The Status of HIV in 2024

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Disclosure

I, Casey Messer, have no relevant relationships with ineligible companies to disclose within the past 24 months. (Note: Ineligible companies are defined as those whose primary business is producing, marketing, selling, re-selling, or distributing healthcare products used by or on patients.)

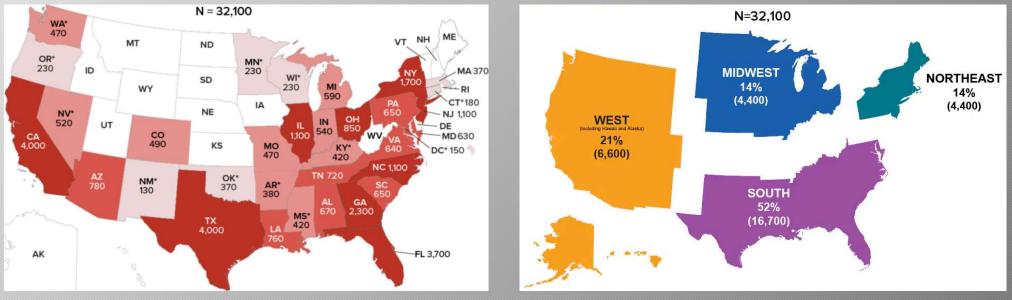
Objectives

At the conclusion of this session, the participant will be able to:

- Discuss the current status of the HIV epidemic in the US
- Identify updated guidelines for prevention & treatment of HIV
- Evaluate clinical indications for the newest FDA-approved HIV prevention & treatment medications

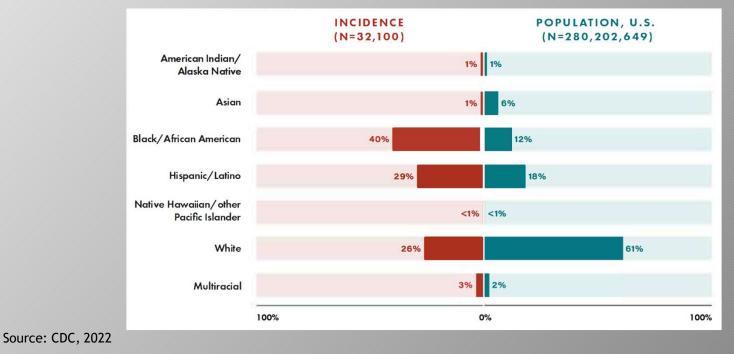
- Approximately 1.2 million people in the U.S. are living with HIV
- New infections are steady at ~38,000 per year
- 1 in 7 (13%) persons living with HIV are unaware
- More than 50 percent of new diagnoses occur in 48 counties;
 Washington, DC; and San Juan, Puerto Rico

HIV disproportionately affects southern states

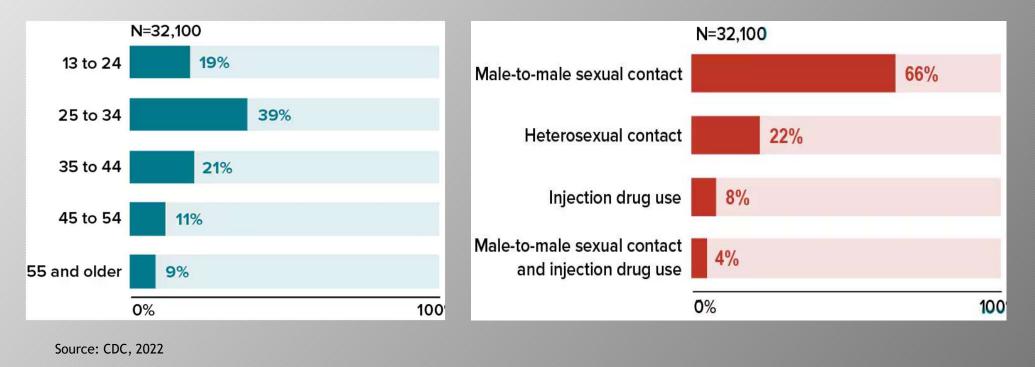


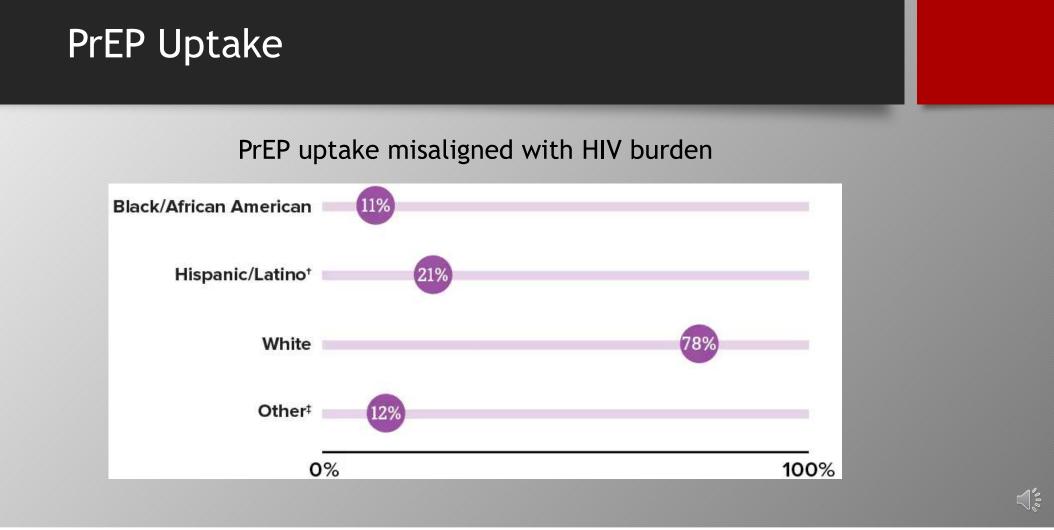
Source: CDC, 2022

HIV disproportionately affects racial/ethnic minorities



HIV incidence by age and transmission category





Updated Guidelines for HIV Prevention

HIV Testing

- The USPSTF recommends that clinicians screen for HIV infection in adolescents and adults aged 15 to 65 years. (CDC 13-64)
- Ag/Ab combination (4th generation)
- More frequent HIV screening should be provided to patients living in high HIV incidence areas and among populations disproportionately burdened:
 - Southern US
 - Black/African Americans
 - Male-to-male sexual contact

HIV Self-Testing Program

Take Me Home Project

- Launched in March 2023
- Free Rapid Antibody HIV self-test kits
- Direct to consumers, distributed by mail
- 2 tests every 90 days
- Oral rapid tests should not be used for PrEP

https://together.takemehome.org/

HIV Prevention

- Harm reduction approaches are individualistic based on risk
 - Abstinence/nonpenetrative sexual contact/mutual monogamy
 - Consistent condom use
 - Durable viral suppression (U=U)
 - Biomedical interventions
 - Pre-Exposure Prophylaxis (PrEP)
 - Post-Exposure Prophylaxis (PEP)
 - Occupational vs nonoccupational exposure

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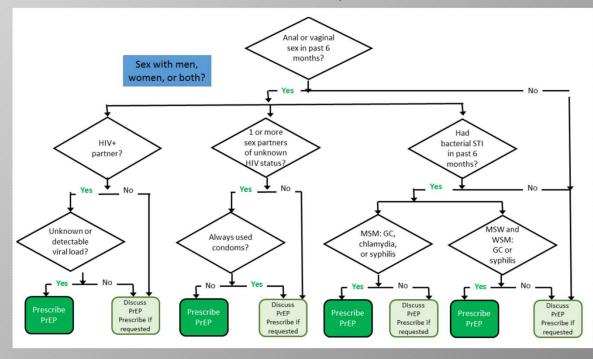
- Nonoccupational Post-Exposure Prophylaxis (nPEP)
 - Evaluate <72 hours after potential exposure
 - HIV testing, combination Ag/Ab preferred, or rapid antibody test
 - Emtricitabine/tenofovir disoproxil fumarate (200mg/300mg) once daily

plus

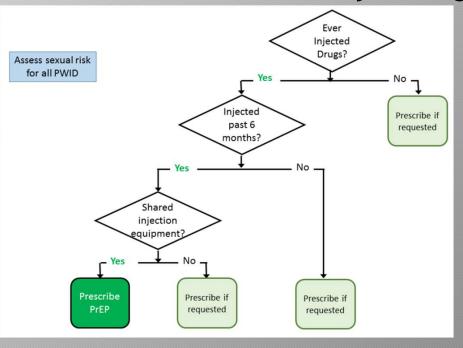
dolutegravir 50mg daily OR raltegravir 400mg twice daily

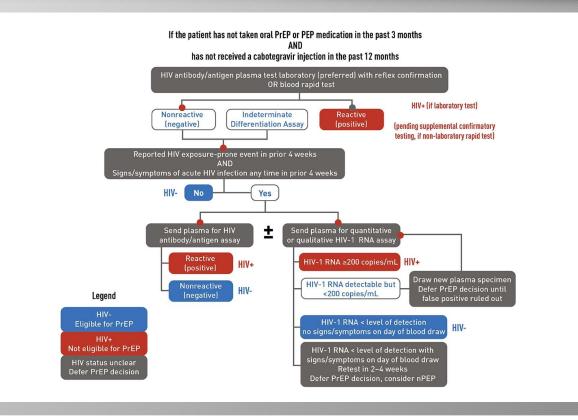
- 28-day course, with re-testing following completion
- PEP Consultation Service
 - 1-888-448-4911

• Assessing Indications for PrEP in Sexually Active Persons

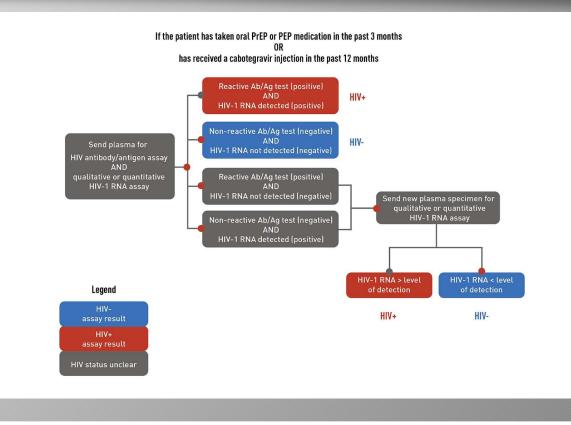


• Assessing Indications for PrEP in Persons Who Inject Drugs





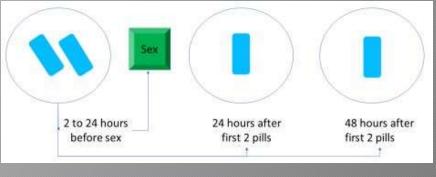
5000



5000

- Pre-Exposure Prophylaxis (PrEP)
 - Daily oral administration was the first FDA-approved dosing
 - emtricitabine/tenofovir disoproxil fumarate (F/TDF)
 - emtricitabine/tenofovir alafenamide (F/TAF)
 - HIV Ag/Ab + HIV-1 RNA, Hep B surface ab/ag, Creatinine at baseline
 - HIV Ag/Ab + HIV-1 RNA every 3 months (also other STIs, HCG)
 - Repeat Creatinine every 6 to 12 months after initiation
 - Lipid profile (triglyceride and cholesterol), and weight every 12 months with F/TAF

- Pre-Exposure Prophylaxis (PrEP) On-Demand
 - 2-1-1 schedule
 - Not an FDA-approved regimen
 - Only studied with emtricitabine/tenofovir disoproxil fumarate
 - Only studied with men who have sexual contact with men
 - PrEP Consultation Service
 855-448-7737



Long-Acting Injectable PrEP

- cabotegravir (CAB) approved for HIV PrEP in December 2021
 - Initiation
 - Baseline HIV Ag/Ab + HIV RNA, and STI screening
 - Hep B surface ab/ag, creatinine, LFTs, lipids, NOT indicated
 - 30mg oral lead-in for no more than 5 weeks (optional)
 - 600mg cabotegravir IM in gluteal muscle consecutively 1 month apart
 - Follow-Up & Monitoring
 - 600mg cabotegravir IM in gluteal muscle every 2 months
 - HIV Ag/Ab + HIV RNA after injection at month 1, then bimonthly beginning 3rd injection
 - MSM/TGW receive STI screening every 4 months (every other injection visit)
 - Heterosexually active women and men
 - Syphillis/Gonorrhea screening every 6 months (every third injection visit)
 - Chlamydia screening every 12 months (every sixth injection visit)

Long-Acting Injectable PrEP

- Additional Considerations
 - Injection site reactions (pain, tenderness, induration) are frequent
 - Use 1.5 inch needle for patients with BMI <30, increase to 2 inch needle for patients with BMI >30
- Discontinuing, Interrupting and Restarting CAB PrEP
 - Continuation injections may be given between 23 and 37 days
 - Oral cabotegravir (30mg) can be used for up to 2 months if an injection is missed, then resume injections every two months
 - If 3 months since last injection, restart injections for 2 consecutive months before resuming every two month injections
 - Oral CAB has not been FDA approved for long-term use as HIV PrEP
 - If a patient is not adherent to injectable PrEP, switch to F/TDF or F/TAF

Updated Clinical Indications for HIV Treatment Medications

HIV Treatment

- Only 1 FDA-approved Long-Acting HIV treatment injectable currently
 - cabotegravir plus rilpivirine (Cabenuva) long-acting injectable
 - Maintenance "switch" therapy for virologically suppressed adults
 - No history of treatment failure
 - No known or suspected resistance to cabotegravir or rilpivirine
 - Dosed once monthly or every 2-months as two injections
 - Lead-in of oral cabotegravir (30mg) and rilpivirine (25mg) for 30 days prior to injections (optional)
 - Initial injections include 600mg cabotegravir + 900mg rilpivirine
 - Continuation injection dose
 - 400mg cabotegravir + 600mg rilpivirine (monthly)
 - 600mg cabotegravir + 900mg rilpivirine (Every 2 months)
 - 7 day grace period of injection due date, oral medications should be restarted

HIV Treatment

- DHHS Guidelines on use of Antiretroviral Agents (February 2024)
 - REPRIEVE randomized control trial among 40-75 year old
 - 35% reduction in major cardiovascular events with statin use
 - For people with HIV who have low-to-intermediate (<20%) 10year ASCVD risk estimates:
 - Pitavastatin 4mg once daily
 - Atorvastatin 20mg once daily
 - Rosuvastatin 10mg once daily

HIV & Chest/Breastfeeding

2023 update to clinical guidelines for infant feeding for people with HIV

- Previously chest/breastfeeding not recommended; now provided options
- Replacement feeding with formula or pasteurized human donor milk
- Chest/Breastfeeding risk of HIV transmission <1% if virally suppressed
- Inappropriate to engage Child Protective Services in response to infant feeding choices for people with HIV

Frequently Asked Questions

When will there be an HIV vaccine?

Frequently Asked Questions

What could be coming down the pipeline for HIV medications?

References

- Branson BM, Handsfield HH, Lampe MA, et al. Revised recommendations for HIV testing of adults, adolescents, and pregnant women in health-care settings. *MMWR Recomm Rep.* 2006;55(RR-14):1-17.
- Casazza JP et al. Durable HIV-1 antibody production in humans after AAV8-mediated gene transfer. Conference on Retroviruses and Opportunistic Infections, abstract 41LB, March 2020.
- Centers for Disease Control and Prevention. Estimated HIV incidence and prevalence in the United States, 2017-2021. HIV Surveillance Supplemental Report, 2023; 28 (No.3).
- Centers for Disease Control and Prevention: US Public Health Service: Preexposure prophylaxis for the prevention of HIV infection in the United States—2021 Update: a clinical practice guideline. https://www.cdc.gov/hiv/pdf/risk/prep/cdc-hiv-prep-guidelines-2021.pdf. Published December 2021.
- Crotty S. Engineering vaccine immunity. Conference on Retroviruses and Opportunistic Infections, plenary presentation 112, March 2020.
- Fauci AS, Redfield RR, Sigounas G, et al. Ending the HIV epidemic: a plan for the United States. JAMA. 2019;321(9):844-845.
- Panel on Antiretroviral Guidelines for Adults and Adolescents. Guidelines for the Use of Antiretroviral Agents in Adults and Adolescents with HIV. Department of Health and Human Services. Available at http://aidsinfo.nih.gov/contentfiles/lvguidelines/AdultandAdolescentGL.pdf
- US Preventive Services Task Force. Screening for HIV Infection: US Preventive Services Task Force Recommendation Statement. JAMA. 2019;321(23):2326-2336. doi:10.1001/jama.2019.6587
- Wilson PA, Nanin J, Amesty S, Wallace S, Cherenack EM, Fullilove R. Using syndemic theory to understand vulnerability to HIV infection among Black and Latino men in New York City. *J Urban Health*. 2014;91(5):983-998. doi:10.1007/s11524-014-9895-2

Questions and Answers

Thank you!

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