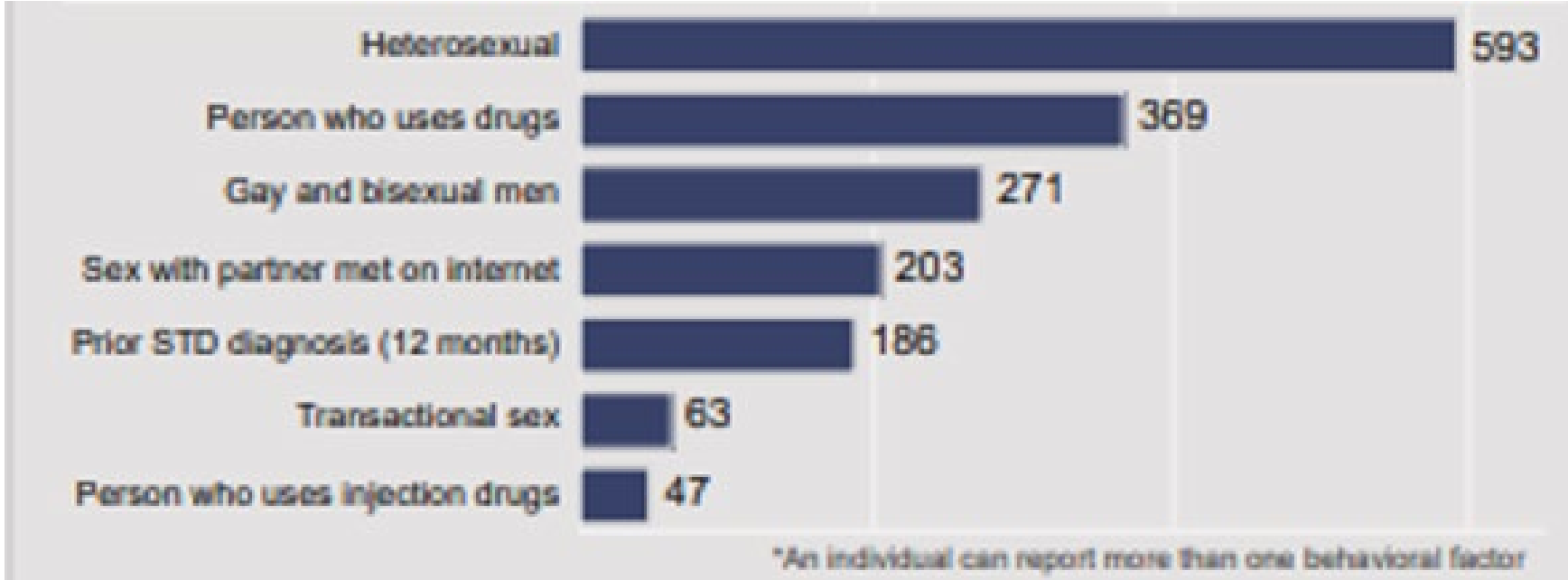


National trends in disparities

- In 2022, almost half of all cases of syphilis (any stage) were among adolescents and young adults (15-24 years of age)
- In 2022, 31.1% of all cases of P&S syphilis were among non-Hispanic Black or African American persons, even though they made up only 12.6% of the US population
- MSM disproportionately impacted
 - 36.4% of primary and secondary cases of syphilis,

Primary and Secondary Syphilis in LA





Behavioral Factors

Important to remember

Higher rates of STIs in different racial groups NOT caused by ethnicity or heritage (or behavior)

But by social conditions that are more likely to affect **MINORITY** groups

- Poverty, job insecurity/less jobs available, low education levels, lack of healthcare access etc.

Why?

- Regional variations in availability of access to health care
 - Budget cuts to health systems
 - Often poor health insurance coverage in reproductive-age populations
 - Uninsured/underinsured
- Research suggests that areas with higher rates of poverty also have higher rates of STIs
- Some suggest that the use of PReP may be contributing

Why? continued

- Historical events like the Tuskegee study, experienced discrimination in healthcare delivery due to race/ethnicity, cultural insensitivity have all caused deep and long-lasting scars, thought to contribute to mistrust in the medical system as a whole

Congenital Syphilis- disparities in access

- Over 3.5 million births in U.S. annually
- AND rates of maternal morbidity and mortality are INCREASING
- Over 2 million women of childbearing age in the U.S. live in maternity care deserts

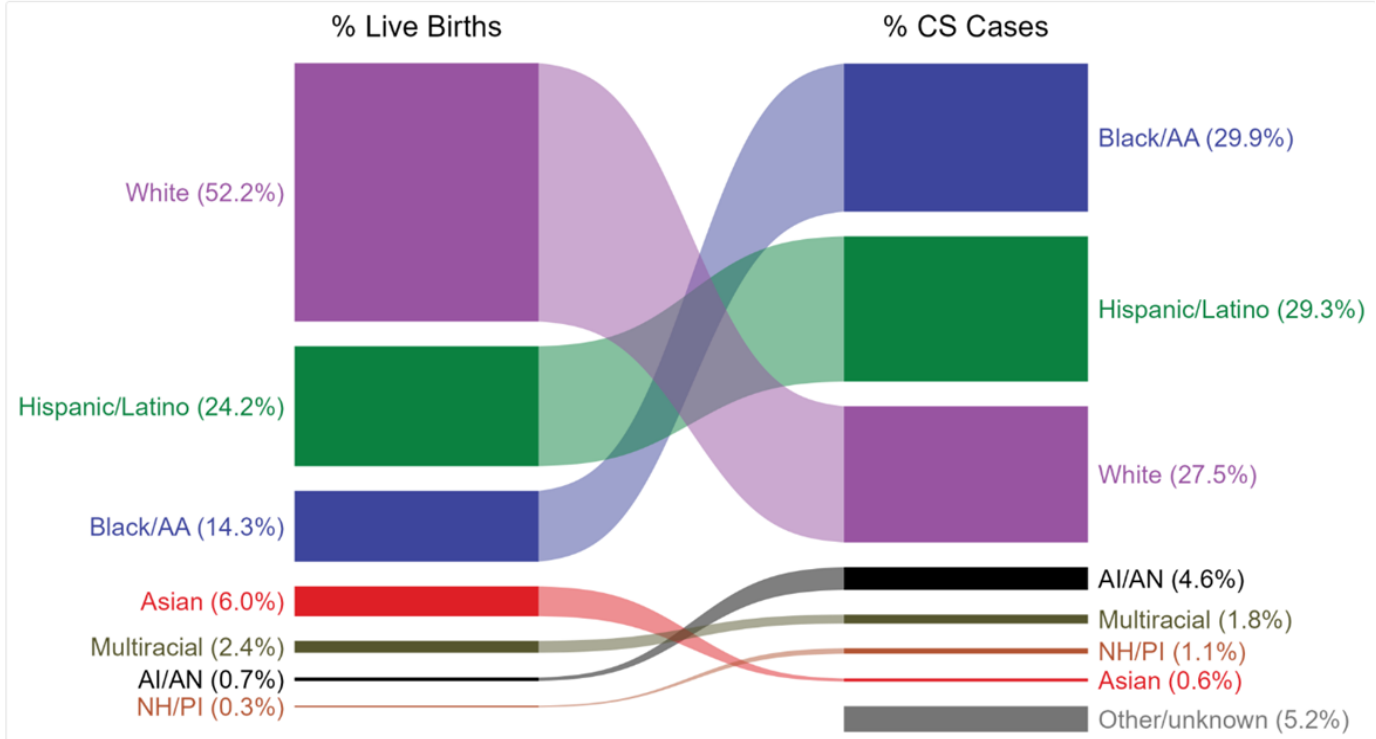
Maternity Care Access in LA



- 26.6% of parishes are maternity care deserts
- 12.1% of women have no birthing hospital within 30 min drive
 - vs 9.7% nationally
- 16.2% received inadequate or no prenatal care
 - vs 14.8% nationally
- Women with chronic health conditions have 49% increased likelihood of having preterm delivery

Congenital Syphilis — Total Live Births and Reported Cases by Race/Hispanic Ethnicity of Mother, United States, 2022

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Other Contributors

- Lack of good sex education in LA schools
 - Sex ed is NOT mandated. May not begin before 7th grade (Orleans parish is the exception- may begin in 3rd grade)
- Education on STIs in general is lacking
- Penicillin shortage- began in later stages of pandemic, still ongoing but improving
- COVID-19 pandemic

How to Reverse the Trend

- Advocate for legislature
 - To fund outreach, especially in rural areas
 - To increase sex education in schools
 - To improve health insurance coverage options
- Increased screening/awareness
- Closing healthcare gaps with case review boards and perinatal case managers
 - 2016 LA implemented 9 regional case review board for CS (modeled after the state's HIV case review boards)

Screening

- Pregnant people
 - All in first trimester/at first prenatal visit
 - All again early in third trimester
 - At delivery if risk factors/high risk
 - No infant should leave birth hospital without documentation of mom's serological status at least once during pregnancy
- Clinicians who provide care to pregnant women outside of traditional prenatal visits should confirm if pt has been tested and/or offer screening

Screening

- Non-pregnant adults
 - All men and women. If risk factors, at least annually.
 - All gay and bisexual men and transgender persons should be screened at least annually
 - People living with HIV annually

Screening- Adolescents

- Recommendations far from clear
- LA Dept of Health issued guidance last spring to increase screening in adult populations but did not specifically address adolescents
- CDC and AAP
 - No recommendation for screening asymptomatic without risk factors
 - Pediatricians to assess local prevalence to determine need for screening
- Barriers to screening adolescents
 - Teens may have concerns about confidentiality
 - PCPs may not be aware of local trends/prevalence
 - Lack of parental support

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Questions?