# Presenter Dr. Alicia Morehead-Gee

Alicia Morehead-Gee, MD, MS, graduated from Charles Drew/UCLA Medical Education Program. Following that, she trained in the UCSF  Internal Medicine San Francisco Primary Care (SFPC) Residency Program, where she first began her interest in HIV prevention. Dr. Morehead-Gee was a National Clinician Scholar at UCLA from 2018 to 2020, focusing on HIV prevention research to decrease racial/ethnic disparities in PrEP use. Her goal is to continue developing programs that improve healthcare experiences and health outcomes for patients of various marginalized backgrounds.

Dr. Alicia Morehead-Gee is a general internal medicine physician and health services leader committed to designing solutions to improve health outcomes among underserved populations. As Medical Director of HIV Prevention at AltaMed Health Services Corporation, she leads an initiative to expand access to HIV preventive care by finding new avenues to deliver HIV pre-exposure prophylaxis (PrEP) and post-exposure prophylaxis (PEP). This involves teaching primary care providers, pharmacists, and healthcare staff about HIV prevention, sexual health, and LGBTQ+ inclusive care.

# **Addressing High Rates of STIs:** Updated Clinical Guidelines to Testing & Treatment

Alicia Morehead-Gee, MD, MS

Medical Director, HIV Prevention

AltaMed Health Services

May 5, 2023 Live Webinar, 12:00 pm – 1:00 pm PST, 1 CME/CE Credit

Directly Provided CME/CE Activity by L.A. Care Health Plan

# Disclosures

The following CME planners and faculty do not have any financial relationships with ineligible companies in the past 24 months:

- Leilanie Mercurio, L.A. Care PCE Program Manager, CME Planner
- Johanna Gonzalez, L.A. Care QI Project Manager, CME Planner
- Brigitte Bailey, L.A. Care QI Program Manager, CME Planner
- Alicia Morehead-Gee, MD, MS, Medical Director, HIV Prevention, AltaMed Health Services, CME Faculty

An ineligible company is any entity whose primary business is producing, marketing, selling, re-selling, or distributing healthcare products used by or on patients.

Commercial support was not received for this CME activity.

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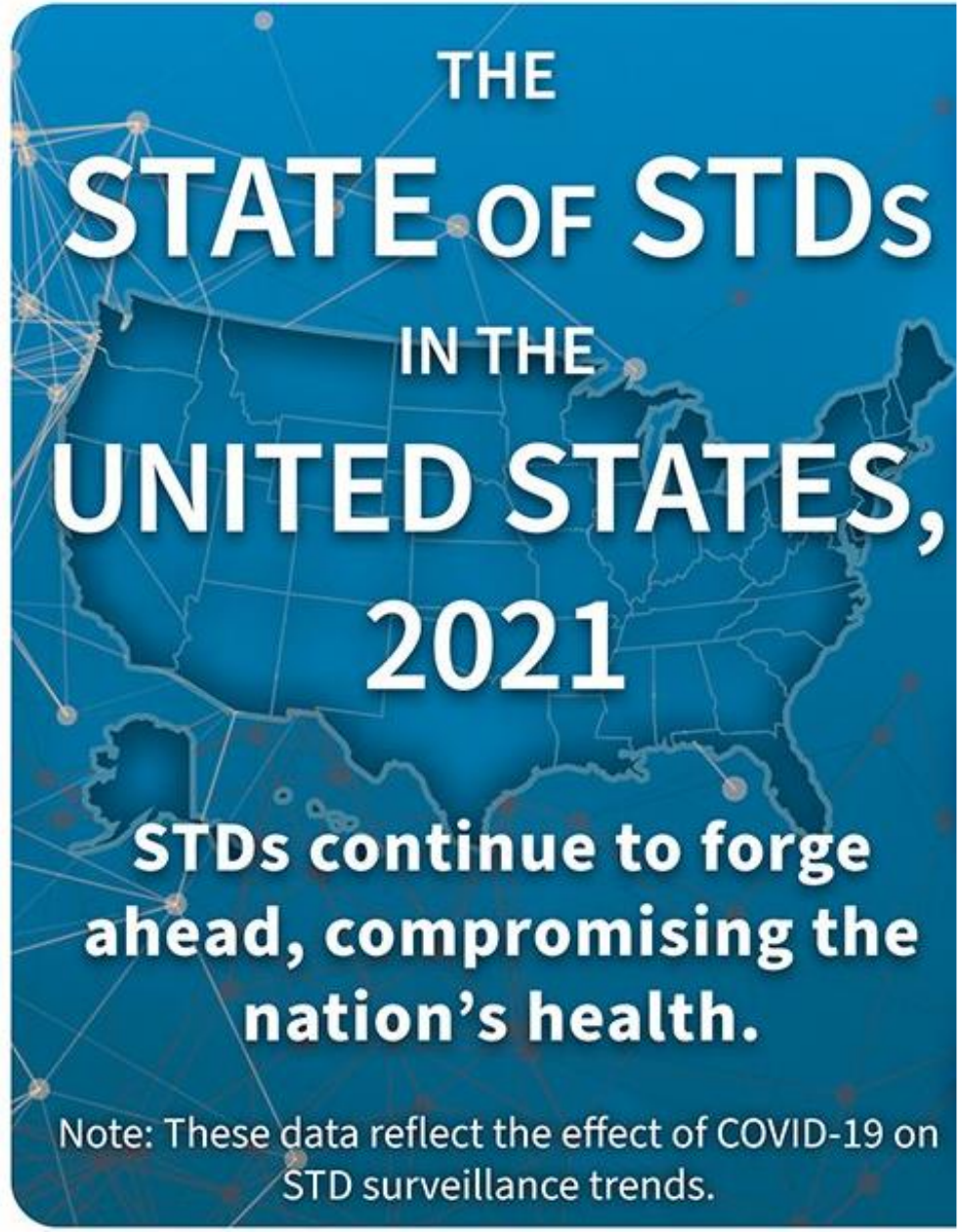
# Learning Objectives

- **At the completion of the CME/CE activity, webinar participants/learners can:**
  - Identify key groups that benefit most from sexually transmitted infectious (STI) disease testing.
  - Name STI screening and treatment methods for key groups.
  - Summarize the importance of STI testing and treatment for women and pregnant people.
  - Specify prevention methods for STIs.

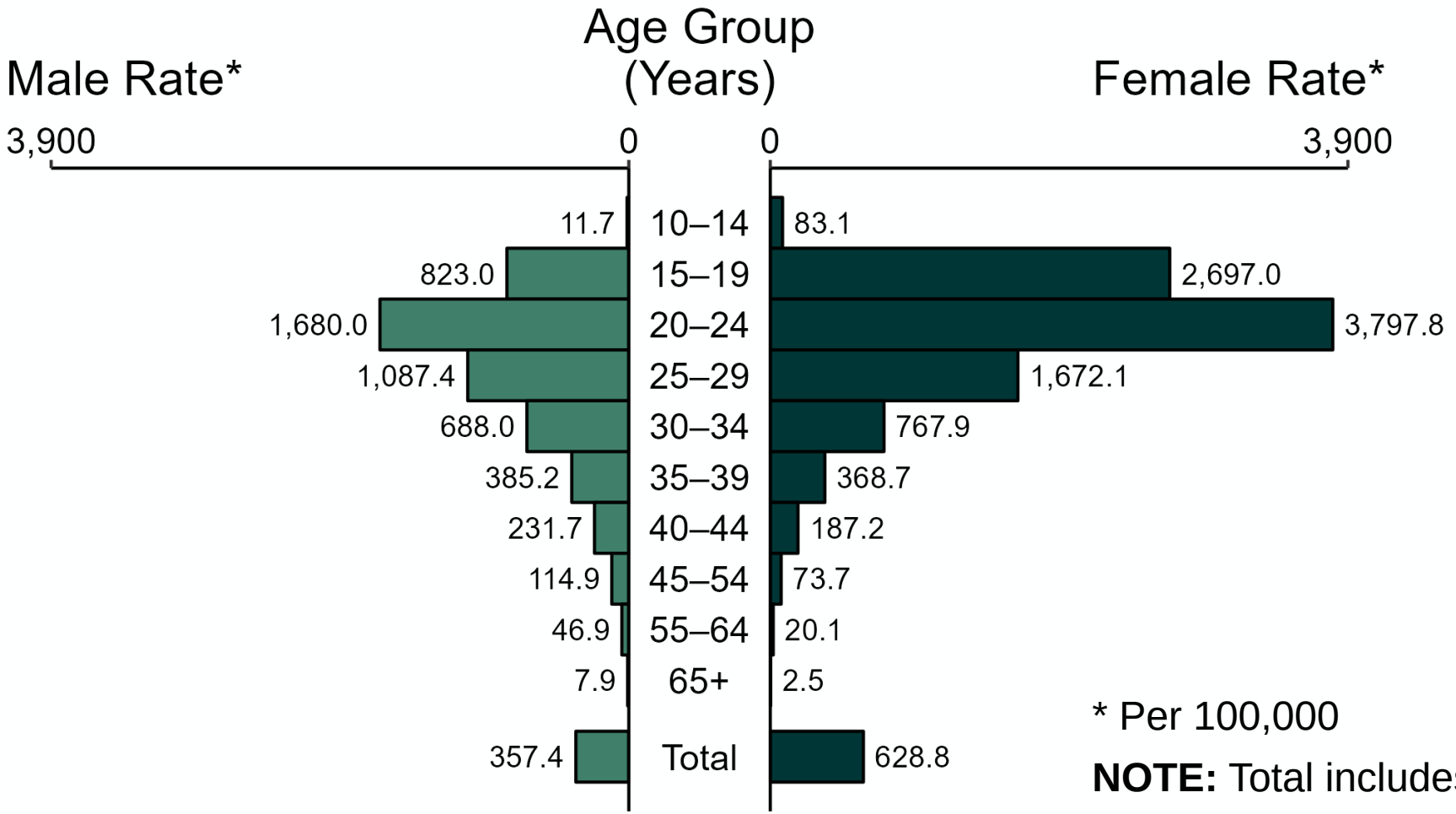





Centers for Disease Control and Prevention. *Sexually Transmitted Disease Surveillance 2021.* Atlanta: U.S. Department of Health and Human Services; 2023.

# **Chlamydia** – Affecting **girls & women aged 15-29** the most

Rates of Reported Cases by **Age Group & Sex**, United States, 2021




* Per 100,000

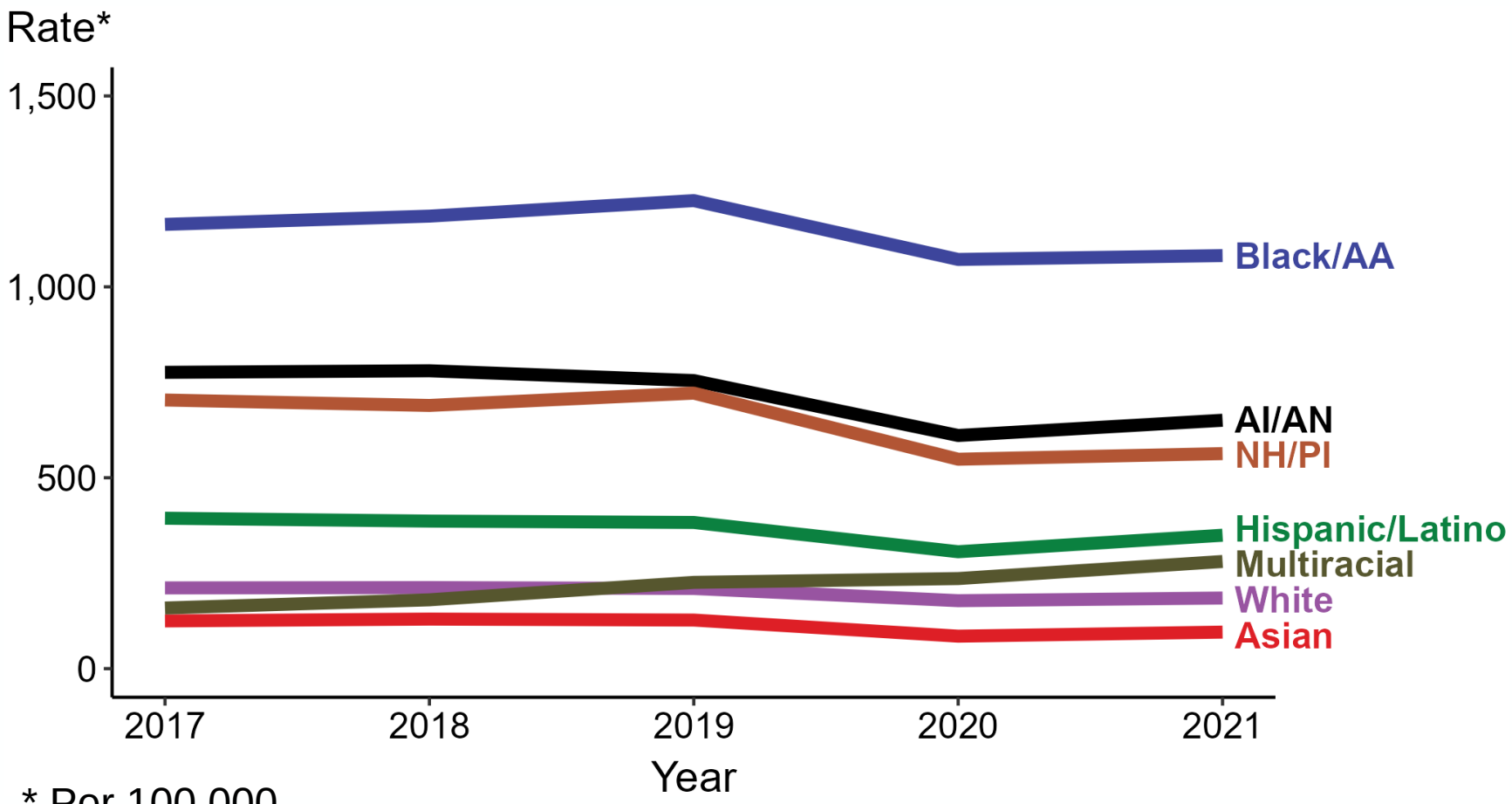
**NOTE:** Total includes all ages.



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

# Chlamydia is also affecting **marginalized** groups

Rates of Reported Cases by **Race/Ethnicity**, U.S., 2017–2021




* Per 100,000

Acronyms:

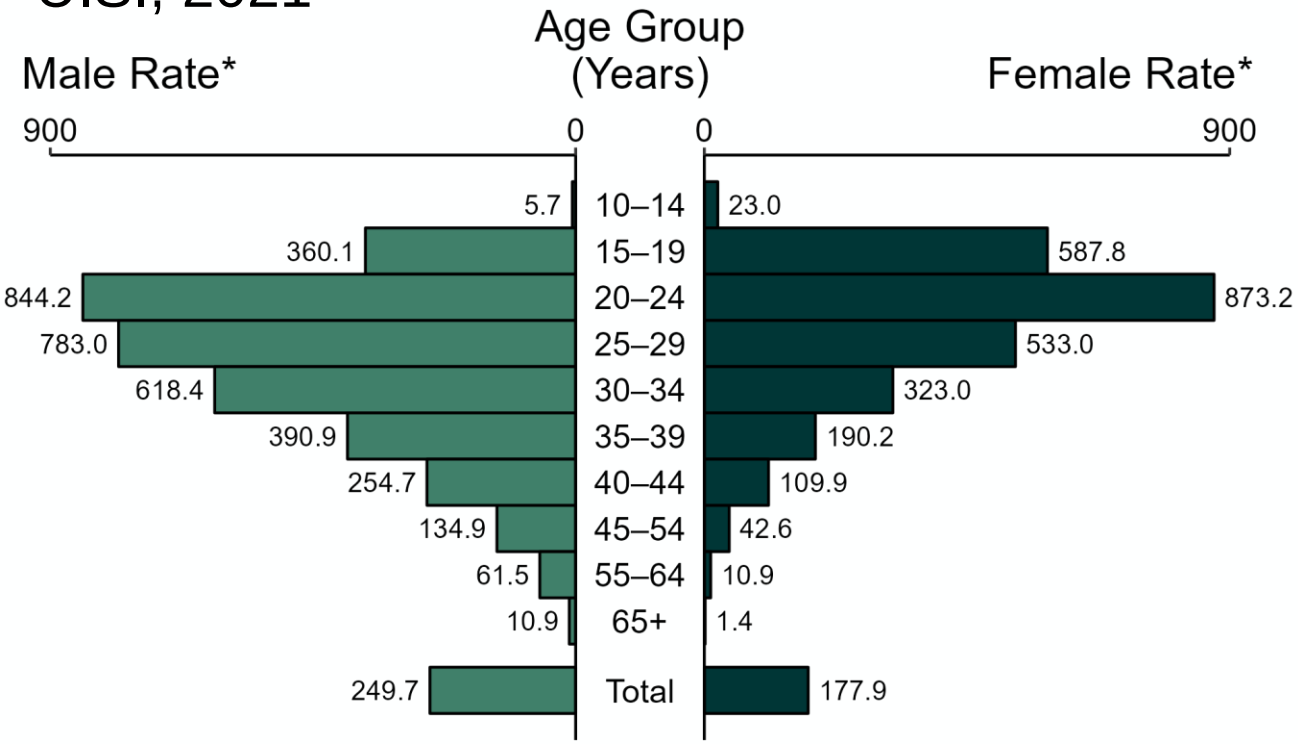
- **Black/AA** = Black or African American
- **AI/AN** = American Indian or Alaska Native
- **NH/PI** = Native Hawaiian or other Pacific Islander



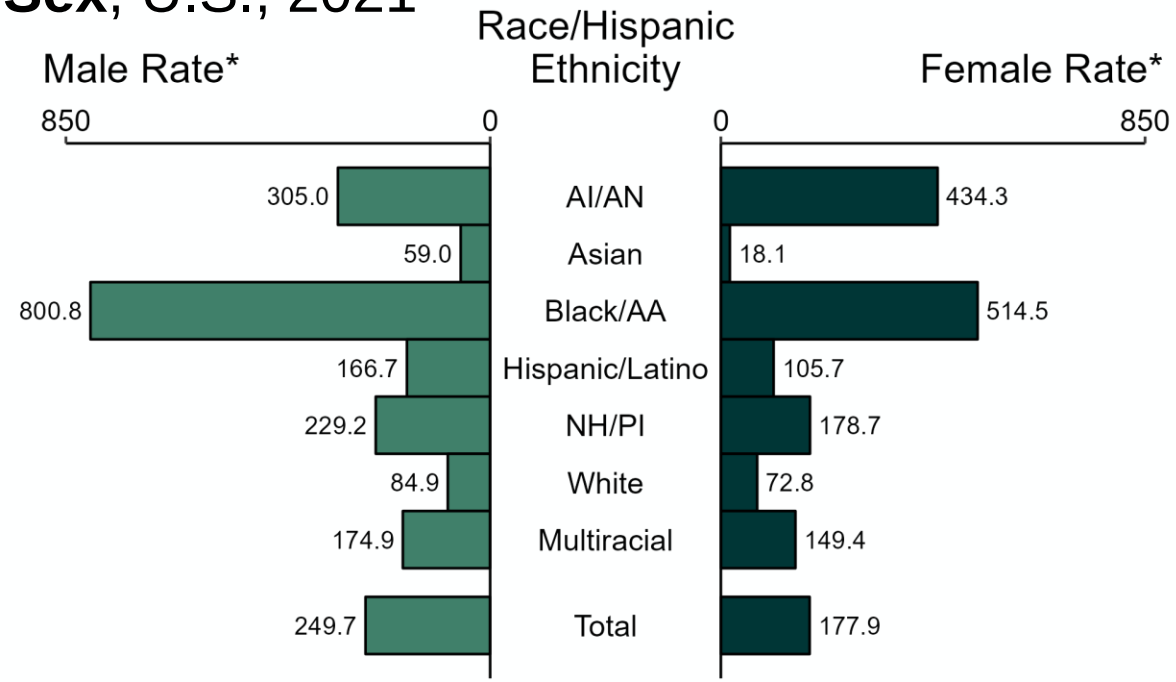
Centers for Disease Control and Prevention. *Sexually Transmitted Disease Surveillance 2021.* Atlanta: U.S. Department of Health and Human Services; 2023.

# **Gonorrhea** – Affecting **males & females** aged 15 – 29

Rates of Reported Cases by **Age Group** & **Sex,** U.S., 2021




Rate of Reported Cases by **Race/Ethnicity & Sex**, U.S., 2021

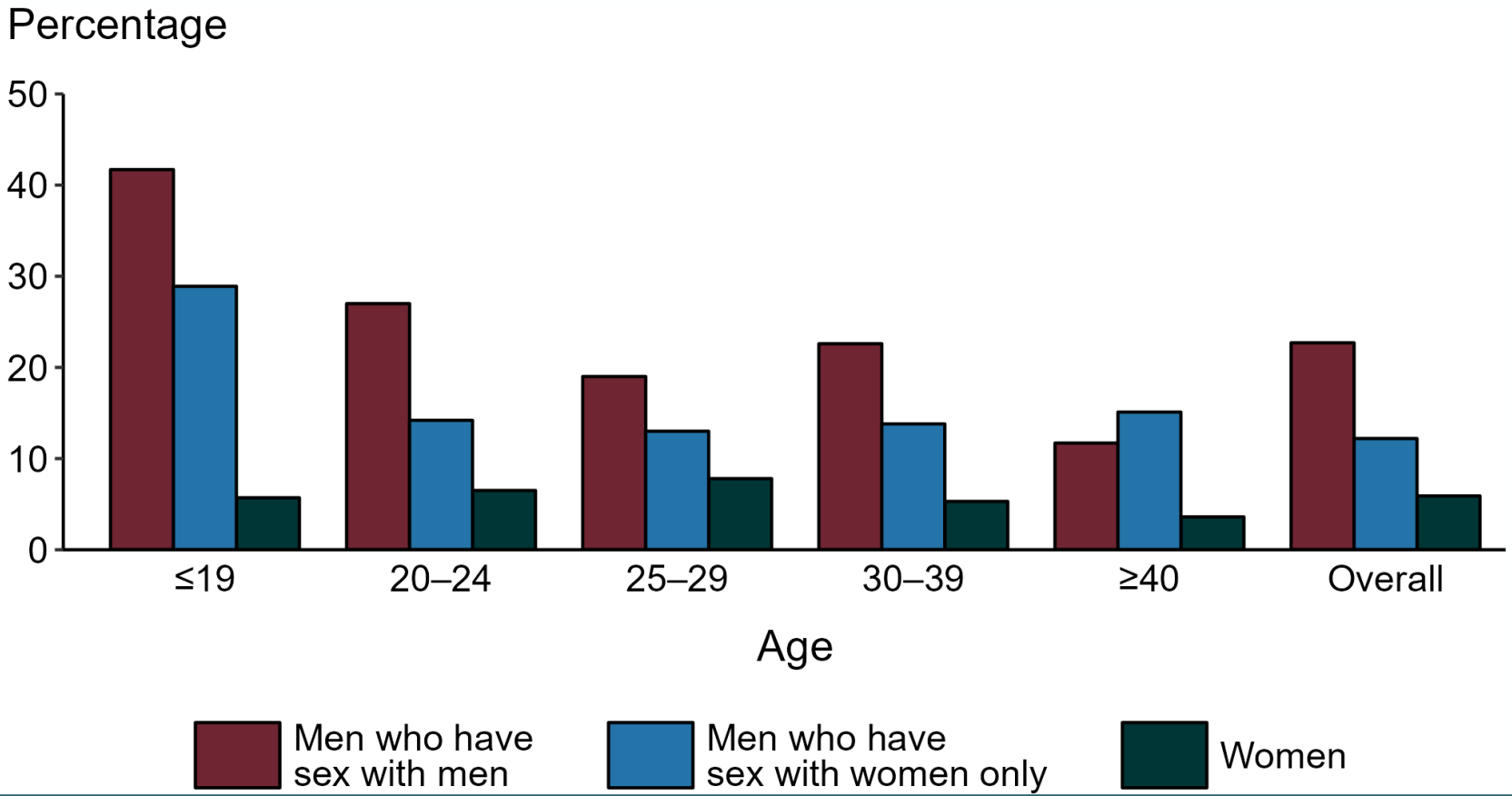





Centers for Disease Control and Prevention. *Sexually Transmitted Disease Surveillance 2021.* Atlanta: U.S. Department of Health and Human Services; 2023.

# Gonorrhea rates higher among **men who have sex with men (MSM)**

Proportion of STD Clinic Patients Testing Positive by **Age Group, Sex,** & **Sex of Sex Partners**, STD Surveillance Network (SSuN), 2021

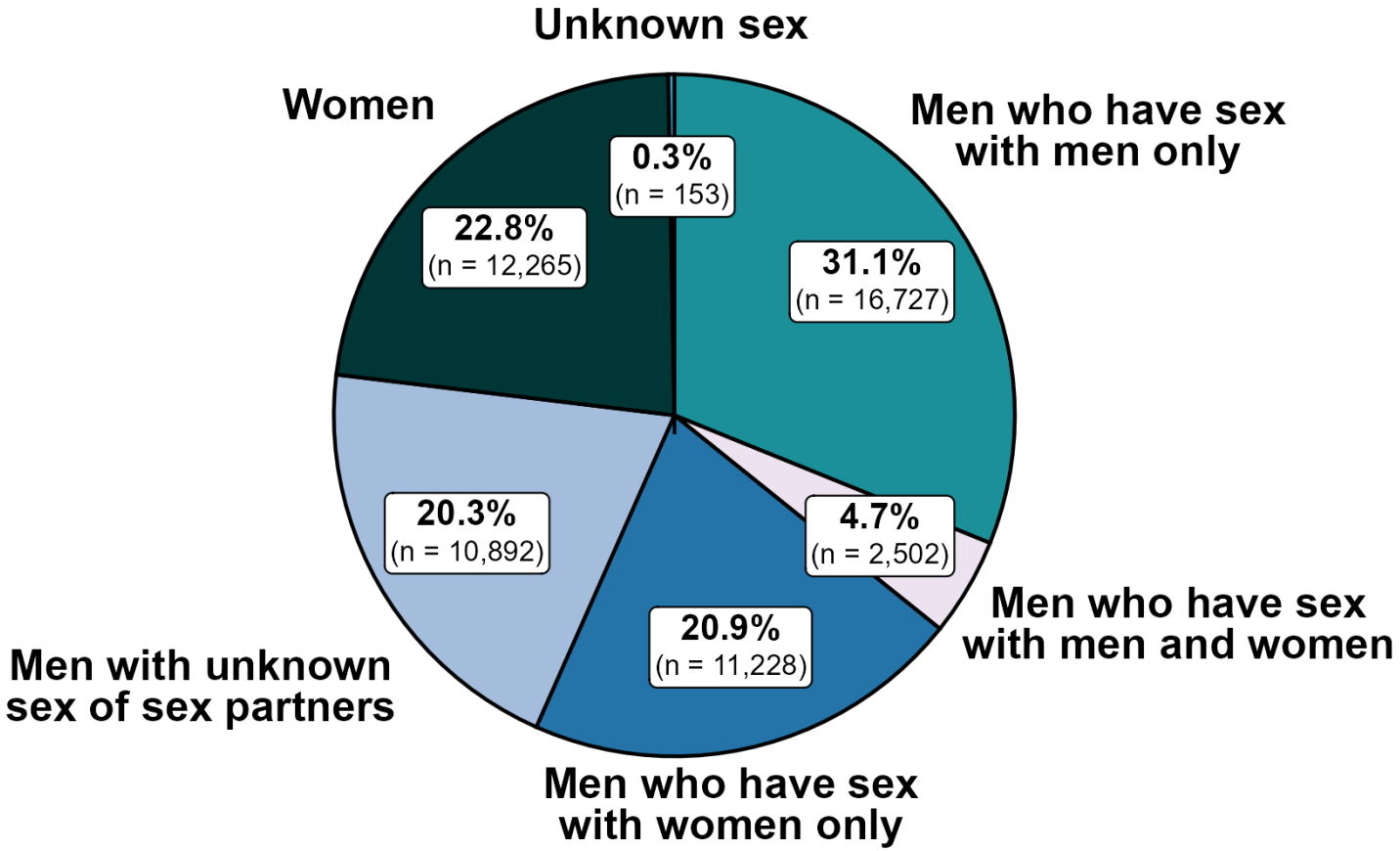





Centers for Disease Control and Prevention. *Sexually Transmitted Disease Surveillance 2021.* Atlanta: U.S. Department of Health and Human Services; 2023.

# Syphilis – Seen more among **men aged 20-44, MSM**

Primary and Secondary Syphilis – Distribution of Cases by **Sex & Sex of Sex Partners**, U.S., 2021




77% of syphilis cases in the U.S. were among men

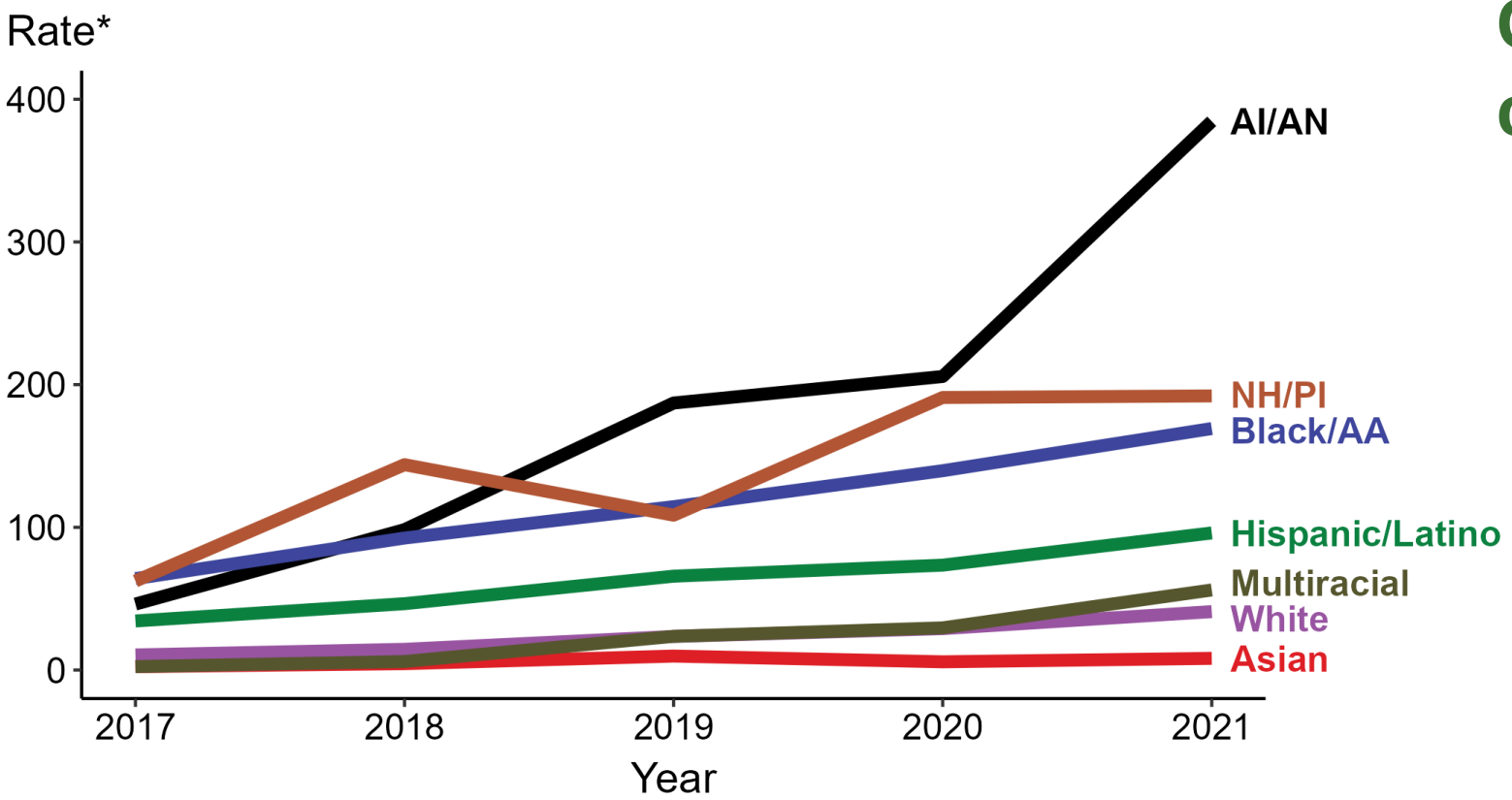
However, women with syphilis risk congenital syphilis if pregnant



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

# **Congenital syphilis** rates have increased, impacting **AI/AN populations** the most

Rates of Reported Cases by Year of Birth, **Race/Ethnicity of Mother**, U.S., 2017–2021




## Congenital syphilis can cause:

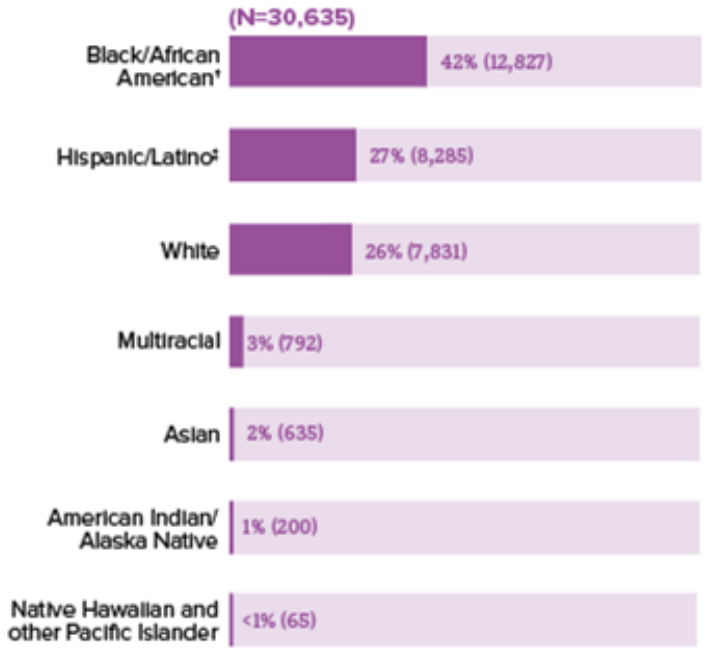
- Miscarriage
- Stillbirth, infant death
- Prematurity
- Low birth weight
- Severe anemia
- Blindness, deafness



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

# New HIV Diagnoses in the US and Dependent Areas by Race/Ethnicity, 2020*

## Racial and ethnic differences in HIV diagnoses persist.




Data for 2020 should be interpreted with caution due to the impact of the COVID-19 pandemic on access to HIV testing, care-related services, and case surveillance activities in state and local jurisdictions

* Among people aged 13 and older.

† *Black* refers to people having origins in any of the Black racial groups of Africa. *African American* is a term often used for people of African descent with ancestry in North America.

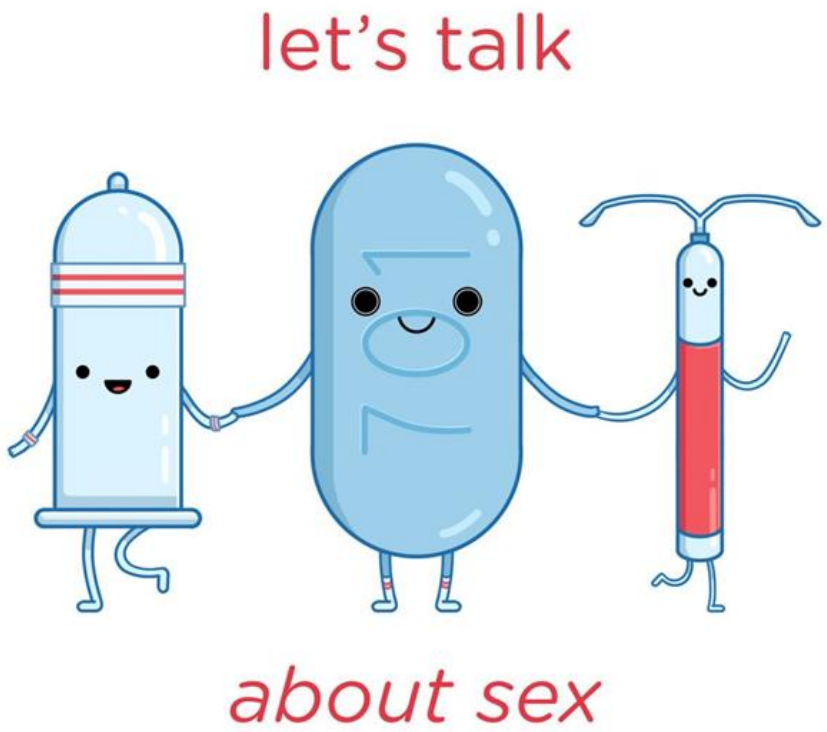
‡ Hispanic/Latino people can be of any race.

Source: CDC. Diagnoses of HIV infection in the United States and dependent areas, 2020. *HIV Surveillance Report* 2022;33.

# How can we improve these numbers?

# STI screening

- STI screening recommendations vary based on patient demographics & risk
- Prior to offering STI screening, establish rapport with patients
- Take an inclusive sexual health history to gauge risk



# 5 P's of Sexual Health History

## Partners

- Number of partners
- Partner risk factors
  - Substance use
  - Condom use

## Practices

- "What kind of sex do you have?"
  - Penis in vagina
  - Penis in anus
  - Oral sex, etc

## Protection from STIs

- Do you & your partner(s) use any protection against STIs?
- How often do you use it?

## Prior STIs

- Have you ever had an STI?
- Have you ever been tested?
- Has your current partner been tested?

## Pregnancy

- Are you currently trying to get pregnant or have a child?

# STI Screening Recommendations: Cisgender women

| Recommendation | USPSTF Grade |
|---|---|
| **Chlamydia & Gonorrhea:**<br>• Sexually active women aged < 25<br>• Sexually active women aged ≥ 25 if at risk | B |

**Grade A**
The USPSTF recommends the service. There is high certainty that the net benefit is *substantial*.

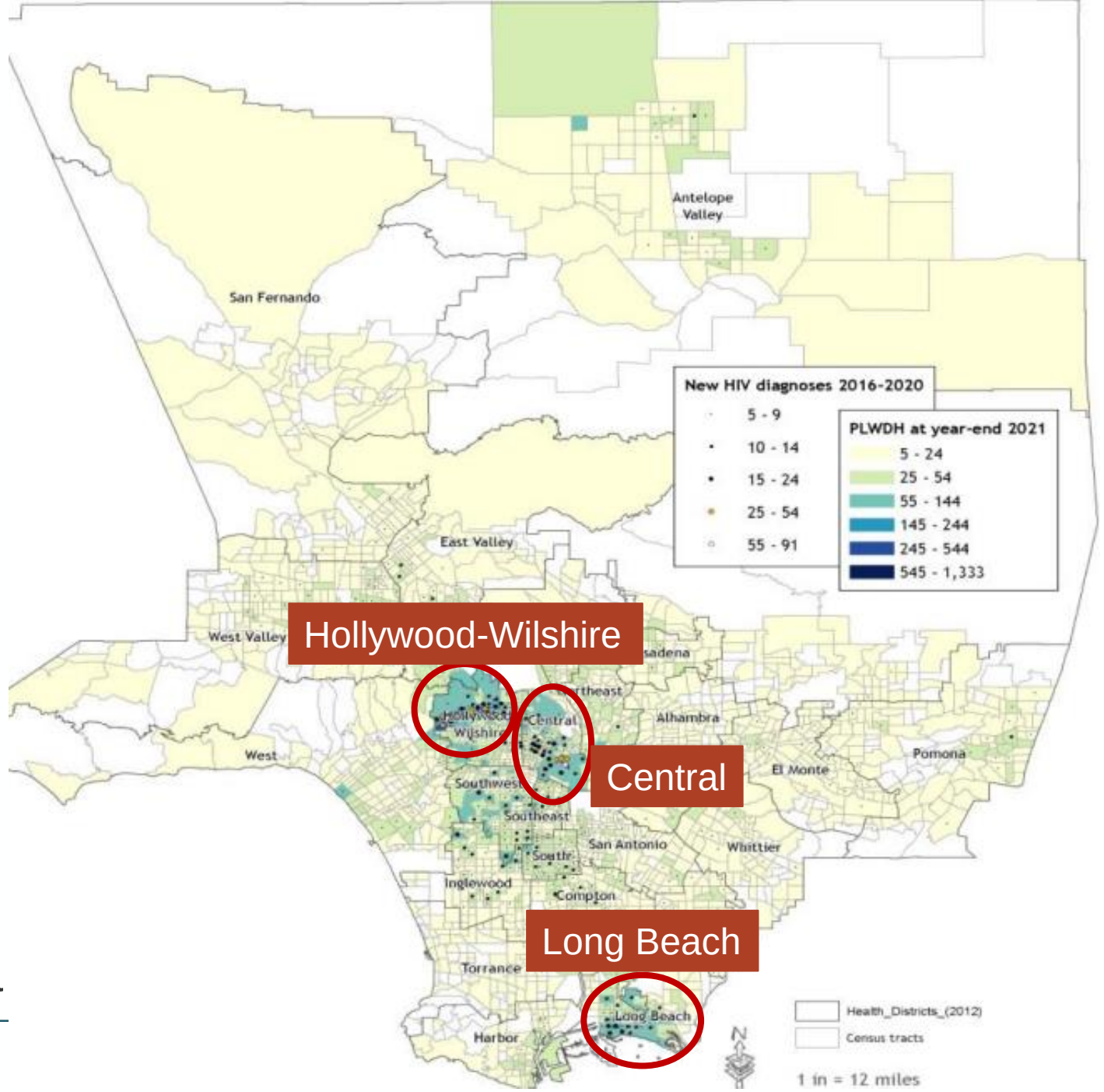
**Grade B**
The USPSTF recommends the service. There is high certainty that the net benefit is *moderate* or there is *moderate certainty* that the net benefit is *moderate to substantial*.



U.S. Preventive Services Task Force. Screening for Chlamydia and Gonorrhea: U.S. Preventive Services Task Force Recommendation Statement. JAMA. 2021 Sept 14;326(10).949-956.

# Risks for HIV/STIs

- A new partner
- A partner with other partners
- A partner with an STI
- Inconsistent condom use
- Exchanging sex for money or drugs
- History of STI
- History of incarceration
- Substance use (especially methamphetamines)
- Living in high prevalence area

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# STI Screening: Cisgender men who have sex with women

| Recommendation | USPSTF Grade |
|---|---|
| **Chlamydia & Gonorrhea**<br>• USPSTF: Current evidence is insufficient to assess the balance of benefits & harms of screening for chlamydia & gonorrhea in men | I |
| **Syphilis**<br>• Screen asymptomatic adults at increased risk* | A |
| **HIV**<br>• All men aged 13-64 years (opt out)<br>• All men who seek evaluation & treatment for STIs | A |

*Risk
- History of incarceration
- Sex work
- Race/ethnicity
- Age < 29 years



U.S. Preventive Services Task Force. Screening for Chlamydia and Gonorrhea: U.S. Preventive Services Task Force Recommendation Statement. JAMA. 2021 Sept 14;326(10).949-956.

# STI Screening CDC Recommendations: MSM

Test for chlamydia, gonorrhea, syphilis, HIV based on history

## All sexually active men

- Test annually

## Men at increased risk*

- Test every 3-6 months

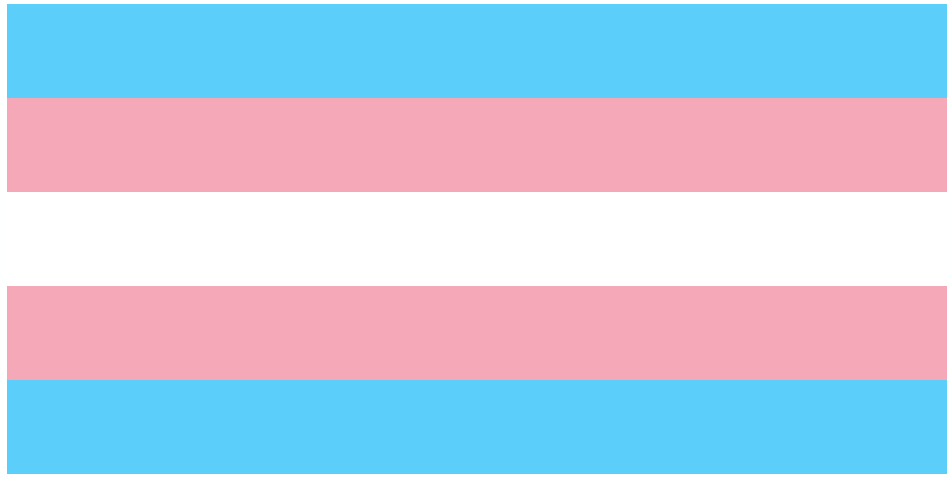
| STI | Testing Site(s) |
|---|---|
| Chlamydia & gonorrhea | • Genital/Urine<br>• Pharyngeal<br>• Throat |
| Syphilis | Blood |
| HIV | • Blood<br>• Saliva (rapid) |

*Multiple partners, partner with STI or unknown status, inconsistent condom use, high prevalence area



Workowski KA, Bachmann L, Chan P, Johnston C, Muzny C, Park I, Reno H, Zenilman J, Bolan G. Sexually Transmitted Infections, 2021. MMWR Recomm Rep 2021:70(No. RR-04):1-187.

# STI Screening: Transgender or Gender Diverse Populations



- Chlamydia & gonorrhea
  - Base screening on anatomy and types of sexual exposures
  - Example: Screen a transgender man aged < 25 per guidelines
  - Consider throat & rectal screening based on exposure
- Screen for syphilis & HIV at least annually
- If at increased risk, screen for STIs every 3-6 months

# Treating STIs – Same for every group

- 2021 CDC guidelines: updates to chlamydia & gonorrhea treatment
- Concern for growing **antibiotic resistance of gonorrhea**

**Chlamydia**

- 1st line: **Doxycycline** 100 mg orally twice a day for 7 days
- 2nd line: Azithromycin 1 g orally once

**Gonorrhea**

- **Ceftriaxone 500 mg or 1 g** injection (IM) once*
- Cephalosporin allergy: Gentamicin 240 mg IM once PLUS azithromycin 2 g orally once

*Ceftriaxone 500 mg is for persons weighing < 150 kg.
Ceftriaxone 1 g is for persons weighing ≥ 150 kg.

# Expedited Partner Therapy

- Treating the sex partners of patients with chlamydia or gonorrhea
  - Providing prescriptions to the patient to take to his/her partner *without first examining the partner*
- CDC recommended for heterosexual men and women if is it unlikely the partner would seek timely evaluation & treatment
- Prevents reinfection & curtails further transmission

| Chlamydia | Gonorrhea |
|---|---|
| • Doxycycline 100 mg orally twice a day for 7 days<br>• OR azithromycin 1 g orally once | Cefixime 800 mg orally once |

# Syphilis treatment – Varies based on presentation

**Early syphilis:**

- Primary: Painless chancre (sore)
- Secondary: Rash, hair loss, swollen lymph nodes, condylomata lata (warts), hepatitis
- Early latent: No symptoms. Positive test with infection within past 12 months

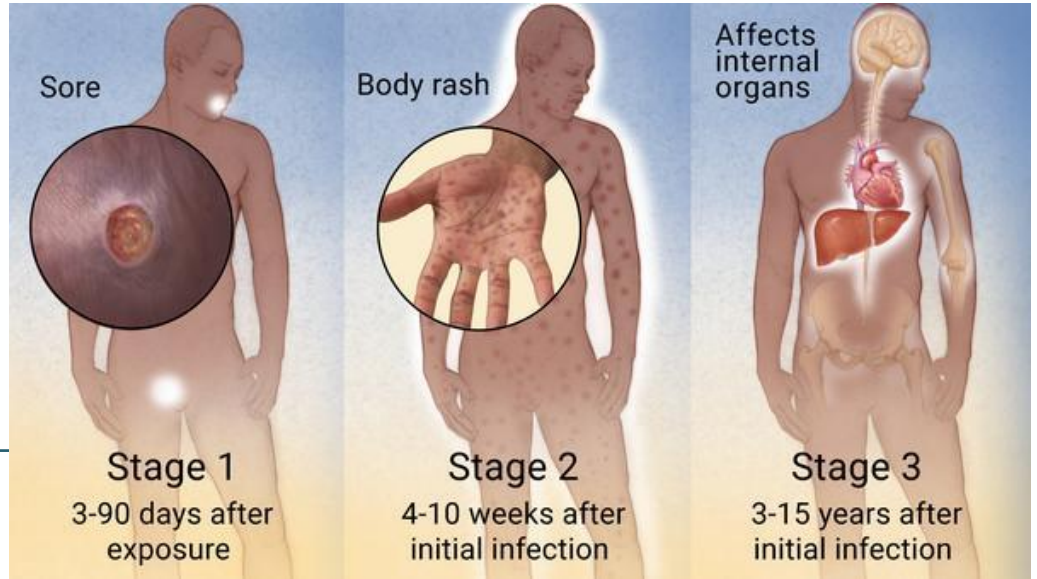
**Treatment: Penicillin G benzathine 2.4 million units IM once**

- If penicillin allergy: Doxycycline 100 mg orally twice daily for 14 days

**Late syphilis:**

- Late latent: No symptoms. Positive test with infection > 1 year or unknown
- Tertiary: Inflammation of arteries, gummas (nodules)

**Treatment: Penicillin G benzathine 2.4 million units IM weekly for 3 weeks***

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*Rule out neurosyphilis if presenting with tertiary syphilis symptoms

# HIV positive test – Linkage to care is **pertinent**

As a primary care provider, you are often the first source of support for a patient with new HIV diagnosis


- Schedule a same-day appointment for counseling
- Contact your organization's linkage to care coordinator
- Connect patient with coordinator to enroll into HIV care

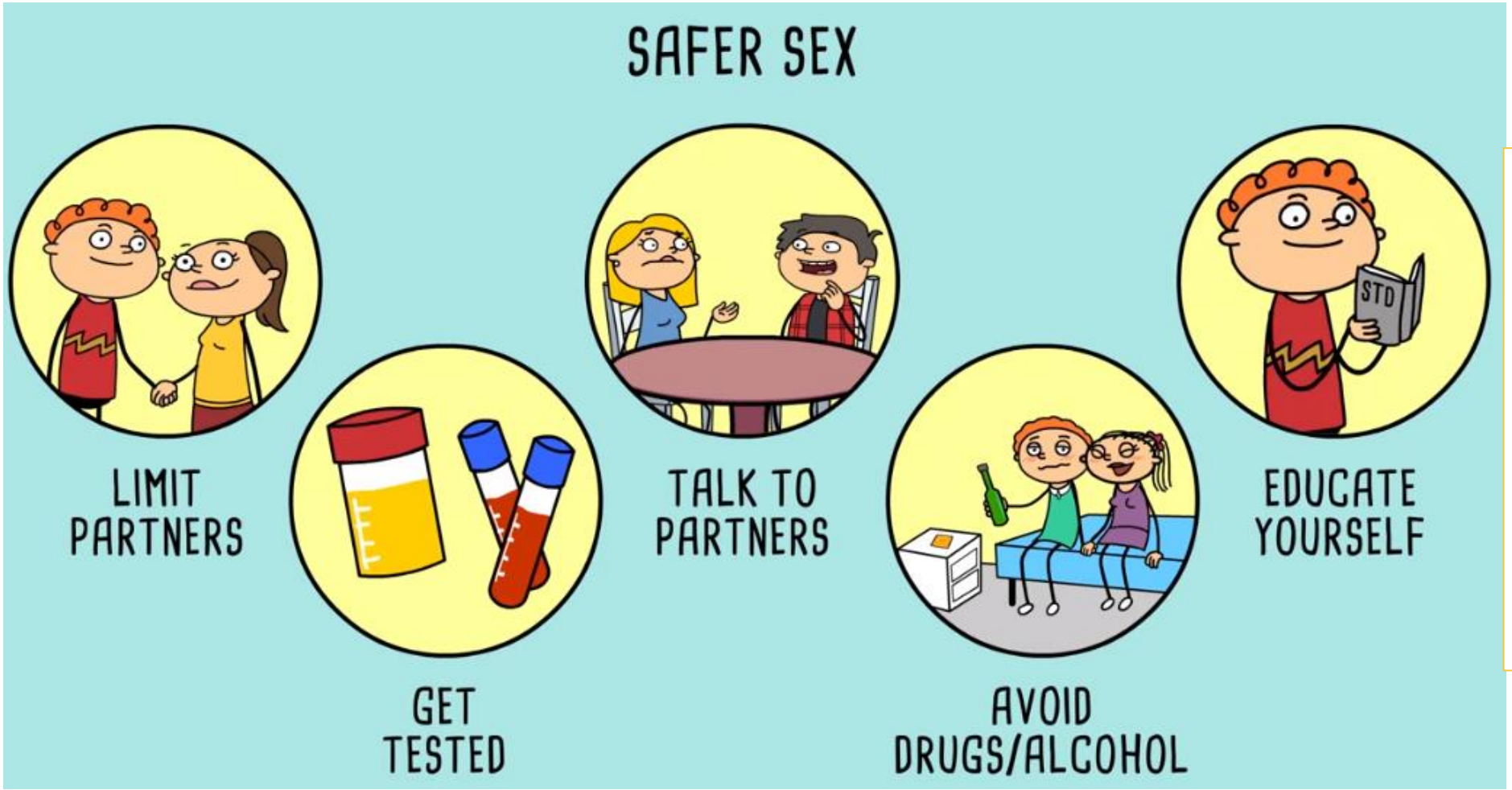
- Optional – Collect labs:
  - HIV viral load
  - CD4 count
  - HIV genotype resistance testing
  - HLA B5701 test
  - Hepatitis serologies
  - Complete blood count
  - Comprehensive metabolic panel
  - Syphilis (RPR with reflex)
  - Gonorrhea, chlamydia
  - Pregnancy test
  - Urinalysis
- Treat any positive STIs

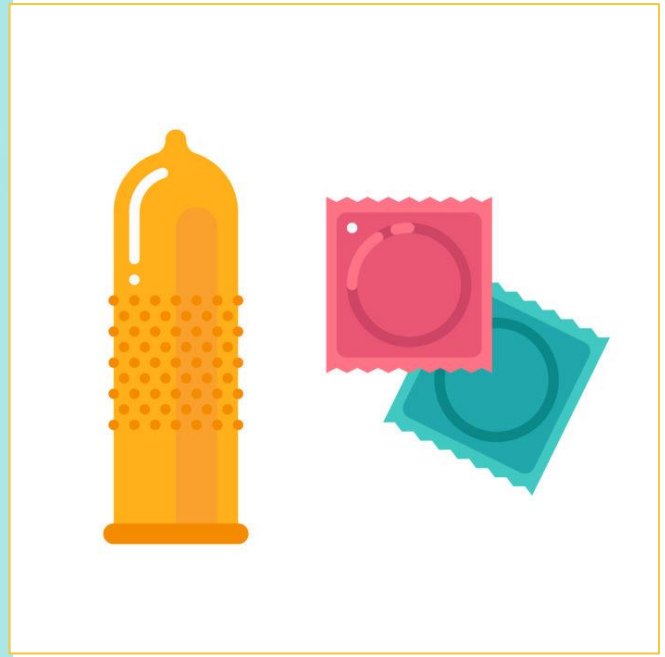
# Special considerations: Women & pregnant persons

- Asking about sexual health is important for women of **all ages**
- Key times to ask about sexual health:
  - Well woman exams, prenatal visits
  - Visits for genitourinary concerns
- Key times to suggest STI testing & prevention:
  - New symptoms  (vaginal discharge, dysuria, rash)
  - Multiple partners
  - Partner with multiple partners, substance use
  - Any hints at partner's infidelity
  - Prenatal visits
- Assessing & treating STIs can prevent:
  - Pelvic inflammatory disease
  - Ectopic pregnancy
  - Infertility
  - Congenital syphilis

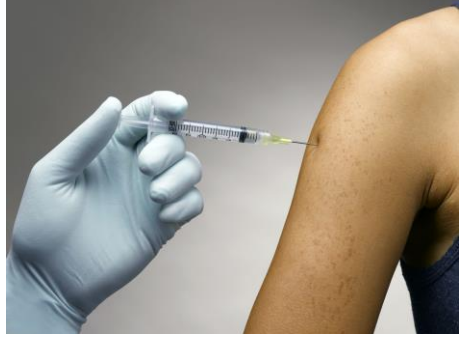
# How can we prevent HIV & STIs?

# Traditional STI prevention education



# **Pre-exposure vaccines** for STI prevention



- Human papilloma virus (HPV), hepatitis A (HAV) & hepatitis B (HBV) can be sexually transmitted
- **HPV vaccine**
  - Protects against cervical cancer, genital warts
  - Recommended routinely for males & females aged 11 or 12 years
  - All people aged 9 to 45 can get the HPV vaccine*

*Recommended for individuals aged ≤ 26 years. Individuals 27-45 can receive the vaccine based on shared decision making.

- **HBV vaccine**
  - Recommended for all unvaccinated, uninfected persons who are sexually active with more than one partner or are being evaluated or treated for an STI
- **HAV & HBV vaccines recommended for:**
  - MSM
  - Persons who inject drugs
  - Persons with chronic liver disease
  - Persons with HIV or Hepatitis C
  - Persons without housing

# **DoxyPEP:** Post-exposure prophylaxis to prevent bacterial STIs

- Off-label use of doxycycline to prevent STI after possible STI exposure
- Doxycycline 200 mg orally once, given within 24-72 hours of condomless sex
- Effectiveness seen in MSM & transgender women only
  - No significant reduction in STIs seen in cisgender women

## DoxyPEP study

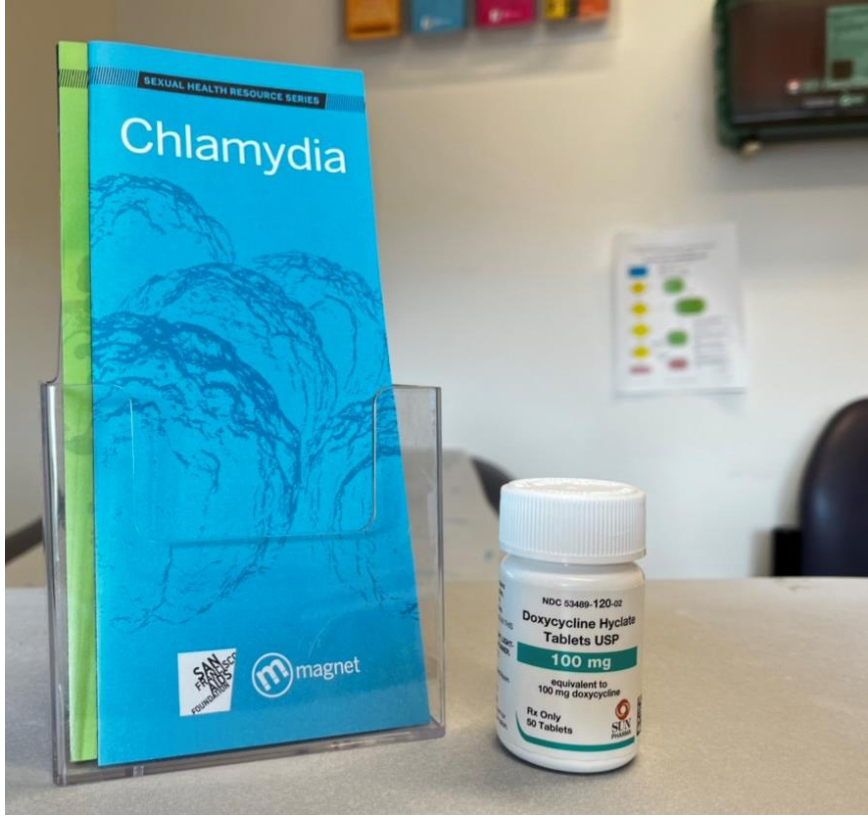
- ↓Chlamydia 74-88%
- ↓Syphilis 77-87%
- ↓Gonorrhea 55-57%

## ANRS DOXYVAC study

- ↓Chlamydia 89%
- ↓Syphilis 79%
- ↓Gonorrhea 51%

# DoxyPEP

- Consider DoxyPEP for cisgender men or transgender women who:
  - Are sexually active with cis men or trans women partners
  - Have had condomless sex with more than one partner in the past year
  - Have had a bacterial STI in the past year




- Antimicrobial resistance studies still needed
  - Current data limited by small sample sizes
  - No significant difference in tetracycline resistance for gonorrhea strains between groups
  - Doxycycline may be less protective against gonorrhea strains with baseline resistance

# What's the latest on HIV prevention?

# PEP & PrEP for Prevention of HIV Infection

## Post-exposure prophylaxis (PEP)

- Short-term antiretroviral (ARV) regimen to reduce the likelihood of HIV infection in HIV-negative individuals **after possible exposure**
- Must be given within 72 hours of exposure
- Typically 2 pills
- Duration of treatment = 28 days

## Pre-exposure prophylaxis (PrEP)

- Use of ARV medication by HIV-negative individuals to prevent HIV **before exposure**
- Currently available as:
  - Two daily pill options
  - One bimonthly injection
- Pipeline is expanding

# Non-occupational HIV Post-exposure prophylaxis (nPEP)


## For HIV exposure *within 72 hours*

- Inconsistent condom use or sharing needles
- Partner with unknown HIV status
- Partner with HIV & no medication use or detectable viral load
- Partner uses intravenous drugs
- Transactional sex
- High prevalence area

# Common nPEP Regimen: TDF-FTC + Dolutegravir

**Two Drugs, 28 days**

- Tenofovir disoproxil fumarate (TDF) 300 mg & emtricitabine (FTC) 200 mg (Truvada) daily

PLUS

- Dolutegravir 50 mg (Tivicay) daily


Dolutegravir is often preferred as it can be effective against drug-resistant virus

**Considerations**

- CrCl must be ≥ 60 mL/min for TDF-FTC
- **Side effects:** Abdominal pain, nausea, headache, ↑ lipase
- **Med interaction:** Rifampin decreases dolutegravir levels

# Daily pill options for PrEP

DESCOVY


*Both FDA approved for adolescents ≥ 35 kg & adults*

TRUVADA


## Tenofovir alafenamide 25 mg & emtricitabine 200 mg (TAF-FTC)

- CrCl ≥30 mL/min
- Not FDA approved for individuals assigned female at birth
- No clinical data to support use in PWID or people with vaginas or neovaginas
- Small risk of weight gain, dyslipidemia

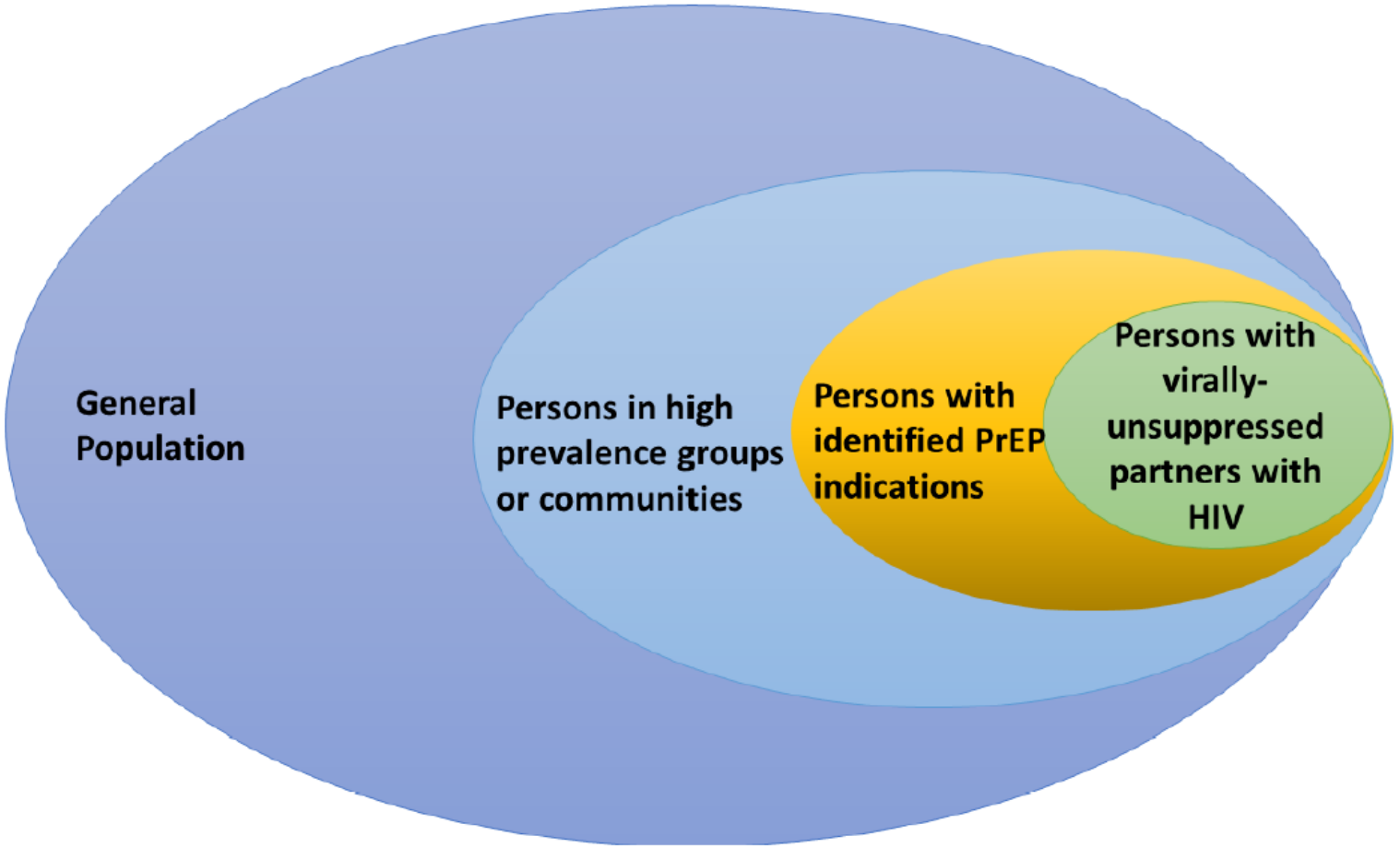
## Tenofovir disoproxil fumarate 300 mg & emtricitabine 200 mg (TDF-FTC)

- CrCl ≥ 60 mL/min
- Most widely studied
- Concerns for renal & bone toxicity with long-term use
- Can be used in women, transmen, PWID, & people with vaginas/neovaginas

# New CDC Guidelines simplify **PrEP indications**:

*"All sexually active adults & adolescents should be informed about PrEP for prevention of HIV acquisition."*

**Figure 1 Populations and HIV Acquisition Risk**






Centers for Disease Control and Prevention. *Preexposure Prophylaxis for the Prevention of HIV Infection in the United States – 2021 Update Clinical Practice Guideline.* U.S. Department of Health and Human Services. https://www.cdc.gov/hiv/guidelines/preventing.html

# **New lab tests** recommended for PrEP monitoring

## Original labs

- HIV 4th generation antibody/antigen
- Comprehensive Metabolic Panel
- Hepatitis B & C serologies
- Syphilis (RPR w/ reflex)
- Gonorrhea/Chlamydia
  - Urine, rectal, throat swabs based on sexual practices
  - Recommend testing all 3 sites in MSM

## New labs added

- **HIV-1 Viral Load:** Aids in earlier diagnosis of new HIV infections among individuals taking PrEP
- **Lipid Panel:** Recommended at least yearly in individuals who take TAF-FTC a.k.a. Descovy® for PrEP
  - Small risk of weight gain & dyslipidemia with TAF-FTC



Centers for Disease Control and Prevention. *Preexposure Prophylaxis for the Prevention of HIV Infection in the United States – 2021 Update Clinical Practice Guideline.* U.S. Department of Health and Human Services. https://www.cdc.gov/hiv/guidelines/preventing.html

# PrEP FDA approvals

**2012:** TDF-FTC approved as a daily pill for PrEP

**2019:** TAF-FTC approved for PrEP but **NOT for vaginal exposures**

**2021:** CAB-LA approved for injectable PrEP

TDF-FTC: tenofovir disoproxil fumarate-emtricitabine
TAF-FTC: tenofovir alafenamide-emtricitabine
CAB-LA: long-acting injectable cabotegravir

# Long-Acting Injectable Cabotegravir (CAB-LA)


- Intramuscular gluteal injection every 8 weeks
- May be appropriate for individuals who:
  - Have difficulty taking a daily pill for PrEP
  - Prefer injections every 2 months instead of taking a daily pill
  - Have significant renal disease



Centers for Disease Control and Prevention. *Preexposure Prophylaxis for the Prevention of HIV Infection in the United States – 2021 Update Clinical Practice Guideline.* U.S. Department of Health and Human Services. https://www.cdc.gov/hiv/guidelines/preventing.html

# Injectable PrEP (CAB-LA) administration


Oral cabotegravir 30 mg tablet daily for 4 weeks*

1st CAB-LA 600 mg IM injection

2nd CAB-LA injection at 4 weeks

CAB-LA 600 mg IM injection every 8 weeks

**Oral lead-in not required. Patents can start with either an injection or take oral cabotegravir for 4 weeks to assess tolerance.*



Centers for Disease Control and Prevention. *Preexposure Prophylaxis for the Prevention of HIV Infection in the United States – 2021 Update Clinical Practice Guideline.* U.S. Department of Health and Human Services. https://www.cdc.gov/hiv/guidelines/preventing.html

# Injectable PrEP (CAB-LA) lab monitoring


**Initial visit**
- HIV-1 RNA assay*
- RPR w/ Reflex
- Gonorrhea/chlamydia

**1 month follow-up**
- HIV-1 RNA assay

**Every 2 months**
- HIV-1 RNA assay

**Every 4-6 months**
- HIV-1 RNA assay
- RPR w/ Reflex
- Gonorrhea/chlamydia

**HIV testing is recommended within 1 week prior to starting CAB-LA*

**Labs that are NOT required for CAB-LA:**
- Creatinine or CrCl
- Hepatitis B serology
- Lipid panel
- Liver function tests (LFTs)
- Consider testing LFTs given risk of hepatotoxicity



Centers for Disease Control and Prevention. *Preexposure Prophylaxis for the Prevention of HIV Infection in the United States – 2021 Update Clinical Practice Guideline.* U.S. Department of Health and Human Services. https://www.cdc.gov/hiv/guidelines/preventing.html

# How well does Injectable PrEP (CAB-LA) work?


- **HPTN 083:** Compared CAB-LA to TDF-FTC in cisgender MSM & transgender women
  - **CAB-LA reduced HIV-1 incidence by 69%** compared to TDF-FTC
  - Injectable PrEP well tolerated
    - Side effects: injection site reactions, weight gain
- **HPTN 084:** Compared CAB-LA to TDF-FTC in cisgender women
  - **CAB-LA reduced HIV-1 incidence by 89%**

HPTN 084
Long-acting Injectable For the Epidemic

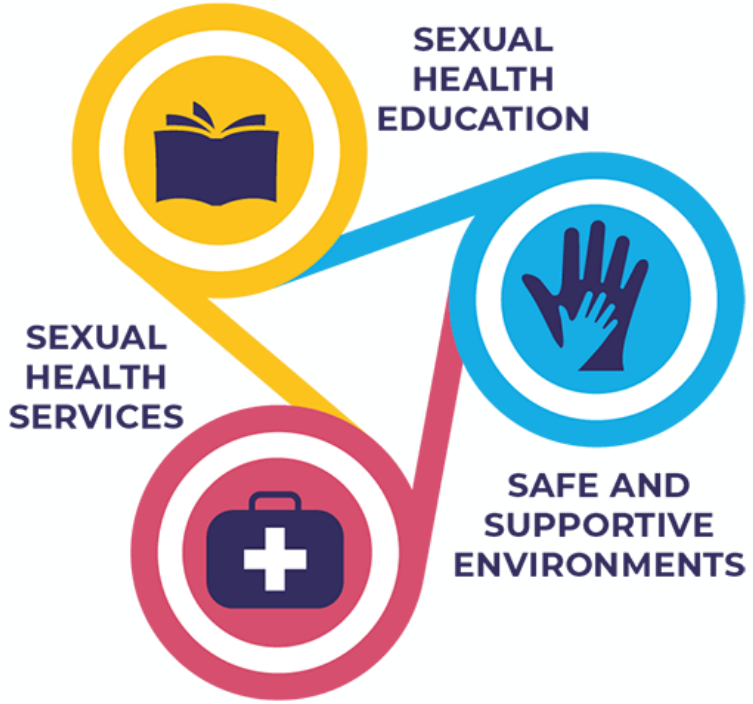
Injectable PrEP likely has an **adherence advantage** over TDF-FTC



Landovitz RJ, Donnell D, Clement ME, et al. Cabotegravir for HIV Prevention in Cisgender Men and Transgender Women. *N Engl J Med*. 2021;385(7):595-608. doi:10.1056/NEJMoa2101016

# Key Points

- **STI rates are on the rise in the United States**
  - Marginalized populations are most affected
- **STIs in people who can become pregnant can cause:**
  - Pelvic inflammatory disease, infertility
  - Congenital syphilis: miscarriage, infant death, prematurity
- **We can lower STI rates through inclusive sexual health care**
  - Use the 5 P's to take a sexual health history
  - Perform STI screening & treatment, EPT
- **We can prevent STIs through counseling, vaccines, DoxyPEP, and HIV PrEP & PEP**



# Thank you!

**Email:** almgee@altamed.org
**Twitter:** @aliciamomd

# L.A. Care PCE Program Friendly Reminders

**Friendly Reminder,** a survey will pop up on your web browser after the webinar ends (please do not close your web browser and wait a few seconds) and please complete the online survey.

***Please note:*** ***the online survey may appear in another window or tab after the webinar ends.***

Upon completion of the online survey, you will receive the pdf CME or CE certificate based on your credential, verification of name and attendance duration time of at least 45 minutes, ***within two (2) weeks after webinar.***

***Webinar participants will only have up to two weeks after webinar date to email Johanna Gonzalez at JGonzalez4@lacare.org to request the evaluation form if the online survey is not completed yet. No name, no survey or completed evaluation and less than 75 minutes attendance duration time via log in means No CME or CE credit, No CME or CE certificate.***

***Thank you!***