

Prevention is Key: How to Prevent HIV Infections in At-risk Patients

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Introduction

- ▶ Jennifer A. Sobolik, CNP is a Certified Family Nurse Practitioner at the Community Health Center of the Black Hills, a Federally Qualified Health Center (FQHC) in Rapid City, South Dakota. She is the CNP for the Family Planning Program at CHCBH. In 2017, Jenn and her team started a new program to provide primary care for individuals living with HIV in the Black Hills Area. She is credentialed through the American Academy of HIV Medicine.
- ▶ Preferred Pronouns: She/her/her
- ▶ Just call me “Jenn”



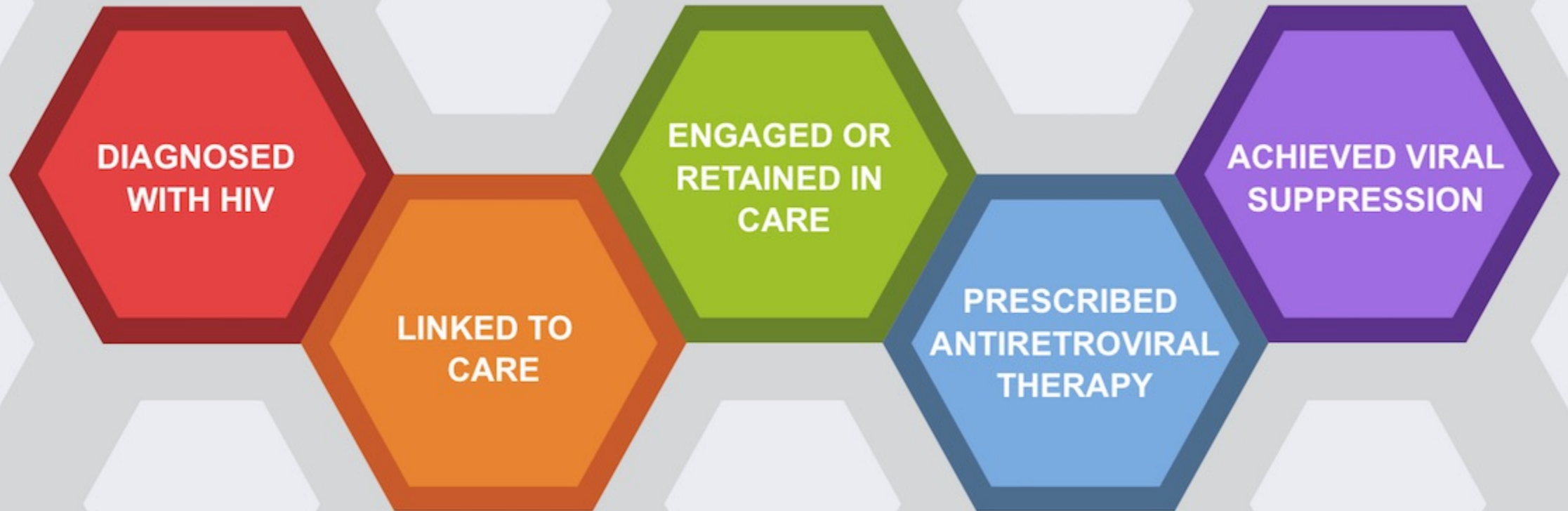
Disclosures

This project is supported by the Health Resources and Services Administration (HRSA) of the U.S. Department of Health and Human Services (HHS) under #u10HA29296, AETC Program, as part of an award totaling \$2,886,754 with 0% financed with non-governmental sources. This information or content and conclusions are those of the author and should not be construed as the official position or policy of, nor should any endorsements be inferred by HRSA, HHS or the U.S. Government.

Objectives

- Discuss the HIV Care Continuum
- Brief reviews of SD and ND HIV Statistics
- Review HIV Prevention Strategies
- Review definition of PrEP, its efficacy, risks and benefits
- Increase comfort with prescribing PrEP in Primary Care
- Identify the Signs and Symptoms of Acute HIV Infection
- Briefly discuss PrEP vs nPEP vs PEP

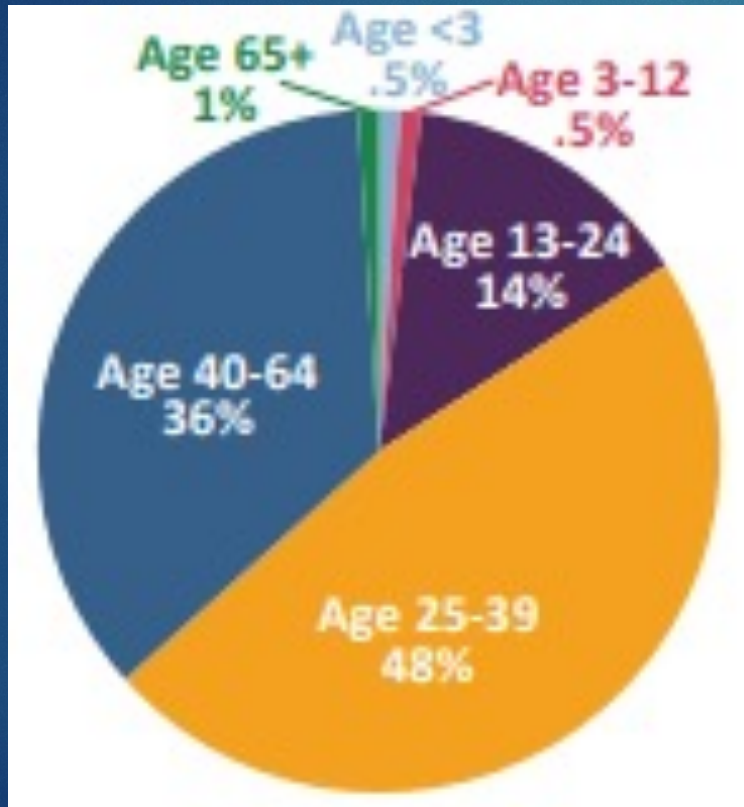
HIV CARE CONTINUUM



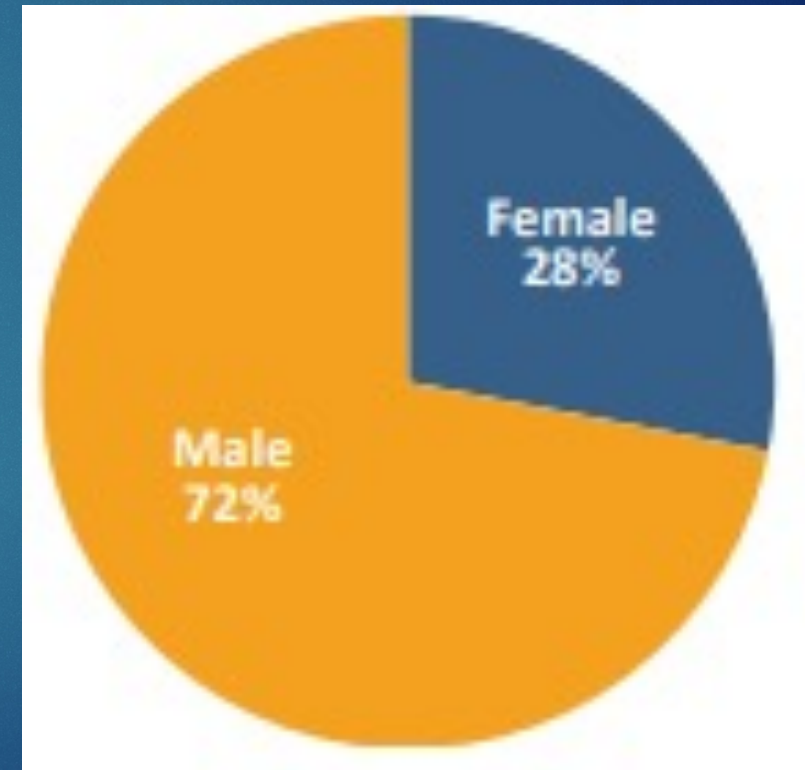
The series of steps a person with HIV takes from initial diagnosis through their successful treatment with HIV medication

Characteristics of Current South Dakotans Living with HIV and/or AIDs, as of December 31, 2020

AGE GROUP

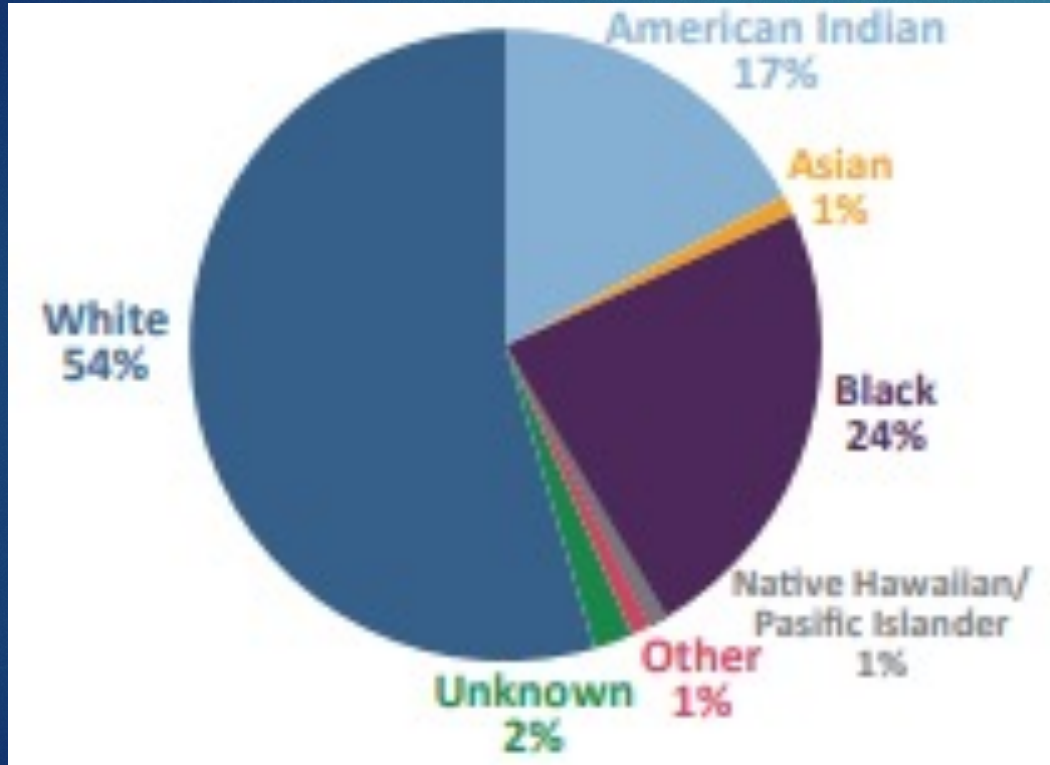


GENDER

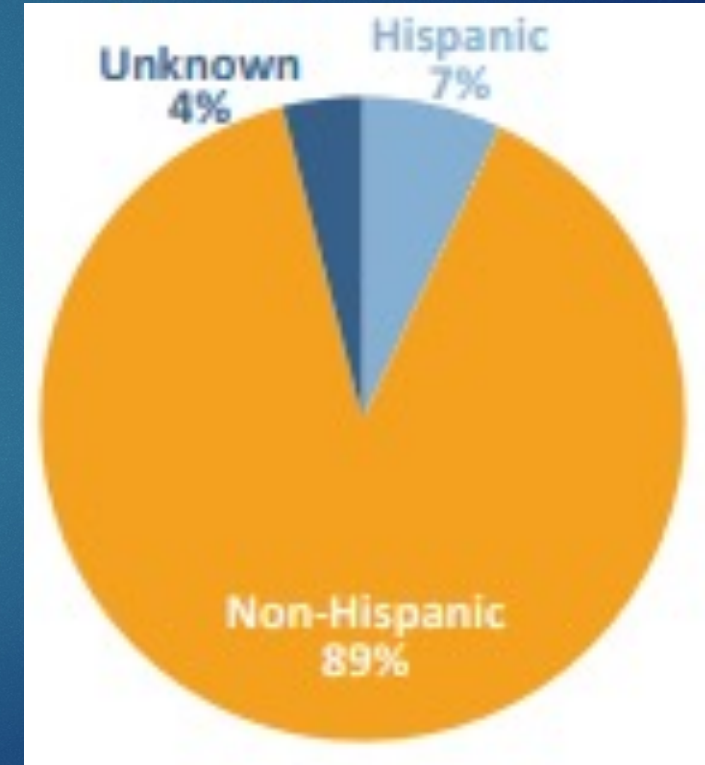


Characteristics of Current South Dakotans Living with HIV and/or AIDs, as of December 31, 2020

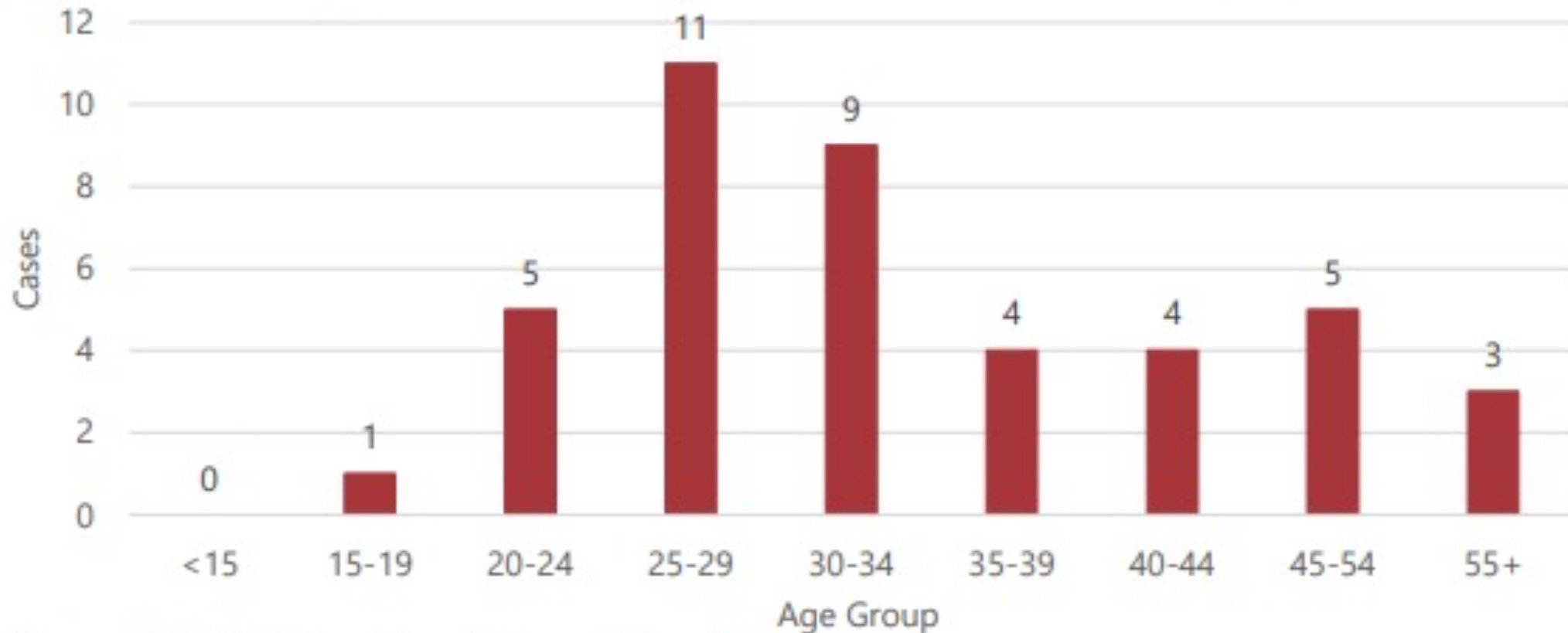
RACE



ETHNICITY

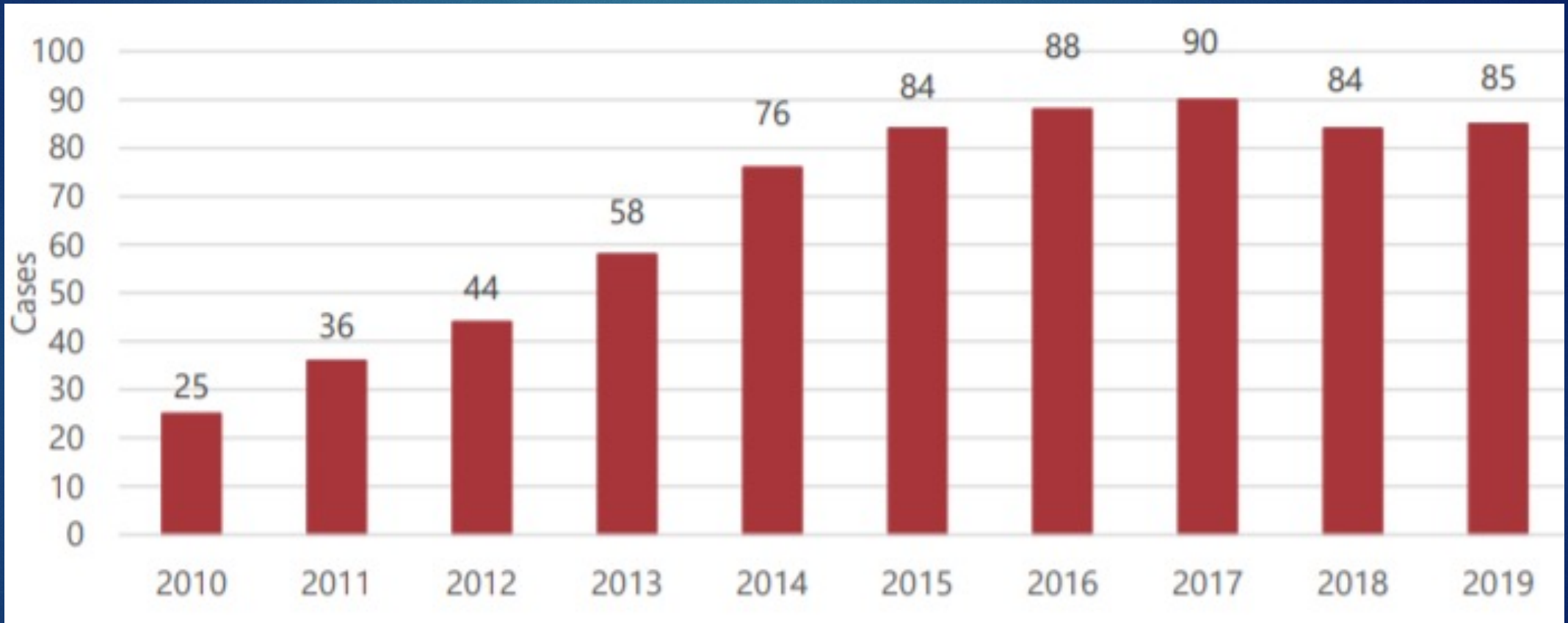


Cases Reported by Age 2015-2019



Source: NDDoH Division of Sexually Transmitted and Bloodborne Diseases

HIV/AIDS INCIDENCE, NORTH DAKOTA 2010 - 2019

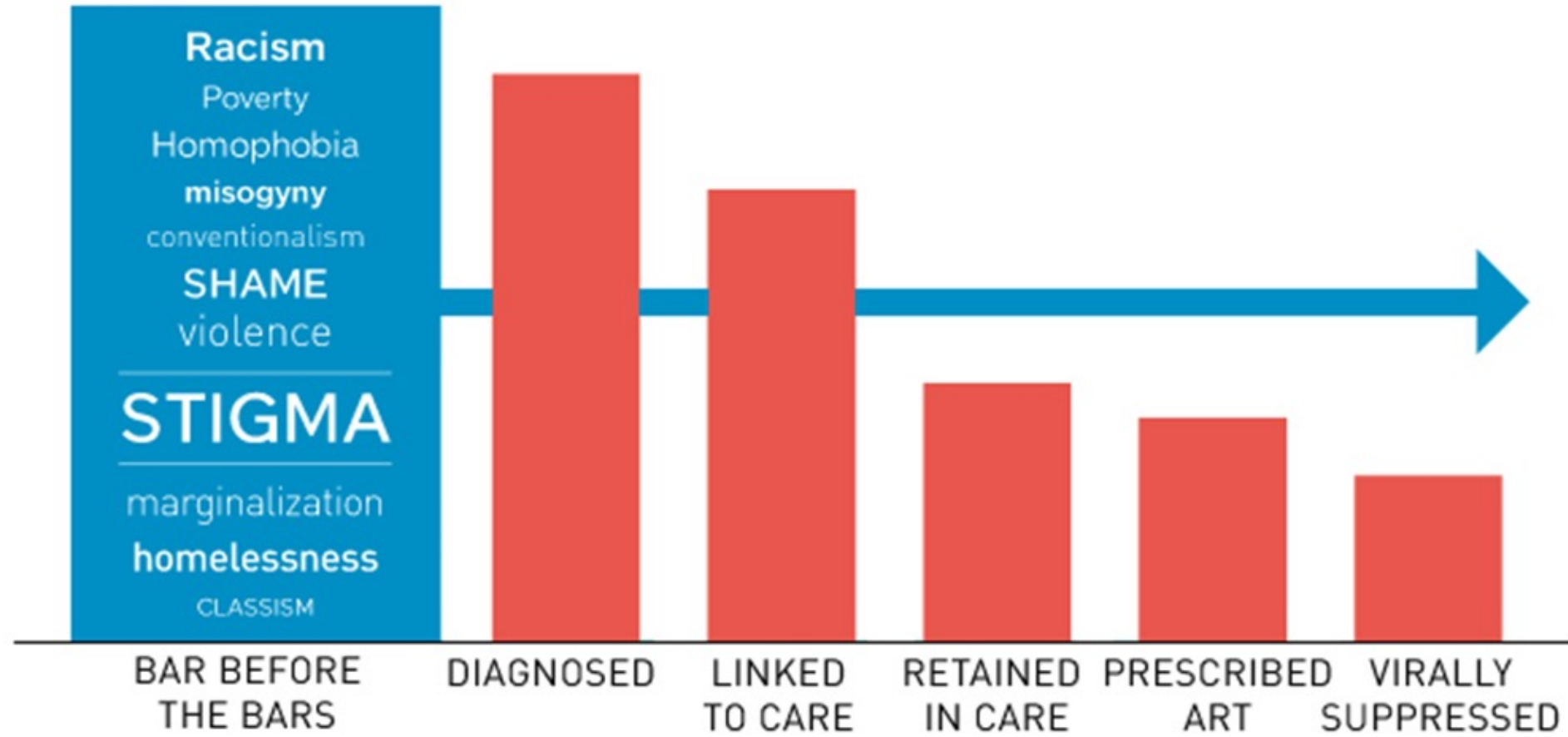


SD Residents Diagnosed with HIV, by gender, 2010-2020

►SOURCE: South Dakota
Department of Health, Office of
Disease Prevention Services –
2021 HIV Surveillance Report



Primary Care – the Key to Prevention



HIV Prevention Methods

- ▶ Safer sex education
- ▶ Needle exchange programs
- ▶ Condoms
- ▶ U=U
- ▶ PrEP – Pre-exposure prophylaxis
- ▶ nPEP – Nonoccupational post-exposure prophylaxis
- ▶ PEP – Post-exposure prophylaxis



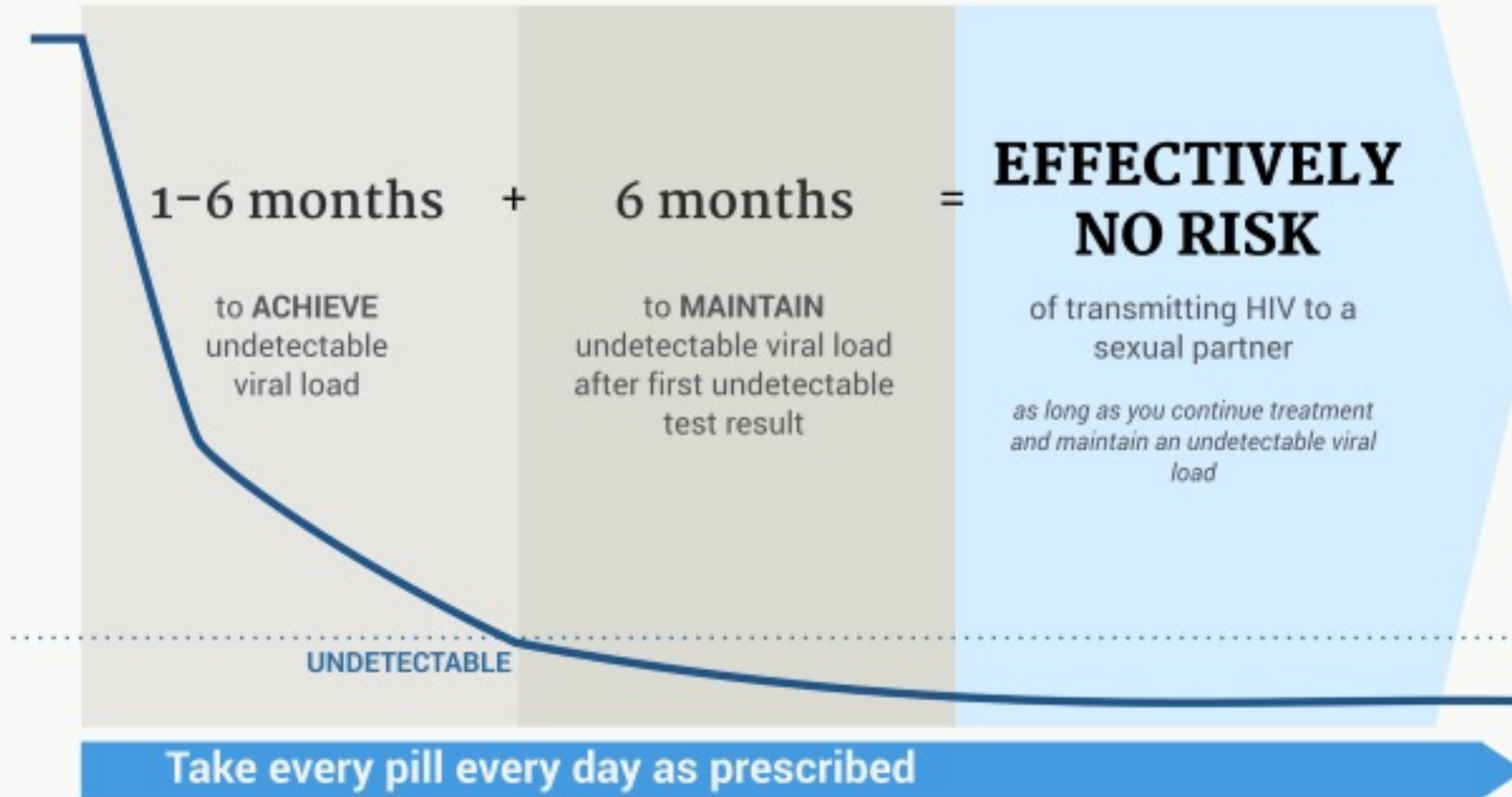
U=U

Treatment as Prevention

What is the Viral Load?

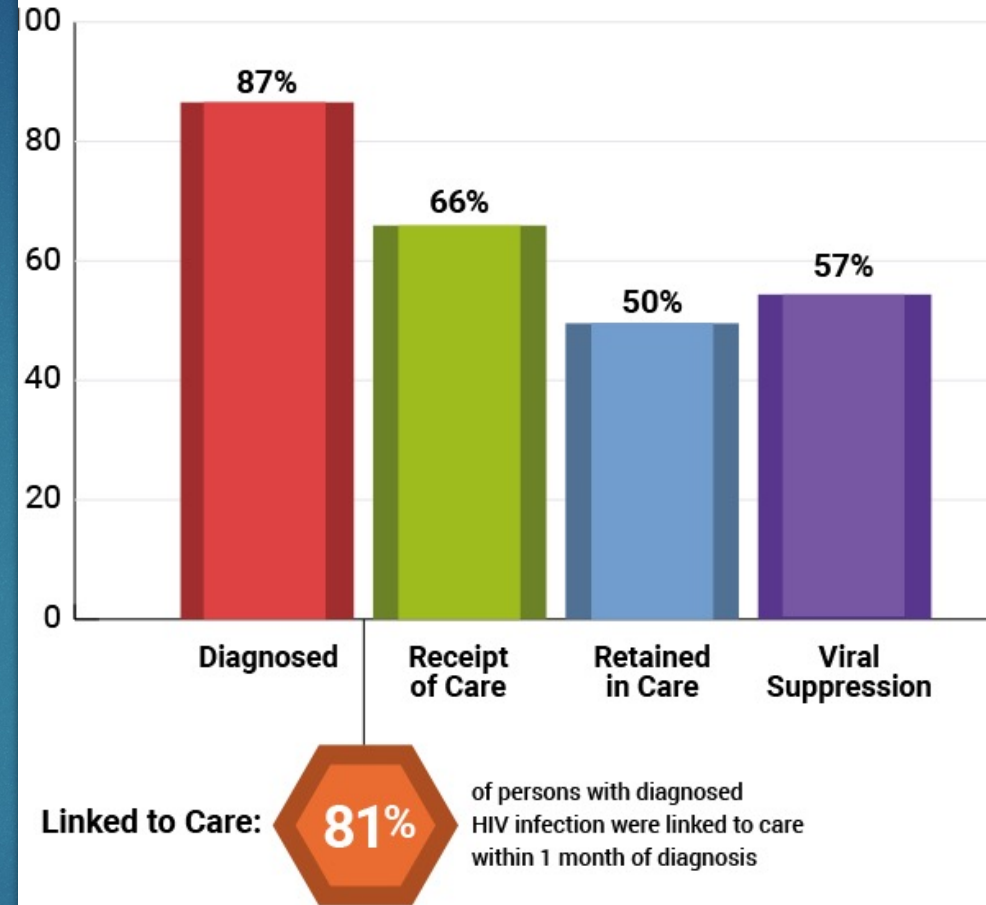
- The viral load is a measure of the number of HIV copies present in the sample.
- Expressed as copies per milliliter (copies/mL) For instance, a serum viral load of 50,000 copies/mL means that there are 50,000 HIV particles in each milliliter of serum

Added Benefit of HIV Treatment – It works for prevention!



Keeping Patients Living with HIV Engaged in Care is a Key to Prevention

Prevalence-based HIV Care Continuum, U.S. and 6 Dependent Areas, 2019



Note: Receipt of medical care was defined as ≥ 1 test (CD4 or VL) in 2019. Retained in medical care was defined as ≥ 2 tests (CD4 or VL) ≥ 3 months apart in 2019. Viral suppression was defined as < 200 copies/mL on the most recent test in 2019. Linkage to care is defined as having ≥ 1 CD4 or VL test within 30 days (1 month) of diagnosis. (Linkage is calculated differently from the other steps in the continuum, and cannot be directly compared to other steps.)

What is PrEP?

- ▶ Pre-exposure prophylaxis (PrEP) is the use of medications to prevent HIV infection in individuals who *have not yet been exposed to or infected with HIV.*
- ▶ Not appropriate if known exposure.

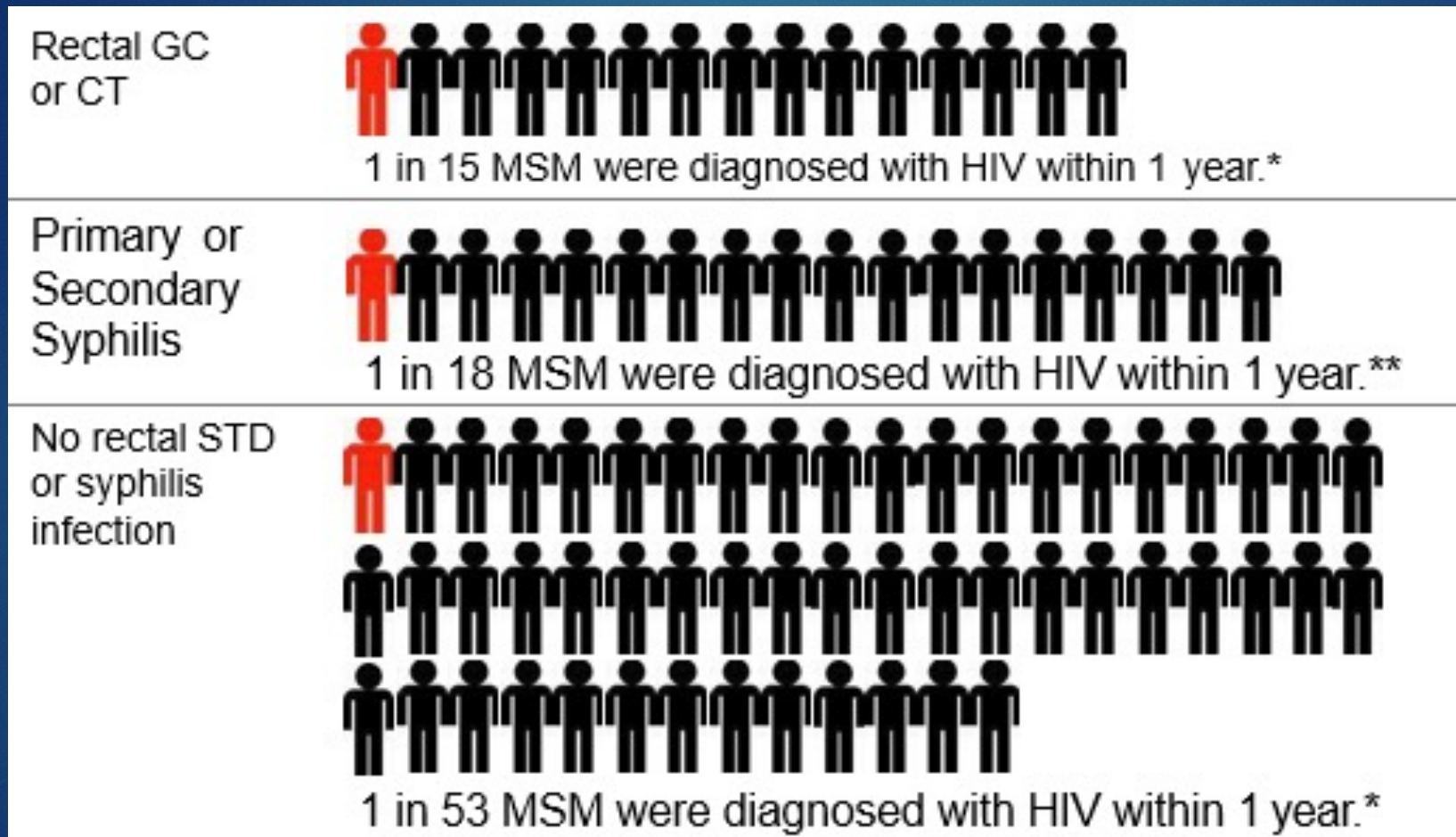
Step 1: Identify those at risk

- ▶ Take a detailed sexual health history
- ▶ Provider discomfort about sex is not an acceptable reason to omit this from history
- ▶ Ask about risky behaviors – IVDU, others
- ▶ Patients may disclose more over time as they become comfortable

CDC Recommendations for HIV Testing

- ▶ HIV testing is the STANDARD OF CARE with any STD check
- ▶ One-time testing for low-risk patients – Everyone age 13-64 as part of routine care
- ▶ Annual or more frequent testing for high-risk patients
 - ▶ IV Drug users
 - ▶ MSM (3-6 months)
 - ▶ Persons who exchange sex for money or drugs
 - ▶ Sex partners of HIV-infected individuals, IVDU, or bisexual
 - ▶ Pregnant Women
 - ▶ Recent treatment for an STD – Increases risk of acquisition by 3-5x

STDs Predict Future HIV Risk Among MSM



*STD Clinic Patients, New York City. Pathela, CID 2013:57;

**Matched STD/HIV Surveillance Data, New York City. Pathela, CID 2015:61

What's your lifetime risk of being diagnosed with HIV?



African American MSM

At current rates, 50% of African American men who have sex with men will be diagnosed with HIV in their lifetime.

It doesn't have to be this way. Now's the time to get educated, get tested, and prevent this from become a reality.

Source: CDC, February 2016



MSM Risk Index

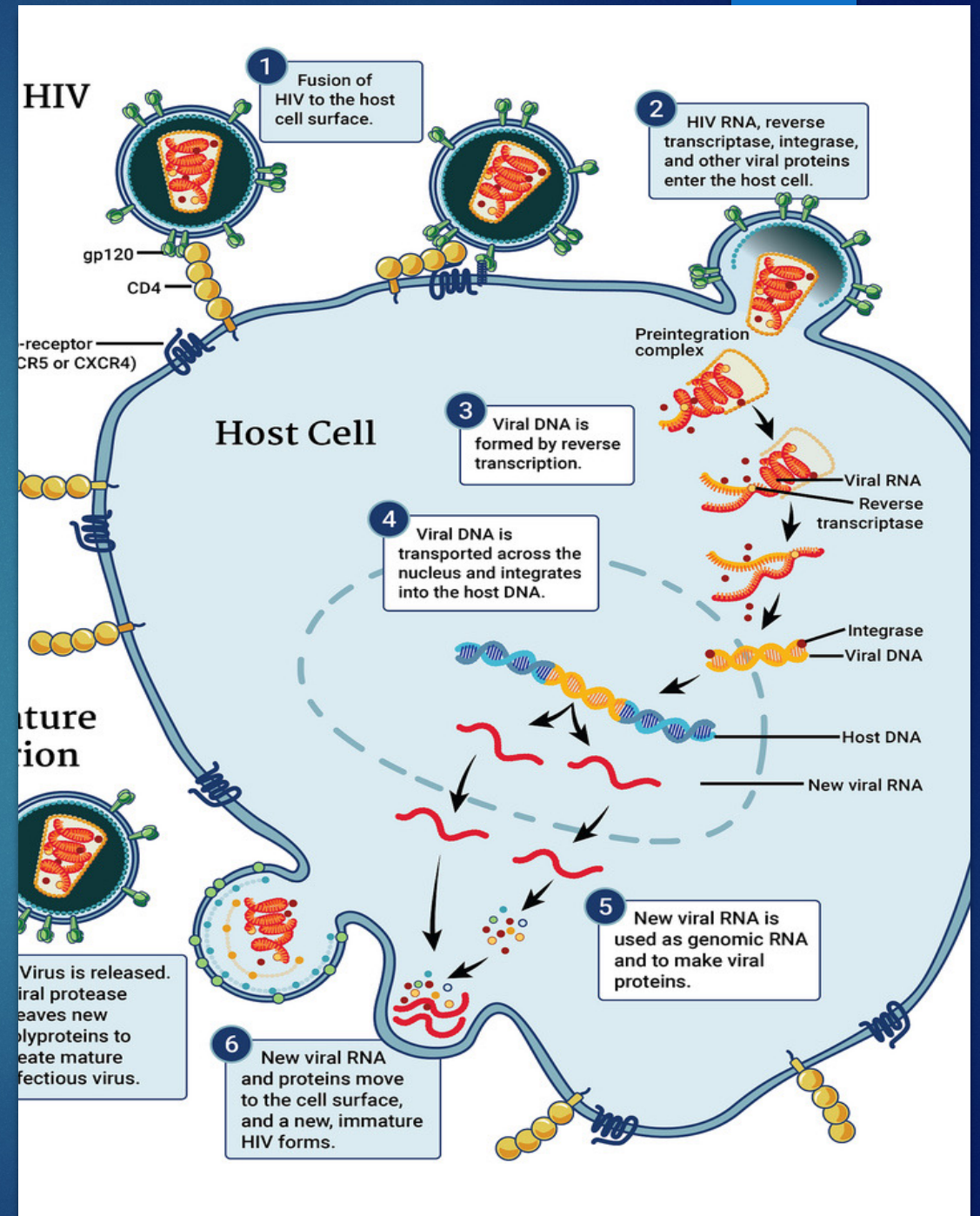
1	How old are you today?	If <18 years, score 0 If 18-28 years, score 8 If 29-40 years, score 5 If 41-48 years, score 2 If 49 years or more, score 0	_____
2	In the last 6 months, how many men have you had sex with?	If >10 male partners, score 7 If 6-10 male partners, score 4 If 0-5 male partners, score 0	_____
3	In the last 6 months, how many times did you have receptive anal sex (you were the bottom) with a man when he did not use a condom?	If 1 or more times, score 10 If 0 times, score 0	_____
4	In the last 6 months, how many of your male sex partners were HIV-positive?	If >1 positive partner, score 8 If 1 positive partner, score 4 If <1 positive partner, score 0	_____
5	In the last 6 months, how many times did you have insertive anal sex (you were the top) with a man who was HIV- positive when you did not use a condom?	If 5 or more times, score 6 If 0-4 times, score 0	_____
6	In the last 6 months, have you used methamphetamines such as crystal or speed?	If yes, score 6 If no, score 0	_____
		Add down entries in right column to calculate total score	_____
			TOTAL SCORE*

* If score is 10 or greater, evaluate for intensive HIV prevention services including PrEP.
 If score is below 10, provide indicated standard HIV prevention services.

SOURCE: Centers for Disease Control and Prevention

How Does PrEP Work?

Need to understand how HIV infects a human host



What meds work for PrEP?

- ▶ Two Medications available
 - ▶ Truvada – TDF/FTC- (Tenofovir disoproxil fumarate, Emtricitabine)
- ▶ Descovy –TAF/FTC (Tenofovir alafenamide, Emtricitabine)
 - ▶ *ONLY approved for those assigned male at birth*

TDF vs TAF // FTC

- ▶ TDF – Tenofovir disoproxil fumarate
 - ▶ Nucleoside/Nucleotide Reverse Transcriptase Inhibitor
- ▶ TAF – Tenofovir alafenamide
 - ▶ Nucleoside/Nucleotide Reverse Transcriptase Inhibitor
- ▶ FTC - Emtricitabine
 - ▶ Nucleoside/Nucleotide Reverse Transcriptase Inhibitor

Before you prescribe:

- Thorough health and sexual history
- Documented negative HIV test result
- No use of contraindicated medications
- Normal renal function
- Documented absence of HBV infection or immunity (i.e., successful vaccination)
- No signs/symptoms of acute HIV infection



fever



fatigue



headache



sore throat



swollen lymph
glands



short-term
nausea



muscular aches
and pain



rash



Acute HIV Infection

General Workflow

	Men Who Have Sex with Men	Heterosexual Women and Men	Injection Drug Users
DETECTING SUBSTANTIAL RISK OF ACQUIRING HIV INFECTION	<ul style="list-style-type: none"> • HIV-positive sexual partner • Recent bacterial STI • High number of sex partners • History of inconsistent or no condom use • Commercial sex work 	<ul style="list-style-type: none"> • HIV-positive sexual partner • Recent bacterial STI • High number of sex partners • History of inconsistent or no condom use • Commercial sex work • In high prevalence area or network 	<ul style="list-style-type: none"> • HIV-positive injecting partner • Sharing injection equipment • Recent drug treatment (but currently injecting)
CLINICALLY ELIGIBLE	<ul style="list-style-type: none"> • Documented negative HIV test result before prescribing PrEP • No signs/symptoms of acute HIV infection • Normal renal function; no contraindicated medications • Documented hepatitis B virus infection and vaccination status 		
PRESCRIPTION	Daily, continuing, oral doses of TDF/FTC (Truvada), \leq 90-day supply		
OTHER SERVICES	Follow-up visits at least every 3 months to provide the following: <ul style="list-style-type: none"> • HIV test, medication adherence counseling, behavioral risk reduction support, side effect assessment, STI symptom assessment • At 3 months and every 6 months thereafter, assess renal function • Every 6 months, test for bacterial STIs 		
	Do oral/rectal STI testing	Assess pregnancy intent; Pregnancy test every 3 months	Access to clean needles/syringes and drug treatment services

►HIV testing

■ How should I test for HIV?

Test everyone ages 13+!

Use ICD-10 code Z11.4.

* Order this lab for most people: HIV 4th generation antibody + antigen test

For recent risk of exposure in the last month:
HIV RNA PCR test (HIV viral load)

* Offer as a normal part of labs:

"We test everyone's cholesterol, sugars, liver, kidneys and for HIV." Or: "It looks like we need to check your cholesterol and sugars again, but we haven't checked HIV yet. The HIV test is a normal part of health screening for everyone. I'm going to add it to your labs. OK?"

(*Be sure to mention you are ordering an HIV test so the patient is informed and has the chance to opt out.)

■ How do I interpret 4th gen HIV test results?

HIV Ab/Ag non- reactive: negative for HIV (2-3 week window period from exposure)	HIV Ab/Ag reactive & HIV1/2 diff reactive: chronic infection call linkage coordinator, offer rapid ART	HIV Ag only reactive & HIV1/2 neg + RNA detected: acute infection call linkage coordinator, offer rapid ART	HIV Ab/Ag reactive & HIV1/2 neg & RNA neg: negative likely false pos Ab result but if high risk, check HIV2 DNA
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■ How do I disclose a positive result?

1. Call your HIV linkage coordinator as soon as you see the result to coordinate a warm-handoff to HIV care.
2. Call the patient for an in-person visit to discuss lab results. Disclose in-person ideally the same day as the confirmed result, and when not possible, aim to disclose and provide ART within 5 working days.
3. When the patient is sitting, calmly and neutrally let them know.
"Your lab results show that you have HIV." Give them a few moments and listen.
"Would you be willing to share your thoughts, feelings or questions about this?"
Listen, address concerns: "We have really good treatment to help you live as long and healthy as possible. May I introduce you to (your HIV linkage coordinator)? They will help answer questions and connect you with HIV care."

►Rapid ART: immediate HIV treatment

Rapid ART increases retention in care and viral load suppression. Disclosure and an ART Rx the same day as confirmed diagnosis is ideal, but when not possible, aim for within 5 working days.

1. New diagnosis with confirmed labs: contact HIV linkage coordinator ASAP to schedule disclosure, with same-day warm hand-off to HIV intake, education and medical visit.

2. Obtain baseline labs as soon as possible: If not done before first HIV visit, can be done the same day the ART Rx is written.

Baseline labs (priority): HIV 4th gen if only rapid test result; HIV RNA PCR viral load, HIV genotype, CD4 (Quest lymphocyte panel 4), CBC, CMP, hep B sAg/sAb/cAb, hep C Ab w/ reflex, UA, GC/CT (exposed sites), RPR.

Lower priority: HLA B57:01, hep A IAb, QFT TB, non-fasting lipids, IgA1C, VZV IgG, toxo IgG.

3. Perform a brief, targeted medical history and exam: check for previous ART, PrEP, PEP use, sexual/IDU exposures, comorbidities, meds, allergies, opportunistic illness symptoms.

4. Offer an ART prescription: choose one of preferred regimens:

Tivicay® + Truvada® (or Descovy®): dolutegravir 50 mg + tenofovir/emtricitabine, 1 pill each PO daily

Or **Biktarvy® (bictegravir/tenofovir/emtricitabine)** 1 pill PO daily

Or **Symtuza™ (daranavir/cobicistat/emtricitabine/tenofovir AF)** 1 pill PO daily

Or for those who could become pregnant, use: **Isentress® + Truvada®:** Raltegravir 2x600 mg + tenofovir/emtricitabine, 3 pills total PO daily

5. Follow-up labs and meds in 5-7 days.

►PEP: HIV Post-Exposure Prophylaxis

PEP should be started within 72 hours of exposure; the sooner, the better.

1. Assess risk for HIV. High risk—offer PEP: condomless receptive anal or vaginal sex, sharing needles. Consider PEP for: condomless insertive anal or vaginal sex.
2. Screen for acute HIV infection: if they have fevers, flu-like or mono-like sx's, rash, sore throat, order HIV viral load.
3. Get a rapid HIV test, serum 4th gen HIV test, +/-HIV viral load, CMP, STI tests based on exposures.
4. If appropriate, prescribe 28-days of PEP. Preferred regimens include:

Truvada® (tenofovir DF/emtricitabine) + Tivicay® (dolutegravir), 1 pill each PO daily

Or **Biktarvy® (bictegravir/tenofovir/emtricitabine)** 1 pill PO daily

Or for those who could become pregnant, use Isentress+Truvada regimen listed above

(click on med name for drug assistance programs)

5. Repeat HIV 4th gen test in 6 and 12 weeks.

6. Offer PrEP if on-going risks.

►PrEP: HIV Pre-Exposure Prophylaxis

■ Candidates for PrEP: anyone requesting PrEP, has condomless anal sex, injects drugs, has recent STIs, or HIV+ partners

■ Recommended PrEP regimen:

Truvada®:

Tenofovir^{1,2} (300 mg) PO Daily + Emtricitabine^{1,2}(200 mg) PO once daily



Do not use Descovy®

1. Truvada side effects: headache, insomnia, nausea, vomiting, diarrhea, rash. Usually resolve in a month. Also active against Hep B, so beware of Hep B flare when stopping. Precautions also in chronic kidney disease and with nephrotoxic meds. (Renal dysfunction seen in 1-2% of patients).

2. Further information about drug interactions: hiv-druginteractions.org

■ Contraindications:

- **Absolute:** acute or chronic HIV infection (Rx ART), estimated GFR<60 by serum creatinine, unwilling to take daily meds or have lab follow-up.
- **Relative:** HSV with ulcers/transaminitis (refer to specialist), osteoporosis or history of fragility fracture.

■ Time to achieve protection:

- **7 days in rectal tissue** (anal receptive intercourse).
- **20 days in penile and cervico-vaginal tissue** (anal insertive and vaginal intercourse).
- **20 days in blood** (IDU).

■ First visit:

- ☐ Evaluate for exposures in the last 72 or so hours and need for PEP (post-exposure prophylaxis)
- ☐ Evaluate for appropriateness for PrEP: discuss efficacy, side effects, support for and importance of adherence, insurance coverage and support for continuity, plan for refills and follow-up.
- ☐ Labs: BMP, 4th gen HIV test, GC/CT (throat, rectal, urine), RPR, UPrep, HepB sAg, sAb, cAb, HCV Ab.
- ☐ If symptoms of acute HIV infection in past month (fever, flu- or mono-like symptoms, rash, sore throat), get HIV viral load (positive at 10 days). Do not start PrEP unless viral load neg.
- ☐ If HIV test neg and no symptoms of acute HIV infection, write rx for 1-month supply, no refill.

■ 1-month follow-up visit:

- ☐ Evaluate adherence and side effects. Rx for 2-month supply, no refill.

■ Follow-up visit every 3 months:

- ☐ 4th gen HIV test, GC/CT (throat, rectal, urine), UPrep, RPR, BMP (BMP can be Q6 months).
- ☐ Refill for 3-month supply only if HIV test negative; refer to immediate linkage to care if HIV test positive.
- ☐ At every visit assess for adherence, side effects, exposures (number of partners, anal/vaginal insertive/receptive exposures, condom use, drug use), desires around sexual wellness and continued PrEP use.
- ☐ Counsel to return for HIV test if off of PrEP for > 1 week and had possible exposure.

■ Every 12 months:

- ☐ Hepatitis C screen, U/A (check for +protein), evaluate continued desire/need for PrEP.

Reference: Preexposure Prophylaxis for the Prevention of HIV Infection in the United States – 2017 Update: a Clinical Practice Guideline. Available at cdc.gov/hiv/guidelines/preventing.html

QUESTIONS? NEED HELP?

In the Pacific Region (Arizona, California, Hawaii, and Nevada) request free training and technical assistance from Pacific AETC: paetc.org, call 415-476-6153, or email paetc@ucsf.edu.

Outside the Pacific Region contact the AETC National Coordinating Resource Center.

National HIV Consultation Line for HIV testing and case/treatment questions: 800-933-3413

You can reach a live consultant 6 am-5 pm PST, M-F (voicemail available after hours) or submit consultation

After you prescribe:

- 1 month follow-up after initial Rx
- Rx for 90 days every 3 months
- HIV test every 3 months
- Check CMP and STIs at each visit
- Counsel regarding risk factors
- Link into primary care if not already done

Clinical Measure:

Patients prescribed combinations of emtricitabine (FTC) and tenofovir disoproxil fumarate (TDF) or tenofovir alafenamide (TAF) during the reporting year for PrEP.

Evaluation and Management (E/M) services (CPT codes):

- 99201-99205 (New Patient)
- 99211-99215 (Established Patient)

Prevention Counseling - Individual Setting (CPT codes):

- 99401 (15 minutes)
- 99402 (30 minutes)
- 99403 (45 minutes)
- 99404 (60 minutes)

Z20.2

Contact with and (suspected) exposure to infections with a predominantly sexual mode of transmission

Z11.4

Encounter for screening for human immunodeficiency virus

Z11.3

Encounter for screening for infections with a predominantly sexual mode of transmission

Z20.6

Contact with and (suspected) exposure to HIV

Z72.5

High risk sexual behavior

nPEP

- ▶ Non-occupational post-exposure prophylaxis
 - ▶ Use of ARV medications after a single high-risk exposure – sexual assault, etc
 - ▶ Start ASAP
 - ▶ Always within 72 hours

PEP

- ▶ PEP Consult for Clinicians – 1-888-448-4911
 - ▶ 0900-0200 ET
 - ▶ National Clinicians Consultation Center nccc.ucsf.edu
- ▶ Post-exposure prophylaxis
 - ▶ Use of ARV medications after a single high-risk exposure – needle stick, etc
 - ▶ Start ASAP
 - ▶ Always within 72 hours

Helping Clients Pay for PrEP in the Dakotas

**Tuesday, October 5th, 2021
12 PM - 1PM CST; 11 AM - 12 PM MDT**

Learning Objectives

1. Discuss PrEP prescribing and implementation
2. Discuss best practices and lessons learned for PrEP prescribing in South Dakota.

Intended Audience

- Healthcare providers and leaders who currently offer PrEP, want to offer PrEP or are seeking more information about PrEP.
- HIV Prevention Staff and Managers who work with PrEP-eligible clients from Health Departments, Clinics, and CBOs in South Dakota and North Dakota

CEUs

For information about continuing education credit that will be available, contact Katelyn Mason

Register at: <https://bit.ly/3iUYuPy>

Please send any questions to Katelyn Mason:
katelyn.mason@wustl.edu

Resources

- ▶ AIDS Info: <http://www.aidsinfo.nih.gov>, <http://www.aids.gov>
- ▶ Centers for Disease Control and Prevention: <https://www.cdc.gov/sexualhealth/>
- ▶ The National Network of STD/HIV Prevention Training Centers: <http://nnptc.org/>
- ▶ The AIDS Education Training Centers National Resource Center: <http://www.aids.ed.org>
- ▶ The Addiction Technology Transfer Center Network: <http://www.attcnetwork.org>
- ▶ SD Department of Health: <http://doh.sd.gov/diseases/infectious/HIV-AIDS/Prevention.aspx>

- ▶ PrEP Consultation Service for Clinicians: 1-855-448-7737 | 11am-6pm ET | Monday-Friday
- ▶ For more information on the services offered through the PrEPline, visit the National Clinician Consultation Center <http://nccc.ucsf.edu>