Building Access to HIV Prevention & Treatment: Current Issues & Approaches

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STI Screening, Sexual Health, and Taking a Status-Neutral Approach to HIV Prevention & Care

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Speaker Disclosure

Barbara Wilgus has no disclosures.

Learning Objectives

- Review components of sexual health in clinical care.
- Discuss taking a comprehensive sexual history for persons with and/or at risk for HIV.
- Review CDC guidelines for STI screening and testing—including for HIV.
- Provide an overview of status-neutral care.
- Discuss giving HIV test results and other test results in a supportive and nonjudgemental manner.

What is SEXUAL HEALTH?

"Sexual Health is a state of physical, emotional, mental, and social well-being in relation to *sexuality*; it is not merely the absence of disease, dysfunction or infirmity. Sexual Health requires a positive and respectful approach to *sexuality* and sexual relationships, as well as the possibility of having pleasurable and safe sexual experiences, free of coercion, discrimination and violence. For sexual health to be attained and maintained, the sexual rights of all persons must be respected, protected, and fulfilled."

(WHO, 2006)

Source viewable at: https://www.cdc.gov/sexualhealth/default.html#who.

Components of Sexual Health

- Sexual wellbeing
- Ability of an individual to have responsible, satisfying, and safe sex
- The FREEDOM to decide if, when, and how often to do so
- Includes both physical and psychological well-being as regards sexuality

Source viewable at: https://en.wikipedia.org/wiki/Sexual_and_reproductive_health.

What is Sexuality?

Sexual health cannot be defined, understood or made operational without a broad consideration of sexuality, which underlies important behaviours and outcomes related to sexual health. The working definition of sexuality is:

"…a central aspect of being human throughout life encompasses sex, gender identities and roles, sexual orientation, eroticism, pleasure, intimacy and reproduction. Sexuality is experienced and expressed in thoughts, fantasies, desires, beliefs, attitudes, values, behaviours, practices, roles and relationships. While sexuality can include all of these dimensions, not all of them are always experienced or expressed. Sexuality is influenced by the interaction of biological, psychological, social, economic, political, cultural, legal, historical, religious and spiritual factors." (WHO, 2006)

Source: https://www.who.int/teams/sexual-and-reproductive-health-and-research/key-areas-of-work/sexual-health/defining-sexual-health#:~:text=The%20working%20definition%20of%20sexuality,%2C%20pleasure%2C%20intimacy%20and%20reproduction.

What should a sexual health program include in an ideal world?

- Prevention and treatment for sexually transmitted infections (STIs) including HIV
- Reproductive health and family planning
- Sexual violence prevention
- Healthy pregnancy
- Population-specific health needs: adolescent health, LGBTQIA+ health, older people
- What else should be included?

Barriers to Comprehensive Sexual Health

- Funding: siloed funding streams, lack of funding, inequity
- Other resources
- Stigma
- Politics
- What are other barriers you can think of?

Talking About Sex

Taking a Sexual History

What is a sexual history?

- Part of the overall medical history
- Discussion with the patient about sexual health issues
- Should be taken at initial visit, at least annually during routine preventive exams, and if patient shows signs of STIs
- Offers the opportunity for counseling and sharing information about behaviors that may increase STI likelihood
- Helps identify what tests are appropriate, and from where specimens should be obtained
- Allows you to provide high quality patient care by appropriately assessing and screening individuals for a broad range of sexual health concerns

CDC's Five "P"s of Sexual Health/History Taking

- Partners
- Practices
- Protection from STIs
- Past history of STIs
- Pregnancy Intention
- Some bonus "P's": PLEASURE, PROBLEMS, PRIDE
- Pronouns!

Source viewable at: https://www.cdc.gov/hiv/clinicians/screening/sexual-health.html#:~:text=The%20following%20questions%20correspond%20with,of%20STIs%2C%20and%20Pregnancy%20Intention.

Partners:

- When was the last time you had any kind of sexual contact?
- Total number of sexual partners (all types of sexual contact) in life/past year/6 months/3 months
- Consider QUALITY over QUANTITY
- Gender of sexual partners
- “Do you have sex with men, women, or both?” doesn’t capture nonbinary persons and may not capture trans partners
- Length of time with sexual partners: New partner? Regular partner? Occasional partner? Anonymous partner? Again, QUALITY over QUANTITY
- Where do you meet your partners? Online? Apps? Bar? Corner?
- Risk factors of partner(s)—intravenous drug use (IVDU), transactional sex work, multiple partners
- Travel history—where did you have sex?

Practices:

- What kind of sexual contact have you had? Oral sex, vaginal sex, anal sex, genital sex?
- May need to be specific about practices (e.g., “Have you put your mouth on your partner’s penis?”) and when asking about anal sex, be sure you are specific that this means anal RECEPTIVE sex (e.g., “Have you received rectal sex?”)
- Other practices to consider even outside of sex: IVDU, other drug or alcohol use, transactional sex work.
- Again, comfortability with the terms—it’s OK to say penis and vagina!
- Let the patient know that this helps you know from where you need to get tests.

Protection:

- What do you do to protect yourself from STIs? Use open-ended questions.
- Do you talk to your partner(s) about STI prevention?
- Patient's perception of STI likelihood or that of partner?
- What kind of protection do you use?
- How often? All the time, sometimes? If sometimes, in what situations do you use protection and in what situations do you not?
- Have you received HPV, hepatitis A, or hepatitis B shots?
- Are you aware of PrEP?
- Good teaching moments can happen here!

Past History of STIs:

- Have you ever been tested for sexually transmitted infections?
- When were your last tests?
- How were you last tested? Bloodwork? Cultures? Was extragenital testing done?
- Note that many times people assume when they have gone to their medical provider that they are tested for “everything.”
- Have you ever had recurrent symptoms but no clear diagnosis?
- Have you ever been treated for: gonorrhea, chlamydia, syphilis, trichomoniasis, herpes, pelvic inflammatory disease (PID), nongonococcal urethritis (NGU), or hepatitis?
- Have you ever been tested for HIV? What specifically happened when you were tested?
- Do any partners have a history of a STI that you are aware?

Pregnancy Intention:

- Gender appropriate questions (EVERYONE of reproductive age should be asked about pregnancy intention, not just cisgender women)!
- Do you think you would like to have [more] children at some point?
- When do you think that might be?
- Are you trying to prevent getting pregnant? If so, how?
- This can also be a teaching moment, information on birth control options for both men and women.
- Transgender persons can conceive even when taking hormones.

Pleasure:

- What brings you sexual satisfaction?
- Are you happy with your current sex life?
- What can be improved?
- What works?
- Do you feel like your partner or partners are satisfied as well?
- What can enhance your pleasure without increasing your likelihood of infection?
- Has anyone ever made you do something sexual that you did not want to?

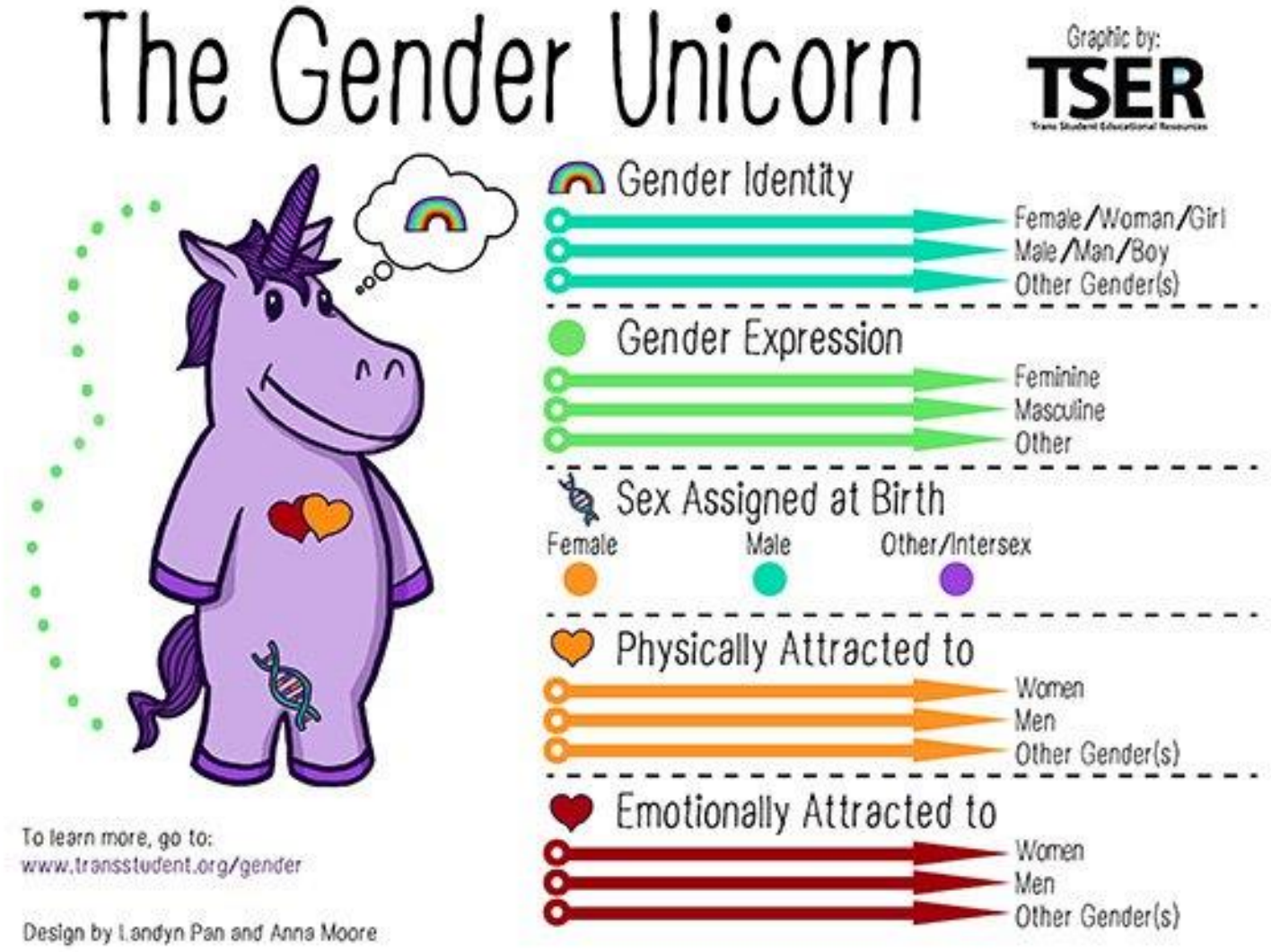
Problems:

- Are you having any difficulties with having sex?
- Ex: pain, discomfort, vaginal dryness, lack of arousal, difficulty with getting an erection, lack of orgasm
- Are you concerned about your sex drive or the sex drives of your partners?
- Keep in mind some problems with sex can be a sign or symptom of other medical or psychological conditions.

Pride:

- What support, if any, do you have from your family and friends about your:
  - Gender Identity?
  - Sexual Orientation?
  - Sex Community?

- Are you experiencing any harassment or violence—at home, at work, at school, in the community—due to your sexual orientation or gender identity?



Source available at: https://transstudent.org/gender/

Pronouns

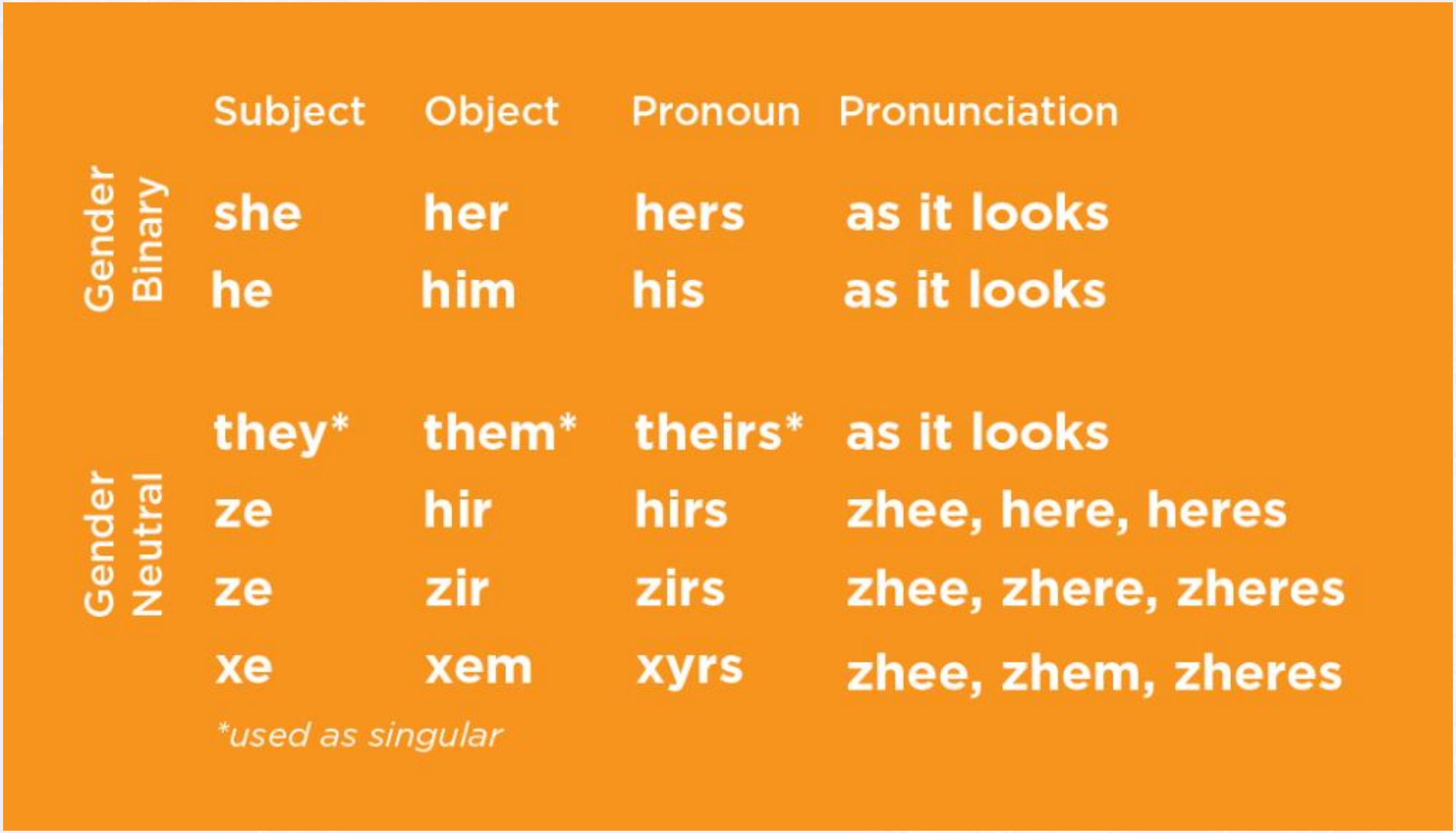


Image viewable at: https://www.wjhl.com/news/university-of-tennessee-to-remove-post-about-gender-neutral-pronouns/.

STI Testing

STI Testing: General

- USPSTF recommends screening all adults and adolescents ages 15-65
- Routinely obtain sexual health histories on all patients
  - Assessment of behavioral risks
  - Risk reduction counseling as indicated
  - STI testing as indicated
- Remember your extragenital tests!
  - Based on sexual health history. DON'T MAKE ASSUMPTIONS
  - Can be obtained by clinician or self-swab
  - Urine-only tests miss over 70% of CT/GC infections in MSM[i]
  - Rectal GC is asymptomatic ≈ 85% of the time[ii]
- If symptomatic and sexually active= test

[i] Patton M.E. et al. (2014). Extragenital gonorrhea and chlamydia testing and infection among men who have sex with men – std surveillance network, United States, 2010-2012. Clin infect dis; 58(11):1564-1570.

[ii] Kent C.K., Chaw J.K., Wong W. Liska S. et al. (2005) Prevalence of rectal, urethral, and pharyngeal chlamydia and gonorrhea detected in 2 clinical settings among men who have sex with men: San Francisco, California, 2003. Clin infect dis; 41(1):67-74.

Asymptomatic STI Testing: Pregnant People

CT	GC	Syphilis	HIV	HCV	HBV
• At 1st prenatal visit AND 3rd Trimester if <25 or >25 and increased risk • Test of cure 4 weeks after treatment • Repeat testing in 3 months after tx	• At 1st prenatal visit AND 3rd Trimester if <25 or >25 and increased risk • Test of cure 4 weeks after treatment • Repeat testing in 3 months after tx	• At 1st prenatal visit • At 28 wks and at delivery if at increased risk/ live in area with high morbidity	• At 1st prenatal visit • At 28 wks if at increased risk • Rapid HIV testing if in labor and not previously screened	• At 1st prenatal visit unless HCV positivity is <0.1%	• Test for surface antigen at 1st prenatal visit • At time of delivery if at increased risk or not tested before

Increased risk: new sex partner, more than 1 sex partner, a sex partner with concurrent partners, sex partner with STI, drug use, STIs during pregnancy, high morbidity in community

Asymptomatic STI Testing: Adolescents

- All 50 states and D.C. allow minors to consent to services for STIs
  - Types of services are state-dependent
- No state **requires** providers to notify parents of services
  - Many authorize parental notification
- Insurance plans may provide written statements of services to insurance policy holder

CT	GC	Syphilis	HIV	Cervical Cancer
• Annually for sexually active females <25 • At least annually for sexually active YMSM • Consider for sexually active males based on community/ population prevalence	• Annually for sexually active females <25 • At least annually for sexually active YMSM • Consider for sexually active males based on community/ population prevalence	• YMSM	• All sexually active adolescents (frequency based on risk factors)	• Starting at 21 y/o

Asymptomatic STI Testing: People in Correctional Facilities

CT	GC	Syphilis	HIV	HBV/HCV
• Women <35 on intake • Men <30 on intake	• Women <35 on intake • Men <30 on intake	• Universal screening considered based on community/population prevalence	* Universal screening at intake	• Universal screening on intake • Vaccinate those susceptible to HBV

Asymptomatic STI Testing: Men who have Sex with Men

CT	GC	Syphilis	HIV	HCV	HBV
• At least annually at sites of contact (urethra, rectum) regardless of condom use • Every 3-6 months if increased risk	• At least annually at sites of contact (urethra, rectum, pharynx) regardless of condom use • Every 3-6 months if increased risk	• At least annually if sexually active • Every 3-6 months if at increased risk	• At least annually if they don't have HIV/unknown and patient and/or sex partner have had more than one partner since last test • Consider 3-6 months	• All adults over age 18 should be screened for HCV except in settings where positivity is <0.1%	• Test for HBsAG, HBV core antibody, HBV surface antibody

Increased risk: Multiple partners, on PrEP, have HIV

Asymptomatic STI Testing: People with HIV

CT	GC	Syphilis	HCV	HBV	Trich
• At first visit and at least annually • May screen more frequently based on risk behaviors/ local epi	• At first visit and at least annually • May screen more frequently based on risk behaviors/ local epi	• At first visit and at least annually • May screen more frequently based on risk behaviors/ local epi	• At first visit • Annually in MSM with HIV	• At first visit • Test for HBsAG, HBV core antibody, HBV surface antibody	* Sexually active women at first appointment and annually

Asymptomatic STI Testing: Transgender and Gender Diverse People

- Gender identity is separate from sexual orientation
- Screen based on current anatomy and/or sexual behaviors
- People who have had bottom surgery can still get STIs

CT	GC	Syphilis	HIV	HCV	HBV
• Site based screening according to reported sexual behaviors and exposure	• Site based screening according to reported sexual behaviors and exposure	• At least annually based on reported sexual behaviors and exposure	Should be discussed and offered to all. Frequency of repeat screenings based on risk	• If born between 1945-1965 • If at high risk • Annually if they have HIV	• As per guidelines based on anatomy and risk

Asymptomatic STI Testing: Men who have Sex with Women ONLY

-In general, insufficient evidence for screening if LOW RISK

Chlamydia	Gonorrhea	Syphilis	HIV	Hepatitis B	Hepatitis C
CONSIDER screening in high prevalence clinical settings (adolescent clinics, correctional facilities, STI/sexual health clinic)	CONSIDER screening in high prevalence clinical settings (adolescent clinics, correctional facilities, STI/sexual health clinic)	Screen asymptomatic adults at increased risk	All men age 13 – 64 [opt-out] All men who seek evaluation and treatment for STIs	Men at increased risk by sexual or percutaneous exposure	All adults over age 18 years should be screened for HCV except in settings where positivity is <0.1%

HPV, Cervical Cancer, Anal Cancer

Women	Pregnant Women	MSM	Transgender	Persons with HIV
• Age 21-29: every 3 years with cytology • Age 30-65: every 3 years with cytology, or every 5 years with combination of cytology and HPV testing	Screening at same intervals as nonpregnant cis-gender women	• Digital anorectal rectal exam • Data is insufficient to recommend routine anal cancer screening with anal cytology	• Persons with cervix should follow cervical cancer screening guidelines	• People with cervix: screen within 1 year of sexual activity using cytology • Repeat 6 months later • With 3 normal consecutive Pap tests, screening should be every 3 years

Where and How?

The Ins and Outs of STI Tests

Testing for GC/CT

Nucleic acid amplification tests (NAATs) are the most sensitive and easy to use!

Urethral GC/CT in people with penises

- Urethral swab
- **First catch urine**

Oropharyngeal GC

- NAATs swab
- Culture

Rectal GC/CT

- NAATS have improved sensitivity and specificity compared with culture

Cervical GC/CT in people with vagina/cervix

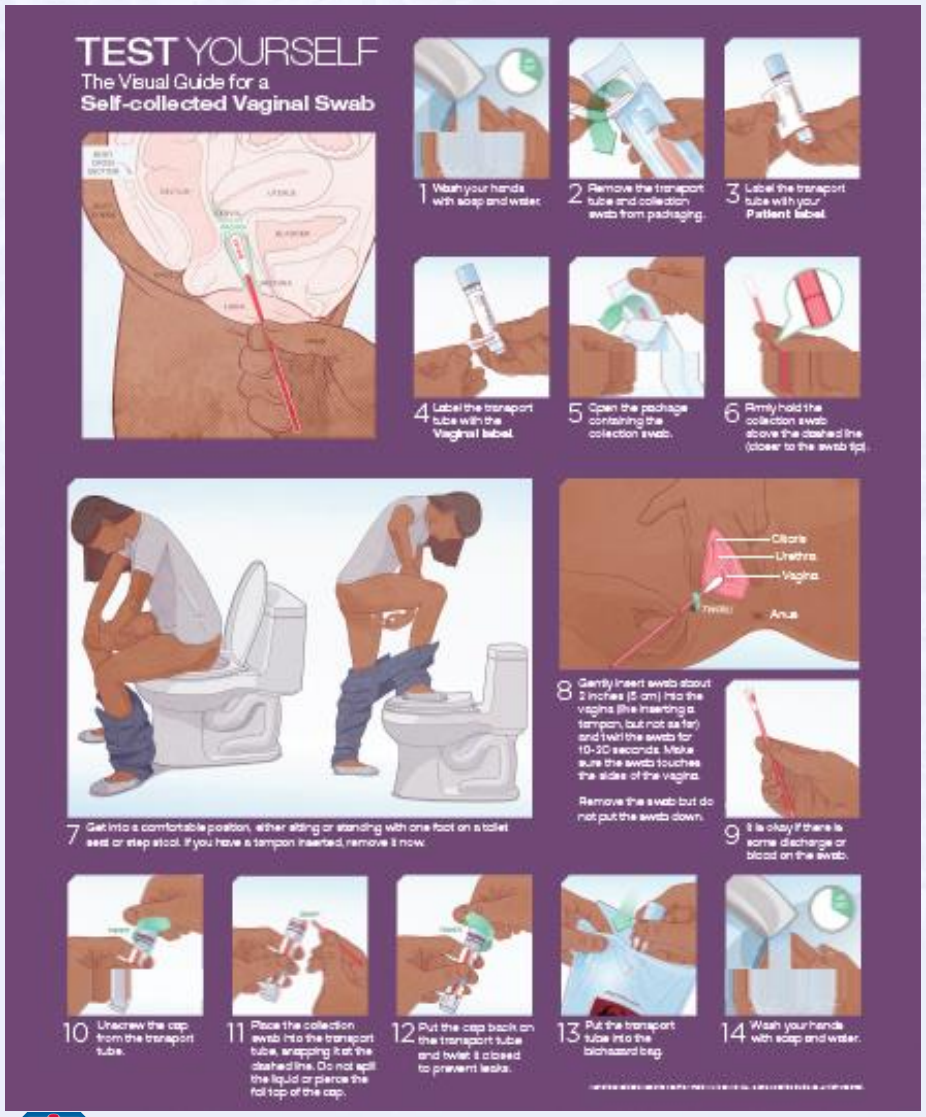
- Cervical swab
- Clinician collected vaginal swab
- **Self-collected vaginal swab**

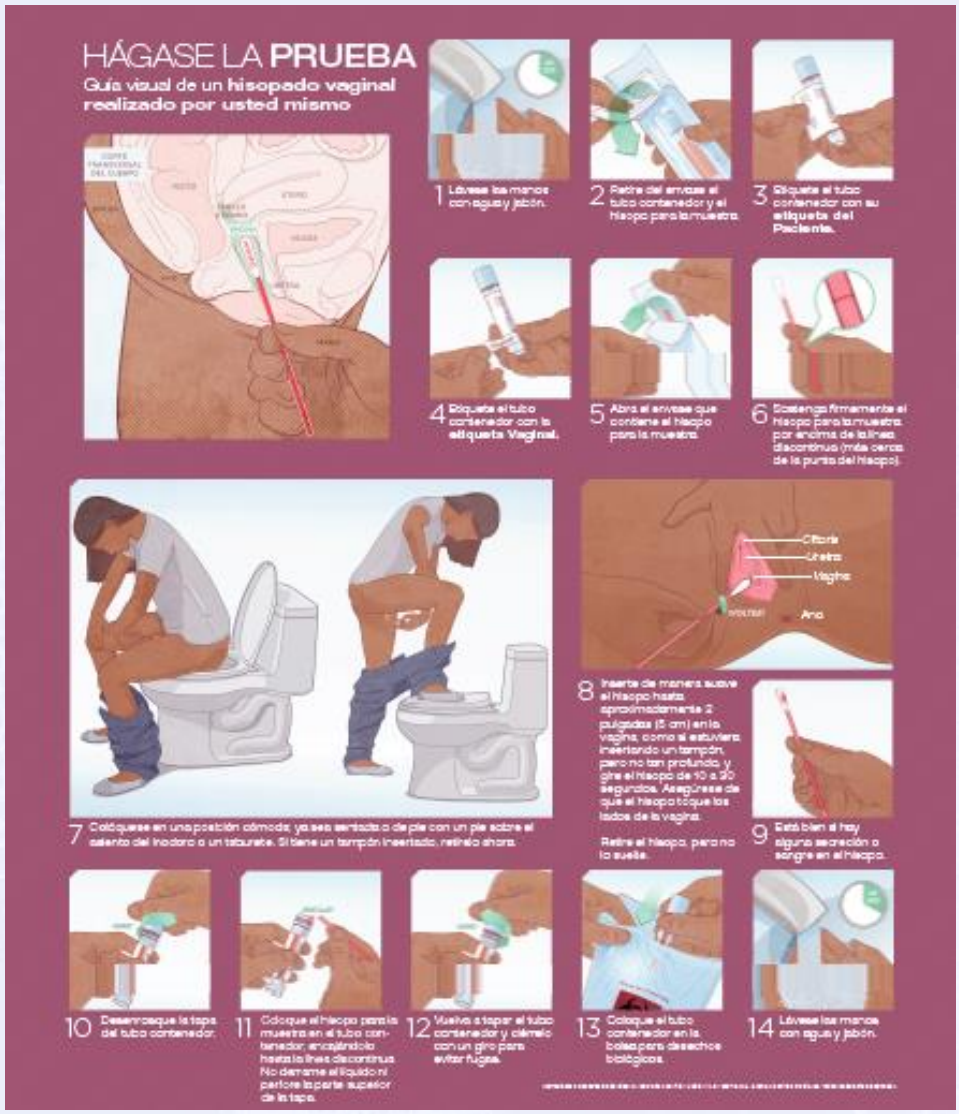
Based on ease of collection and CT detection rates comparable to other specimens, optimal urogenital specimen types for CT using NAATS include first catch urine from men and vaginal swabs from women.

Self Testing – Rectal

http://uwptc.org/

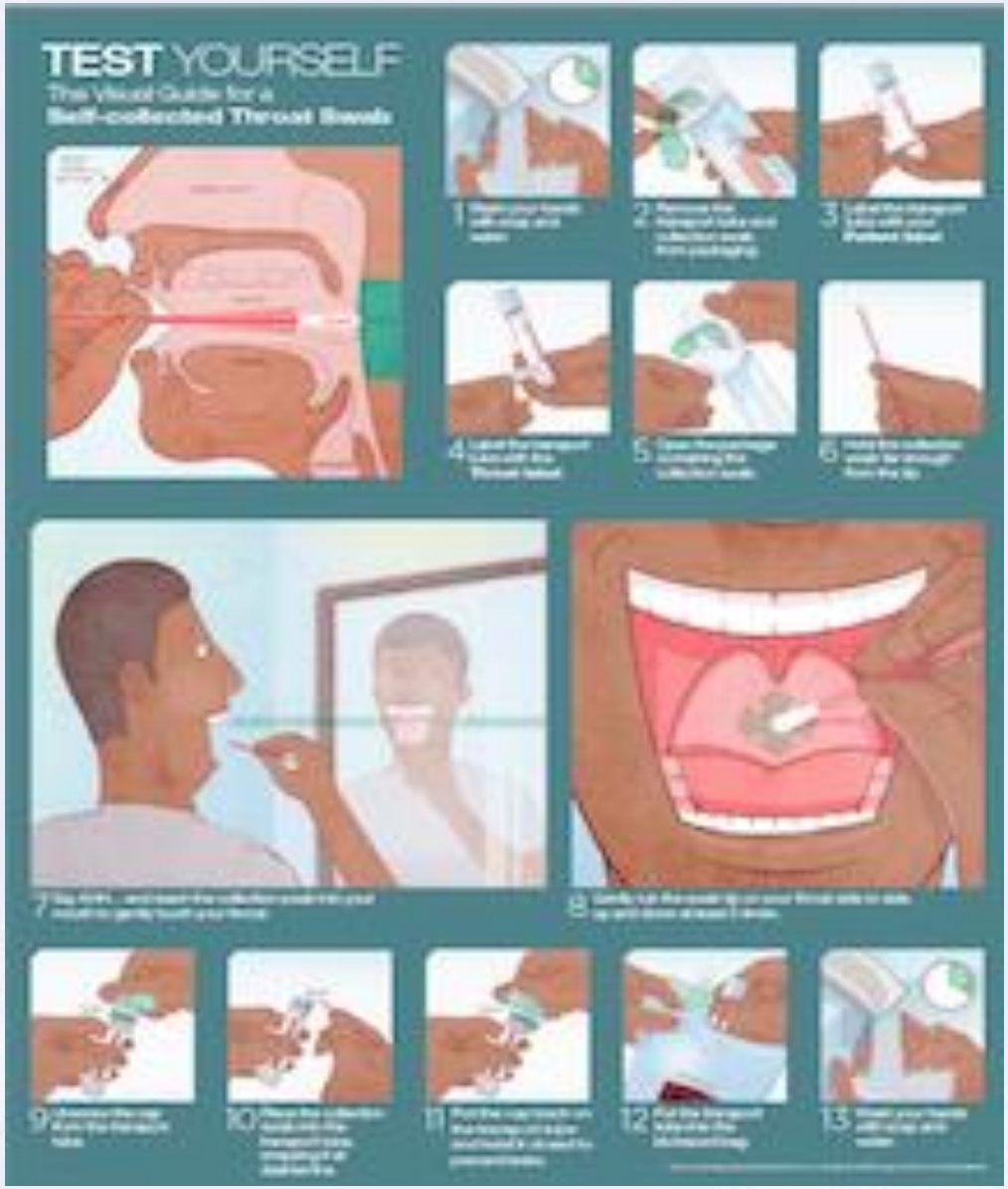
Self Testing – Vaginal





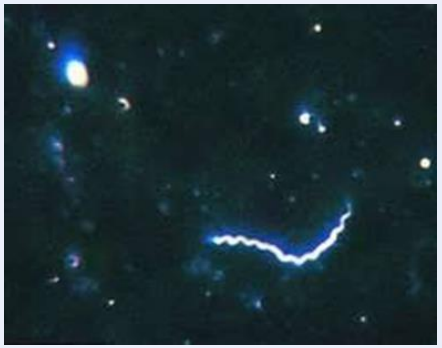
http://uwptc.org/

Self Testing – Pharyngeal



http://uwptc.org/

Syphilis Diagnosis

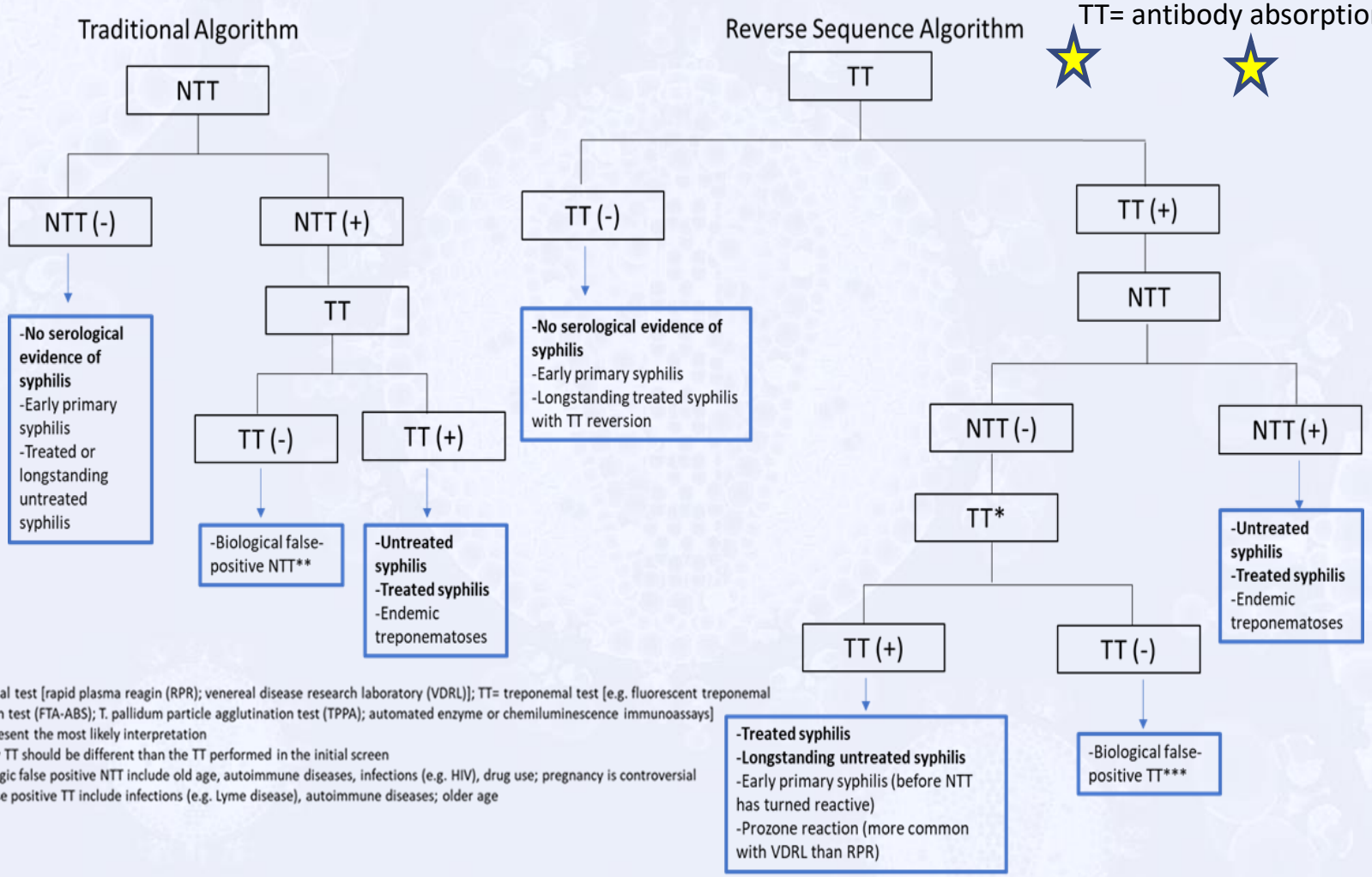


- Primary/Secondary Syphilis
  - Lesions?
    - **Darkfield microscopy if the clinic has it**
    - **Direct immunofluorescence**
    - **Polymerase chain reaction (PCR)**
- Early Latent Syphilis
- Late Latent Syphilis
- Syphilis of Unknown Duration
- Late Syphilis

Serology (Bloodwork)

Testing Algorithms for Syphilis

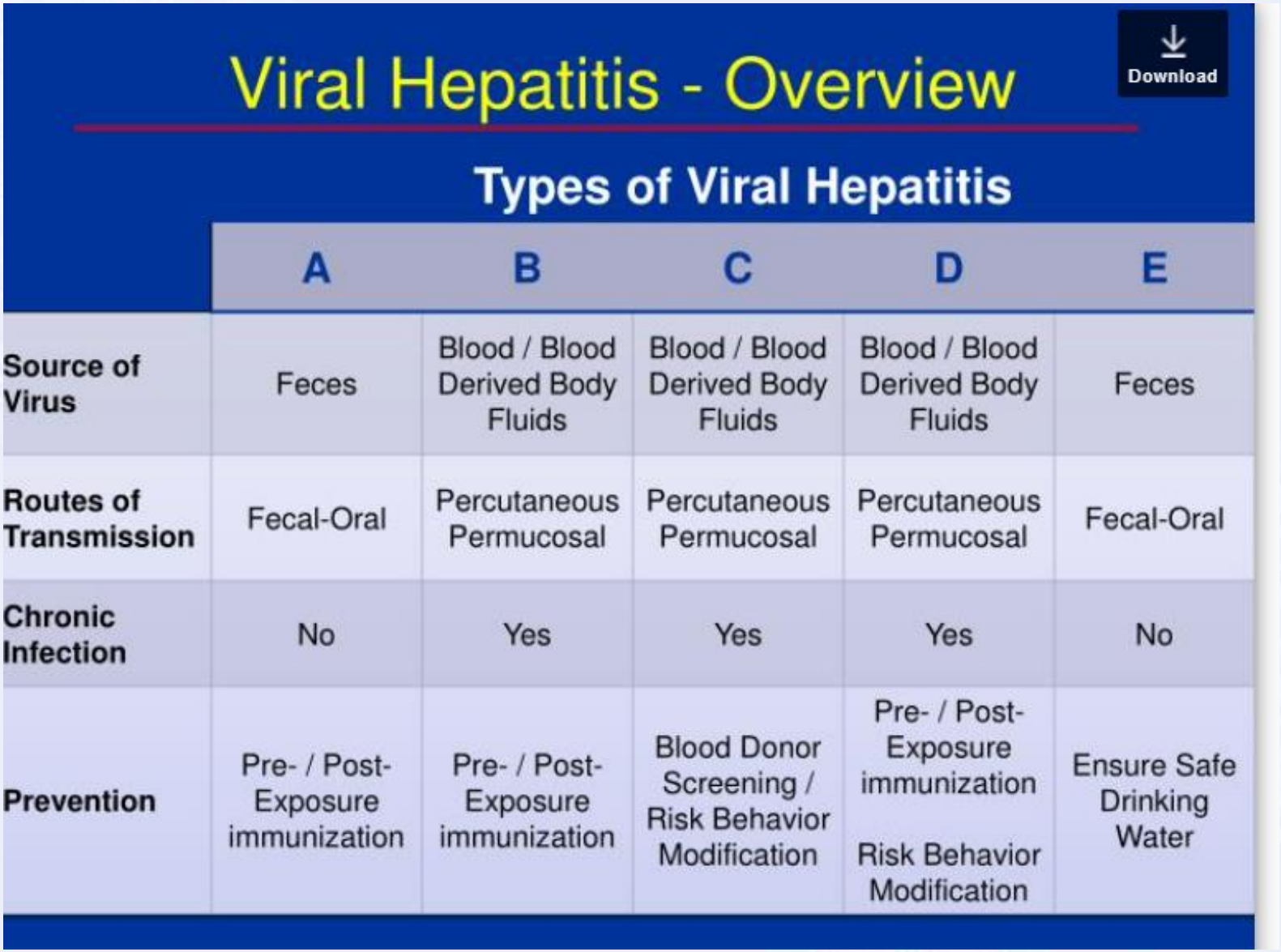
NTT= RPR, titer
TT= antibody absorption, -/+



NTT= nontreponemal test [rapid plasma reagin (RPR); venereal disease research laboratory (VDRL)]; TT= treponemal test [e.g. fluorescent treponemal antibody absorption test (FTA-ABS); T. pallidum particle agglutination test (TPPA); automated enzyme or chemiluminescence immunoassays]
Bolded bullets represent the most likely interpretation
* The confirmatory TT should be different than the TT performed in the initial screen
**Causes of a biologic false positive NTT include old age, autoimmune diseases, infections (e.g. HIV), drug use; pregnancy is controversial
*** Causes of a false positive TT include infections (e.g. Lyme disease), autoimmune diseases; older age

KG Ghanem et al. N Engl J Med 2020;382:845-854.

Hepatitis Testing



	A	B	C	D	E
Source of Virus	Feces	Blood / Blood Derived Body Fluids	Blood / Blood Derived Body Fluids	Blood / Blood Derived Body Fluids	Feces
Routes of Transmission	Fecal-Oral	Percutaneous Permucosal	Percutaneous Permucosal	Percutaneous Permucosal	Fecal-Oral
Chronic Infection	No	Yes	Yes	Yes	No
Prevention	Pre- / Post-Exposure immunization	Pre- / Post-Exposure immunization	Blood Donor Screening / Risk Behavior Modification	Pre- / Post-Exposure immunization Risk Behavior Modification	Ensure Safe Drinking Water

Hepatitis B Testing

- **Hepatitis B surface antigen (HBsAg):**
  A protein on the surface of hepatitis B virus that can be detected in high levels in serum during acute or chronic hepatitis B virus infection. The presence of HBsAg indicates that the person is infectious, except when it might be transiently positive within 30 days after a dose of hepatitis B vaccine (HepB). The body normally produces antibodies to HBsAg as part of the normal immune response to infection. HBsAg is the antigen used to make HepB vaccine.
- **Hepatitis B surface antibody (anti-HBs):**
  The presence of anti-HBs is generally interpreted as indicating recovery and immunity from hepatitis B virus infection. Anti-HBs also develops in a person who has been successfully vaccinated against hepatitis B. Among vaccine responders who completed a vaccine series, anti-HBs levels can decline over time, however the majority are still immune and will mount a response when exposed to HBV.
- **Total antibody to hepatitis B core antigen (anti-HBc):**
  Appears at the onset of symptoms in acute hepatitis B, is a measure of both IgM and IgG, and persists for life. The presence of total anti-HBc indicates previous or ongoing infection with hepatitis B virus in an undefined time frame. People who have immunity to hepatitis B from a vaccine do not develop anti-HBc.

Interpretation of Hepatitis B Serologic Test Results | CDC

HBV Serology Interpretation

Interpreting Hepatitis B Blood Test Results

Interpretation & Action Needed	HBsAg Hepatitis B Surface Antigen	HBsAb (anti-HBs) Hepatitis B Surface Antibody	HBcAb (anti-HBc) Hepatitis B Core Antibody
Not Immune - Not Protected Has not been infected, but still at risk for possible hep B infection. Vaccine is needed.	—	—	—
***Immune Controlled - Protected** Surface antibodies present due to natural infection. Has recovered from a prior hep B infection. Cannot infect others. No vaccine is needed.	—	+	+
Immune - Protected Has been vaccinated. Does not have the virus and has never been infected. No vaccine is needed.	—	+	—
Infected Positive HBsAg indicates hep B virus is present. Virus can spread to others. Find a doctor who is knowledgeable about hep B for further evaluation. More Testing Needed.	+	—	+
***Could be Infected** Result unclear - possible past or current hep B infection. Find a doctor who is knowledgeable about hep B for further evaluation. More Testing Needed.	—	—	+

*Inform all doctors about a prior or current hepatitis B infection and include this information as part of your health history.
Talk to doctors before taking immune system suppressing medications to understand the risk for possible hep B reactivation.

ResizedImageWzg1OSw5MDld-New-Hepatitis-B-Blood-Test-Chart-2019.png (859×909) (hepb.org)

Testing for Hepatitis C Virus

Diagnosing hepatitis C infection is a 2-step process:

1) Anti-HCV (antibody)

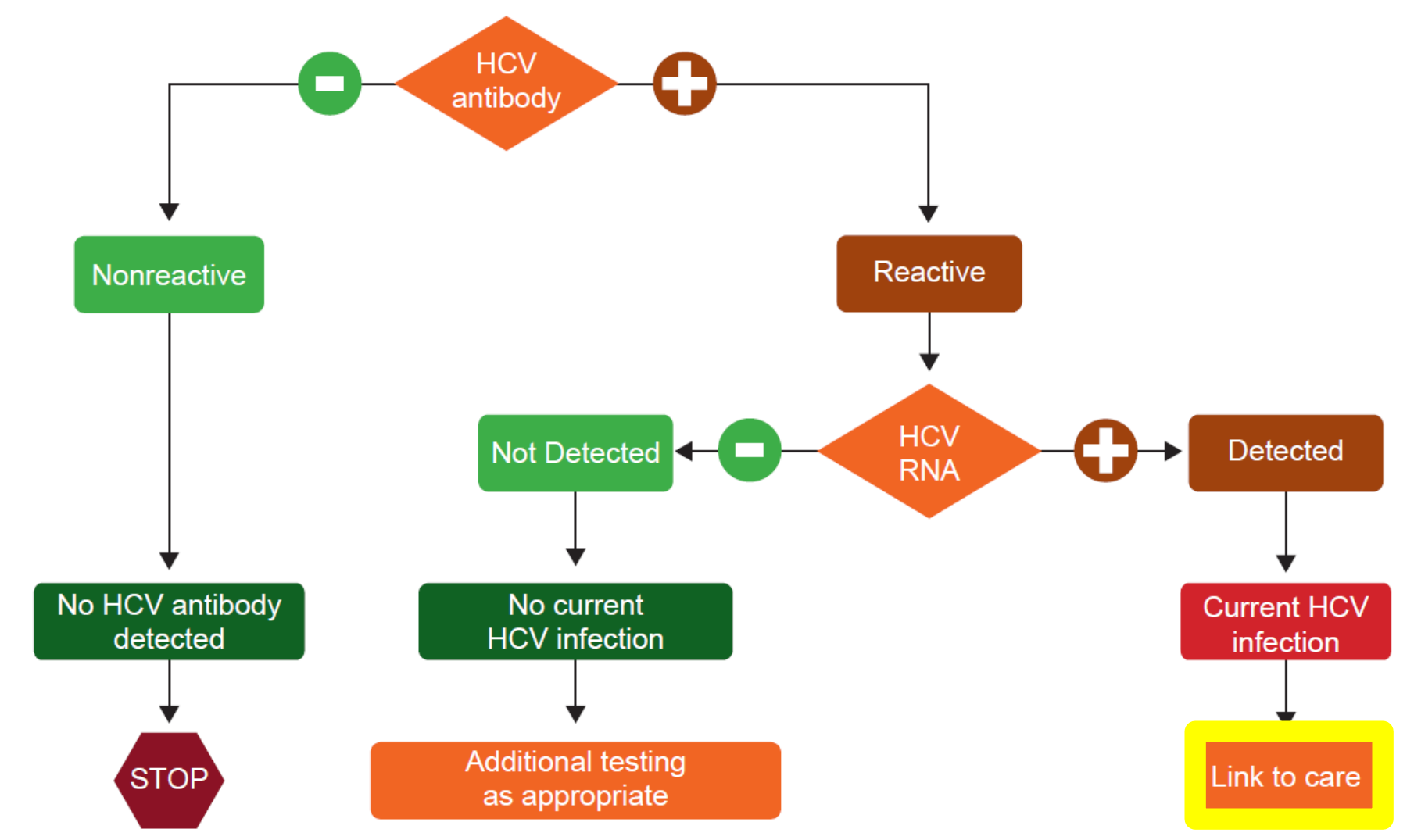
- Nonreactive (negative)
- Reactive (positive)

2) HCV RNA (PCR or viral load)

- Not detected
- Detected

For those with known history, need to do RNA

Recommended Testing Sequence for Identifying Current Hepatitis C Virus (HCV) Infection

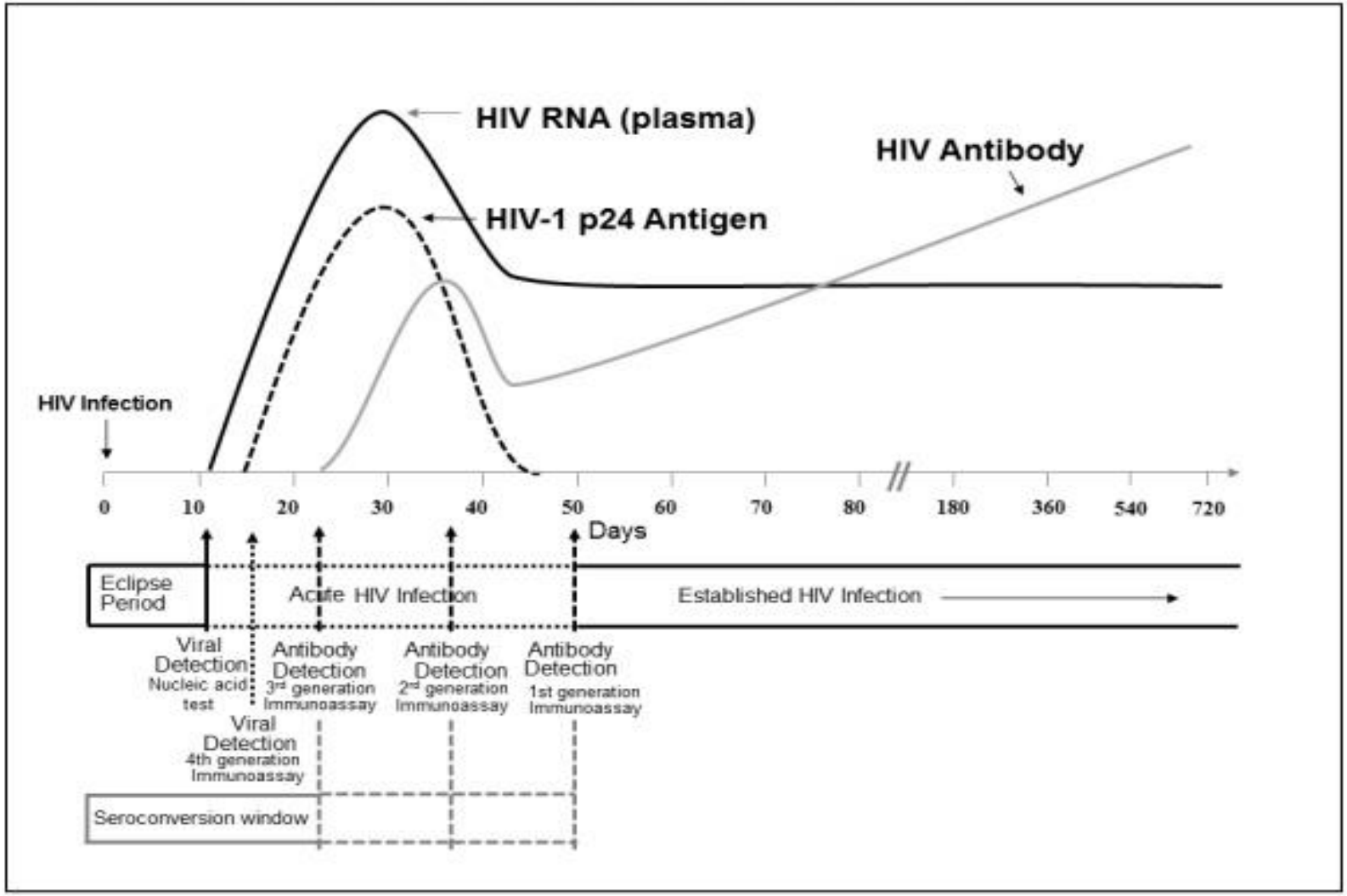


Source: https://www.cdc.gov/hepatitis/HCV/PDFs/hcv_flow.pdf. Accessed June 29, 2018.

Hepatitis A Virus (HAV) Testing

- When to test:
  - IVDU
  - Patient experiencing homelessness
  - Patient engaging in anilingus or rimming
- Tests:
  - IgM antibody testing
  - HAV NAAT for RNA
- Don’t forget to vaccinate

Figure 1. Sequence of appearance of laboratory markers for HIV-1 infection

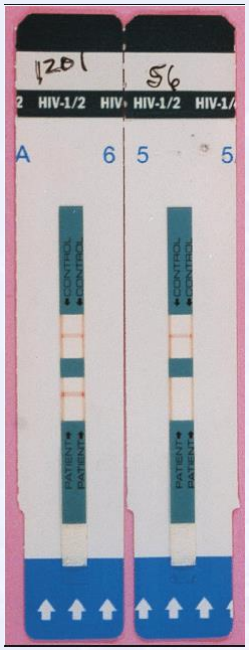


Note. Units for vertical axis are not noted because their magnitude differs for RNA, p24 antigen, and antibody. Modified from MP Busch, GA Satten (1997)[50] with updated data from Fiebig (2003),[48] Owen (2008),[49] and Masciotra (2011, 2013).[46,66]

Laboratory Testing for the Diagnosis of HIV infection: Updated Recommendations https://stacks.cdc.gov/view/cdc/23447

Types of HIV tests:

- Screen with a highly sensitive initial test, then confirm reactive results with a different test that is both sensitive and highly specific
  - 2 point-of-care (POC) tests
  - 2 laboratory-based tests
  - Combination of POC and lab-based test
- The first HIV test was approved by FDA in 1985, the first POC test in 2002
- **Antibody-only**
  - ELISA, Western Blot
  - Multiple rapid-test options available
  - 3-12 weeks post-infection
  - IgM response begins around day 20, IgG day 30
  - 2 IgG/IgM sensitive POC tests available
- **Antigen/antibody (4th generation)**
  - p24 antigen/antibody combined immunoassay
  - Recommended screening method
  - 2-6 weeks post-infection (median window period 18 days)
  - P24 antigen is detectable in plasma by day 15, rises through day 30. Often cleared by day 50
  - First and only POC Ag/Ab test was approved in 2013, at least 4 lab-based Ag/Ab tests available
- **HIV-1 RNA**
  - NAAT “Viral load”, qualitative or quantitative
  - 1-4 weeks post-infection
  - 50% have detectable plasma RNA within 12 days of infection, levels peak between 20-30 days



Source: STD 2017; vol 44 no 12: 739-745

HIV Test Sensitivity

Lab-based test > POC serum/plasma > POC whole blood > POC oral fluid

"An HIV test is done by taking blood from the finger or arm, or by an oral swab."

Source information available at: https://www.beintheknow.org/hiv-and-stis/hiv-testing/whats-involved-testing-hiv.

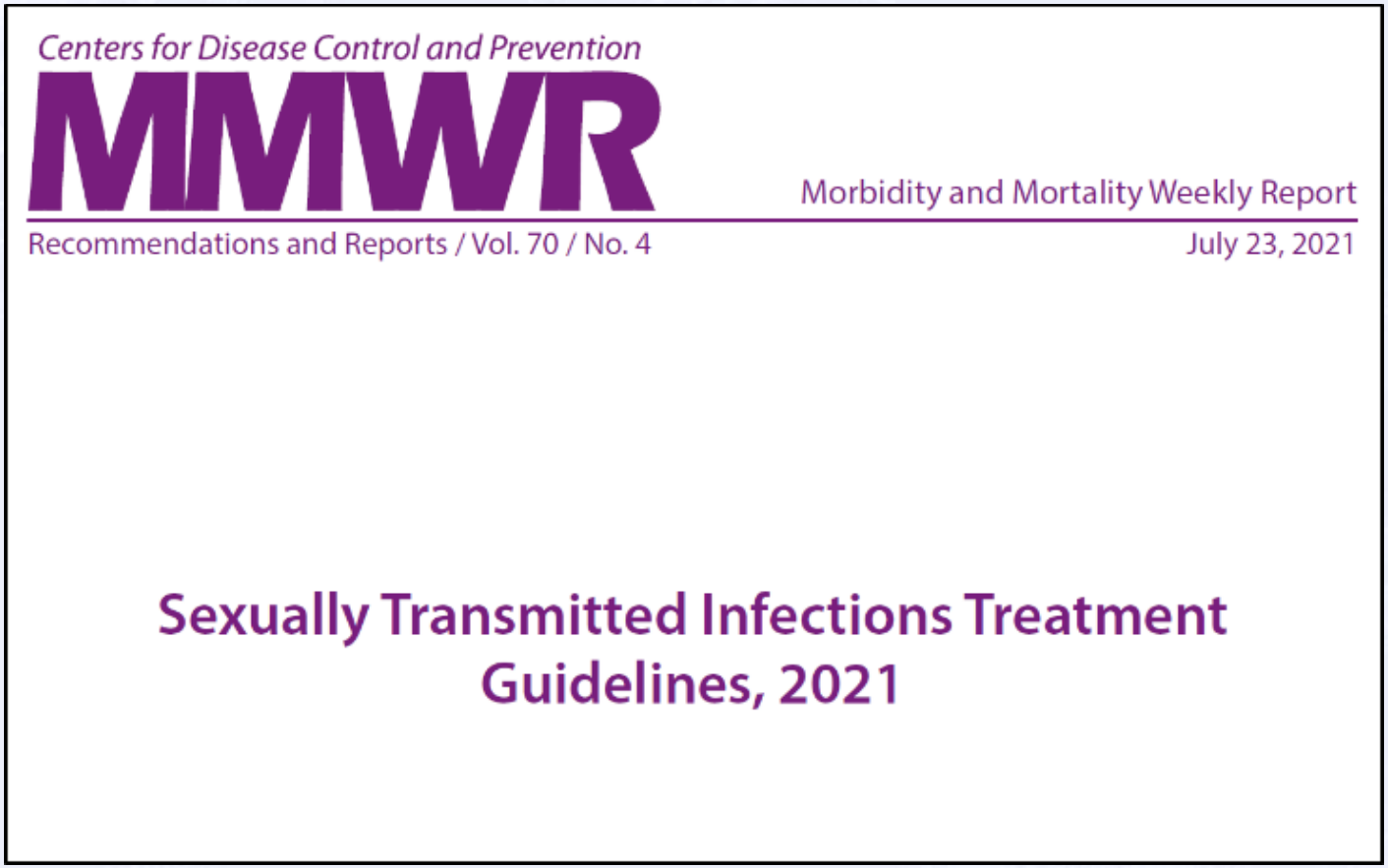
To summarize what STI tests are recommended for SCREENING (swabs or blood)

Tests done with swabs or urine (NAATs or cultures)	Tests done by bloodwork
• Chlamydia • Gonorrhea • Trichomoniasis for some individuals (if you have that capability)	• HIV • Syphilis • Hepatitis A • Hepatitis B • Hepatitis C

Tests NOT recommended for **screening** at this time:

- Herpes simplex virus (HSV) by serology
- *Mycoplasma genitalium (Mgen)*

STI Treatment: Use the CDC Guidelines



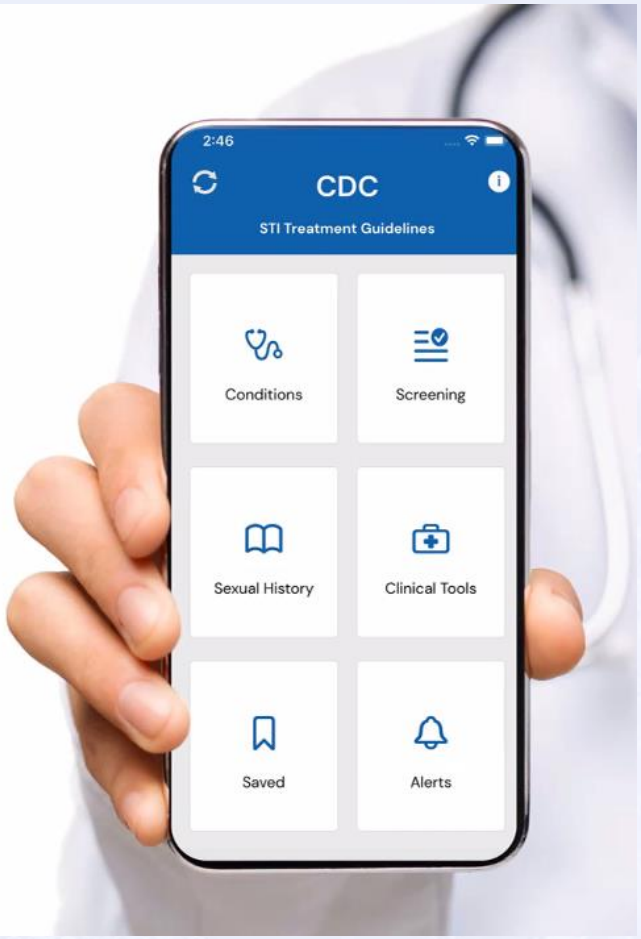
https://www.cdc.gov/std/treatment-guidelines/default.htm

STI Treatment Guide Mobile App

Get treatment regimens *FAST*

Download CDC's free app for iPhone and Android devices

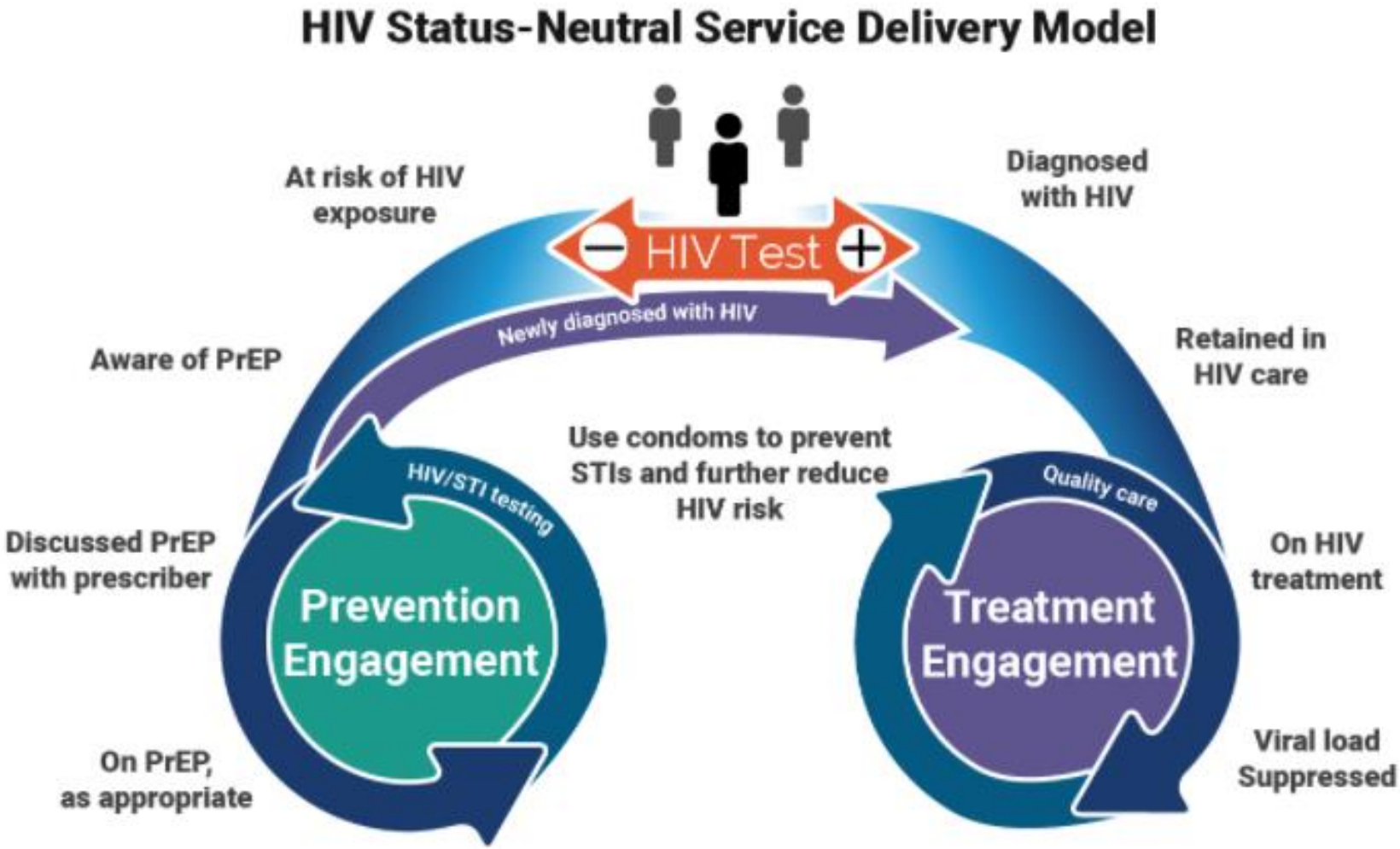
www.cdc.gov/std



Status-Neutral Care:

A model for HIV prevention–can be used in other areas of sexual health as well!

Prevention Begins with an HIV Test



Source: NYC Department of Health and Mental Hygiene

HIV Prevention Tools

- Condoms
- Syringe exchange
- Safe blood supply
- STI diagnosis and treatment
- pMTCT
- HIV testing, linkage to care, and U=U
- **PrEP**
- PEP

Status-Neutral Prevention for Sexual Health

- Prenatal care or contraception
- STI treatment or prevention (vaccines? DoxyPEP? Barriers?)
- What are other ways sexual health care can be beneficial regardless of tests and test results?

My patient tested positive!

Now what?

Delivering a Positive Result

- Convey information simply and clearly
- Provide information—the result and the importance of medical care
- Support patient's response to news
- Offer treatment/referral linkage and next steps
- Trauma-informed care
- Set expectations for yourself and for the client: what are you prepared to do that day?

Convey Information Simply and Clearly

- Do:
  - Use simple, straightforward words
  - Control your own emotions—remember this is about the patient
- Do NOT:
  - Use overly medical terms
  - Use stigmatizing language
  - Apologize for and/or disparage an HIV diagnosis
  - Use PPE or avoid contact with patient
- Sample phrase: “Your HIV test result came back positive, which means HIV was detected in your body.”
- Quote from a patient: “I didn’t remember what was said, I just remember the feelings in the room and that you treated me like a person.”

Support Patient's Response to the News

- Do not be afraid of pauses and/or silence
- Give the patient space to process
- Patients' reactions will vary—go with it
- Sample phrase: "I know this is a lot to take in, what are you feeling right now?"
  - Respond appropriately

Putting Together a Resource List

- Insurance considerations—keep in mind
- For example, local health departments in Maryland ALMOST all have STI and family planning clinics—some are combined, BCHD is separate
- Language considerations
- Population specific considerations: gender affirming care? Adolescent health? Others?
- I recommend checking your list annually by calling the clinic and confirming no change in services

Resource Links

- HIV Treatment Guidelines
  - https://www.cdc.gov/hiv/clinicians/treatment/index.html
- Aids Education and Training Center Program (AETC)
  - https://aidsetc.org/
  - Local: https://aidsetc.org/aetc-program/johns-hopkins-university
- STI Treatment Guidelines
  - https://www.cdc.gov/std/treatment-guidelines/default.htm
- Current PrEP guidelines
  - https://www.cdc.gov/hiv/pdf/risk/prep/cdc-hiv-prep-guidelines-2021.pdf
- Current nPEP guidelines
  - https://stacks.cdc.gov/view/cdc/38856
- New York State clinical guidelines, includes HIV, PEP and PrEP
  - https://www.hivguidelines.org/
- Paying for PrEP
  - https://www.nastad.org/prep-access/prep-assistance-programs
  - https://www.nastad.org/sites/default/files/resources/docs/nastad-prep-coverage-brief-on-prep-services.pdf
- IAS-USA (good resource for free webinars, classes, conferences, etc.)
  - https://www.iasusa.org/

Training Resources

National STD Curriculum

www.std.uw.edu

This curriculum is funded by the U.S. Centers for Disease Control and Prevention (CDC) and developed by the University of Washington STD Prevention Training Center as part of the National Network of STD Prevention Training Centers (NNPTC).

National HIV Curriculum

www.hiv.uw.edu

The National HIV Curriculum is supported by the Health Resources and Services Administration (HRSA) of the U.S. Department of Health and Human Services (HHS) as part of a financial assistance award totaling $1,021,448 with 0% financed with non-governmental sources.

National HIV PrEP Curriculum

www.hivprep.uw.edu

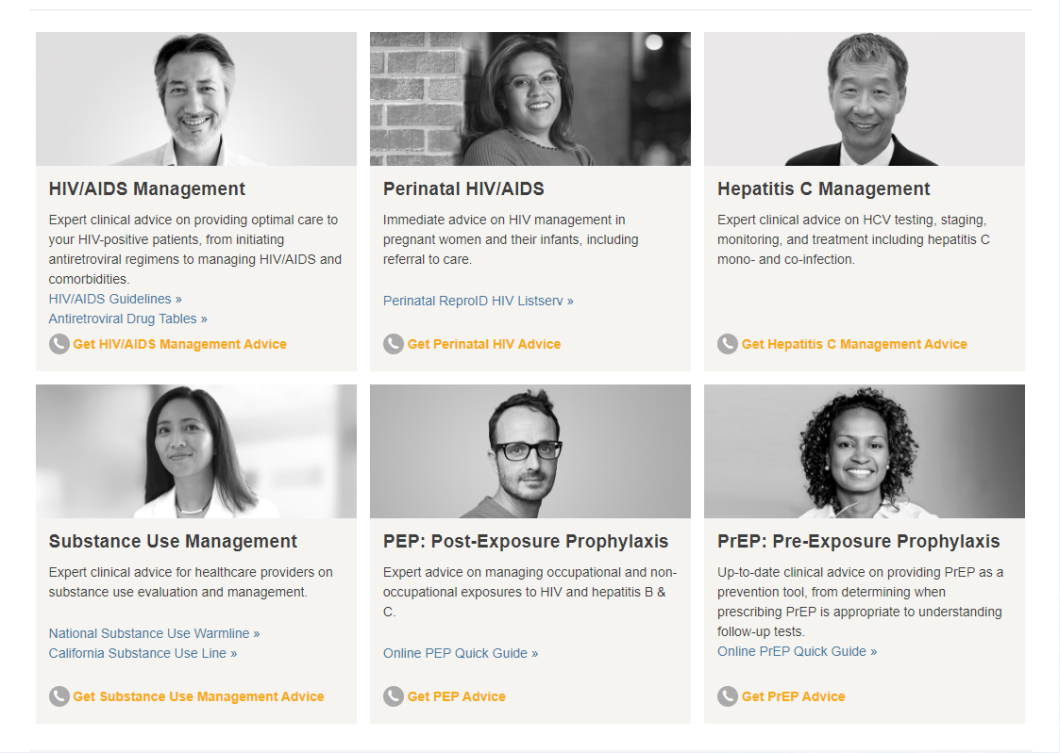
This free curriculum addresses how to assess, initiate, and monitor HIV PrEP.

- **11 lessons** offer 14 free CME credit, CNE and CE contact hours, 10 pharmacology CE for APNs, and Certificates of Completion
- **HIV PrEP Training Certificate** available in HIV PrEP Fundamentals Module
- **HIV PrEP Tools for Clinicians** app supports interactions with patient from assessment and medication selection to what labs to order
- Experts discuss relevant topics via **Mini-Lectures**, **Panel Discussions**, and **Interviews**
- 4 concise **HIV PrEP Clinical Guides** review HIV PrEP studies, injectable cabotegravir, on-demand dosing, and recommended lab tests
- A learning group tool for healthcare entities & training programs to enroll members, assign units, and track progress

The National HIV PrEP Curriculum is supported by the Centers for Disease Control and Prevention (CDC) and the Health Resources and Services Administration (HRSA) of the U.S. Department of Health and Human Services (HHS) as a part of a financial assistance award totaling $625,000 from CDC and $300,005 from HRSA with 0% financed with non-governmental sources. The contents are those of the author(s) and do not necessarily represent the official views of, nor an endorsement by CDC, HRSA, or HHS, or the U.S. Government. This project is led by the University of Washington Infectious Diseases Education & Assessment (IDEA) Program.

National Clinician Consultation Center

- Warm line consultation from UCSF
  - https://nccc.ucsf.edu/
    - (855) 448-7737 or (855) HIV-PrEP; Monday – Friday, 9 a.m. – 8 p.m. ET




CLINICIANS,
Got a Tough
STD Question?
GET FREE EXPERT STD CLINICAL
CONSULTATION AT YOUR FINGERTIPS
Ask your question
National STD experts review
Response within 1-5 business
days, depending on urgency
GO

STDCCN.org

Position Statements and Resources about Sexual Health

- https://en.wikipedia.org/wiki/Sexual_and_reproductive_health
- https://www.cdc.gov/sexualhealth/Default.html
- https://www.who.int/health-topics/sexual-health#tab=tab_1
- https://www.ashasexualhealth.org/sexual-health/
- https://nationalcoalitionforsexualhealth.org/sexual-health/what-is-sexual-health
- https://www.health.state.mn.us/people/sexualhealth/characteristics.html

Thank you!
Questions? Discussion?

Barbara Wilgus

bwegwei1@jhmi.edu
www.stdpreventiontraining.com

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- https://transstudent.org/gender/
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- Patton M.E. et al. (2014). Extragenital gonorrhea and chlamydia testing and infection among men who have sex with men – std surveillance network, United States, 2010-2012. Clin infect dis; 58(11):1564-1570.
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- http://uwptc.org/
- https://www.beintheknow.org/hiv-and-stis/hiv-testing/whats-involved-testing-hiv
- https://stacks.cdc.gov/view/cdc/23447
- https://www.cdc.gov/hepatitis/HCV/PDFs/hcv_flow.pdf
- ResizedImageWzg1OSw5MDld-New-Hepatitis-B-Blood-Test-Chart-2019.png (859×909) (hepb.org)
- Interpretation of Hepatitis B Serologic Test Results | CDC

Building Access to HIV Prevention & Treatment: Current Issues & Approaches

The Conference Center at Central Penn College
April 18, 2024

STI Screening, Sexual Health, and Taking a Status-Neutral Approach to HIV Prevention & Care:

Roundtable Activity #1

Barbara E. Wilgus MSN, CRNP
Program Administrator, STD/HIV Prevention Training Center
Senior Staff, Division of Infectious Disease
Johns Hopkins University School of Medicine

In your small groups:

- Assign a note taker.
- Assign someone to speak for your group.
- These roundtable activities are meant for you to be able to talk through putting concepts into action! Think about how the following scenario would unfold in your clinical setting.

Case: Valerie

- Valerie is a 25-year-old cis-gender female who presents to your clinic stating she was told a partner had an infection.
- She has no symptoms.
- You take a thorough sexual history as part of your overall medical history!
- She has had 7 partners in the last 4 weeks, all male. Five of the 7 were new and anonymous. Two were regulars. She is a transactional sex worker for both money and drugs. Her drug of choice is crystal meth.
- She has had oral, vaginal, and rectal sex.
- Her last menstrual period was March 5, 2024.

Case: Valerie Discussion

- What are other things you may want to know about Valerie? What other things would you want to ask about during your history?
- What tests would you like to offer?
- What comprises status neutral care for Valerie? What services would be of potential benefit for her?
- When Valerie's culture results return, she tests positive for Chlamydia on vaginal and rectal specimens. How will you talk to her about those results?
- Valerie's HIV test is positive as well. How will you talk to her about those results? Does this change your status-neutral care?

Roundtable Activity #1

Regroup
Q & A

MidAtlantic AIDS Education and Training Center - Contact Information

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Building Access to HIV Prevention & Treatment: Current Issues & Approaches

The Conference Center at Central Penn College
April 18, 2024

Treatment as Prevention: PEP, PrEP & Antiretroviral Therapy

Ken Ho, MD, MPH

Associate Professor of Medicine, Division of Infectious Diseases
University of Pittsburgh School of Medicine
Medical Director, Pitt Men's Study

Speaker Disclosure

Dr. Ken Ho has no disclosures.

Learning Objectives

By the end of the session, the learner will be able to:

- Be familiar with current biomedical prevention strategies for preventing HIV, including PrEP, PEP, and treatment as prevention.
- Understand available oral options and long-acting injectable options for PrEP.
- Review most recent updates in the PrEP guidelines.
- Discuss prevention challenges, hard to reach populations, and barriers to prevention access.

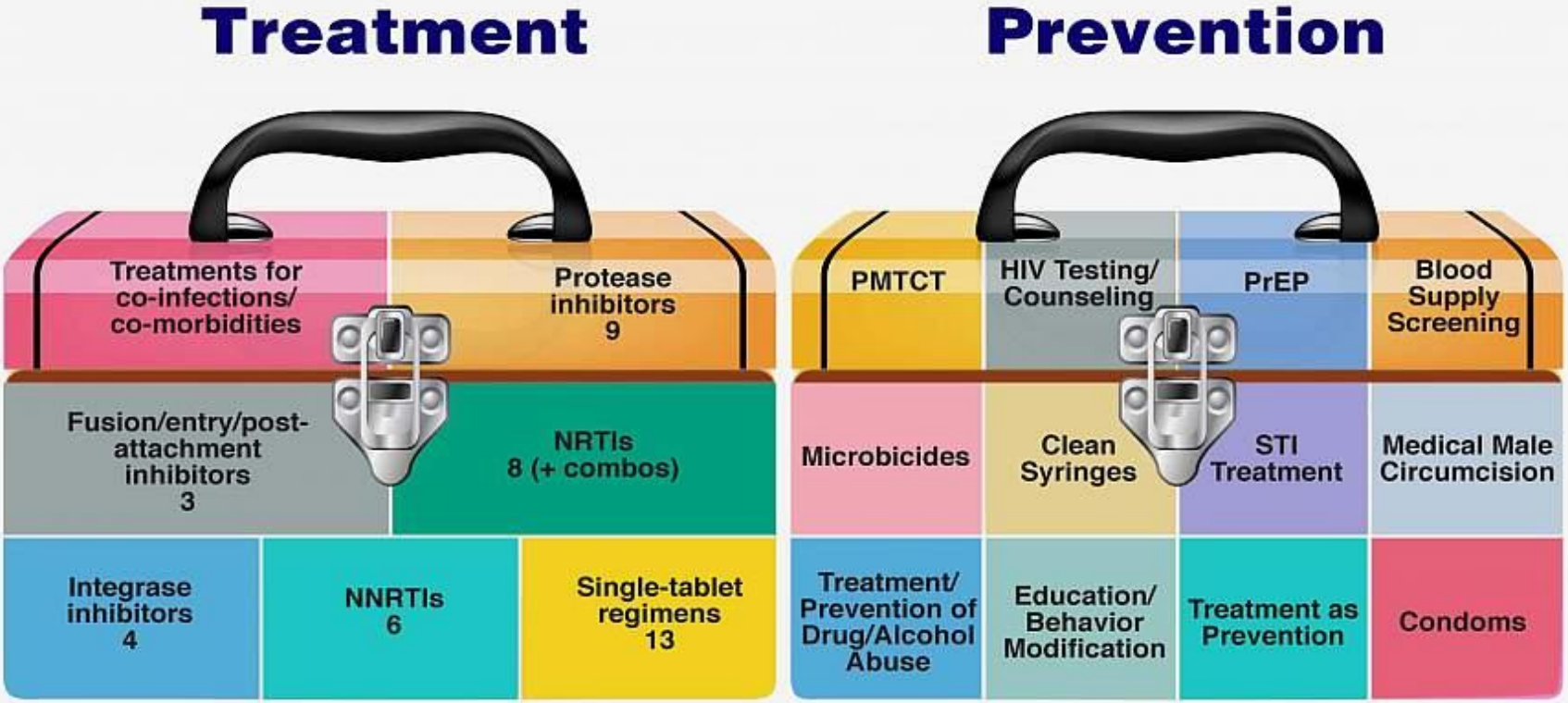


Image and article viewable at: https://www.nih.gov/news-events/news-releases/ending-hiv-will-require-optimizing-treatment-prevention-tools-say-nih-experts

https://miro.medium.com/v2/resize:fit:1050/1*X0oK_f1CWTaVNRf13_Qa_g.jpeg

HPTN-052

The NEW ENGLAND JOURNAL of MEDICINE

HPTN-052

ORIGINAL ARTICLE

Antiretroviral Therapy for the Prevention of HIV-1 Transmission

Authors: Myron S. Cohen, M.D., Ying Q. Chen, Ph.D., Marybeth McCauley, M.P.H., Theresa Gamble, Ph.D., Mina C. Hosseinipour, M.D., Nagalingeswaran Kumarasamy, M.B., B.S., James G. Hakim, M.D., +29, for the HPTN 052 Study Team* Author Info & Affiliations

Published September 1, 2016 | N Engl J Med 2016;375:830-839 | DOI: 10.1056/NEJMoa1600693

VOL. 375 NO. 9

Lancet. 2019 Jun 15; 393(10189): 2428–2438.
doi: 10.1016/S0140-6736(19)30418-0

PMCID: PMC6584382
PMID: 31056293

PARTNER STUDY

Risk of HIV transmission through condomless sex in serodifferent gay couples with the HIV-positive partner taking suppressive antiretroviral therapy (PARTNER): final results of a multicentre, prospective, observational study

Alison J Rodger, Prof, FRCP,[a,*] Valentina Cambiano, PhD,[a] Tina Bruun, RN,[b] Pietro Vernazza, Prof, MD,[c] Simon Collins,[d] Olaf Degen, MD,[e] Giulio Maria Corbelli, BSc,[f] Vicente Estrada, MD,[g] Anna Maria Geretti, Prof, FRCPath,[h] Apostolos Beloukas, PhD,[h,i] Dorthe Raben, PhD,[b] Pep Coll, MD,[j] Andrea Antinori, MD,[k] Nneka Nwokolo, MBBS,[l] Armin Rieger, MD,[m] Jan M Prins, Prof, PhD,[n] Anders Blaxhult, MD,[o] Rainer Weber, Prof, MD,[p] Arne Van Eeden, MD,[q] Norbert H Brockmeyer, Prof, MD,[r] Amanda Clarke, MD,[s] Jorge del Romero Guerrero, MD,[t] Francois Raffi, Prof, PhD,[u] Johannes R Bogner, Prof, MD,[v] Gilles Wandeler, MD,[w] Jan Gerstoft, Prof, MD,[x] Felix Gutiérrez, Prof, PhD,[y] Kees Brinkman, Prof, PhD,[z] Maria Kitchen, MD,[aa] Lars Ostergaard, Prof, MedScD,[ab] Agathe Leon, PhD,[ac] Matti Ristola, PhD,[ad] Heiko Jessen, MD,[ae] Hans-Jürgen Stellbrink, Prof, MedScD,[af] Andrew N Phillips, Prof, PhD,[a] Jens Lundgren, Prof, PhD,[b] and PARTNER Study Group[†], for the

Sources viewable at:
https://www.nejm.org/doi/full/10.1056/NEJMoa1600693 and
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6584382/#:~:text=The%20results%20from%20the%20PARTNER,gay%20men%20and%20heterosexual%20couples.

Treatment as Prevention

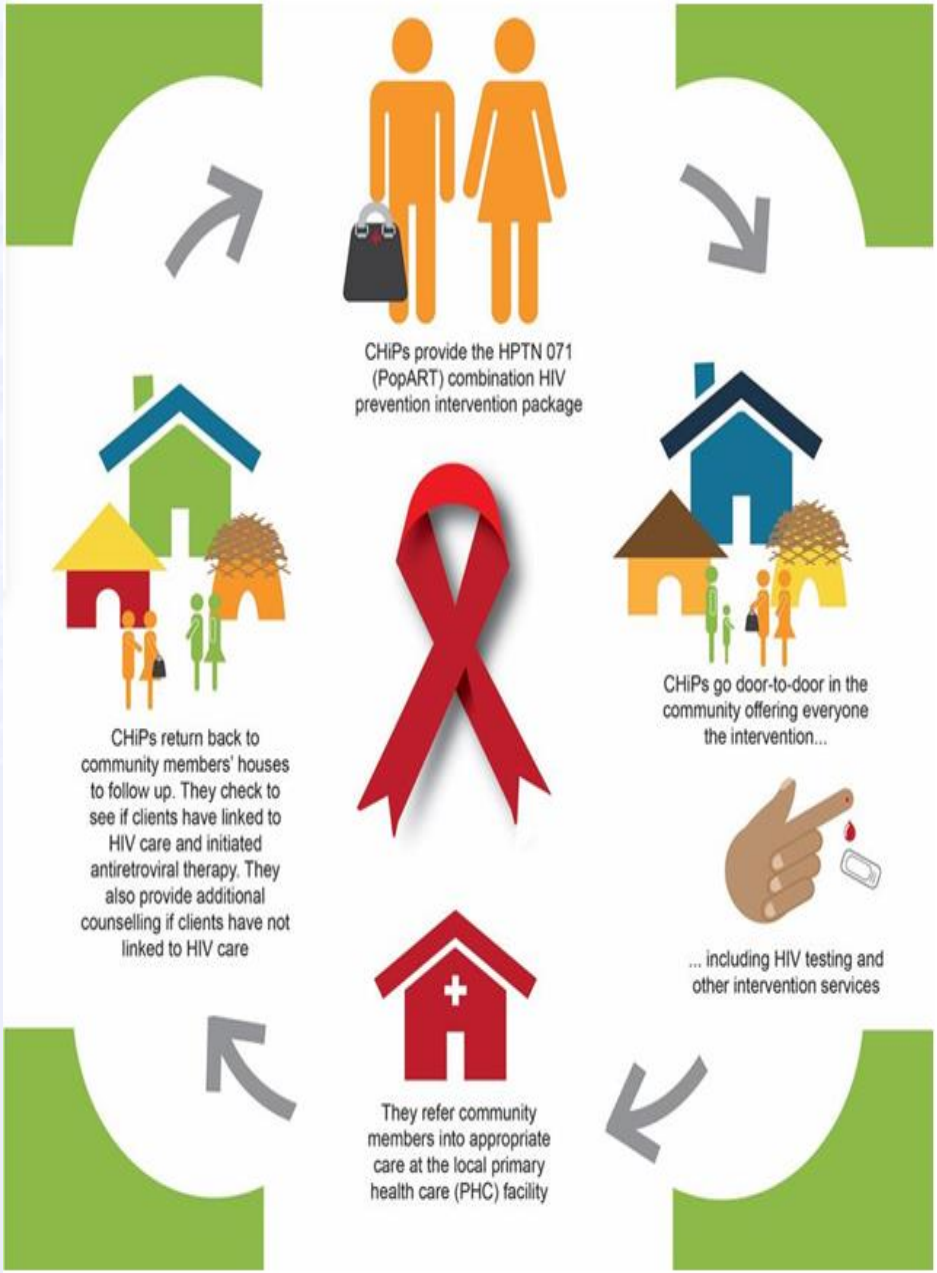
HPTN
HIV Prevention
Trials Network

PopART
HPTN 071

HPTN 071 (PopART)

Population Effects of Antiretroviral Therapy to Reduce HIV Transmission

Source viewable at: https://www.hptn.org/sites/default/files/inline-files/HPTN%20071%20Key%20Outcomes%20Web%20Conference%20%2827March2019%29.pdf

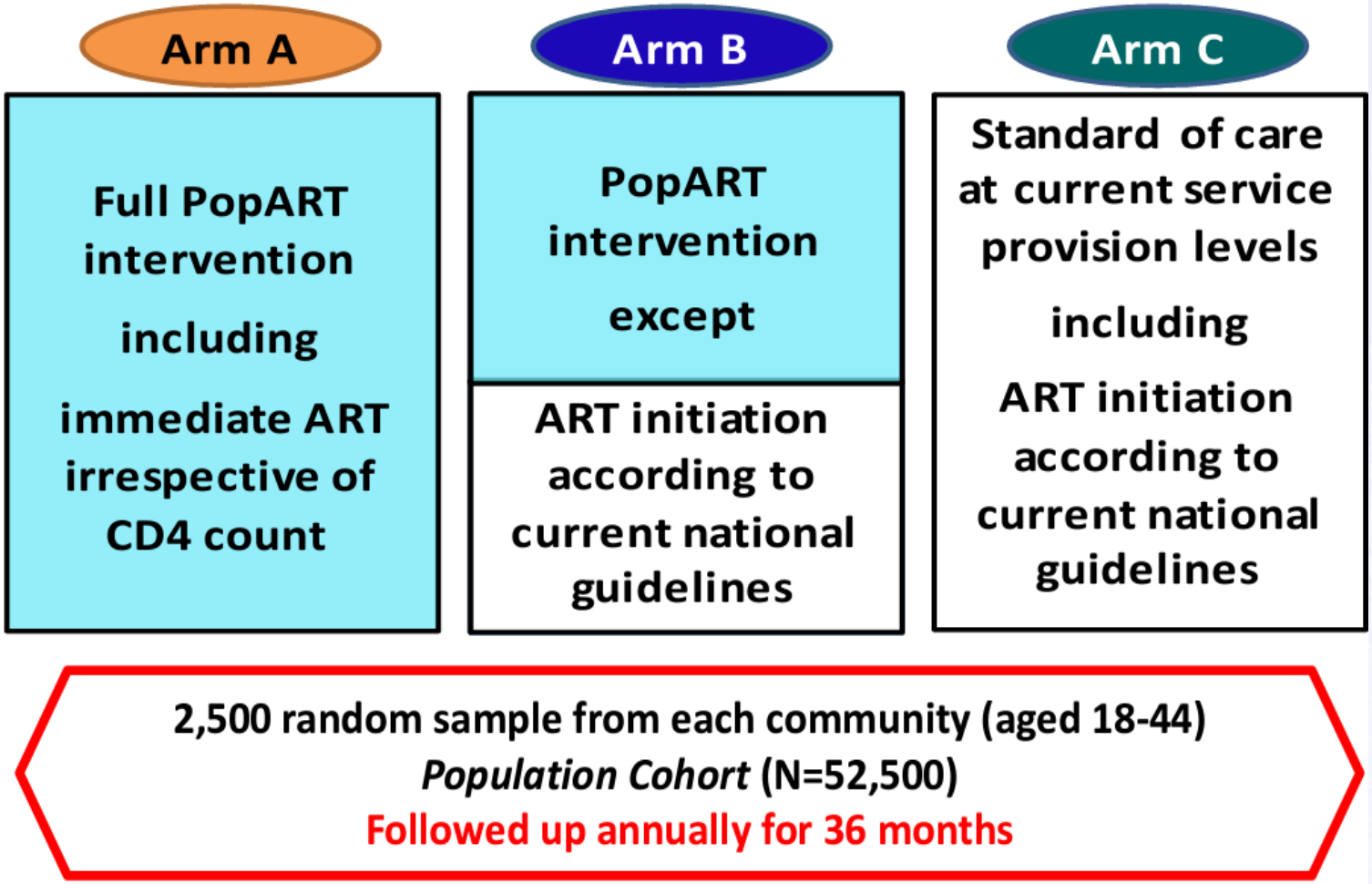


CHiPs Door to Door Intervention

- Universal HIV counseling and testing
- VMMC referral
  (Voluntary medical male circumcision)
- PMTC referral
  (Prevention of mother to child transmission)
- STI screening
- TB screening
- Condoms

Source viewable at: https://www.hptn.org/sites/default/files/inline-files/HPTN%20071%20Key%20Outcomes%20Web%20Conference%20%2827March2019%29.pdf

Study Design



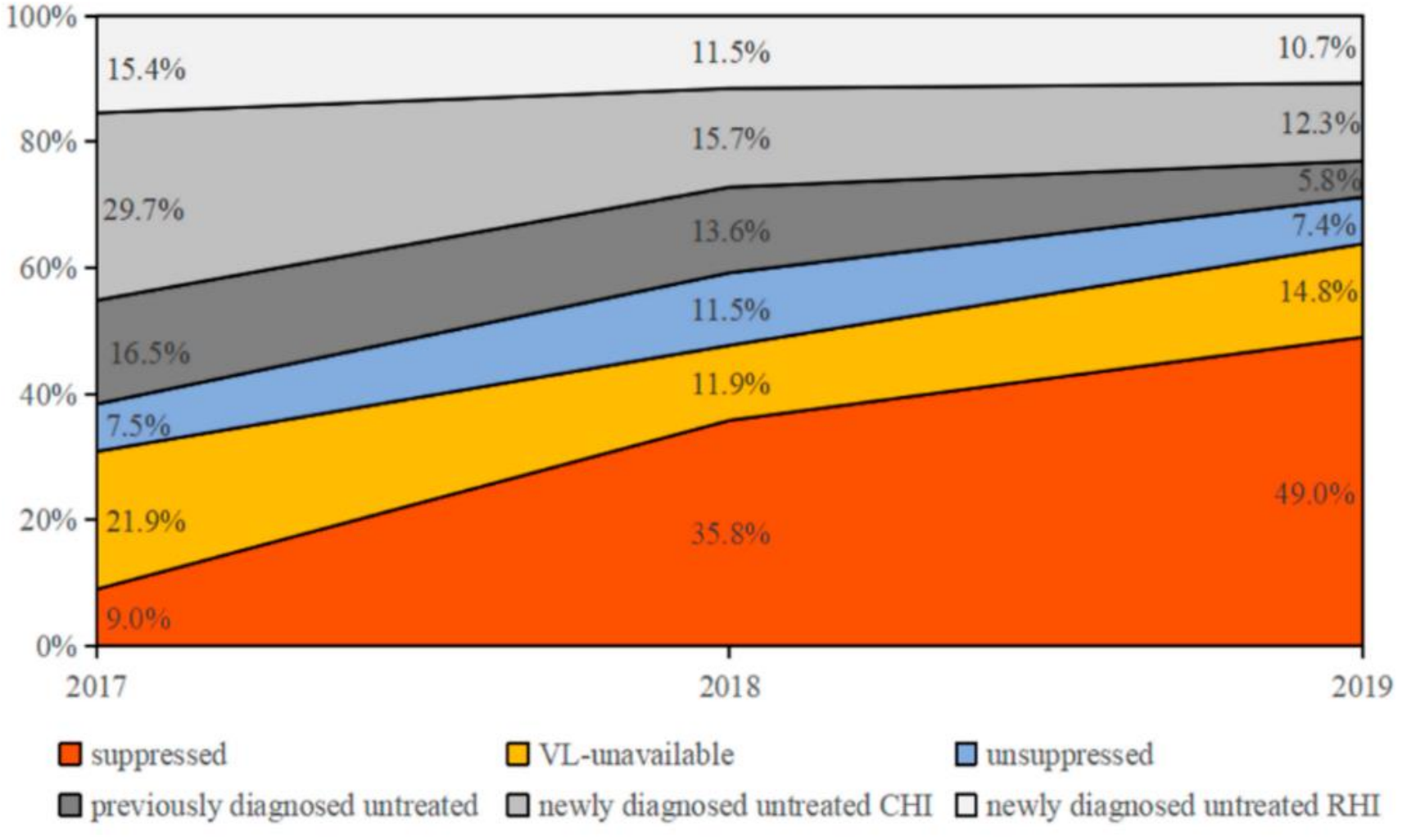
Source viewable at: https://www.hptn.org/sites/default/files/inline-files/HPTN%20071%20Key%20Outcomes%20Web%20Conference%20%2827March2019%29.pdf

Primary analysis: Incidence in PC12-PC36

	Arm A	Arm B	Arm C
HIV Incidence (geometric mean of community incidence rates)	198/12,990 (1.45%)	157/14,149 (1.06%)	198/12,563 (1.55%)
Adjusted Rate Ratio (95% CI)	0.93 (0.74, 1.18)	0.70 (0.55, 0.88)	1
Incidence compared to Arm C	7% reduction	30% reduction	
P value	0.51	0.006	

Source viewable at: https://www.hptn.org/sites/default/files/inline-files/HPTN%20071%20Key%20Outcomes%20Web%20Conference%20%2827March2019%29.pdf

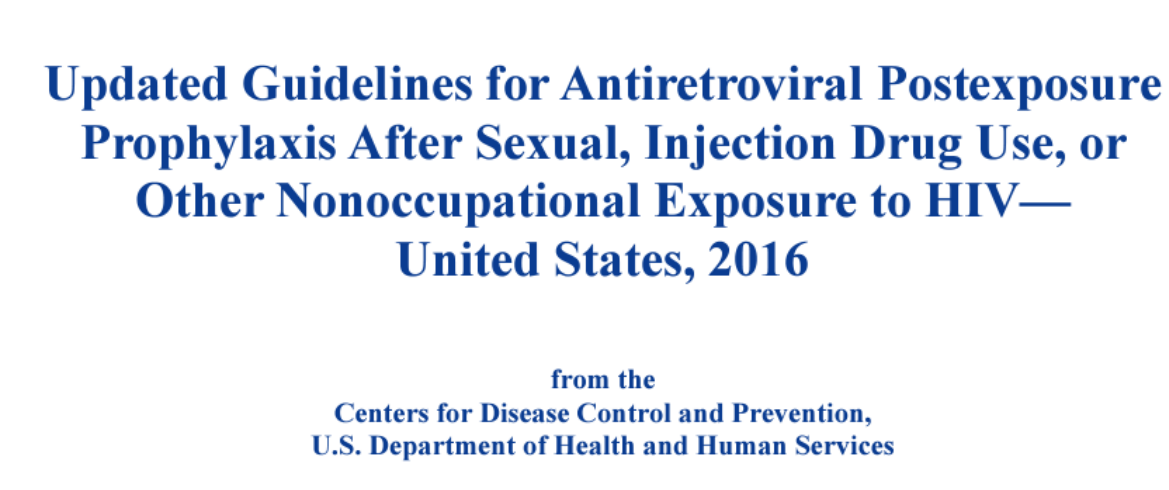
Undiagnosed PWH may be the source for transmission of HIV to index cases



Source viewable at: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC9502473/

POST EXPOSURE PROPHYLAXIS

- "POST" or AFTER the exposure
- Standard of Care – 3 drug regimens (typically regimens that can be used as HIV treatment)
- Occupational versus non-occupational
- Treatment should be initiated within 72 hours
- Consider other preventative care in the context of exposure



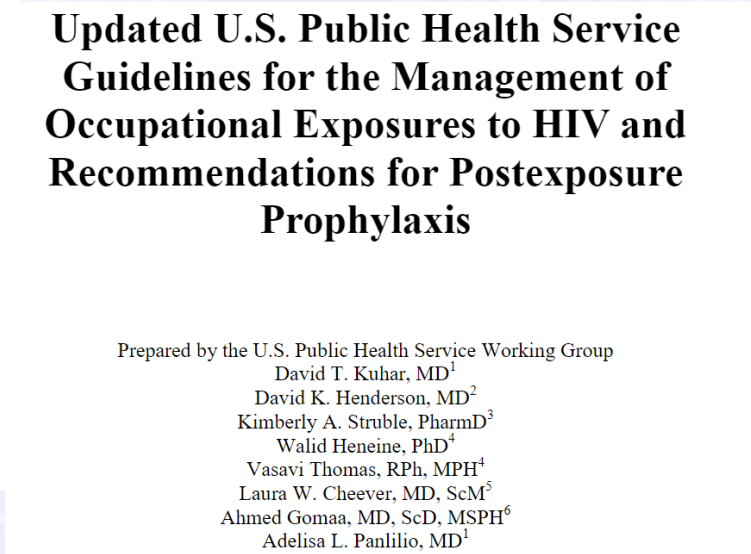


Image article sources: https://www.cdc.gov/hiv/pdf/programresources/cdc-hiv-npep-guidelines.pdf and https://stacks.cdc.gov/view/cdc/20711

Who should consider taking PEP?

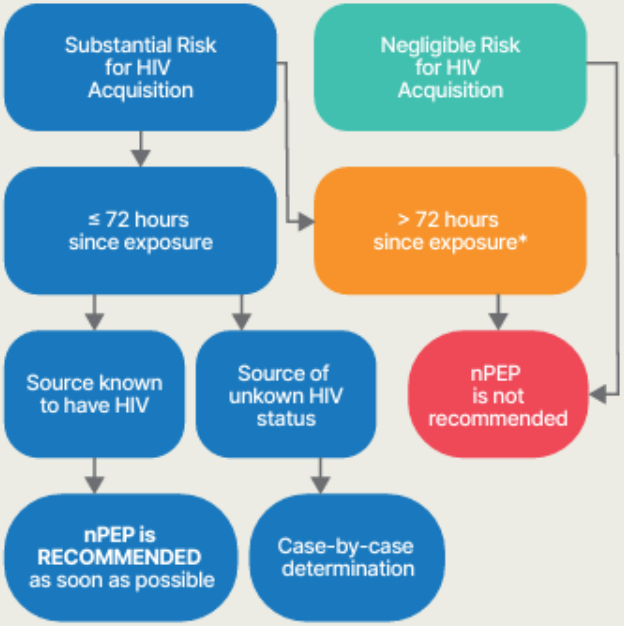
- PEP may be prescribed for people who are HIV negative or don't know their HIV status, and in the last 72 hours:
  - May have been exposed to HIV during sex
  - Shared needles or other equipment (works) to inject drugs
  - Sexual assault

nPEP

Non-Occupational Post-Exposure HIV Prevention

Assessment, treatment, and follow-up recommendations for people with known or potential exposures to HIV and other infections. Health care providers should evaluate persons rapidly for nPEP when care is sought ≤72 hours after an exposure that presents a substantial risk for HIV acquisition.

Risk Assessment



*Some clinicians would offer nPEP on a case-by-case basis.

Substantial Risk for HIV Acquisition

Exposure of: vagina, penis, rectum, eye, mouth or other mucous membrane, non-intact skin, or percutaneous contact

With: blood, semen, vaginal secretions, rectal secretions, breast milk, any body fluid that is visibly contaminated with blood

When: the source is known to have HIV

Negligible Risk for HIV Acquisition

Exposure of: vagina, penis, rectum, eye, mouth or other mucous membrane, non-intact skin, or percutaneous contact

With: urine, nasal secretions, saliva, sweat, tears (if visible blood, see "Substantial Risk for HIV Acquisition")

When: regardless of the known or suspected HIV status of the source

Article image source: https://aidsetc.org/resource/npep-quick-guide-providers

2016 CDC Guidelines for Antiretroviral nPEP

Age group	Preferred/ alternative	Medication
Adults and adolescents aged ≥ 13 years, including pregnant women, with normal renal function (creatinine clearance ≥ 60 mL/min)	**Preferred**	A 3-drug regimen consisting of tenofovir DF 300 mg ***and*** fixed dose combination emtricitabine 200 mg (Truvada[c]) once daily ***with*** raltegravir 400 mg twice daily ***or*** dolutegravir 50 mg once daily
	Alternative	A 3-drug regimen consisting of tenofovir DF 300 mg ***and*** fixed dose combination emtricitabine 200 mg (Truvada) once daily ***with*** darunavir 800 mg (as 2, 400-mg tablets) once daily ***and*** ritonavir[b] 100 mg once daily
Adults and adolescents aged ≥ 13 years with renal dysfunction (creatinine clearance ≤59 mL/min)	**Preferred**	A 3-drug regimen consisting of zidovudine ***and*** lamivudine, with both doses adjusted to degree of renal function ***with*** raltegravir 400 mg twice daily ***or*** dolutegravir 50 mg once daily
	Alternative	A 3-drug regimen consisting of zidovudine ***and*** lamivudine, with both doses adjusted to degree of renal function ***with*** darunavir 800 mg (as 2, 400-mg tablets) once daily ***and*** ritonavir[b] 100 mg once daily

Source image article viewable at: https://www.cdc.gov/hiv/pdf/programresources/cdc-hiv-npep-guidelines.pdf

PEP Considerations

- Efficacy
- Implications of the 72-hour time limit
- Operationalizing and expanding access to PEP
- **PEP as a bridge to PrEP**

What is PrEP?

- PrEP stands for PRE-exposure prophylaxis
  - Strategy of using a medication to prevent an infection BEFORE the exposure occurs

- Example: malarone for malaria prophylaxis

FDA Approved HIV Pre-exposure Prophylaxis

- 2012: Daily FTC/TDF approved for HIV prevention in adults and adolescents over 35 kg/77 lbs
- 2019: Daily FTC/TAF approved for HIV prevention in people **whose risk factor is not receptive vaginal or frontal sex**
- 2021: Bimonthly injectable cabotegravir approved for prevention of HIV in adults and adolescents

Adherence and HIV protection: oral PrEP

	% of blood samples with tenofovir detected	HIV protection efficacy in randomized comparison	**HIV protection estimate with high adherence**
Partners PrEP TDF/FTC arm	81%	75%	90% (tenofovir in blood)
TDF2	79%	62%	78% (prescription refill)
BTS	67%	49%	70% - 84% (tenofovir in blood / pill count)
iPrEx	51%	44%	92% (tenofovir in blood)
FEM-PrEP & VOICE	<30%	No HIV protection	N/A

When adherence was high, HIV protection is consistent and high.

Baeten et al N Engl J Med 2012; Thigpen et al N Engl J Med 2012; Choopanya et al Lancet 2013; Grant et al N Engl J Med 2010; Van Damme et al N Engl J Med 2012; Marrazzo et al CROI 2013

Sources viewable at: https://www.nejm.org/doi/full/10.1056/NEJMoa1108524 and https://www.nejm.org/doi/full/10.1056/NEJMoa1110711 and https://pubmed.ncbi.nlm.nih.gov/23769234/ and https://www.nejm.org/doi/full/10.1056/NEJMoa1011205 and https://www.nejm.org/doi/full/10.1056/NEJMoa1202614 and https://www.nejm.org/doi/full/10.1056/NEJMoa1402269.

Side Effects

(FTC/TDF)

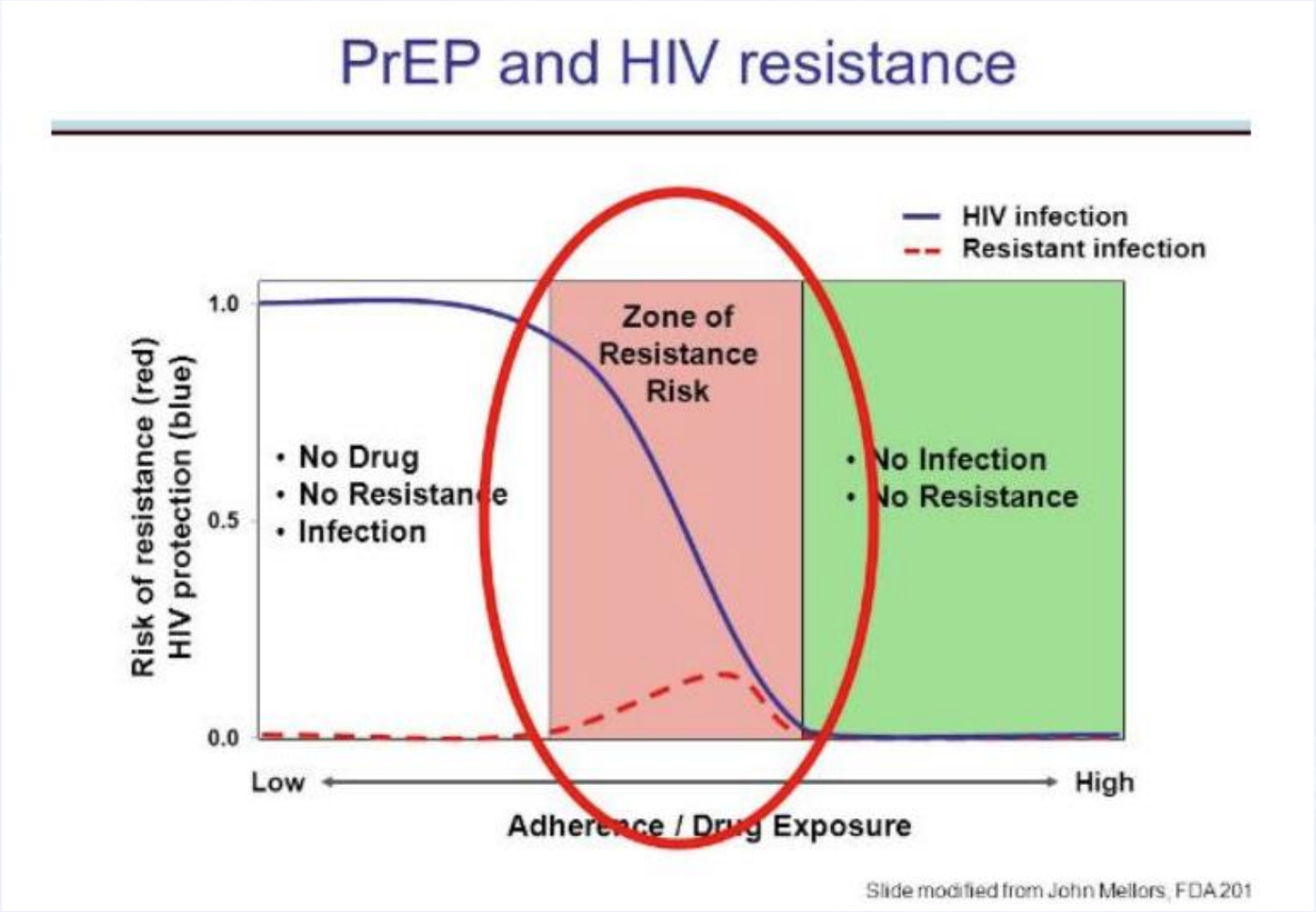
- Nausea (other GI side effects)
- Weight loss
- Headache
- Fanconi Syndrome
  - Loss of kidney function, sugar and protein in urine
- Loss of bone mineral density
  - ~1-2%
  - Studies have not demonstrated increased fracture risk

(FTC/TAF)

- Nausea
- Weight gain
- Fanconi Syndrome possible
- Lipid abnormalities

Risks of PrEP

- Side effects
- Resistance
- Risk compensation
- Out-of-pocket expenses



Source: https://www.cdc.gov/hiv/pdf/risk/prep/cdc-hiv-prep-guidelines-2021.pdf

PrEP Access Programs

- Retail cost
  - Brand FTC/TDF - $1800/mo
  - Generic FTC/TDF - $700/mo

- Gilead Advancing Access (F/TAF + F/TDF)
  - Uninsured: will cover medications
  - Insured: Copay support up to $7200 per year

- Ready, Set, PrEP (for F/TDF)

- Patient Advocate Foundation (for underinsured patients)

Table 1a: Summary of Clinician Guidance for Daily Oral PrEP Use

	Sexually-Active Adults and Adolescents[1]	Persons Who Inject Drug[2]
Identifying substantial risk of acquiring HIV infection	Anal or vaginal sex in past 6 months AND any of the following: • HIV-positive sexual partner (especially if partner has an unknown or detectable viral load) • Bacterial STI in past 6 months[3] • History of inconsistent or no condom use with sexual partner(s)	HIV-positive injecting partner OR Sharing injection equipment
Clinically eligible	**ALL OF THE FOLLOWING CONDITIONS ARE MET:** • Documented negative HIV Ag/Ab test result within 1 week before initially prescribing PrEP • No signs/symptoms of acute HIV infection • Estimated creatinine clearance ≥30 ml/min[4] • No contraindicated medications	
Dosage	• Daily, continuing, oral doses of F/TDF (Truvada®), ≤90-day supply OR • For men and transgender women at risk for sexual acquisition of HIV; daily, continuing, oral doses of F/TAF (Descovy®), ≤90-day supply	
Follow-up care	**Follow-up visits at least every 3 months to provide the following:** • HIV Ag/Ab test and HIV-1 RNA assay, medication adherence and behavioral risk reduction support • Bacterial STI screening for MSM and transgender women who have sex with men[3] – oral, rectal, urine, blood • Access to clean needles/syringes and drug treatment services for PWID **Follow-up visits every 6 months to provide the following:** • Assess renal function for patients aged ≥50 years or who have an eCrCl <90 ml/min at PrEP initiation • Bacterial STI screening for all sexually-active patients[3] – [vaginal, oral, rectal, urine- as indicated], blood **Follow-up visits every 12 months to provide the following:** • Assess renal function for all patients • Chlamydia screening for heterosexually active women and men – vaginal, urine • For patients on F/TAF, assess weight, triglyceride and cholesterol levels	

[1] adolescents weighing at least 35 kg (77 lb)

[2] Because most PWID are also sexually active, they should be assessed for sexual risk and provided the option of CAB for PrEP when indicated

[3] Sexually transmitted infection (STI): Gonorrhea, chlamydia, and syphilis for MSM and transgender women who have sex with men including those who inject drugs; Gonorrhea and syphilis for heterosexual women and men including persons who inject drugs

[4] estimated creatine clearance (eCrCl) by Cockcroft Gault formula ≥60 ml/min for F/TDF use, ≥30 ml/min for F/TAF use

Image source article viewable at: https://www.cdc.gov/hiv/pdf/risk/prep/cdc-hiv-prep-guidelines-2021.pdf

CLINICAL INDICATIONS

Table 1a: Summary of Clinician Guidance for Daily Oral PrEP Use

	Sexually-Active Adults and Adolescents[1]	Persons Who Inject Drug[2]
Identifying substantial risk of acquiring HIV infection	Anal or vaginal sex in past 6 months AND any of the following: • HIV-positive sexual partner (especially if partner has an unknown or detectable viral load) • Bacterial STI in past 6 months[3] • History of inconsistent or no condom use with sexual partner(s)	HIV-positive injecting partner OR Sharing injection equipment

New CDC Guidelines recommend, "…in addition to taking a very brief history to identify persons with indications for PrEP, providers prescribe PrEP to anyone who requests it, **even if they do not report specific HIV risk behaviors.**"

Image source article viewable at: https://www.cdc.gov/hiv/pdf/risk/prep/cdc-hiv-prep-guidelines-2021.pdf
Quote source viewable at: https://www.cdc.gov/hiv/policies/dear-colleague/dcl/120821.html#:~:text=This%20is%20intended%20to%20increase,report%20specific%20HIV%20risk%20behaviors

Baseline Clinical Assessment

✓HIV Testing (preferably antigen/antibody testing) → **Negative test within 1 week** of initiating medication

Baseline Clinical Assessment

✓HIV Testing (preferably antigen/antibody testing) → **Negative test within 1 week** of initiating medication

---

✓Acute HIV infection →

Exposure + symptoms of viral infection in <u>prior month</u>:

Fever	Pharyngitis
Fatigue	Cervical adenopathy
Myalgia	Arthralgia
Skin rash	Night sweats
Headache	Diarrhea

Baseline Clinical Assessment (cont.)

✓Check kidney function → >60 mL/min for FTC/TDF
>30 mL/min for FTC/TAF

Baseline Clinical Assessment (cont.)

✓Kidney Function → >60 mL/min for FTC/TDF
>30 mL/min for FTC/TAF

✓Hepatitis Serology Testing →

<u>Hepatitis B</u> within 3 months of initiation

<u>Hepatitis C</u> at baseline

Baseline Clinical Assessment (cont.)

✓Sexually Transmitted Infections

Syphilis + gonorrhea = **ALL**

Chlamydia = **MSM** only

Consider **multi-site testing** based on sexual activity

Table 5 Timing of Oral PrEP-associated Laboratory Tests

Test	Screening/Baseline Visit	Q 3 months	Q 6 months	Q 12 months	When stopping PrEP
HIV Test	X*	X			X*
eCrCl	X		If age ≥50 or eCrCL <90 ml/min at PrEP initiation	If age <50 and eCrCl ≥90 ml/min at PrEP initiation	X
Syphilis	X	MSM /TGW	X		MSM/TGW
Gonorrhea	X	MSM /TGW	X		MSM /TGW
Chlamydia	X	MSM /TGW	X		MSM /TGW
Lipid panel (F/TAF)	X			X	
Hep B serology	X				
Hep C serology	MSM, TGW, and PWID only			MSM,TGW, and PWID only	

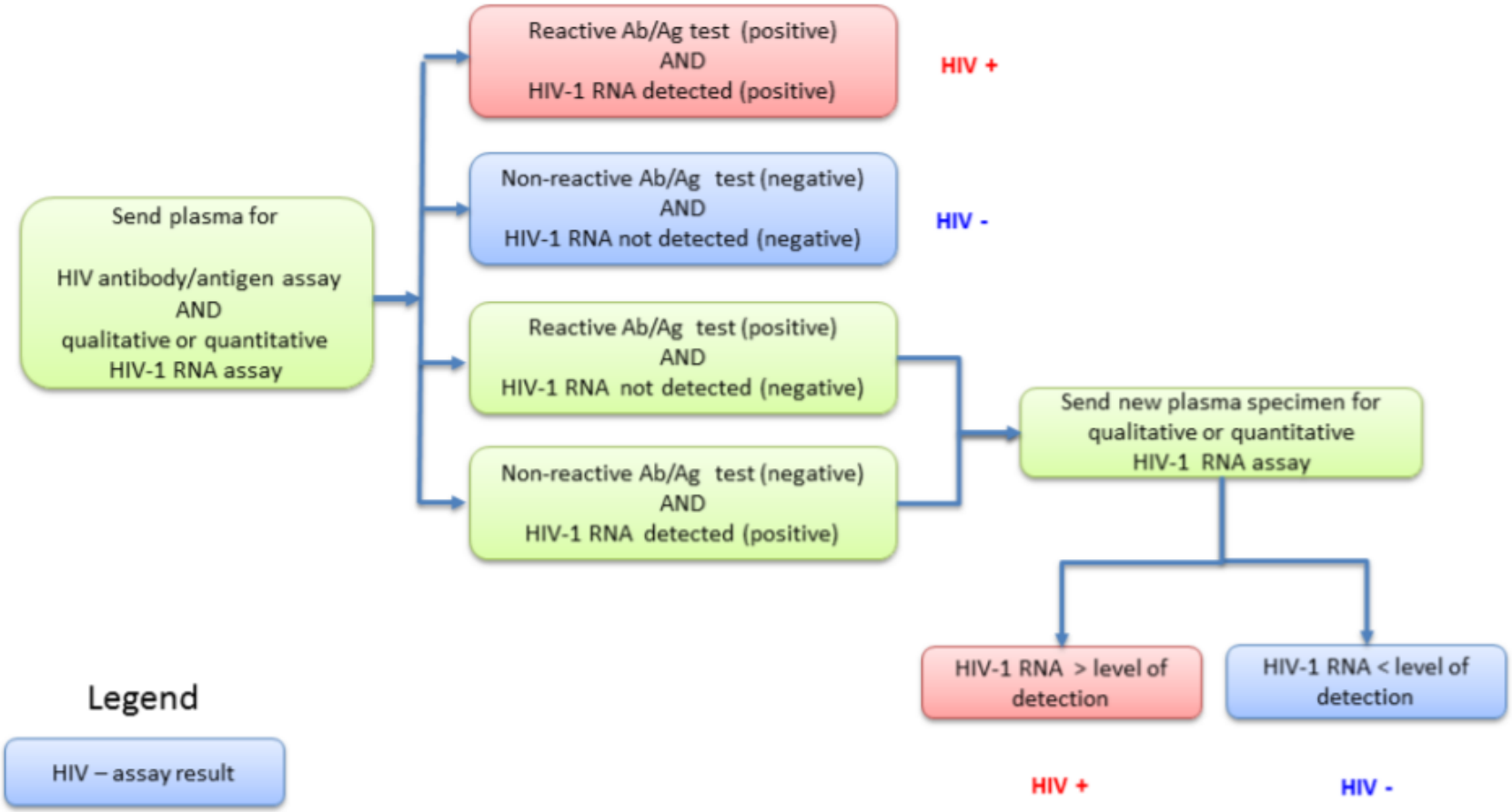
* Assess for acute HIV infection (see Figure 4)

Source: https://www.cdc.gov/hiv/pdf/risk/prep/cdc-hiv-prep-guidelines-2021.pdf

Viral Load and Standard HIV Testing

- In HPTN 083, detection among participants in the cabotegravir group with antigen/antibody testing was delayed
  - 62 days compared to HIV-1 RNA for baseline infections
  - 98 days compared to HIV-1 RNA for incident infections
- Among participants in the F/TDF group, detection by antigen/antibody testing was delayed
  - 34 days compared to HIV-1 RNA for baseline infections
  - 31 days for incident infections
- Reversion of Ag/Ab tests was seen for some specimens from persons who received cabotegravir injections near the time of infection

If the patient has taken oral PrEP or PEP medication in the past 3 months
OR
has received a cabotegravir injection in the past 12 months



Legend

- HIV – assay result
- HIV + assay result
- HIV Status Unclear

Source: https://www.cdc.gov/hiv/pdf/risk/prep/cdc-hiv-prep-guidelines-2021.pdf

TAF Versus TDF

Table 3: Recommended Oral PrEP Medications

Generic Name	Trade Name	Dose	Frequency	Most Common Side Effects[109,110]
F/TDF		200 mg/300 mg	Once a day	Headache, abdominal pain, weight loss
F/TAF		200 mg/25 mg	Once a day	Diarrhea

- Most patients – no need to switch F/TDF => F/TAF
- Consider CrCl – F/TAF if CrCl < 60
- May prefer F/TAF for persons with previously documented osteoporosis or related bone disease - routine screening for bone density is not recommended for PrEP
- Consider F/TAF if pt has comorbidities that predispose to kidney disease (HTN/DM)
- Consider F/TAF for adolescents due to impact on bone density

Source: https://www.cdc.gov/hiv/pdf/risk/prep/cdc-hiv-prep-guidelines-2021.pdf

[redacted] lawsuit ads are prompting some young people with a high risk of HIV not to start or discontinue PrEP

Michael Carter | 4 July 2020 | Estimated reading time 4 minutes

Image: [redacted] Lawsuit Claim Information Facebook page.

Source: https://www.aidsmap.com/news/jul-2020/truvada-lawsuit-ads-are-prompting-some-young-people-high-risk-hiv-not-start-or

FDA Approves First Injectable Treatment for HIV Pre-Exposure Prevention

Drug Given Every Two Months Rather Than Daily Pill is Important Tool in Effort to End the HIV Epidemic

Share | Tweet | LinkedIn | Email | Print |

For Immediate Release: December 20, 2021

Today, the U.S. Food and Drug Administration approved [redacted] (cabotegravir extended-release injectable suspension) for use in at-risk adults and adolescents weighing at least 35 kilograms (77 pounds) for pre-exposure prophylaxis (PrEP) to reduce the risk of sexually acquired HIV. [redacted] is given first as two initiation injections administered one month apart, and then every two months thereafter. Patients can either start their treatment with [redacted] or take oral cabotegravir [redacted] for four weeks to assess how well they tolerate the drug.

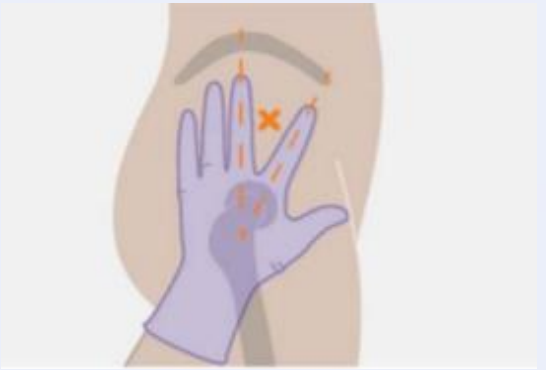
Source viewable at: https://www.fda.gov/news-events/press-announcements/fda-approves-first-injectable-treatment-hiv-pre-exposure-prevention#:~:text=Today%2C%20the%20U.S.%20Food%20and,risk%20of%20sexually%20acquired%20HIV.

Evidence for Cabotegravir

- HPTN-083: Phase 2b/3 - CAB LA vs. FTC/TDF
  - MSM + TGW
  - Youth
  - 69% reduction in HIV incidence CAB LA vs FTC/TDF

- HPTN-084: Phase 3 - CAB LA vs. FTC/TDF
  - Cis women
  - Subsaharan Africa
  - 90% reduction in HIV incidence CAB LA vs FTC/TDF

Cabotegravir



- Adults and Adolescents 75 kg or greater
- Long acting Cabotegravir 600 mg (3 mL) gluteal injection
- No refrigeration required
- Two initiation injections administered one month apart, and then every two months thereafter
- Oral lead (4 weeks) 30 mg by mouth daily – optional
- Side effects include injection site reactions, headache, fever, fatigue, back pain, myalgia, liver toxicity, and rash

Table 1b: Summary of Clinician Guidance for Cabotegravir Injection PrEP Use

	Sexually-Active Adults	Persons Who Inject Drugs[1]
Identifying substantial risk of acquiring HIV infection	Anal or vaginal sex in past 6 months AND any of the following: • HIV-positive sexual partner (especially if partner has an unknown or detectable viral load) • Bacterial STI in past 6 months[2] • History of inconsistent or no condom use with sexual partner(s)	HIV-positive injecting partner OR Sharing injection equipment
Clinically eligible	**ALL OF THE FOLLOWING CONDITIONS ARE MET:** • Documented negative HIV Ag/Ab test result within 1 week before initial cabotegravir injection • No signs/symptoms of acute HIV infection • No contraindicated medications or conditions	

Dosage	• 600 mg cabotegravir administered as one 3 ml intramuscular injection in the gluteal muscle
	  ○ Initial dose
	  ○ Second dose 4 weeks after first dose (month 1 follow-up visit)
	  ○ Every 8 weeks thereafter (month 3,5,7, follow-up visits etc)	

Follow-up care	**At follow-up visit 1 month after first injection** • HIV Ag/Ab test and HIV-1 RNA assay **At follow-up visits every 2 months (beginning with the third injection – month 3) provide the following:** • HIV Ag/Ab test and HIV-1 RNA assay • Access to clean needles/syringes and drug treatment services for PWID **At follow-up visits every 4 months (beginning with the third injection- month 3) provide the following:** • Bacterial STI screening[2] for MSM and transgender women who have sex with men[2] – oral, rectal, urine, blood **At follow-up visits every 6 months (beginning with the fifth injection – month 7) provide the following:** • Bacterial STI screening[1] for all heterosexually-active women and men – [vaginal, rectal, urine - as indicated], blood **At follow-up visits at least every 12 months (after the first injection) provide the following:** • Assess desire to continue injections for PrEP • Chlamydia screening for heterosexually active women and men – vaginal, urine **At follow-up visits when discontinuing cabotegravir injections provide the following:**	

[1] Because most PWID are also sexually active, they should be assessed for sexual risk and provided the option of CAB for PrEP when indicated

[2] Sexually transmitted infection (STI): Gonorrhea, chlamydia, and syphilis for MSM and transgender women who have sex with men including those who inject drugs; Gonorrhea and syphilis for heterosexual women and men including persons who inject drugs

Source: https://www.cdc.gov/hiv/pdf/risk/prep/cdc-hiv-prep-guidelines-2021.pdf

Table 7 Timing of CAB PrEP-associated Laboratory Tests

Test	Initiation Visit	1 month visit	Q2 months	Q4 months	Q6 months	Q12 months	When Stopping CAB
HIV*	X	X	X	X	X	X	X
Syphilis	X			MSM^/TGW~ only	Heterosexually active women and men only	X	MSM/TGW only
Gonorrhea	X			MSM/TGW only	Heterosexually active women and men only	X	MSM/TGW only
Chlamydia	X			MSM/TGW only	MSM/TGW only	Heterosexually active women and men only	MSM/TGW only

* HIV-1 RNA assay

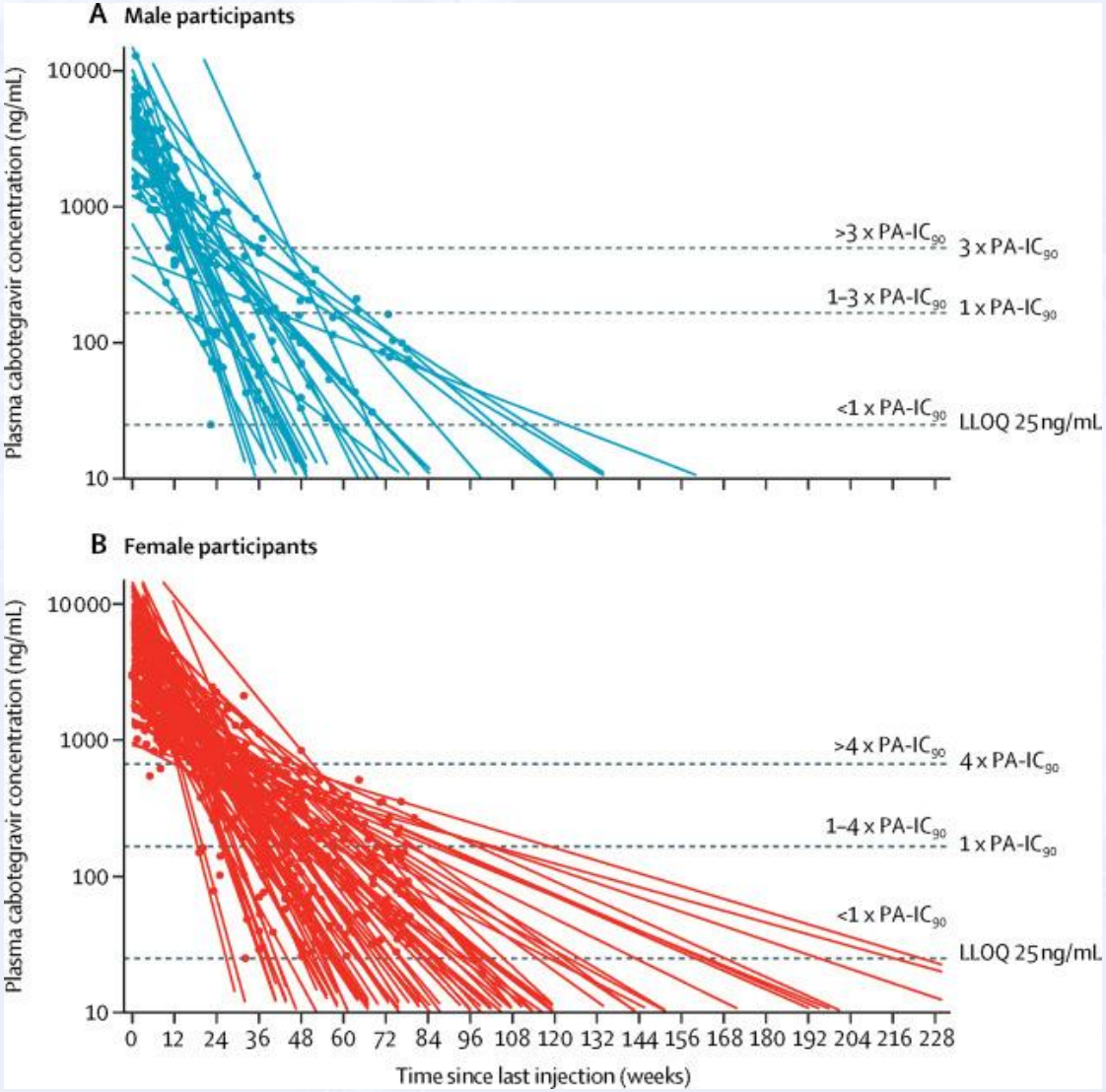
X all PrEP patients

^ men who have sex with men

~ persons assigned male sex at birth whose gender identification is female

Source: https://www.cdc.gov/hiv/pdf/risk/prep/cdc-hiv-prep-guidelines-2021.pdf

Cabotegravir Tail



- CAB levels slowly wane over many months
- HPTN 077, median time to undetectable CAB plasma level
  - 44 weeks for men
  - 67 weeks for women
- During this “tail” phase, CAB levels will fall below a protective threshold and persist for some time at nonprotective level against HIV
- May select for integrase resistance mutations which can complicate HIV treatment
- Consider use of oral PrEP/PEP

Landovitz, R et al., Lancet 2020

Graphical source viewable at: https://www.clinicalkey.com/#!/content/playContent/1-s2.0-S2352301820301065?returnurl=https:%2F%2Flinkinghub.elsevier.com%2Fretrieve%2Fpii%2FS23523018203010

HIV Viral Load to Prevent Resistance

- HIV infections while using injectable PrEP uncommon in HPTN 083/084
- Some HIV diagnoses were delayed (longer time is associated with a higher risk of resistance)
- 7 acute HIV infections reported from HPTN 083 included INSTI resistance in 6/7 and modeling suggests viral load testing would have detected HIV before INSTI resistance in 4/6 cases and before accumulated INSTI resistance in the remaining 2/6
- Led to recommendation for routine HIV monitoring using viral load rather than antibody testing, in settings where this is an option.

Eschleman, S et al., CROI 2022

Source viewable at: https://www.croiconference.org/abstract/cab-la-prep-early-detection-of-hiv-infection-may-reduce-insti-resistance-risk/

CAB Discontinuation

- Re-educate patients about the “tail” and the risks during declining CAB levels
- Assess ongoing HIV risk and prevention plans
- If PrEP is indicated, prescribe daily oral F/TDF or F/TAF beginning within 8 weeks after last injection
- Continue follow-up visits with HIV testing quarterly for 12 months

"These instructions are useless. Keep up the good work."

https://www.cartoonstock.com/cartoon?searchID=CS418199

Challenges

- Identifying populations who would benefit
- Increased demand on clinic and clinic staff
- Insurance coverage/access to cabotegravir
- Balancing safety monitoring with patient burden
- Addressing losses to follow up

PrEP & Hormones

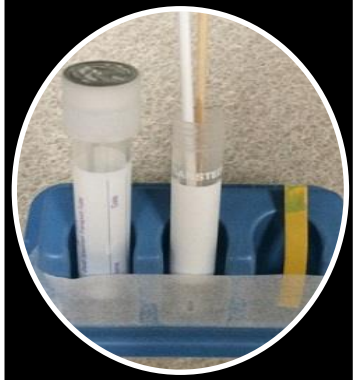
Key points

- Oral PrEP drugs do not raise or lower levels of gender-affirming hormones.
- Hormones taken by transgender women appear to slightly lower levels of the PrEP drug tenofovir, but not enough to affect the efficacy of *daily* PrEP.
- Hormones taken by transgender men do not appear to raise or lower levels of PrEP.
- Event-based dosing is not recommended for either trans women or men.

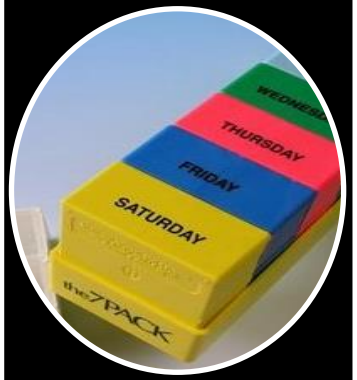
Assess PrEP Eligibility

Linkage to PrEP

Initiation of PrEP

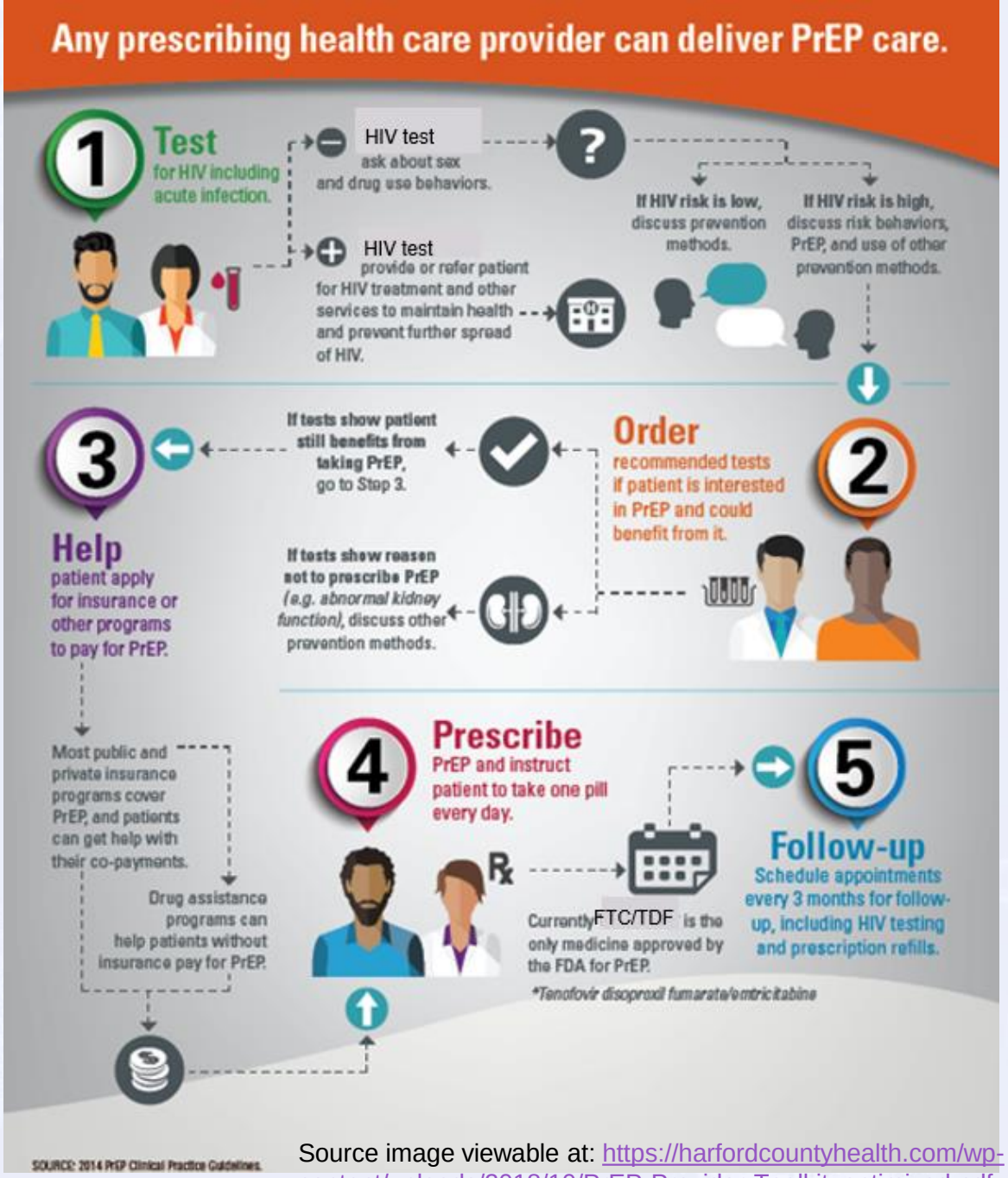


Retention

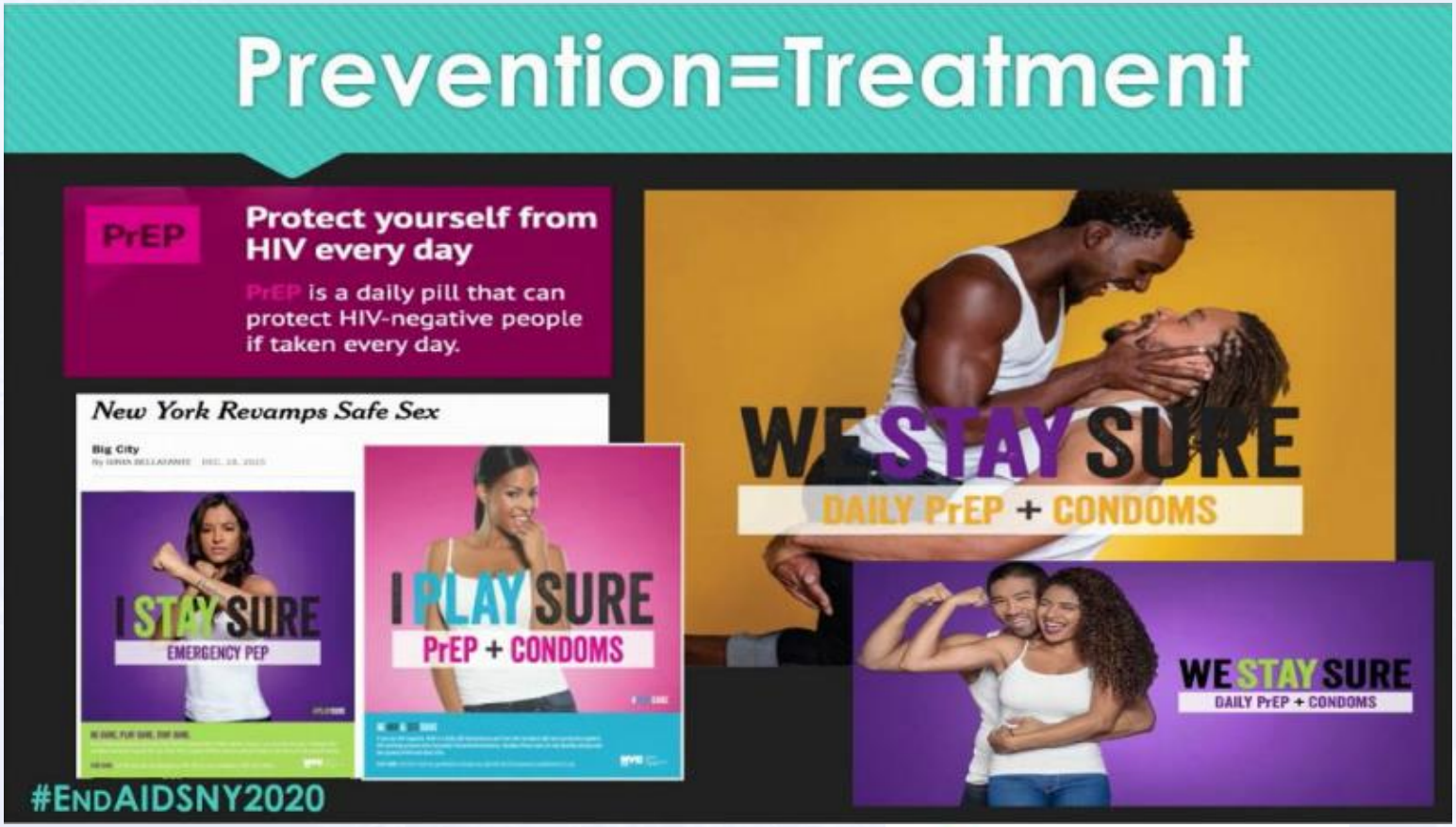


Adherence & Persistence

PrEP Care Continuum



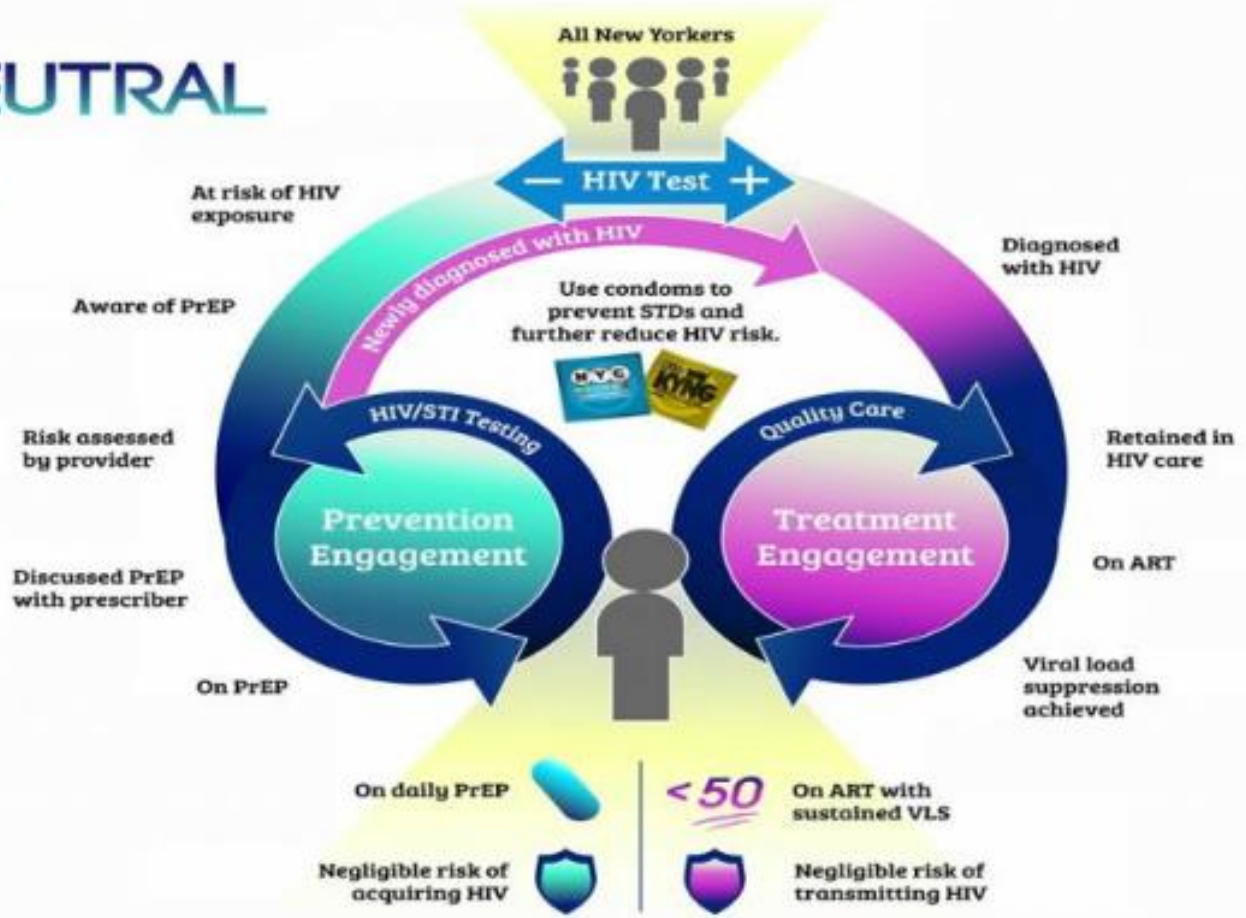
Source image viewable at: https://harfordcountyhealth.com/wp-content/uploads/2018/10/PrEP-Provider-Toolkit_optimized.pdf.



GETTING TO ZERO
SAN FRANCISCO

AIDSFREE PITTSBURGH

NEW YORK CITY'S HIV STATUS NEUTRAL PREVENTION & TREATMENT CYCLE



NYC Health

Source video available at: https://www.nyc.gov/site/doh/health/health-topics/hiv-status-neutral-prevention-and-treatment-cycle.page

PrEP providers and communicators should stop talking about 'risk'

Roger Pebody | 29 October 2018 | Estimated reading time 5 minutes

Source: https://www.aidsmap.com/news/oct-2018/prep-providers-and-communicators-should-stop-talking-about-risk#:~:text=And%20she%20said%20that%20providers,and%20having%20a%20better%20future.

Video link available at: https://www.youtube.com/watch?v=NnYOo91zLPA

Summary

- PrEP and TasP are evidence-based biomedical prevention strategies well supported by evidence
- PEP is time sensitive biomedical prevention option with less evidence
- Barriers to care (stigma, cost, patient/clinic burden, gaps in research, medical mistrust…etc.) prevent us from achieving an AIDS-free generation.
- Engagement of the community served is critical towards reducing relevant barriers.

Building Access to HIV Prevention & Treatment: Current Issues & Approaches

The Conference Center at Central Penn College
April 18, 2024

Treatment as Prevention: PEP, PrEP & Antiretroviral Therapy

Roundtable Activity #2

Ken Ho, MD, MPH

Associate Professor of Medicine, Division of Infectious Diseases
University of Pittsburgh School of Medicine
Medical Director, Pitt Men's Study

In your small groups:

- Assign a note taker.
- Assign someone to speak for your group.
- These roundtable activities are meant for you to be able to talk through putting concepts into action! Think about how the following scenario would unfold in your clinical setting.

Case Study

- A 23-year-old (male who has sex with men) presents for a well visit.
- He has a history of rectal chlamydia diagnosed one year prior.
- He has no other significant past medical history.
- He last had receptive condomless sex 4 weeks prior.
- He is interested in starting PrEP but not sure what to take.
- On review of systems, he does report having a mild flu-like illness a week prior.

Case Study Discussion

- Question 1: How would you discuss the pros and cons of the different PrEP options for this patient?
  - How would pros and cons be different for a 23-year-old female sex worker with no significant past medical history?

- Question 2: What tests would this patient need prior to starting PrEP?

Roundtable Activity #2

Regroup
Q & A

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Building Access to HIV Prevention & Treatment: Current Issues & Approaches

The Conference Center at Central Penn College
April 18, 2024

HIV and Aging:
Meeting the Needs of a Growing Population

Dorcas Baker, RN, BSN, ACRN, MA
Regional Coordinator
JHU Partner MidAtlantic AETC
Center for Infectious Disease and Nursing Innovation
Johns Hopkins University School of Nursing

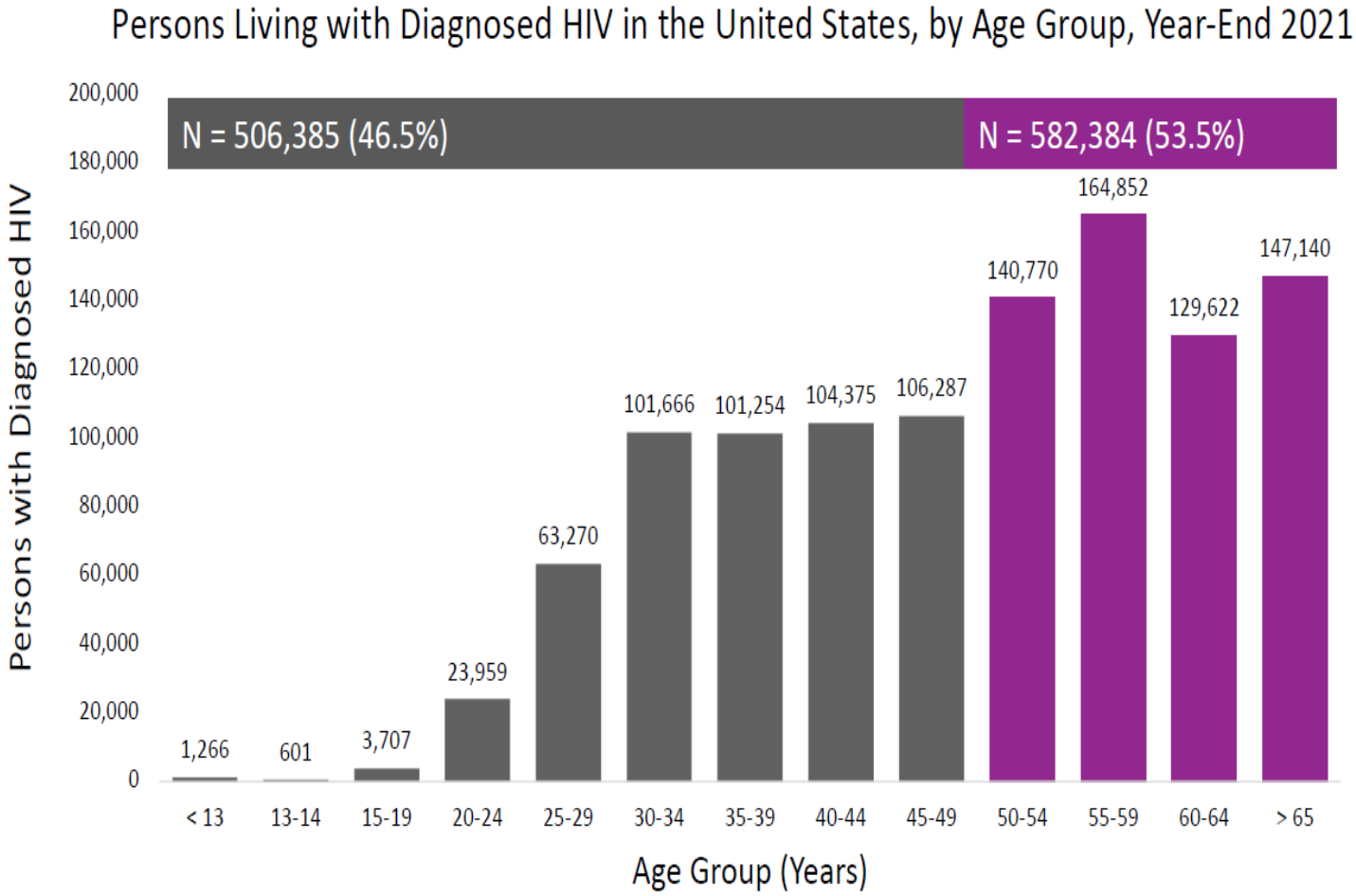
Speaker Disclosure

Dorcas Baker has no conflicts of interest to disclose.

Learning Objectives

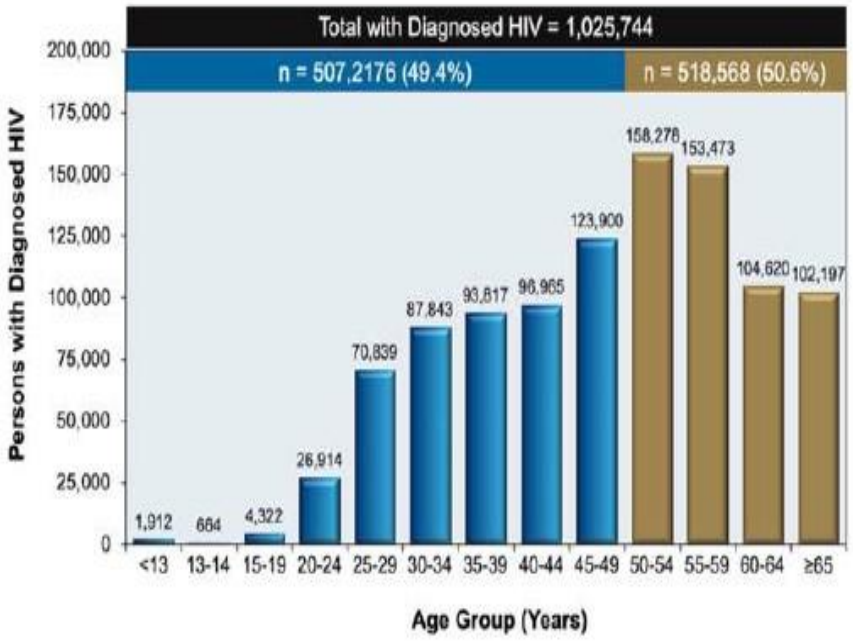
- Describe the epidemiology of HIV in older adults.
- Describe the multicomplexities of aging and HIV.
- Discuss what can be done to improve overall health outcomes.

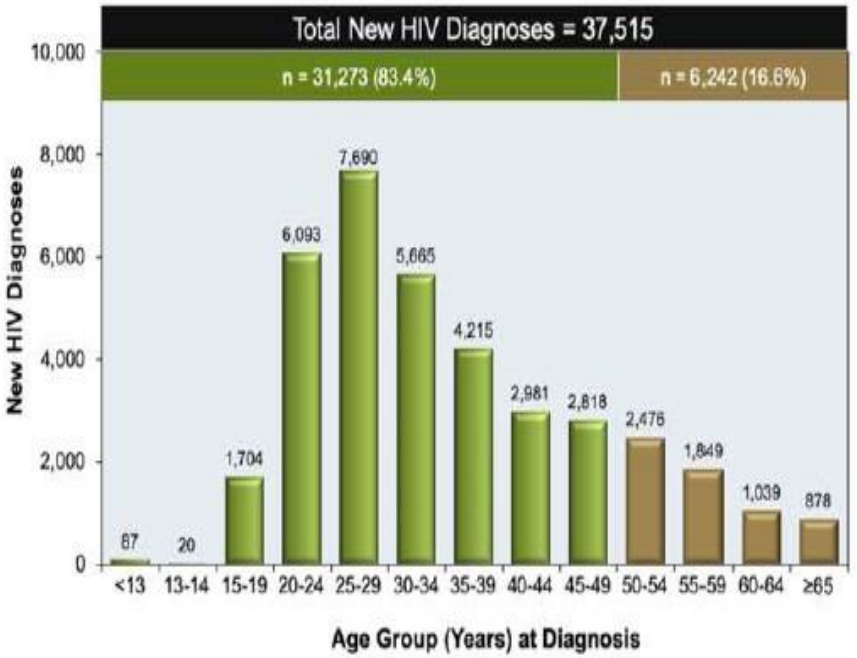
Over 50% of People with HIV in the US are over 50



Source: Centers for Disease Control and Prevention. *HIV Surveillance Report*, 2021; vol. 34. http://www.cdc.gov/hiv/library/reports/hiv-surveillance.html May 2023. Accessed June 2023.

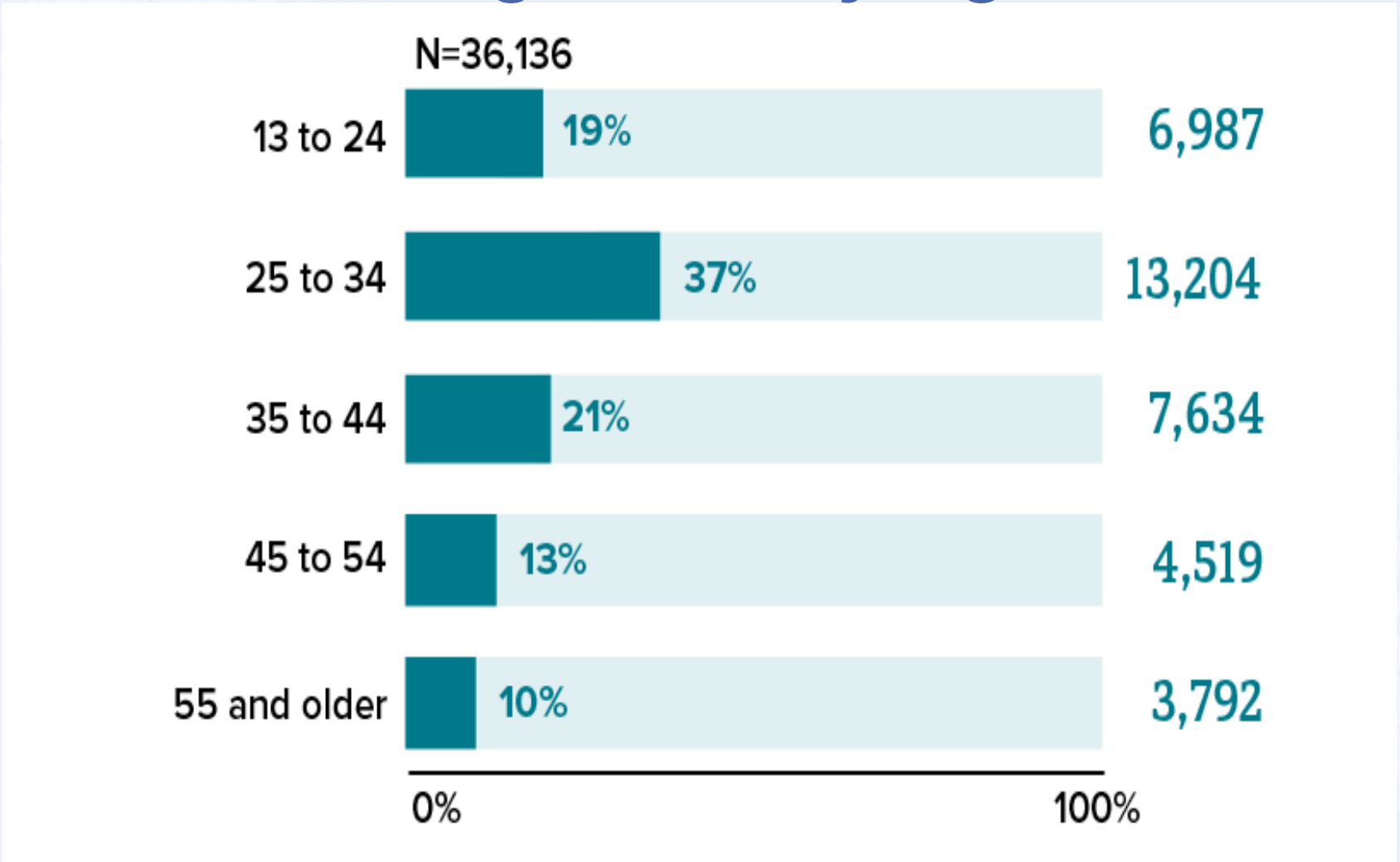
Epidemiology of HIV in Older Adults





CDC. Diagnoses of HIV infection in the United States and dependent areas, 2018 (Updated). HIV Surveillance Report, 2020; vol. 31:1-119. Published May 2020

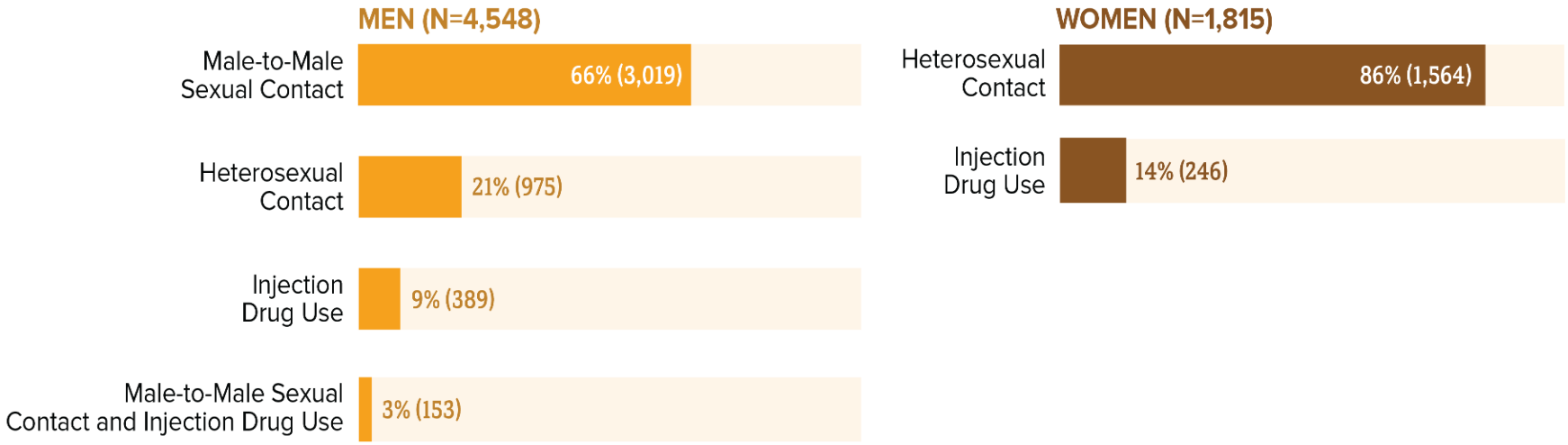
Differences in New HIV Diagnoses by Age



Source: CDC. Diagnoses of HIV Infection in the United States and Dependent Areas, 2021. *HIV Surveillance Report* 2023; 34

New HIV Diagnoses Among People Aged 50 and Older in the US and Dependent Areas by Transmission Category and Sex, 2018*

Among people aged 50 and older, most new HIV diagnoses were among men.



Total for men may not equal 100% due to rounding.

* Based on sex at birth and includes transgender people.

Source: CDC. Diagnoses of HIV infection in the United States and dependent areas, 2018 (updated). *HIV Surveillance Report* 2020;31.

WHAT HAS CHANGED?

- Improved antiretroviral therapy (ART) particularly in 1996 increased the lifespan.

- **This is the first cohort of aging individuals.**

- Older adults are also included in new HIV diagnoses:
  - In 2018, persons age 50 and older made up 17% of all new cases of HIV.

WHAT HAS CHANGED?

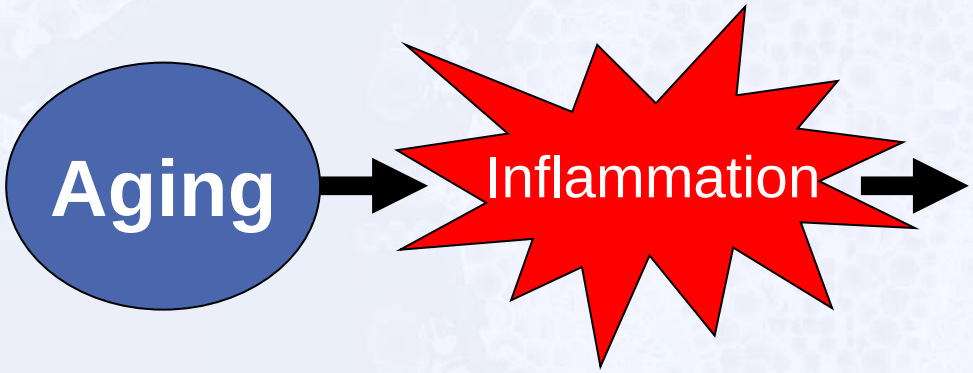
- Older people with HIV include many long-term survivors who have lived with HIV for more than 10 years.
- Some long-term survivors were diagnosed before improved treatment was available 1996.
- Some long-term survivors may be under the age of 50, including persons born with HIV/vertical transmission:
  - Lifetime Survivors/Dandelions

HIV Declared a Chronic Disease

- HIV introduced as a chronic disease in 2012 by Kathleen Siebelius (former Secretary of DHHS):

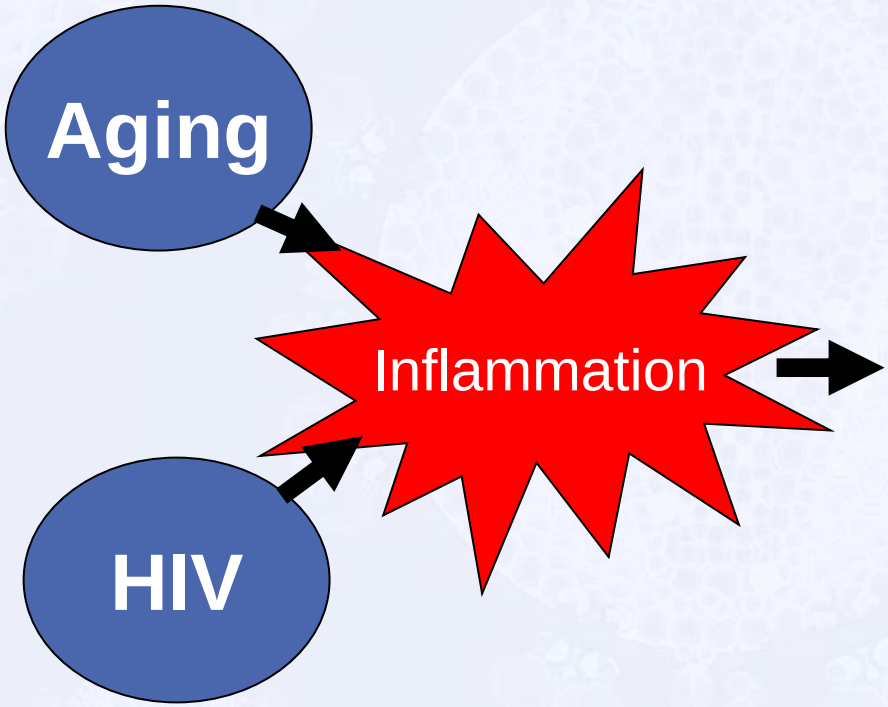
"*Today, I am proud to announce that we will be issuing a rule to explicitly include HIV/AIDS on the list of chronic conditions that every state may target in designing effective Health Homes," continued Secretary Sebelius. "This will make it easier for states to provide coordinated care for people with HIV/AIDS*"

Inflammation and Immune Dysfunction: A Central Mechanism for Aging



- Diabetes mellitus
- Heart disease
- Cancer
- Cognitive problems
- Osteoporosis
- Frailty

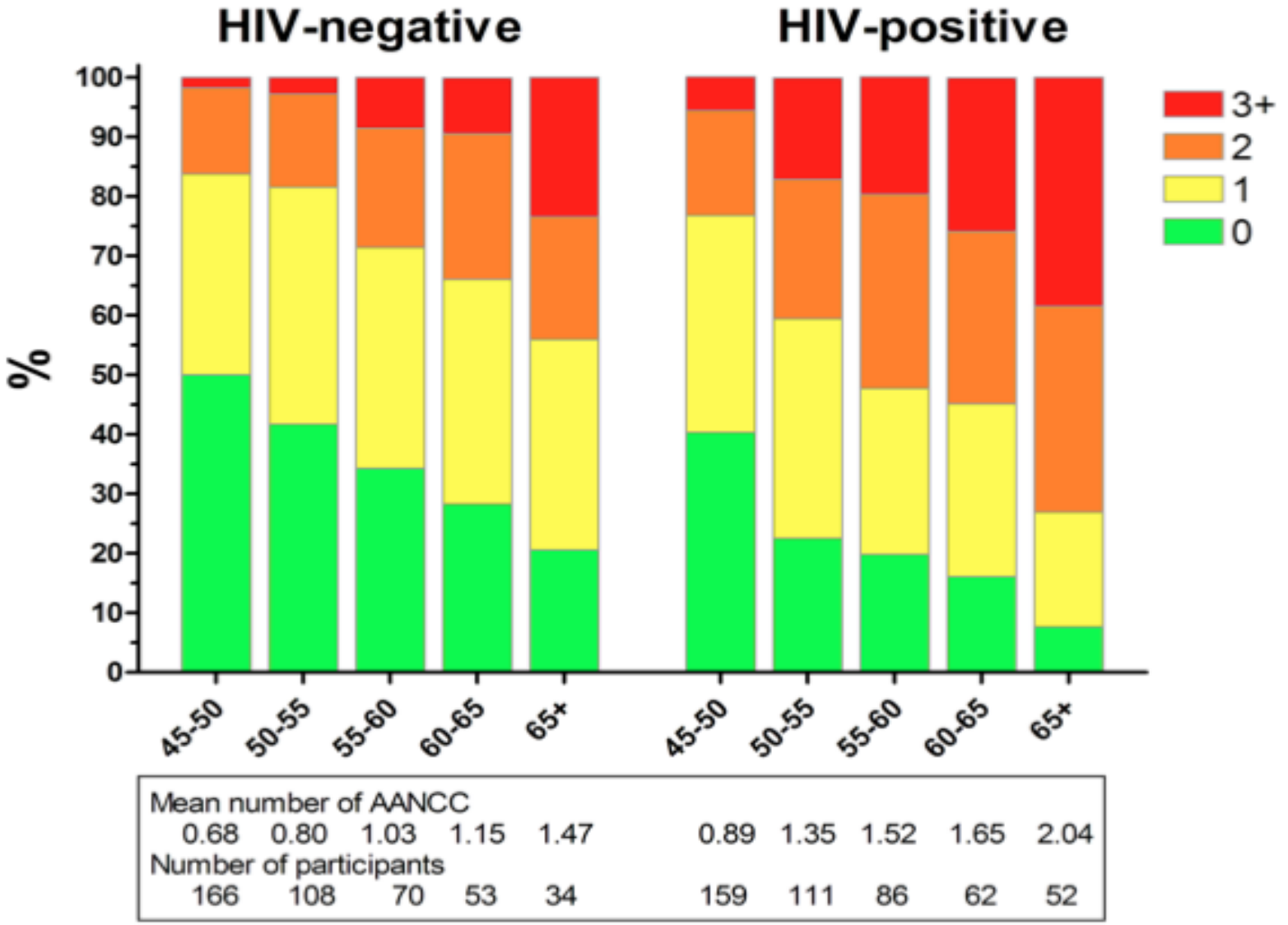
Aging & HIV: The Inflammation Double Whammy



- Diabetes mellitus
- Heart disease
- Cancer
- Cognitive problems
- Osteoporosis
- Frailty

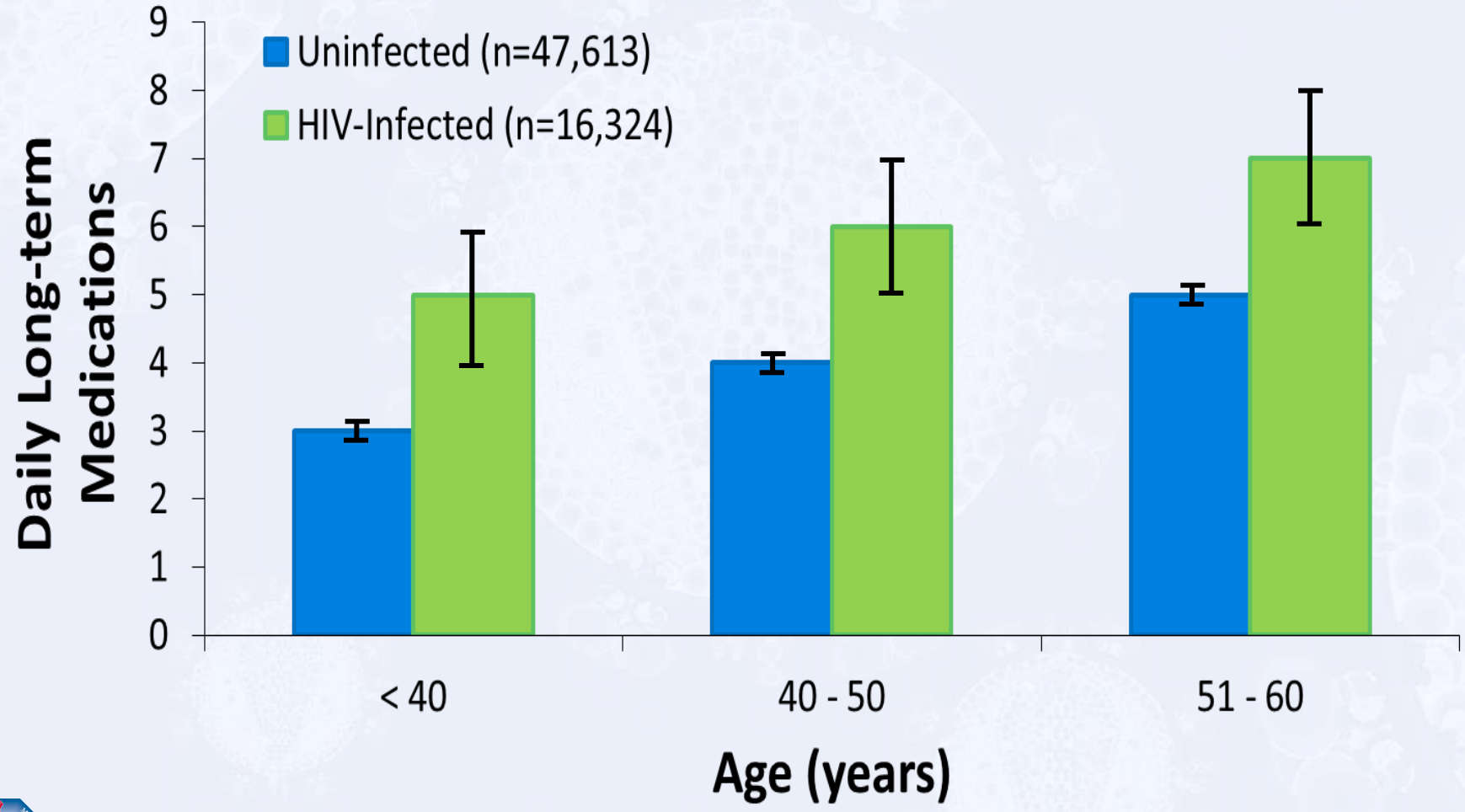
Todd Brown, MD JHU

Comorbidity in relation to age



	45-50	50-55	55-60	60-65	65+	45-50	50-55	55-60	60-65	65+
Mean number of AANCC	0.68	0.80	1.03	1.15	1.47	0.89	1.35	1.52	1.65	2.04
Number of participants	166	108	70	53	34	159	111	86	62	52

Chronic Medication Count by Age and HIV Status (VACS)



Edelman EJ, et al. *Drugs Aging*. 2013;30(8):613-628.

Aging and Polypharmacy

- 50% of adults > 65 years of age receive an average of > 5 medications
- 60% of clinic visits end with a written prescription
- Benefit vs. harm
  - Combination therapies
- Subspecialties, comorbid diseases
  - HIV, GI, Renal, Cardiology, Rheumatology, Endocrinology, Oncology, Hepatology, etc.
  - Inadequate training in geriatrics

Conditions of Aging and Adherence

Typically, older adults do well with viral suppression, but as they age, there is a need for increased awareness of changes in the following areas that may affect adherence:

- Impaired hearing
- Impaired vision
- Cognitive impairment
- Polypharmacy
- Social isolation
- Depression
- Substance use, including prescription meds

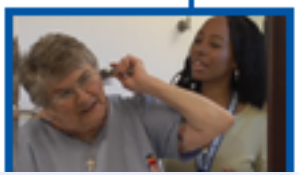
Functional Assessment
Basic and Instrumental Activities of Daily Living (ADLs)

Ambulation

Bathing

Eating

Dressing



Grooming

Toilet

Finances

Food Preparation

Housekeeping

Laundry

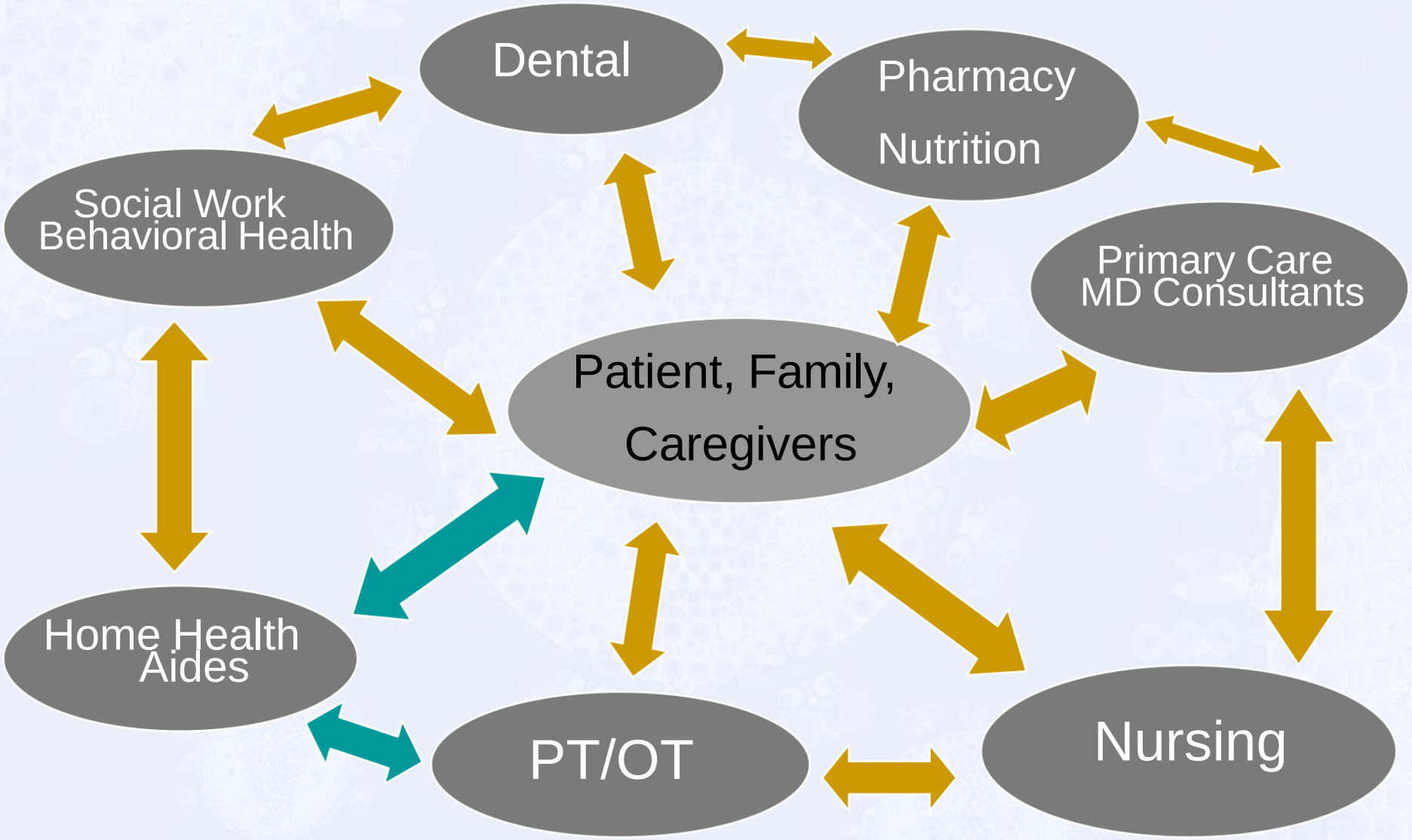
Medication

Shopping

Telephone

Rated as independent > needs assistance > dependent

It Takes a Village….



HIV and Aging Matters

- America is aging and quality eldercare is lacking in the general population.
- Comorbidities among older persons with HIV is increasing.
- Aging related syndromes may be seen earlier, before individuals are chronologically “elderly” or “senior” (65 the new 75).
- Identifying factors early, that may lead to disability and social isolation, can help prevent or slow down further disability and improve quality of life.
- Requires the attention and expertise of providers from multiple health care domains and disciplines.

Geriatrics and HIV

- Older adults with HIV can benefit from models of integrated care developed by geriatricians.
- Rather than focusing on disease, focus on function to enhance the quality of life.
- Geriatric consultation in HIV and primary clinics:
  - Golden Compass Clinic in San Francisco 2017
  - JHU Bartlett Specialty Clinic 2023
  - UMD THRIVE Clinic 2022
- Diagnosing and treating comorbidities is not sufficient to address the complexities of aging.

The 5M's of Geriatrics

- **Mind:** Depression, dementia, early detection of cognitive impairment
- **Mobility:** Gait, balance, activity level, fall risk, exercise
- **Medications:** Polypharmacy, drug-to-drug interactions
- **Matters Most:** Patient's health outcome goals and care preferences
- **Multimorbidity:** Mgmt of multiple chronic conditions

Assessing for frailty

- FRAIL Scale
- Clinical Frailty Scale
- Gait Speed

FRAIL Scale
F___ atigue **R__esistance (ability to climb one flight of stairs)** **A__mbulation (ability to walk one block)** **I____llnesses (Greater than 5)** **L__oss of Weight (≥ 5% over 1 year)**
≥ 3 = frail / 1 - 2 = pre-frail / 0 = robust

Reference: Woo, Jean, Jason Leung, and John E. Morley. "Comparison of frailty indicators based on clinical phenotype and the multiple deficit approach in predicting mortality and physical limitation." Journal of the American Geriatrics Society 60.8 (2012): 1478-1486.

Barber TJ et al. *AIDS Care*. 2023;35(8):1149-1153.
Jung HW et al. *Clin Interv Aging*. 2018;13:1079-1089

Common Issues Among Older Adults with HIV

- Difficulties in accessing and maintaining health care
- Difficulties in managing HIV care, comorbidities, and polypharmacy issues
- Gaps in health professionals' knowledge, experience, and sensitivity
- Concerns about long-term care/advanced care planning

Common Issues Among Older Adults with HIV

- Lack of programs that respond to loneliness and social isolation
- Long Term Survivors exhibit 3-5 higher rates of depression and are largely socially disconnected
- Lack of mental health and alcohol and substance use treatment programs for older adults
- Stigma & discrimination heightened by ageism
- Concerns over emphasis on ending the HIV epidemic

There are many ways to integrate the components of care

Care coordination

Psychosocial support

Food/ nutrition

Comorbidity management

Case management

Mental health

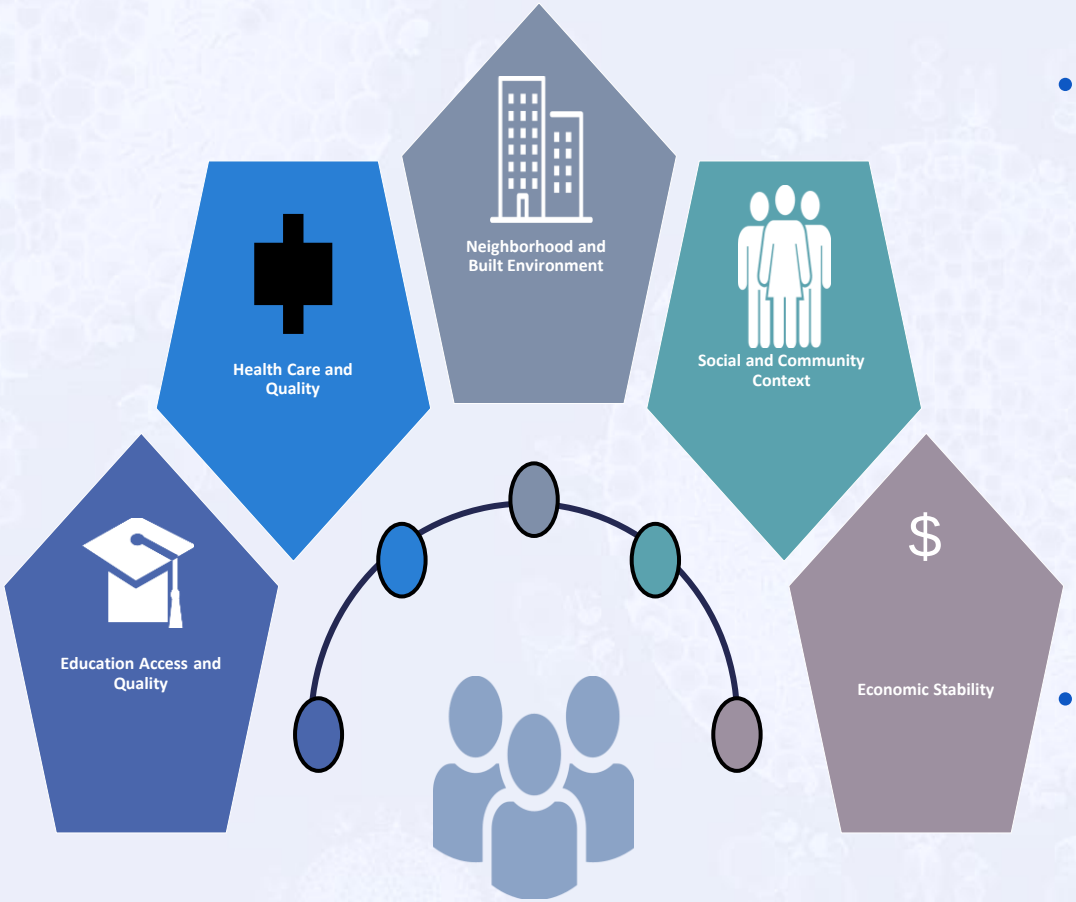
Housing / legal

HIV care

Long-term care

Substance use services

Social Determinants of Health (SDOH)



- **SDOH: conditions in which people are born, grow, live, learn, work, play and age**
  - Shaped by the distribution of money, power, and other resources throughout communities, nations, and world
- **Differences in SDOH lead to health inequities**: the unfair and avoidable differences in health status across groups

CDC. www.cdc.gov/publichealthgateway/sdoh/index.html. Accessed Aug 16, 2021.

Slide credit: clinicaloptions.com

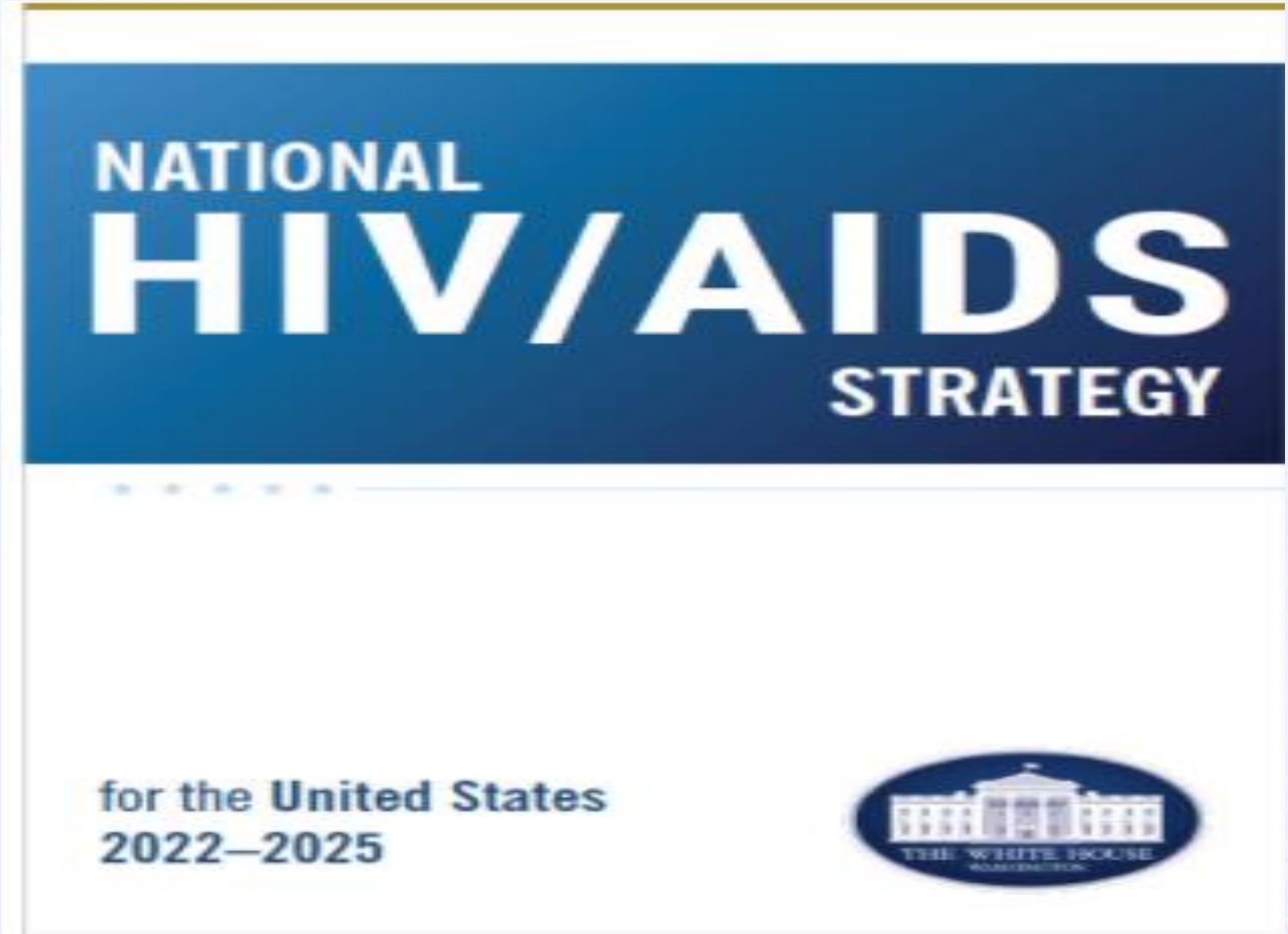
Moving Forward: Sustained Action

Priorities:

- Medical care
- Mental health and substance and alcohol use disorders
- Workforce development, education, and training
- Housing, transportation, and other support services
- Stigma and discrimination
- Ending the HIV epidemic
- Intersection of HIV policy and older adult policy and advocacy
- Development of new models of care and service delivery

Prevention! Prevention! Prevention!

- Sexual history taking in older adults must be considered as routine.
- Older adults are sexually active.
- Among people aged 55 and older who received an HIV diagnosis in 2015, 50% had HIV for 4.5 years before they were diagnosed—the longest diagnosis delay for any age group.
- Consider increasing PrEP uptake in older adults.



https://www.hiv.gov/federal-response/national-hiv-aids-strategy/national-hiv-aids-strategy-2022-2025

Goal #2 NHAS

Expand capacity to provide whole-person care to older adults with HIV and long-term survivors.

* Identify, implement, and evaluate models of care.
* Identify and implement best practices related to psychosocial and behavioral health needs.
  - Increase HIV awareness, capability, and collaboration.
  - Promote research, cross agency collaborations.
  - Develop and optimize multi-agency strategies to address evolving changes.

What Can be Done?

- Recognize the changing landscape.
- Identify gaps in services and knowledge.
- Training to integrate aging assessments into care:
  - AETC clinical preceptorships at sites currently doing the work.
- Develop interventions to close identified gaps.
- Model successful aging with possible prevention/intervention strategies.

What Can Be Done?

- **Taking a proactive approach** to aging to help prevent or slow functional and social decline.
- **Screening for frailty or functional decline** to enable early identification of at-risk patients.
- Including **nonpharmacologic measures**, such as exercise, nutrition, and socialization is essential.
- Facilitating and simplifying **access to care** and services to improve overall adherence and satisfaction.

Build A Multidisciplinary Team

- Clinicians
- Long Term Survivors
- Pharmacists
- Geriatricians
- OT
- PT
- Social Workers
- Case Managers
- CHW's
- Peer Navigators
- Medical Assistants
- Front Desk
- Rehab
- Long-Term Care
- Caregivers
- Mental Health Team
- Departments of Aging
- AARP
- Area Agencies on Aging

What Can be Done?

- Promote the meaningful participation of older persons at all levels.
- Equip the clinical and non-clinical workforce.
- Provide more resources for prevention and treatment messaging.
- Make social connections through community-based programs addressing isolation, stigma, and trauma.
- Leverage technology.
- Maintain treatment access and protection.

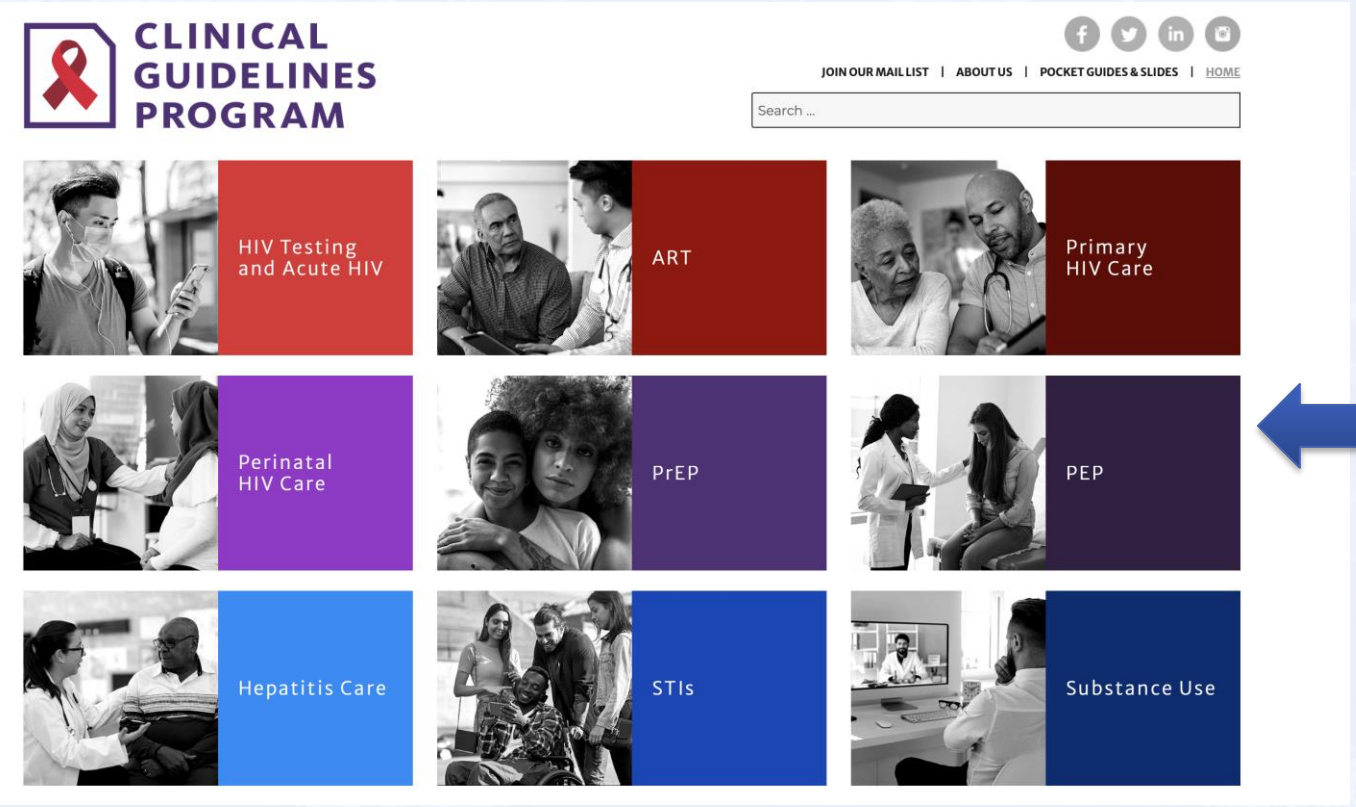
https://oneill.law.georgetown.edu/wp-content/uploads/2021/05/Meeting-the-Needs-of-People-Aging-with-HIV.pdf

A greater focus on HIV and aging is needed. To meet the needs of older people living with HIV, policy action must address the following:

1	2	3	4	5
DEVELOP models of care and prevention for people aging with HIV and train and equip the clinical and non-clinical workforce.	**EXPAND** opportunities for older people living with HIV to make social connections through community-based programs that address isolation, stigma, and trauma.	**MAINTAIN** Medicare Part D drug access protections (e.g., Six Protected Classes) and expand focus on high-quality care and quality of life.	**ALLOCATE** more funding to programs that support financial security and access to employment, housing, food, and public benefits for the aging HIV population.	**PROMOTE** the meaningful participation of older people living with HIV in the Ending the HIV Epidemic (EHE) Initiative and in broader advocacy efforts.
PAGE 6	PAGE 11	PAGE 12	PAGE 14	PAGE 18

https://www.reunionproject.net/

The NYS AIDS Institute Clinical Guidelines Program has updated its HIV and Aging Guidance



https://www.hivguidelines.org/guideline/hiv-aging/

CLINICAL GUIDELINES PROGRAM
NEW YORK STATE DEPARTMENT OF HEALTH AIDS INSTITUTE | HIV · HCV · SUBSTANCE USE · LGBT HEALTH

Guidance: Addressing the Needs of Older Patients in HIV Care

Reviewed and updated: Eugenia L. Siegler, MD; May 5, 2023
Writing group: Steven M. Fine, MD, PhD; Rona M. Vail, MD; Joseph P. McGowan, MD, FACP, FIDSA; Samuel T. Merrick, MD; Asa E. Radix, MD, MPH, PhD; Jessica Rodrigues; Christopher J. Hoffmann, MD, MPH; Charles J. Gonzalez, MD
Committee: Medical Care Criteria Committee
Date of original publication: July 31, 2020

Contents

Resources

- https://www.hivagingco.org/
- https://www.tfah.org/initiatives/age-friendly-public-health/
- National HIV Curriculum https://www.hiv.uw.edu/
- https://education.aahivm.org/product_bundles/2297
- https://ryanwhite.hrsa.gov/sites/default/files/ryanwhite/resources/population-factsheet-older-adults.pdf

MidAtlantic AIDS Education and Training Center
Integrating Geriatric Principles in the HIV Clinic

HIV care providers should strive to incorporate geriatric principles and assessments into the care of older adults with HIV, thus improving health outcomes and quality of life.

Aging Persons with HIV: Share the same health concerns as the general population, but also experience increased amounts of, and earlier, age-related multi-morbidity. They may have higher rates of specific age-related disease due to HIV and/or combination antiretroviral therapy. With the population of adults with HIV growing older, it is essential that HIV care providers incorporate geriatric principles and assessments into care along with standard age-based screenings and morbidity management.

Geriatric 5M's Principles

Focus on geriatric syndromes that impact functioning and quality of life.

1. MIND: Mentation, Dementia, Delirium, Depression
- Early detection of cognitive impairment can help patients plan.
- Treating depression can improve physical, social and cognitive functioning.

2. MOBILITY: Gait, Balance, Activity level, Fall risk, Exercise
- Assessment of frailty to identify interventions to maintain mobility.
- Assess history of falls, home safety issues and risk for falls can prevent injury and maintain mobility.

3. MULTIMORBIDITY: Management of Multiple Chronic Conditions
- Treatment of comorbidities to maintain health and quality of life.

4. MEDICATIONS: Polypharmacy and Drug-Drug Interactions
- Review medications to assess for potential drug-drug interactions.
- Optimize prescribing, eliminating unnecessary or side effect inducing meds.
- Assess pain and evaluate available medications for pain management.

5. MATTERS MOST: Patient's Health Outcome Goals and Care Preferences
- Identify persons' medical, social priorities, and sexual health issues.

Interprofessional teams (IP): can conduct screenings and assessments for geriatric conditions and refer to aging-related resources.
IP teams include: physicians, NPs, PA-Cs, nurses, pharmacists, social workers, case managers, behavioral health, navigators, community workers, occupational and physical therapists, speech therapists, nutritionists.
Community partners: faith-based organizations, non-profits, local agencies that specialize in the resources of older adults are important.

Clinic Implications

What clinics can do to provide welcoming environment for aging persons.

1. Initial and ongoing mental status assessment at each visit
   - Obtain input from caregivers on functioning
   - Ask the patient and listen closely
2. Assure mobility access in clinic and exam rooms
   - Consider adding handrails, geriatric chairs, remove furniture for safety
   - Referral to physical therapy, occupational therapy for home intervention
3. Conduct physical exam including gait and other tests
   - Coordinate consults and referrals for convenience of patient
   - Involve case managers and navigators in enhancing coordination
4. Have pharmacist review medications, and educate patient
   - Instruct patient, caregivers about side effects, cognitive and balance changes
5. Discuss advanced directives, power of attorney, long-term care, financial planning
   - Discuss faith, social support needs, home care needs

www.maaetc.org

Assessment Screening Tools

	Assess	Example Screening Tools
Mind	Cognition	MoCA; Mini-Cog; MMSE; Everyday memory questionnaire; neuropsychiatric testing
	Mental Health	Depression (PHQ-2, 4, or 9, Beck depression inventory); anxiety (GAD-7, HAM-A, OASIS); Assess and address patient's social support, daily activities, engagement with family, friends, and community.
	Substance Use	SBIRT; CAGE; AUDIT; TAPS; harm reduction
Mobility	Physical function	SSPB; falls risk assessment; ADLs (OARS, Lawton-Brody, Katz); TUG; need for assistive devices; home safety evaluation (loose rugs, rails, stairs, etc.)
	Fragility	Fried frailty phenotype, Gerontopole frailty screen
Multimorbidity	Cardiovascular & pulmonary	ASCVD risk calculator, coronary artery calcification score, COPD (PFT); AAA (abd US)
	Renal & liver	Cr/ GFR, UA, LFT
	Endocrine & MSK	BMD (FRAX, DXA, Vit D); sarcopenia (DXA); hypogonadism; Diabetes (hemoglobin A1c)
	Age-related cancers	Breast (mammogram); cervical/anal (Pap); colon (colonoscopy, Flex-sig, FIT); lung (LDCT)
	Age-related vaccinations	Influenza; Pneumococcus; COVID-19; Zoster; TDaP (CDC Adult Vaccination Schedule)
	Pain	Numeric, verbal, or visual scale, Faces Pain Scale-Revised; Consider addressing symptoms
Medications	Medication safety	Polypharmacy (# medications, prescribers, pharmacies); Beers Criteria; drug-drug interaction (Liverpool, Micromedex)
	Medication use	Medication reconciliation (OTC, herbal, prescribed), adherence barriers (memory, stigma, finances, side effects), adherence tools (pillbox, alarm)
Matters Most	Sexual Health	Assess sexual activity to promote healthy/ safe sex practices (age-appropriate terms, matter of fact style)
	Healthcare utilization	Review/consolidate # of providers, clinics, pharmacies; assess for frequent ED or hospital use
	Social Health	Social support, networks, family, community engagement, fulfillment, caregiving, housing situation, typical day
	Safety	IPV (HITS, WAST, PVS); elder abuse (EASI, VASS); caregiver abuse (CASE); driving
	Sensory Function	Vision testing, audiometry, hearing handicap inventory, whispered voice test
	Finances	Money management, income sources, food security, long term financial planning, ability to meet basic needs
	Nutrition	Determine score; Nutritional health risk assessment
	Quality of Life	PROMIS Global Health, QOL Scale, health related QOL, CASP-19

MIDATLANTIC AIDS EDUCATION AND TRAINING CENTER, University of Pittsburgh, Graduate School of Public Health, Department of Infectious Diseases and Microbiology, www.maaetc.org
HRSA, HIV/AIDS Bureau, Office of Program Support, Grant No. U1OHA29295. Last Modified: May 2021. Please refer to most recent guidelines.

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www.maaetc.org

QUESTIONS

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Building Access to HIV Prevention & Treatment: Current Issues & Approaches

The Conference Center at Central Penn College
April 18, 2024

HIV and Aging: Meeting the Needs of a Growing Population

Roundtable Activity #3

Dorcas Baker, RN, BSN, ACRN, MA
Regional Coordinator
JHU Partner MidAtlantic AETC
Center for Infectious Disease and Nursing Innovation
Johns Hopkins University School of Nursing

In your small groups:

- Assign a note taker.
- Assign someone to speak for your group.
- These roundtable activities are meant for you to be able to talk through putting concepts into action! Think about how the following scenario would unfold in your clinical setting.

Case Study:

- Mr. A, 68-years old, diagnosed at age 25 and started ARV's
- Adherent to appointments and to once daily regimen, but takes medication also for depression, hypertension, chronic kidney disease, arthritis in knees, sciatica, drinks occasionally for depression, one sister who lives out-of-town, son is incarcerated
- Uses mobility for transportation
- Wants housing assistance; lives on 2nd floor of an apartment home which has 2 flights of stairs plus entrance to home, an additional 5 steps
- Denies falling and wants a place that is on one floor
- Oral health is poor
- Hearing loss (you notice you have to repeat things often to him)
- Needs cataract removed, wears glasses
- Medicaid/Medicare for insurance
- Ryan White

Discussion

- Identify the needs listed.
- What could be other issues not listed?
- What can be done?
- Consider the 5M's

Roundtable Activity #3

Regroup
Q & A

MidAtlantic AIDS Education and Training Center - Contact Information

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Building Access to HIV Prevention & Treatment: Current Issues & Approaches

The Conference Center at Central Penn College
April 18, 2024

Trauma-Informed Care & HIV

Briana L. Snyder, PhD, RN, PMH-BC, CNE, RYT 200
Associate Professor & Graduate Program Director
Towson University Department of Nursing
Baltimore, Maryland

Speaker Disclosure

Dr. Briana L. Snyder has no conflicts of interest to disclose.

Learning Objectives

By the end of this program, participants will be able to:

- Discuss the current prevalence of trauma in the general population and for persons with HIV.
- Describe ACE scoring and its limitations.
- List signs and symptoms of trauma in adults.
- Delineate the six guiding principles to a trauma-informed approach to care.

What comes to mind when you hear the word "trauma?"

Trauma is

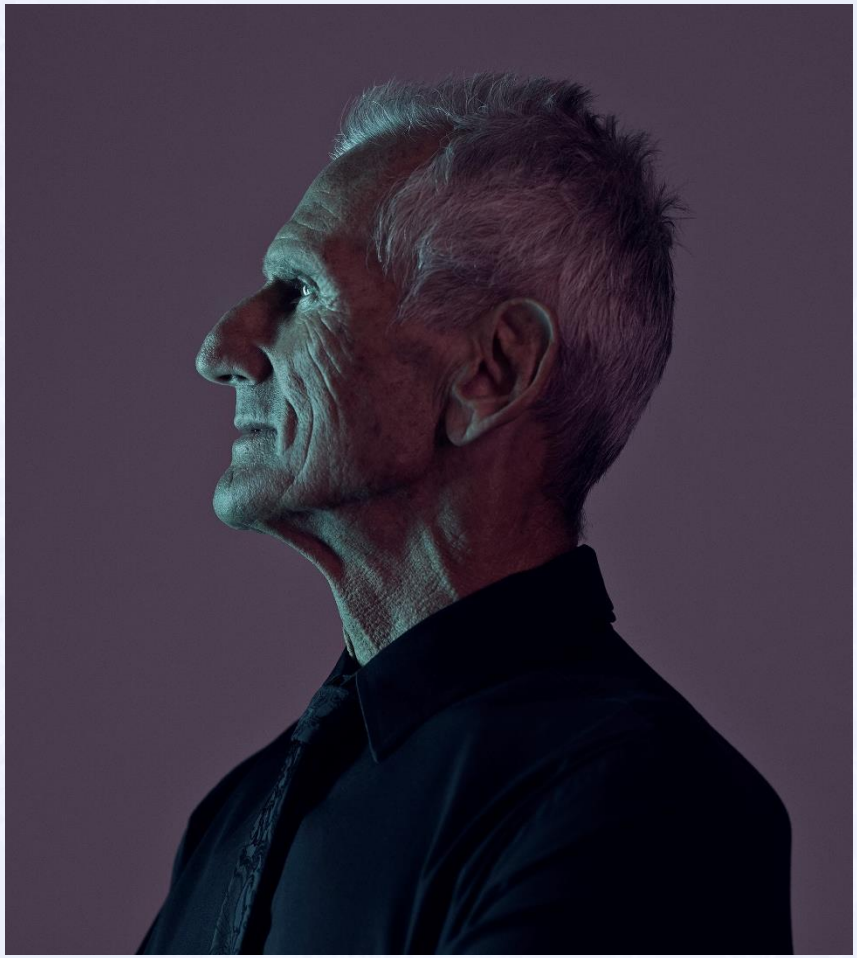
- Subjective
- Individualized
- Universal

How Prevalent Is Trauma?

- Roughly 1 in 7 American children have experienced abuse or neglect in the last year (CDC, 2023).
- More than 2/3 of children reported at least one traumatic event by age 16 (SAMHSA, 2023).
- About 70% of Americans have experienced at least one traumatic event in their lifetime or ~ 224 million Americans (National Council for Behavioral Health, 2013).
- More than half of American families have experienced a disaster (SAMHSA, 2023).
- Approximately 1 in 10 Americans over age 60 have experienced some form of elder abuse (National Council on Aging, 2021).

How Prevalent is Trauma Among Folks with HIV?

- People with HIV experience higher rates of posttraumatic stress disorder (PTSD) than the general population (Ontario HIV Treatment Network, 2023).
- Women with a history of physical and/or sexual abuse are more likely to be diagnosed with HIV, especially if that abuse first started during their childhood (The Well Project, 2023).
- Studies have found rates of violent trauma to be up to 90% among people with HIV (LeGrand, 2016).




WARNING
UNIVERSAL
PRECAUTIONS
MUST BE
OBSERVED

Adverse Childhood Experiences

Traumatic events that can have negative, lasting effects on health and wellbeing

People with 6+ ACEs can die

20 yrs

earlier than those who have none

1/8 of the population have more than 4 ACEs

www.70-30.org.uk
@7030Campaign

4 or more ACEs

- **3x** the levels of lung disease and adult smoking
- **11x** the level of intravenous drug abuse
- **14x** the number of suicide attempts
- **4x** as likely to have begun intercourse by age 15
- **4.5x** more likely to develop depression
- **2x** the level of liver disease

> **Adverse childhood experiences are the single greatest unaddressed public health threat facing our nation today**
>
> Dr. Robert Block, the former President of the American Academy of Pediatrics

67%

of the population have at least 1 ACE

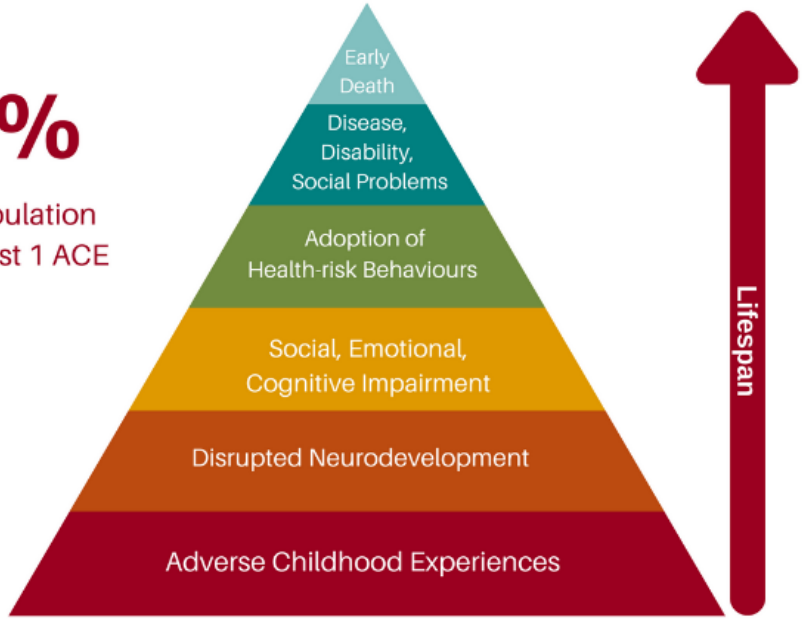


Image credits: https://www.pacesconnection.com/blog/the-70-30-campaign
https://www.merckmanuals.com/home/special-subjects/illicit-drugs-and-intoxicants/injection-drug-use

How Useful Are ACE Scores?

Pros

- Simple to calculate and understand
- Easier to engage non-academic audiences
- Acknowledges high level of co-occurrence of difference childhood adversities
- Easy to use quickly in practice to identify at-risk folks

Cons

- Assumes each ACE is equally important
- “One size fits all” approach to intervention
- Unclear how and which different adversities interact/co-occur and the effects of this
- Some adversities are excluded
- Lack of internationally agreed-upon definitions of adversity

(Lacey & Minnis, 2020)

Trauma: Signs & Symptoms

Emotional & Psychological

- Shock or denial
- Intense fear, anxiety, or panic
- Numbness
- Mood lability
- Anhedonia
- Nightmares
- Intrusive memories or flashbacks
- Distorted thinking
- Hypervigilance or hyperstartle response
- Dissociation or memory impairment
- Guilt, shame, or self-blame
- Poor self-esteem or self-loathing
- Suicidal ideation

Physical

- Pain
- Fatigue
- GI issues
- Muscle aches or tension
- Nausea
- Dizziness
- Rapid heartbeat
- Diaphoresis

Behavioral

- Avoidance or withdrawal
- Substance use
- High-risk behaviors
- Impulsivity
- Changes in eating and sleeping habits
- Relationship difficulties
- Self-harm or suicide

(CDC, 2023; Mayo Clinic, 2023)

“In order to empathize with someone’s experience, you must be willing to believe them as they see it, and not how you imagine their experience to be.”

Brené Brown

Trauma-Informed Care – The Four Rs

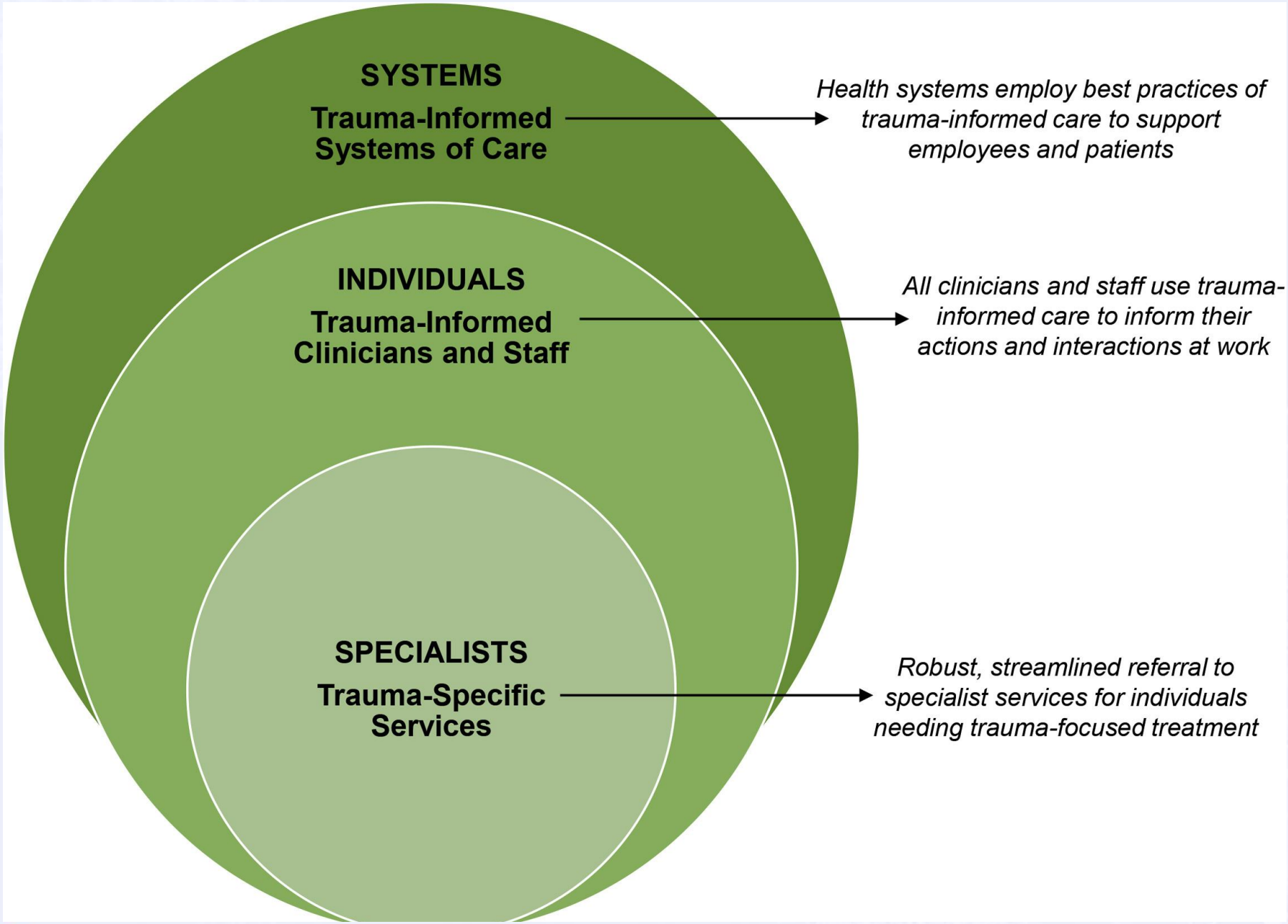
"A program, organization, or system that is trauma-informed **realizes** the widespread impact of trauma and understands potential paths for recovery; **recognizes** the signs and symptoms of trauma in clients, families, staff, and others involved with the system; and **responds** by fully integrating knowledge about trauma into policies, procedures, and practices, and seeks to actively **resist** **re-traumatization**."

Substance Abuse and Mental Health Services Administration (SAMHSA)

Six Key Principles of a Trauma-Informed Approach

1. Cultural, historical, and gender issues
2. Safety
3. Trustworthiness and transparency
4. Peer support
5. Collaboration and mutuality
6. Empowerment, voice, and choice

Substance Abuse and Mental Health Services Administration (SAMHSA)
SAMHSA's Concept of Trauma and Guidance for a Trauma-Informed Approach



Universal precautions: the case for consistently trauma-informed reproductive healthcare - ScienceDirect

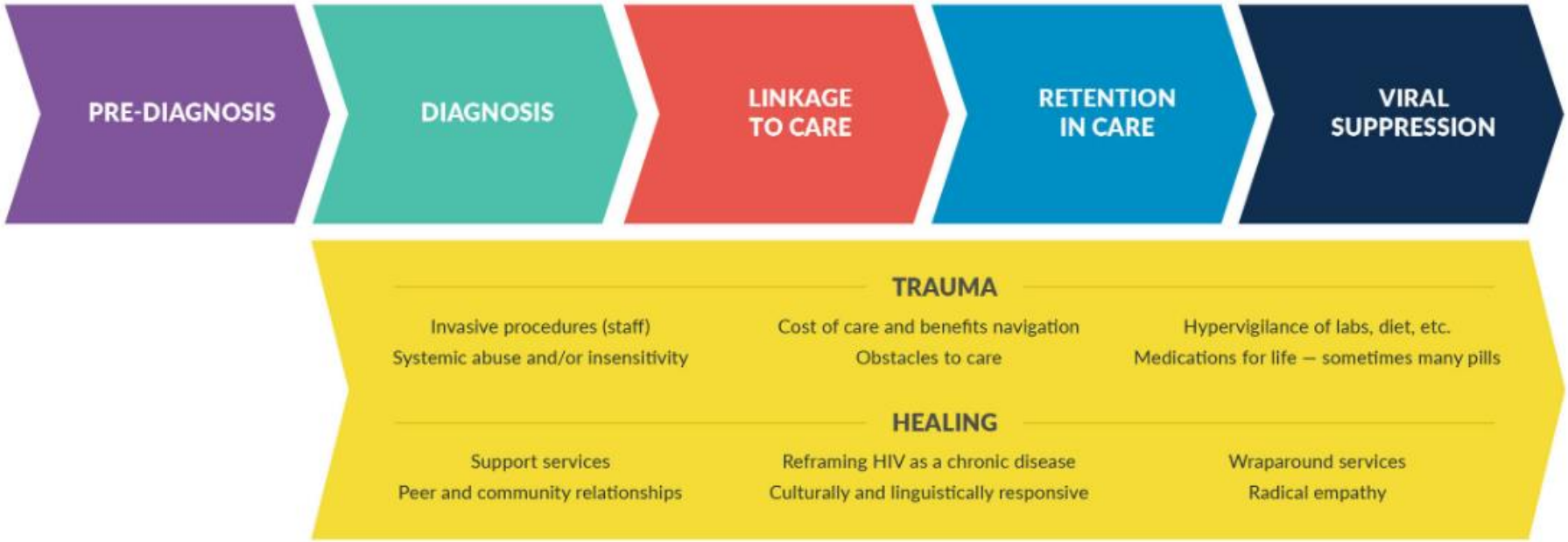
Examples of Trauma-Informed Care

- "What happened to you?" **NOT** "What's wrong with you?"
- Communication – ask, don't assume!
- Screen for trauma – and respond sensitively
- Ask about triggers or anticipated difficulties
- Ask what would help patient feel more comfortable
- Ask permission before touching or disrobing patient
- Explain processes and procedures first
- Offer choices when possible – reduce the power imbalance
- Give patient the option to stop or take a break
- Body language and body positioning
- Word choice
- Have resources in waiting rooms and restrooms
- Make referrals as needed
- Debrief

So, what does this mean for folks with HIV?

TRAUMA AND HEALING ACROSS THE HIV CONTINUUM

This graphic depicts the HIV continuum and illustrates that people can experience trauma and healing when engaging with the health care system to receive treatment for or prevent HIV.



https://nastad.org/trauma-informed-approaches-toolkit/trauma-and-healing-across-hiv-continuum
(NASTAD, 2023)

BE A GOOD HUMAN.

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THANK YOU!

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Building Access to HIV Prevention & Treatment: Current Issues & Approaches

The Conference Center at Central Penn College
April 18, 2024

Trauma-Informed Care & HIV

Roundtable Activity #4

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In your small groups:

- Assign a note taker.
- Assign someone to speak for your group.
- These roundtable activities are meant for you to be able to talk through putting concepts into action! Think about how the following scenario would unfold in your clinical setting.

Case Study #1

Molly, 21, experienced sex trafficking at the age of 19 and has a prostitution charge on her record. She is working with an attorney to get the charge expunged so she can apply for jobs. Molly disclosed her story to the attorney and used the word, “boyfriend,” to describe her trafficker. How should the attorney respond?

1. “If he was your boyfriend and really cared for you, he would not exploit you.”
2. “When you say boyfriend, you mean trafficker?”
3. “Sounds like he is not someone to be in a relationship with.”
4. “Tell me about your experience with your boyfriend.”

Source: https://centralusa.salvationarmy.org/stopit/news/trauma-informed-care-in-practice-case-scenarios/

Case Study #2

Zoe, 25, escaped her experience of trafficking and comes to her family nurse practitioner for follow-up appointments related to past injuries. She has used substances after enduring physical and emotional abuse. Zoe wants her pain to go away and asks the doctor to write a prescription. How should the nurse practitioner respond?

1. “Considering your history of substance abuse, you might become addicted again.”
2. “It seems like you need something to help your pain. In the past, it sounds like you used substances to help you survive the pain. Is that what you are looking for now?”
3. “Based on my medical experience, this would be a bad idea.”
4. “I think you need to try other alternatives.”

Source: https://centralusa.salvationarmy.org/stopit/news/trauma-informed-care-in-practice-case-scenarios/

Roundtable Activity #4

Regroup
Q & A

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Building Access to HIV Prevention & Treatment: Current Issues & Approaches

The Conference Center at Central Penn College
April 18, 2024

Reaching Special Populations for HIV Prevention, Treatment & Care

Darrell McBride, DO
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Speaker Disclosure

Dr. Darrell McBride has no conflicts of interest to disclose.

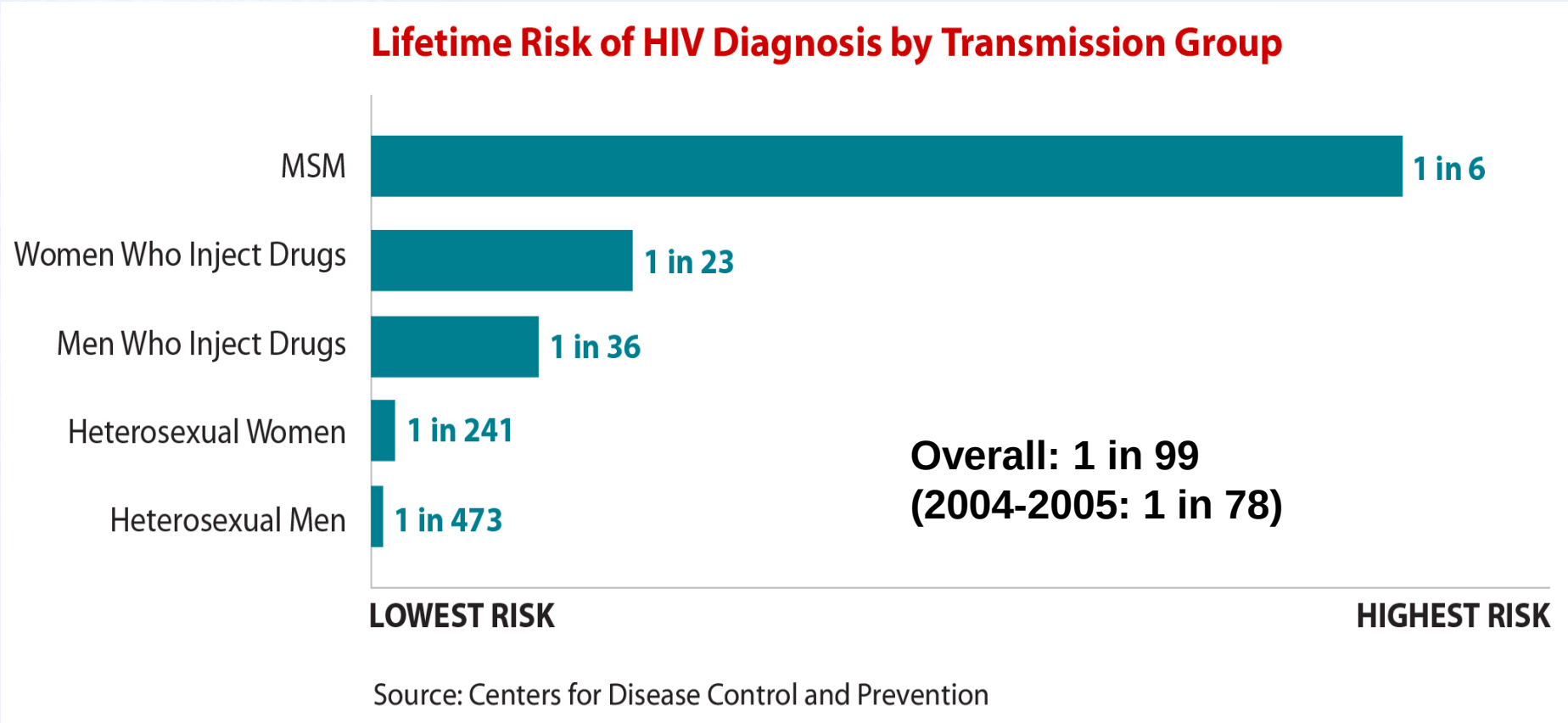
Learning Objectives

By the end of the session, the learner will be able to:

- Define and discuss drivers of health, health equity, and associated increased risk for health-related issues, including HIV.
- Identify and discuss why certain populations may be at greater risk for HIV infection and missed opportunities for prevention and therapeutic care:
  - LGBTQIA+
  - mental health issues
  - substance use disorders
  - people of color
  - formerly incarcerated individuals
  - homeless and/or housing insecure populations
  - people with disabilities
  - rural populations

NATIONAL EPIDEMIOLOGY

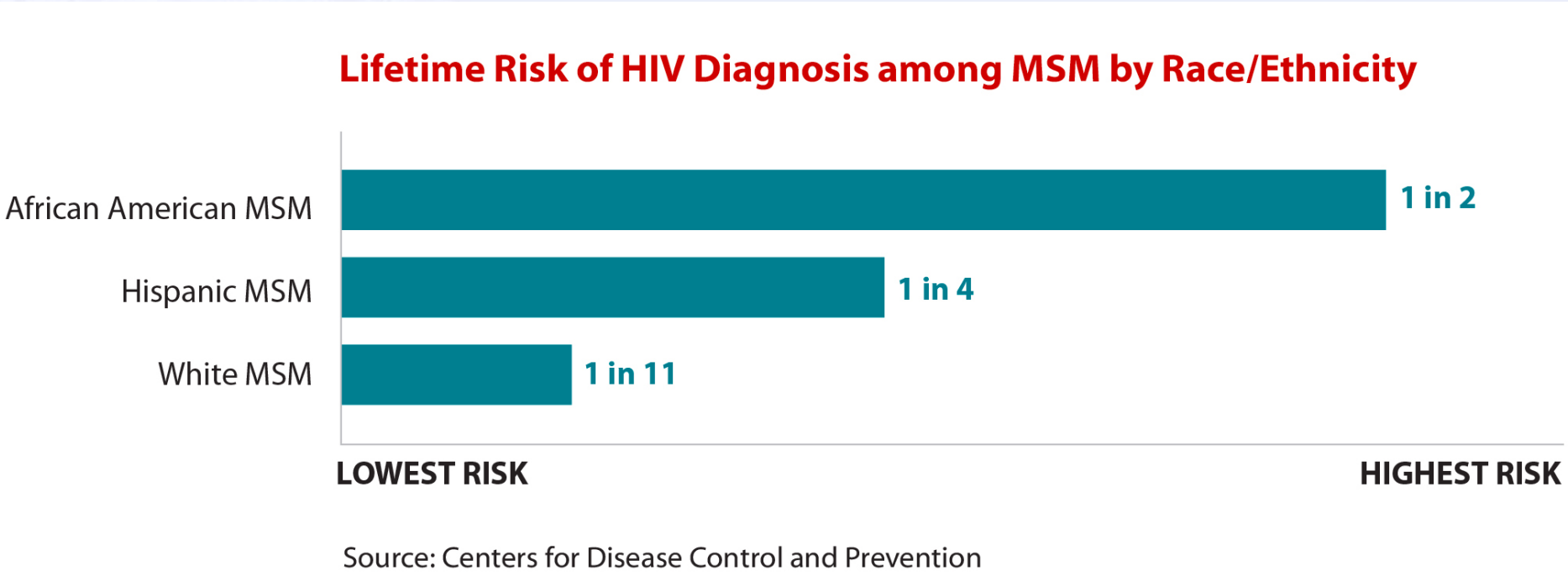
HIV Epidemiology: HIV Lifetime Risk



Data source: “CDC researchers used diagnoses and death rates from 2009-2013 to project the lifetime risk of HIV diagnosis in the United States by sex, race and ethnicity, state, and HIV risk group, assuming diagnoses rates remain constant.”

Sources: https://www.cdc.gov/nchhstp/newsroom/2016/croi-press-release-risk.html and https://www.cdc.gov/nchhstp/newsroom/

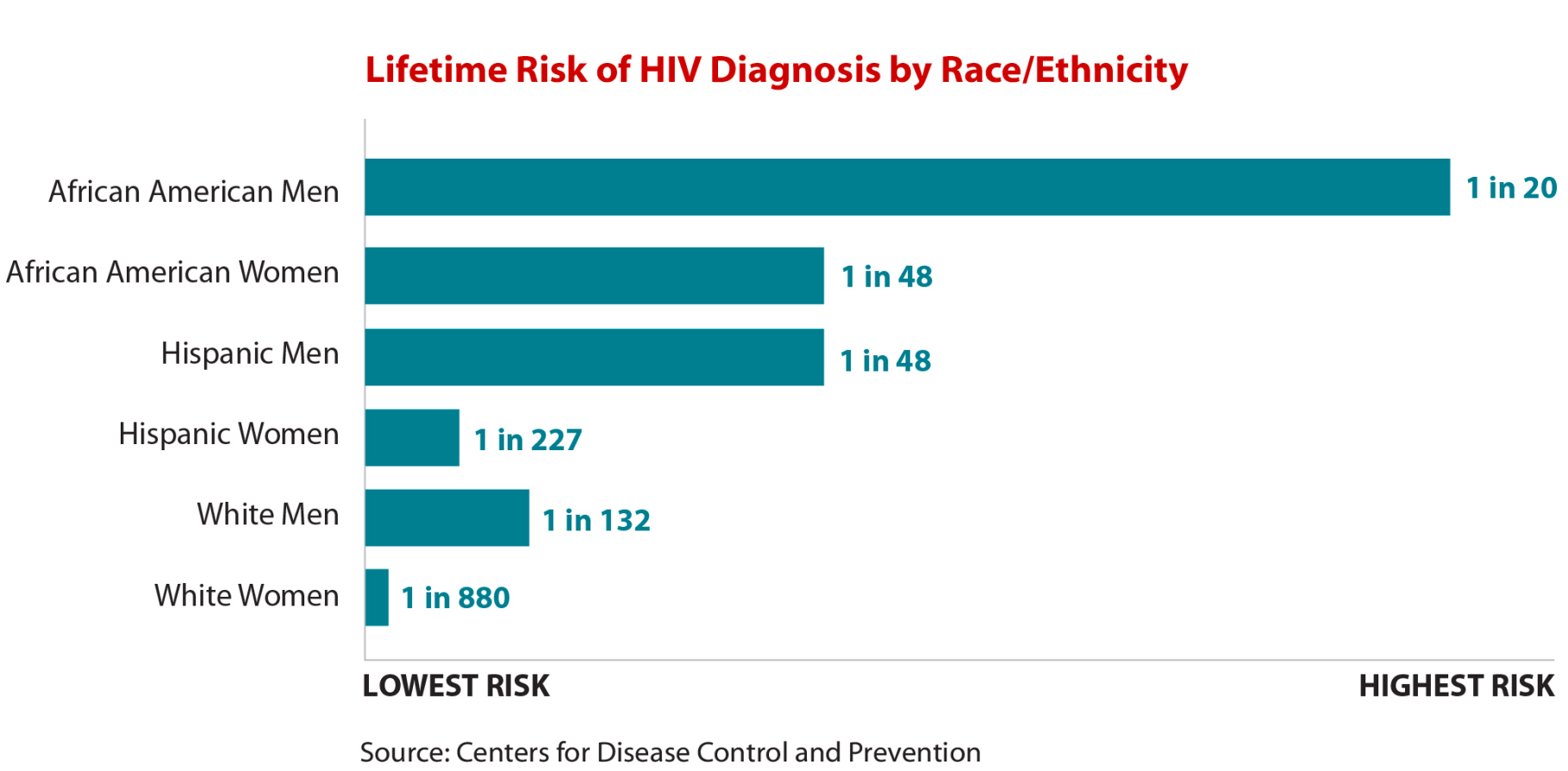
HIV Epidemiology: HIV Lifetime Risk



Data source: "If current HIV diagnoses rates persist, about 1 in 2 black men who have sex with men (MSM) and 1 in 4 Latino MSM in the United States will be diagnosed with HIV during their lifetime..."

Sources: https://www.naccho.org/blog/articles/cdc-releases-new-national-estimates-of-lifetime-hiv-risk#:~:text=Gay%20and%20bisexual%20men%20continue,1%20in%2011%20white%20MSM and https://www.cdc.gov/nchhstp/newsroom/2016/croi-press-release-risk.html

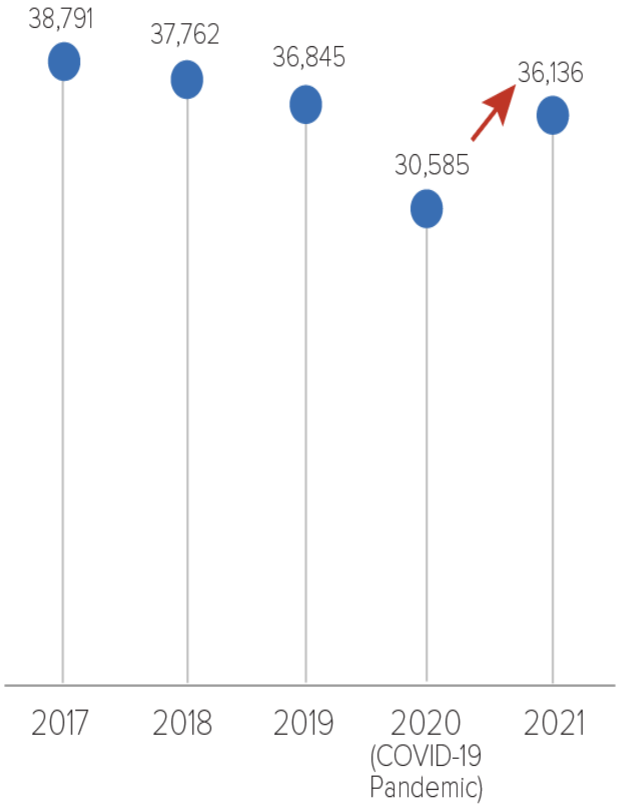
HIV Epidemiology: HIV Lifetime Risk



"African Americans are by far the most affected racial or ethnic group with a lifetime HIV risk of 1 in 20 for men (compared to 1 in 132 for whites) and 1 in 48 for women (compared to 1 in 880 for whites)."

Source: https://www.cdc.gov/nchhstp/newsroom/2016/croi-press-release-risk.html#:~:text=African%20Americans%20are%20by%20far,1%20in%20880%20for%20whites).

HIV Diagnoses in the United States and Dependent Areas Over Time*



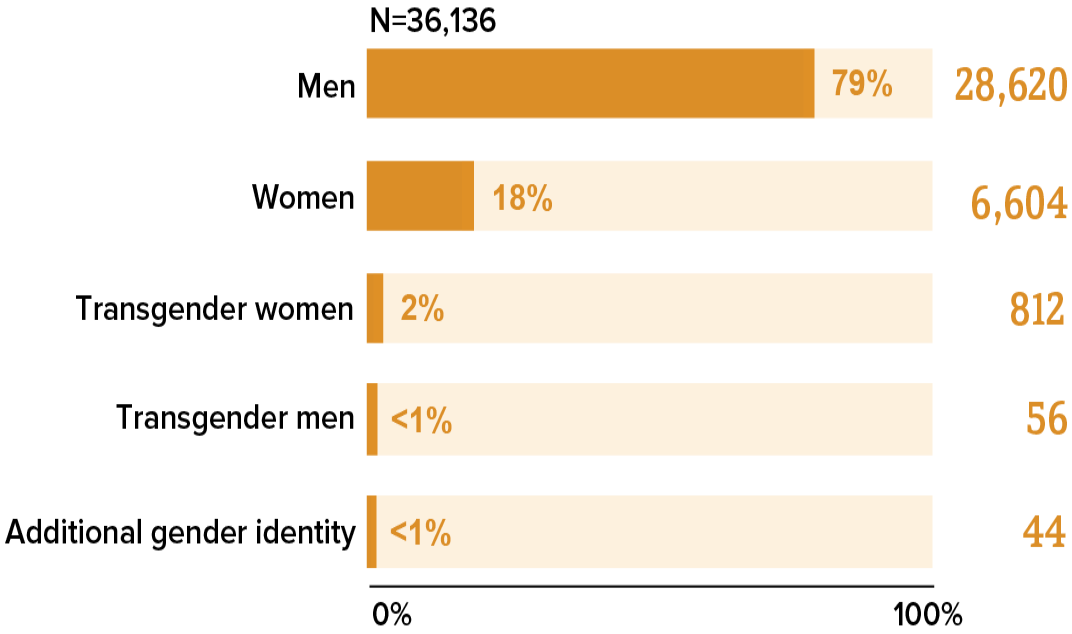
18% increase
may be due to the identification and reporting of HIV diagnoses missed in 2020.

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.

Source: CDC. Diagnoses of HIV Infection in the United States and Dependent Areas, 2021. *HIV Surveillance Report* 2023;34.

Differences in New HIV Diagnoses by Gender*

Men continue to be heavily affected by HIV, accounting for 79% of new HIV diagnoses in 2021.

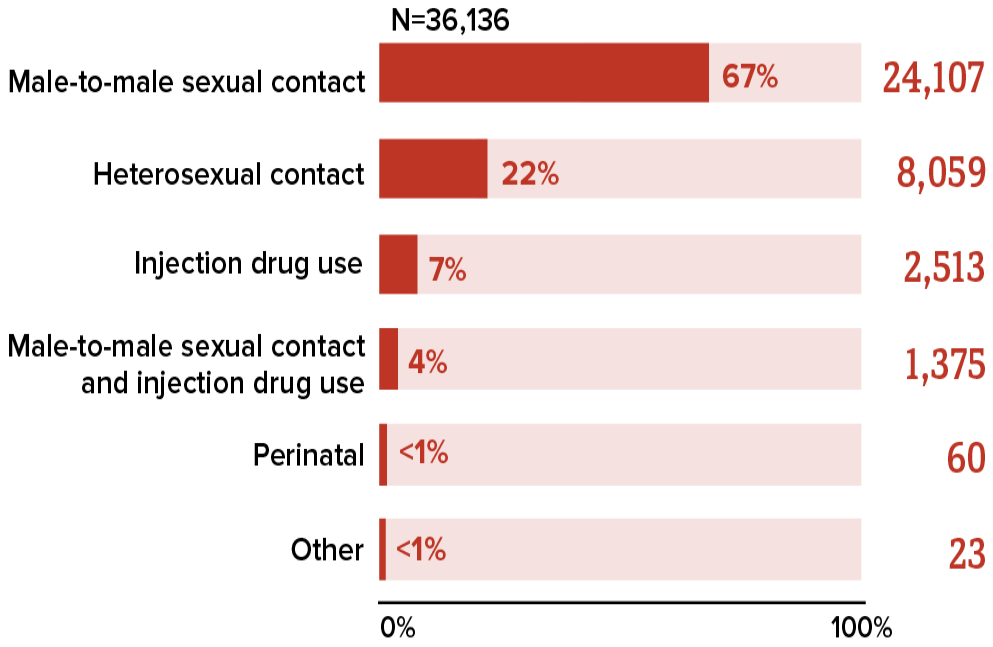


* Among people aged 13 and older.

Source: CDC. Diagnoses of HIV Infection in the United States and Dependent Areas, 2021. *HIV Surveillance Report* 2023;34.

Differences in New HIV Diagnoses by Transmission Category*†

Gay, bisexual, and other men who reported male-to-male sexual contact are the population most affected by HIV.



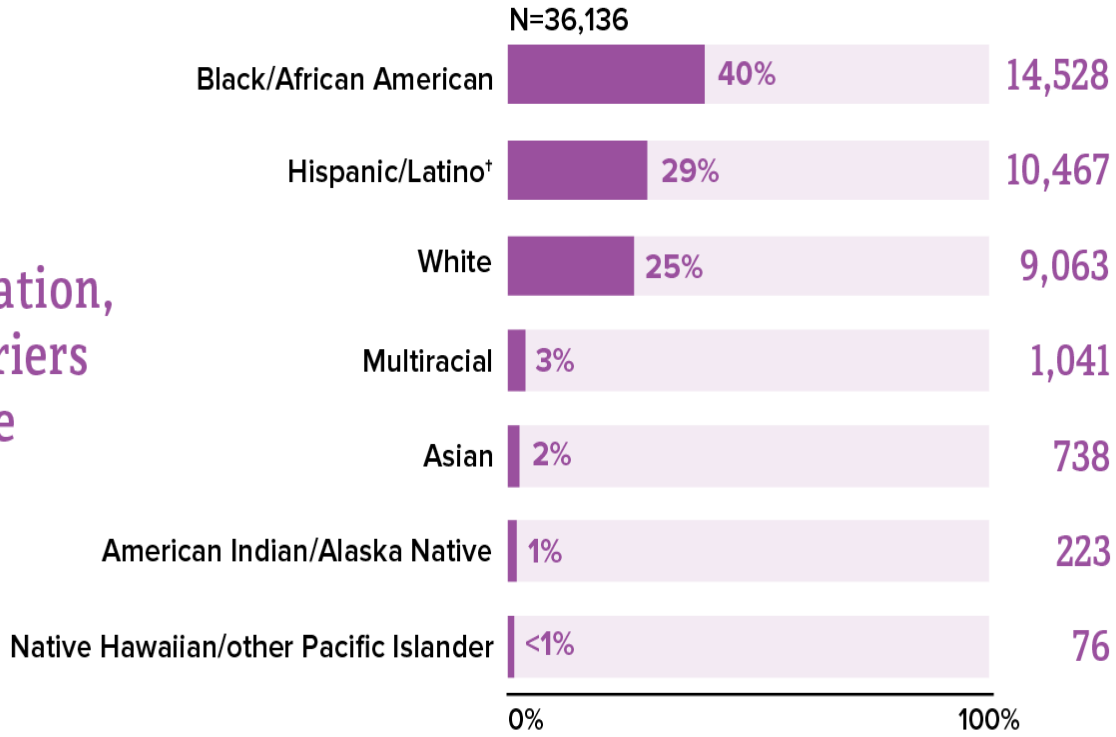
* Among people aged 13 and older.

† Transmission category is classified based on a hierarchy of risk factors most likely responsible for HIV transmission. Classification is determined based on the person's assigned sex at birth. Data have been statistically adjusted to account for missing transmission category.

Source: CDC. Diagnoses of HIV Infection in the United States and Dependent Areas, 2021. *HIV Surveillance Report* 2023;34.

Differences in New HIV Diagnoses by Race/Ethnicity*

Racial and ethnic differences in new HIV diagnoses persist. Racism, HIV stigma, discrimination, homophobia, poverty, and barriers to health care continue to drive these disparities.

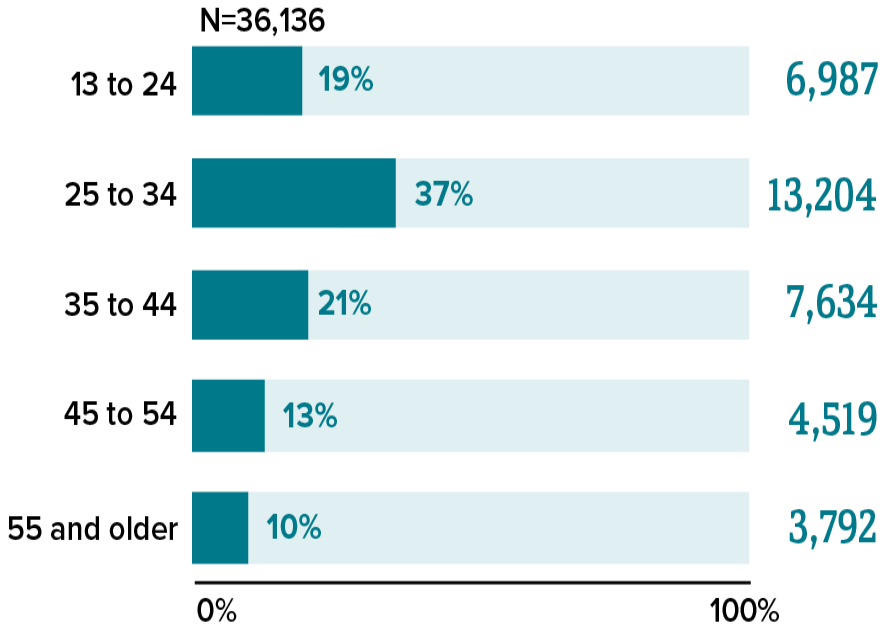


* Among people aged 13 and older.
† Hispanic/Latino people can be of any race.

Source: CDC. Diagnoses of HIV Infection in the United States and Dependent Areas, 2021. *HIV Surveillance Report* 2023;34.

Differences in New HIV Diagnoses by Age

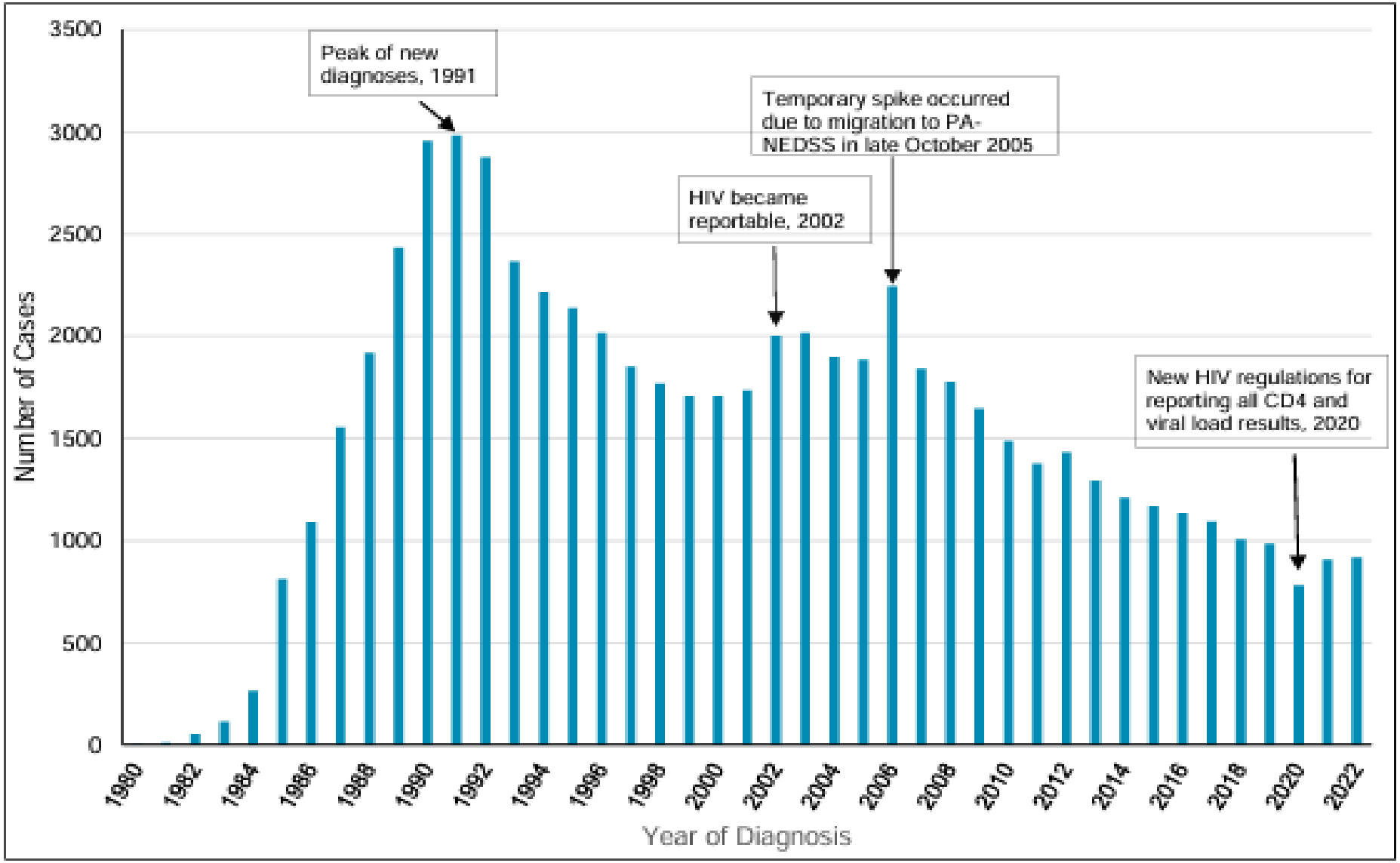
People aged 13 to 34 accounted for more than half (56%) of new HIV diagnoses in 2021.



Source: CDC. Diagnoses of HIV Infection in the United States and Dependent Areas, 2021. *HIV Surveillance Report* 2023;34.

State Epidemiology

Figure 1: Annual Diagnoses of HIV Disease by Year of Diagnosis in Pennsylvania, 1980-2022



Note: HIV Infection without AIDS became reportable in Pennsylvania in October 2002.

Source: https://www.health.pa.gov/topics/Documents/Programs/HIV/Annual%20HIV%20Surveillance%20Summary%20Report%20-%202022.pdf

Table 2: Number of Cases of HIV Disease by Sex, Race/Ethnicity and Year of Diagnosis, Pennsylvania, 2016-2022

	2017		2018		2019		2020		2021*		2022*		TOTAL (1980-2022)	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Total Male	855	100	785	100	758	100	616	100	716	100	722	100	48,886	100
White	261	31	243	31	236	31	190	31	231	32	228	32	17,852	37
Black/African American	418	49	341	43	331	44	285	46	311	43	299	41	22,426	46
Hispanic/Latinx	140	16	155	20	146	19	109	18	141	20	155	22	6,662	14
Asian & Native Hawaiian/Other Pacific Islander	12	1	16	2	14	2	7	1	8	1	11	2	340	1
American Indian/Alaska Native	2	0	1	0	1	0	4	1	2	0	3	0	51	0
Multiple races**	22	3	29	4	30	4	21	3	23	3	26	4	1,555	3
Total Female	238	100	223	100	228	100	165	100	190	100	194	100	15,783	100
White	48	20	51	23	50	22	38	23	41	22	52	27	3,323	21
Black/African American	132	55	115	23	129	57	95	58	110	58	90	46	9,116	58
Hispanic/Latinx	51	21	46	23	42	18	24	15	27	14	39	20	2,550	16
Asian & Native Hawaiian/Other Pacific Islander	2	1	1	23	0	0	0	0	3	2	4	2	89	1
American Indian/Alaska Native	0	0	0	23	0	0	0	0	0	0	0	0	15	0
Multiple races**	5	2	10	23	7	3	8	5	9	5	9	5	690	4
Total	1,093	100	1,008	100	986	100	781	100	906	100	916	100	64,669	100

* Count may be incomplete due to lag in reporting.
** Multiple races is a selection which encompasses individuals indicating one or more racial categories.
Note: Percentages may not add to 100% due to 'rounding.'

Source: https://www.health.pa.gov/topics/Documents/Programs/HIV/Annual%20HIV%20Surveillance%20Summary%20Report%20-%202022.pdf

Table 3: Number of Cases of HIV Disease by Age at Diagnosis and Year of Diagnosis in Pennsylvania, 2017-2022

Age group (years)	2017		2018		2019		2020		2021*		2022*		TOTAL (1980-2022)	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
0 - 12	1	0	1	0	0	0	2	0	2	0	1	0	733	1
13 - 14	0	0	0	0	1	0	0	0	0	0	1	0	90	0
15 - 24	259	24	231	23	214	22	164	21	183	20	149	16	8,871	14
25 - 34	351	32	346	34	365	37	285	36	348	38	357	39	21,022	33
35 - 44	215	20	171	17	169	17	135	17	183	20	212	23	19,263	30
45 - 54	154	14	146	14	128	13	111	14	110	12	108	12	10,198	16
55 - 64	80	7	92	9	86	9	69	9	68	8	66	7	3,533	5
65+	33	3	21	2	23	2	15	2	12	1	22	2	959	1
TOTAL	**1,093**	**100**	**1,008**	**100**	**986**	**100**	**781**	**100**	**906**	**100**	**916**	**100**	**64,669**	**100**

* Count may be incomplete due to lag in reporting.
Note: Percentages may not add to 100% due to 'rounding.'

Source: https://www.health.pa.gov/topics/Documents/Programs/HIV/Annual%20HIV%20Surveillance%20Summary%20Report%20-%202022.pdf

Table 4: Number of Cases of HIV Disease by Mode of Transmission and Year of Diagnosis in Pennsylvania, 2017-2022

	2017		2018		2019		2020		2021*		2022*		TOTAL (1980-2022)	
ALL MODES	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Heterosexual contact	263	24	227	23	206	21	135	17	218	24	138	15	15,805	24
Injection drug use (IDU)	81	7	104	10	103	10	48	6	66	7	82	9	15,489	24
Male-to-male sexual (MSM) contact	563	52	482	48	529	54	407	52	476	53	472	52	25,356	39
MSM/IDU	24	2	42	4	36	4	43	6	42	5	34	4	3,193	5
Other risks**	0	0	0	0	0	0	0	0	0	0	0	0	478	1
Pediatric mode***	2	0	3	0	0	0	2	0	1	0	2	0	697	1
Unknown risks	160	15	150	15	112	11	146	19	103	11	188	20	3,651	6
All Modes	1,093	100	1,008	100	986	100	781	100	906	100	916	100	64,669	100

* Count may be incomplete due to lag in reporting.
** Includes adult cases that had pediatric modes of transmission (e.g., perinatal exposure)
*** Other risk includes transfusion/transplant and coagulation disorder that occurred during the earliest part of the HIV pandemic
Note: Percentage may not add to 100% due to "rounding."

Source: https://www.health.pa.gov/topics/Documents/Programs/HIV/Annual%20HIV%20Surveillance%20Summary%20Report%20-%202022.pdf

Table 5: Number of HIV Disease by Mode of Transmission and Race/Ethnicity in Pennsylvania, 1980-1990, 1991-2000 and 2001-2019

	White (non-Hispanic)		Black/African American (non-Hispanic)		Hispanic		Asian/Pacific		Native American		Multiple races		ALL RACES	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
1980-1990														
ALL MODES	5,480	100	4,270	100	1,300	100	25	100	4	100	144	100	11,223	100
Men sex w/men (MSM)	3,755	69	1,758	41	224	17	19	76	2	50	57	40	5,815	52
Injection drug use (IDU)	700	13	1,559	37	783	60	1	4	1	25	52	36	3,096	28
MSM and IDU	328	6	430	10	96	7	1	4	0	0	26	18	881	8
Coagulation disorder	189	3	10	0	6	0	0	0	0	0	0	0	205	2
Heterosexual contact	233	4	327	8	141	11	2	8	0	0	7	5	710	6
Transfusion received	118	2	18	0	3	0	1	4	0	0	0	0	140	1
All pediatric modes	53	1	66	2	30	2	0	0	1	25	1	1	151	1
Undetermined/other	104	2	102	2	17	1	1	4	0	0	1	1	225	2
1991-2000														
ALL MODES	6,737	100	11,593	100	2,838	100	63	100	14	100	532	100	21,777	100
Men sex w/men (MSM)	3,643	54	2,789	24	387	14	29	46	6	43	144	27	6,998	32
Injection drug use (IDU)	1,506	22	4,825	42	1,385	49	4	6	2	14	211	40	7,933	36
MSM and IDU	335	5	686	6	150	5	1	2	1	7	47	9	1,220	6
Coagulation disorder	42	1	2	0	1	0	0	0	0	0	1	0	46	0
Heterosexual contact	889	13	2,740	24	716	25	17	27	3	21	106	20	4,471	21
Transfusion received	41	1	21	0	3	0	5	8	0	0	1	0	71	0
All pediatric modes	51	1	244	2	75	3	1	2	0	0	8	2	379	2
Undetermined/other	230	3	286	2	121	4	6	10	2	14	14	3	659	3
2001-2019*														
ALL MODES	8,628	100	15,080	100	4,423	100	330	100	44	100	1,123	100	29,628	100
Men sex w/men (MSM)	4,523	52	4,895	32	1,347	30	148	45	17	39	402	36	11,332	38
Injection drug use (IDU)	1,175	14	2,070	14	975	22	13	4	3	7	202	18	4,438	15
MSM and IDU	395	5	310	2	143	3	5	2	1	2	64	6	918	3
Coagulation disorder	6	0	1	0	2	0	0	0	0	0	0	0	9	0
Heterosexual contact	1,858	22	6,480	43	1,510	34	128	39	22	50	372	33	10,370	35
Transfusion received	3	0	4	0	1	0	0	0	0	0	0	0	8	0
All pediatric modes	21	0	110	1	37	1	1	0	0	0	9	1	178	1
Undetermined/other	647	7	1,210	8	408	9	35	11	1	2	74	7	2,375	8

Source: https://www.health.pa.gov/topics/Documents/Programs/HIV/Annual%20HIV%20Surveillance%20Summary%20Report%20-%202022.pdf

Why are African Americans disproportionally affected by HIV?

U.S. Medical History and The Legacy of Mistrust

Human Experimentation During Slavery

- The history of human experimentation is as old as the practice of medicine:
  - Has always targeted disadvantaged, marginalized, and vulnerable people.
  - Slaves were easy targets for ambitious and entrepreneurial white physicians in the slave south.
  - Slaves, as human commodities, were readily transformed into a medical resource.

Sources: https://www.cdc.gov/tuskegee/timeline.htm and https://www.cdc.gov/tuskegee/index.html

Human Experimentation During Slavery

- All of the key training, networks, and power bases of southern medicine operated through exploitation of black bodies:
  - Apprenticeships, private practice, colleges, hospitals, journals, and societies
- White medical students, as a matter or course, expected education and training based on the observation, dissection, and experimental treatment of slaves.
- Under slavery, there was also an extensive network of specialist "negro hospitals." These hospitals were often sites of risky medical research and were closely linked to slave traders anxious to patch up their "stock" for sale.

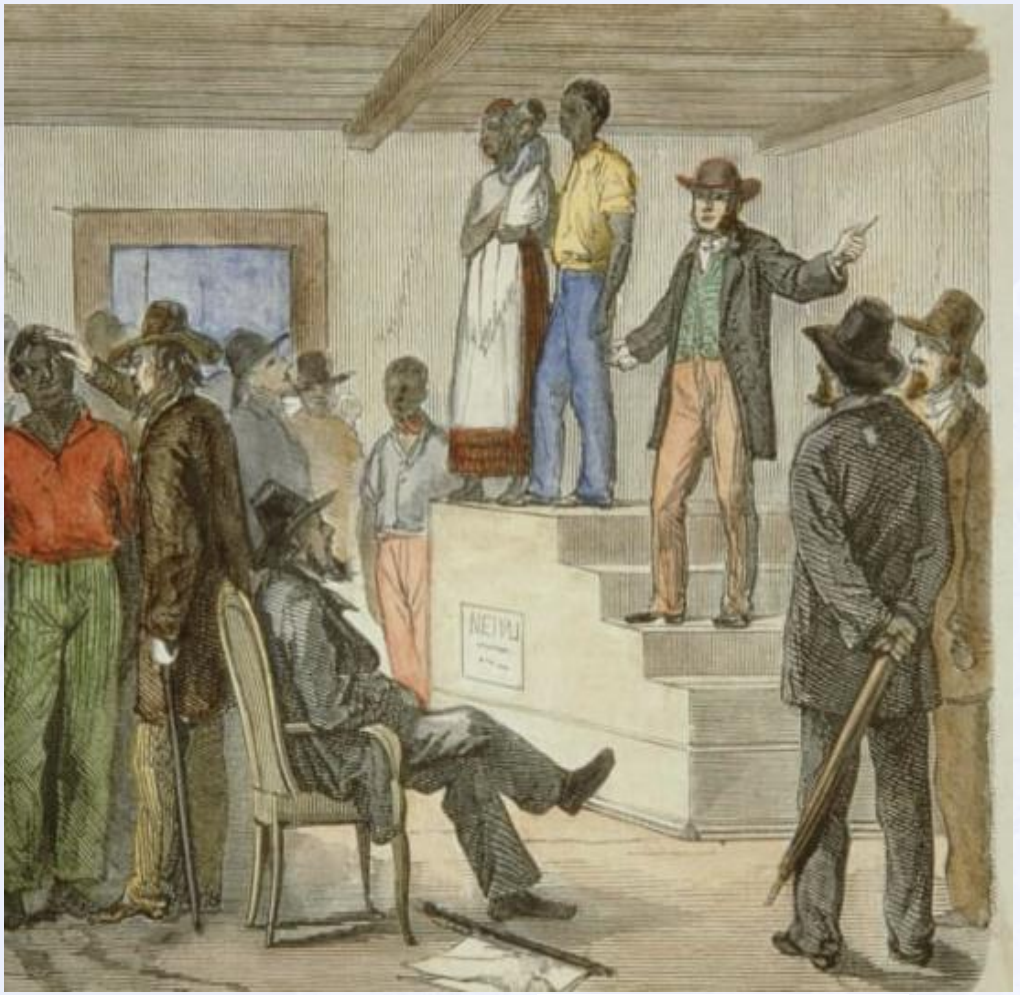


Image source: Vente d'esclaves aux Etats-Unis
Vente aux enchères d'esclaves aux Etats-Unis, en 1861. (Photo by API/Gamma-Rapho via Getty Images)

Source: https://www.jstor.org/stable/pdf/2207450.pdf

The Tuskegee Experiment

Participants in the Tuskegee Syphilis Study.

Image source: https://www.cdc.gov/tuskegee/index.html

The Tuskegee Experiment

- The Tuskegee experiment was conducted between 1932 – 1972.
- At the time the study began, there was no known treatment for syphilis.
- After being recruited with the promise of free medical care, 600 men originally were enrolled in the project.
- The participants were primarily sharecroppers (from Macon County, Alabama) and many had never visited a doctor before.

Participants in the Tuskegee Syphilis Study.
(Credit: National Archives)

Sources: https://www.cdc.gov/tuskegee/timeline.htm and https://www.cdc.gov/tuskegee/index.html

The Tuskegee Experiment

- Doctors from the U.S. Public Health Service (USPHS), which was running the study, informed the participants:
  - 399 men diagnosed with latent syphilis
  - 201 men other were disease free (control group)

- USPHS worked with Tuskegee University, a historically Black university in Alabama for enrollment in this study.

- They were told they were being treated for bad blood, a term common for a number of ailments at that time.

Sources: https://www.cdc.gov/tuskegee/timeline.htm and https://www.cdc.gov/tuskegee/index.html

The Tuskegee Experiment

- The men were monitored by healthcare workers but only given placebos, despite the fact that penicillin became the recommended treatment for syphilis in 1947.
- USPHS researchers convinced local physicians in Macon County not to treat the participants.
- In order to track the disease's full progression, researchers provided no effective care as the men either:
  - Died
  - Went blind
  - Went insane
  - Or experienced other severe health problems due to untreated syphilis
- By 1972, 28 participants had died from syphilis, 100 more passed away from related complications, and at least 40 spouses had been diagnosed as well as 19 children born with congenital syphilis.

Sources: https://www.cdc.gov/tuskegee/timeline.htm and https://www.cdc.gov/tuskegee/index.html

Medical Mistrust

- Medical Mistrust = the tendency to distrust institutions of medicine, including personnel and clinicians, who represent the dominant culture:
  - As a result of the past and present discrimination and racial persecution, many medical conspiracy theories have evolved.
  - These theories further perpetuate medical mistrust.
- As more advanced medical technology is used, trust has become one of the foundations upon which our health system is built.
- Given patients are often in vulnerable positions, a lack of trust can lead to very poor outcomes.
- The presence of medical mistrust in the African-American community is a mixture of historical events (some of which have been shown), continued personal experiences, and the complex interplay of these two issues in addition to other socioeconomic factors.

Medical Mistrust and HIV

- In a community-based sample, 70% of African Americans believed that the government was hiding information and not telling the truth about the HIV epidemic.
- The belief that medical institutions use African Americans as "guinea pigs" for scientific research was a prevalent notion.
- This mistrust has led to 2 major HIV-related conspiracy theories (present in Latino, Asian, and white communities as well):

  1) The Genocidal Theory – notions that HIV is a man-made virus created and spread by the CIA (or any government agency) and that the cure is being held from the poor.

  2) The Treatment Theory – notions centered on the belief that the new medications of HIV actually progress the disease, causing people to get AIDS and those taking these new medications are guinea pigs for the government.

Sources: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4265931/ and https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(05)17875-1/fulltext

Medical Mistrust and HIV

- These beliefs have had a negative correlation in the African American community regarding condom use and HIV testing.
- Presence of these beliefs was a significant predictor of unprotected intercourse with HIV and unknown serostatus partners (Bogart et al., 2011).
- These beliefs and fundamental mistrust affects institutions promoting HIV prevention, detection, and treatment:
  - Decreasing the number of African Americans who get tested and further decreasing the number who are treated.

Source: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3029491/

Negative Effect of Stigma on LGBTQIA+ Community

STIGMA

- AIDS/HIV has been blamed on promiscuity within the gay community:
  - Was initially labeled GRID (gay-related immunodeficiency disease) and later AIDS (acquired immunodeficiency syndrome).
  - At that time, it was suggested that there was an inherent link between homosexuality and HIV acquisition.

- Misconception resulted regarding ***sexual promiscuity*** vs ***sexual practice*.**

- Most HIV infections are acquired through repeated sexual contact with an infected person:
  - Which implies some sort of relationship.

Sources: https://www.nytimes.com/1982/05/11/science/new-homosexual-disorder-worries-health-officials.html and https://npin.cdc.gov/pages/cdcs-hivaids-timeline#:~:text=1982,first%20case%20definition%20for%20AIDS.

Estimated Per-Act Probability of Acquiring HIV from an Infected Source, by Exposure Act*

Type of Exposure	Risk per 10,000 Exposures
Parenteral	
Blood Transfusion	9,250
Needle-Sharing During Injection Drug Use	63
Percutaneous (Needle-Stick)	23
Sexual	
Receptive Anal Intercourse	138
Insertive Anal Intercourse	11
Receptive Penile-Vaginal Intercourse	8
Insertive Penile-Vaginal Intercourse	4
Receptive Oral Intercourse	Low
Insertive Oral Intercourse	Low
Other^	
Biting	Negligible
Spitting	Negligible
Throwing Body Fluids (Including Semen or Saliva)	Negligible
Sharing Sex Toys	Negligible

Source: https://www.cdc.gov/hiv/risk/estimates/riskbehaviors.html

STIGMA

- Stigma: a mark of disgrace associated with a particular circumstance, quality, or person.

- Drastically decreases a person's motivation to get tested for HIV:
  - Compared to people who had been tested, individuals who were not tested for HIV demonstrated significantly greater AIDS-related stigmas; ascribing greater shame, guilt, and social disapproval to people with HIV.

Mental Health

Severe Mental Illness

- The prevalence of psychiatric disorders is relatively high among adults receiving care for HIV disease in the US.
- Severe Mental Illness (SMI) is the largest mental health risk, and SMI includes:
  - Schizophrenia
  - Schizoaffective disorder
  - Bipolar disorder
  - Major depression
  - Obsessive compulsive disorder
- Populations with SMI are very vulnerable to HIV; rates of HIV infection and transmission are 76 times higher than the general population.

Source: https://www.psychiatry.org/File%20Library/Psychiatrists/Practice/Professional-Topics/HIV-Psychiatry/FactSheet-SMI-2012.pdf

WHY High Risk?

- Drug Use
  - 5-20% have patient hx of intravenous drug use (IVDU)
  - 50-75% have some hx of alcohol or substance abuse
- Sexual Behavior
  - Increased rate of high-risk behaviors
    - Low rates of condom use
    - Buying and selling sex
    - Unknown status of sexual partner
    - Having partners with hx of IVDU
    - Multiple partners
    - Coerced sexual encounter
    - For women: violent and/or substance-induced sexual encounters
    - For men: same-sex sexual activity greater than general population
- Environmental Factors:
  - Being institutionalized in shelters or prisons with HIV is prevalent.

Source: https://www.psychiatry.org/File%20Library/Psychiatrists/Practice/Professional-Topics/HIV-Psychiatry/FactSheet-SMI-2012.pdf

Incarceration

Incarceration

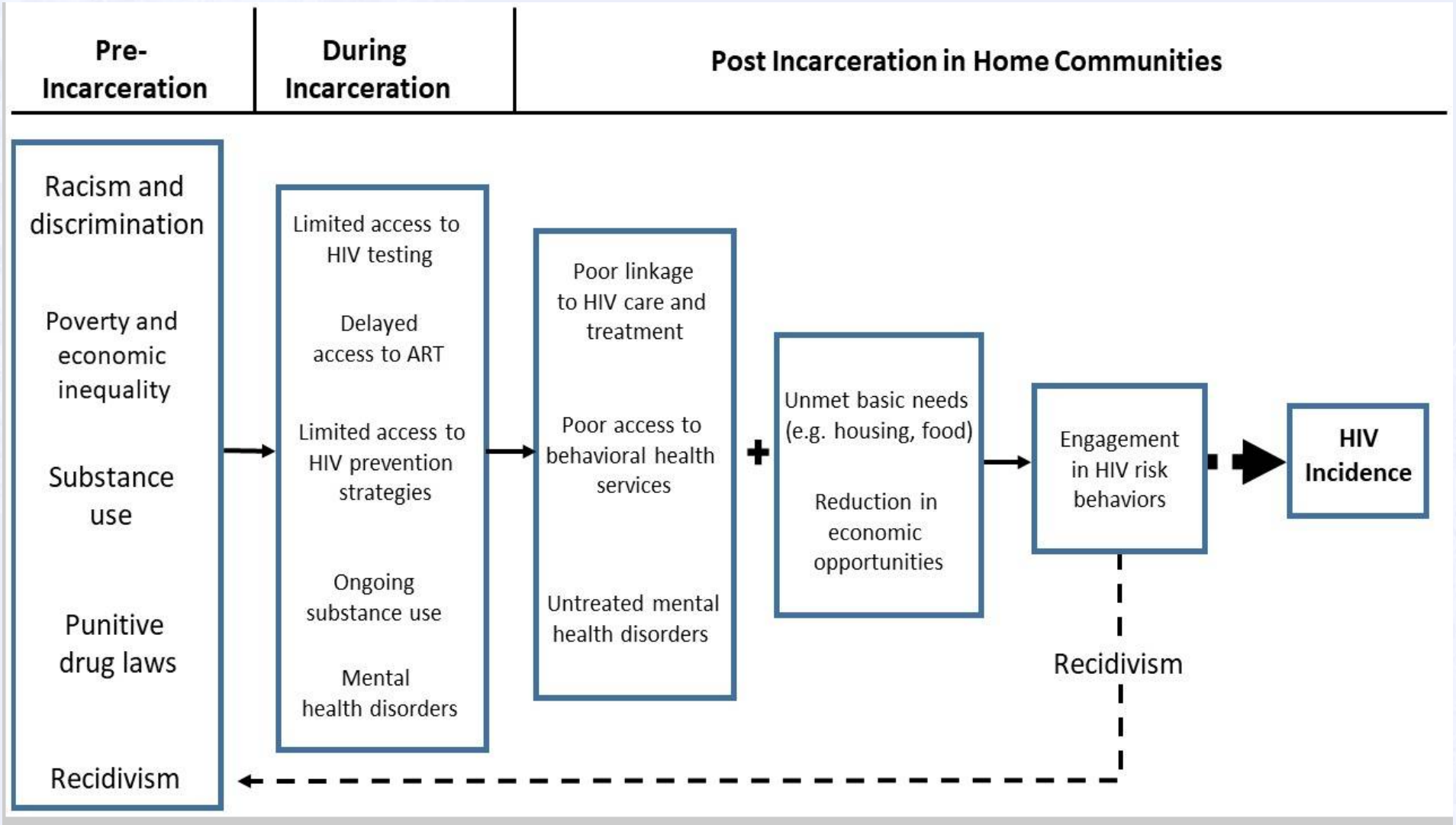
- People who are incarcerated have a disproportionately high risk of HIV infection.
- Risk factors include:
  - Under-utilization of antiretroviral therapy (ART) for those with known HIV infection and minimal access to pre-exposure prophylaxis (PrEP)
  - Mental illness
  - Poor access to care, and if access is present, limited access to updated and best-practice care
  - Substance abuse
  - Distrust of prison-based medical care
  - Consensual sex, rape, and tattooing
- In the US, the HIV prevalence among incarcerated individuals is 1.1% or more than 3 times higher than the general population.

Source: https://bjs.ojp.gov/document/hivp21st.pdf

Release

- Release from prison has been associated with increases in HIV RNA levels and decreased CD4 counts.
- There are notable challenges with engaging in medical care and adhering to ART while trying to reintegrate into society.
- Lack of discharge planning with minimal attempt to connect discharged prisoners with community resources.
- Higher rates of substance abuse, transactional sex and drug use, etc., due to increased rates of unmet basic needs like food and housing.

Source: https://www.hiv.uw.edu/pdf/key-populations/hiv-corrections/core-concept/all#:~:text=%5B24%2C28%5D%20Release%20from,trying%20to%20reintegrate%20into%20society.


Pre-Incarceration
During Incarceration
Post Incarceration in Home Communities
Racism and discrimination
Poverty and economic inequality
Substance use
Punitive drug laws
Recidivism
Limited access to HIV testing
Delayed access to ART
Limited access to HIV prevention strategies
Ongoing substance use
Mental health disorders
Poor linkage to HIV care and treatment
Poor access to behavioral health services
Untreated mental health disorders
Unmet basic needs (e.g. housing, food)
Reduction in economic opportunities
Engagement in HIV risk behaviors
HIV Incidence
Recidivism

Homelessness

Housing Instability

- In recent years, numerous HIV outbreaks have been identified among people experiencing homelessness.
- Homelessness and housing instability are linked to higher viral loads and failure to attain or sustain viral suppression.
- HIV patients with unstable housing have lower viral suppression rates (77.3% to 90.8%).
- Homelessness is associated with increased vulnerability for HIV acquisition

Source: https://www.cdc.gov/nchhstp/dear_colleague/2023/2023-04-hiv-homelessness.html#:~:text=The%20Health%20Resources%20and%20Services,versus%2090.8%25)%20clients%203.

The National HIV/AIDS Strategy for the United States (2022-2025) sets a bold target to decrease homelessness and housing instability for people with HIV by 50 percent.

Source: https://www.hiv.gov/federal-response/national-hiv-aids-strategy/national-hiv-aids-strategy-2022-2025

People with Disabilities

People with Disabilities

- The relationship between HIV/AIDS and disability is a cause for concern as persons with disabilities are at increased risk for HIV.
- Causes:
  - Existing HIV prevention, treatment, care, and support programs generally fail to meet their specific needs.
  - People with disabilities are often excluded from HIV education, prevention, and support services (assume no sexual interaction).
  - Sexual and reproductive health providers lack knowledge about disability issues.
  - Women and girls with disabilities are especially vulnerable to sexual assault or abuse.
  - Population is not included in HIV/AIDS stats or response efforts.

Source: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC9425723/

Rural Populations

Rural Areas

- Many social, environmental, and economic factors converge to cause barriers and challenges that complicate HIV/AIDS treatment and prevention.

- Some overarching factors include:
  - Poverty
  - Limited resources
  - Structural barriers

Unique Social Aspects of Rural Communities

- Stigma
- Privacy and lack anonymity
  - Because rural communities are small and tend to have close-knit social networks, it is difficult to seek HIV/AIDS resources privately
- Lack of Awareness
  - Lack of awareness of the prevalence of HIV in rural communities
  - Historically, the HIV epidemic was located primarily in urban centers
  - Prevalence often under-estimated, as individuals test in urban area move back to rural areas for family support

Physical Isolation, Low Population Density, and Persistent Poverty

- Lack of services:
  - Rural communities may not be able to sustain important services, such as public transportation and homeless shelters!!
- Lack of specialized service providers:
  - May lack healthcare providers who specialize in providing HIV care.
- Lack of Ryan White providers
- Low population density and HIV prevalence:
  - Low population density and low HIV density, make a high per person cost for having a rural HIV program to serve their patient population.
- Cost of treatment:
  - Cost of HIV treatment can be unaffordable for people who live on low incomes, especially if uninsured or unable to qualify for Medicaid.
- Insufficient internet access:
  - Rural and tribal areas still lag behind in broadband deployment, severely impacting access to critical health information and telehealth services.

OKAY…. So, what do we do?!

OKAY…. So, what do we do?!

How do we attempt to confront these issues?!

Address the Elephant…

Social Determinants of Health

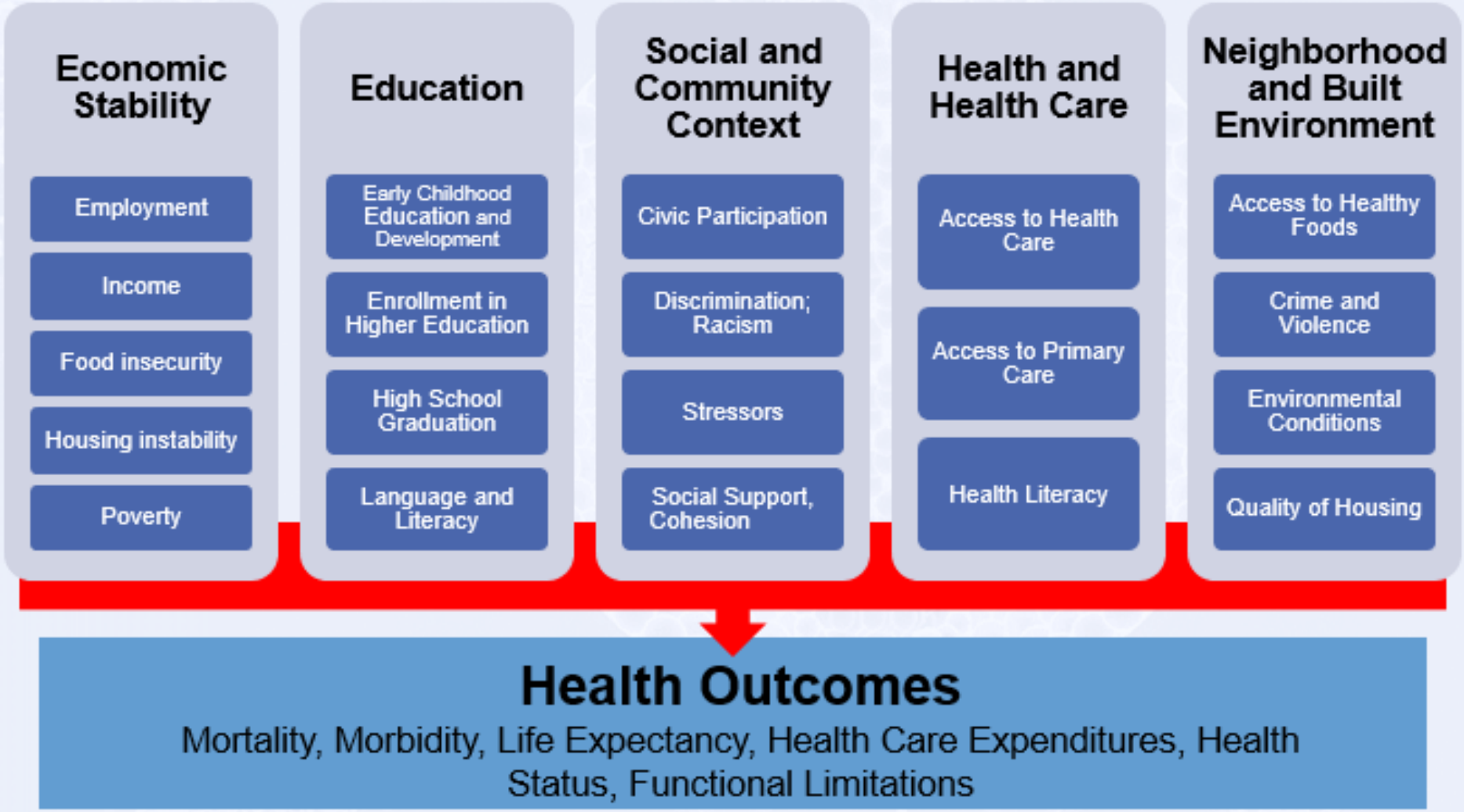
- Conditions in which people are born, grow, live, learn work and age that affect a wide range of health, functioning, and quality-of-life outcomes and risks.

- Include factors like socioeconomic status, education, neighborhood and physical environment, employment, social support networks, as well as access to healthcare.

- Improving the conditions in which we live, learn, work and play and the quality of our relationships will create a healthier population, society, and workforce.

Source: https://www.healthypeople.gov/2020/topics-objectives/topic/social-determinants-of-health

Social Determinants of Health



Source: https://www.kff.org
and https://www.healthypeople.gov/2020/topics-objectives/topic/social-determinants-of-health

People of Color

- Addressing medical mistrust among African Americans and other minorities to re-establish trust and credibility in the medical institutions should be first and foremost.
  1. Provide accurate details about past injustices
     - This will bring awareness to issues of medical mistrust
     - Culturally relevant education campaigns should address historical issues
  2. Acknowledge current cultural factors
     - Discrimination
     - Racism
     - Social stigma
     - Social determinants of health
  3. Educate
     - Government and public health agencies should have open discussion with African American communities and other minority communities
     - Promote transparency within the topic of HIV

LGBTQIA+ Community

- Address the STIGMA associated with HIV
- HIV education
- Offer LGBTQIA center Medical Care in addition to HIV treatment/prevention modalities
  - Anal pap smears for MSM
  - Transgender care, affirming medical treatments and surgeries
  - LGBTQIA-specific sexual education
  - Family recognition (counseling for coming out)
  - Breast cancer/cervical cancer screening for nulliparous women

Severe Mental Illness/Drug Abuse

- Identify the issue early:
  - Routine depression screening
- Provide access to mental health therapy and/or behavioral health therapy as well as psychiatry with reasonable turn-around time.
- Provide access to addiction medicine physicians and drug treatment programs.
- Offer these programs in addition to HIV treatment and prevention medications as well as providers.

Incarceration

- Provide quality medical care as well as access to HIV treatment and prevention modalities.
- Provide uniform “opt-out” HIV screening regularly, rather than high-risk targeted testing.
- Regulate tattoo parlors
- Access to condoms
- Facility-based needle exchange programs
- Well thought-out discharge planning prior to releasing inmates into the community, included disease treatment resources.
- Good news:
  - From 2017 to 2021, the number of males in state and federal prison who had HIV declined an average of 6% per year, while the number of females with HIV declined an average of 10% per year.
  - At year end 2021, about 1.1% of persons—1.2% of males and 0.9% of females—in state and federal prison were living with HIV.

Source: https://bjs.ojp.gov/document/hivp21st.pdf

Housing Instability and People with Disabilities

- Housing Instability
  - Assist with housing strategies
  - If not possible, there has been a lot of research dedicated to delivery of long-acting injectables for HIV treatment and prevention in the unhoused population.

- People with Disabilities
  - Provide inclusive services for those with disabilities regarding HIV treatment/prevention access.

Rural Populations

- Must address the intersectionality between community stigma, consequence of isolation, lack of financial resources, and all other barriers.

- These issues must be addressed all together to get success outcomes to improve overall HIV/AIDS treatment, management, and prevention!

MAJOR POINTS

- KNOW YOUR PATIENT POPULATION.
  - Know epidemiology of your community
  - Ask what your community needs
  - Assess barriers frequently
  - Involve your community in decisions and appropriate/targeted changes
- PROVIDE APPROPRIATE RESOURCES and SERVICES!!
- PROVIDE CONSISTENT and UP-TO-DATE EDUCATION!!

Building Access to HIV Prevention & Treatment: Current Issues & Approaches

The Conference Center at Central Penn College
April 18, 2024

Reaching Special Populations for HIV Prevention, Treatment & Care

Roundtable Activity #5

Darrell McBride, DO
Medical Director, Ryan White Program, Geisinger Medical Center
Clinical Assistant Professor of Medicine, Infectious Diseases
Regional Assistant Dean, Student Affairs
Geisinger Commonwealth School of Medicine

Quiz & Discussion

- Please use the paper and/or sticky notes provided to jot down your answers to the following questions.
- Afterwards, please discuss with your group about questions/concerns/comments you have on any of the topics discussed in this session.
- Assign a roundtable representative to ask the speaker any additional questions or offer comments.

Question #1

Which of the following is true of the Tuskegee experiment?

a) The Tuskegee experiment was conducted for 40 years.

b) For the duration of the study, there was no known treatment for syphilis.

c) After being recruited with the promise of free medical care, 600 men originally were enrolled in the project.

d) The participants were primarily sharecroppers (from Macon County, Alabama) and many had never visited a doctor before.

e) All of the above are true.

f) Only a, c, and d are true.

Question #2

Which of the following is NOT true:

a) According to one study, one in seven African Americans surveyed said they believed that AIDS was created by the government to control the Black population.

b) In the United States, the HIV prevalence among incarcerated individuals is approximately 11%.

c) Statistically significant research has indicated that greater belief in HIV conspiracies has been associated with a higher likelihood of reporting unprotected intercourse among African Americans with HIV.

d) HIV was initially labeled gay-related immunodeficiency disease, which had the adverse affect of inherently linking—via stigma—homosexuality and HIV acquisition.

Question #3

What is one thing you learned today that you did not know previously that will help you be more effective in your current position?

Question #4

What is one topic—discussed today or not—regarding HIV, AIDS, and related conditions for which you feel you still would benefit from additional insight and training?

Roundtable Activity #5

Regroup
Q & A

Certificate of Attendance and/or Continuing Education Credit Eligibility

- In order to be eligible for a **certificate of attendance** or **Nursing continuing education** credit, please complete the post-event evaluation packet found in the MAAETC folder provided at the beginning of the conference.
- Please return this post-event evaluation to one of the MAAETC staff (Kim, Ann, Lydia, or Tom) prior to leaving the conference.
- For those that signed in on the Social Work registration page, you will receive an evaluation via email that should be completed within 48 hours of the end of this conference in order to received Social Work continuing education credit.

Questions?

Thank you

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