



Preventing HIV Infections among Men in the United States

NBNA Men's Health Committee

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Learning Objectives

By the end of this workshop participants will be able to:

1. Discuss the factors that influence the current trends in HIV infections among the male population?
2. Discuss the evidence based biomedical interventions have been effective in reducing HIV infections?
3. Discuss what PrEP is and how it is used to prevent HIV.
4. Review and discuss the key strategies of the End the HIV Epidemic: A plan for America?

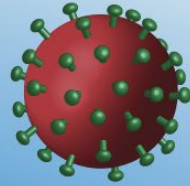
Overview of HIV in America

- **General population in 2017**
 - **38,739** people received an HIV diagnosis
 - The annual number of HIV diagnoses declined 5% between 2011 and 2015
- **Gay and bisexual men (Most Affected)**
 - Gay and bisexual men = 67% (26,570), and 83% of diagnoses among males
 - **Black/African American men =10,223, Hispanic/Latino = 7,425,**
- **Heterosexuals and IDU's**
 - Heterosexual contact accounted for 24% (9,578) of HIV diagnoses
 - Women accounted for 19% (7,529) of HIV diagnoses
 - 87%, or 6,541 (heterosexual), and 12%, or 939 IDU
 - IDU accounted for 9% (3,425) of HIV diagnoses

HIV (Human Immunodeficiency Virus)

- It is a virus that attacks the human immune system.
- There is no cure.
- If not treated it can lead to **Acquired Immunodeficiency Syndrome** or **AIDS**.

HIV and AIDS: What's the difference?

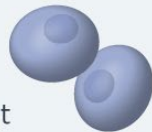


HIV

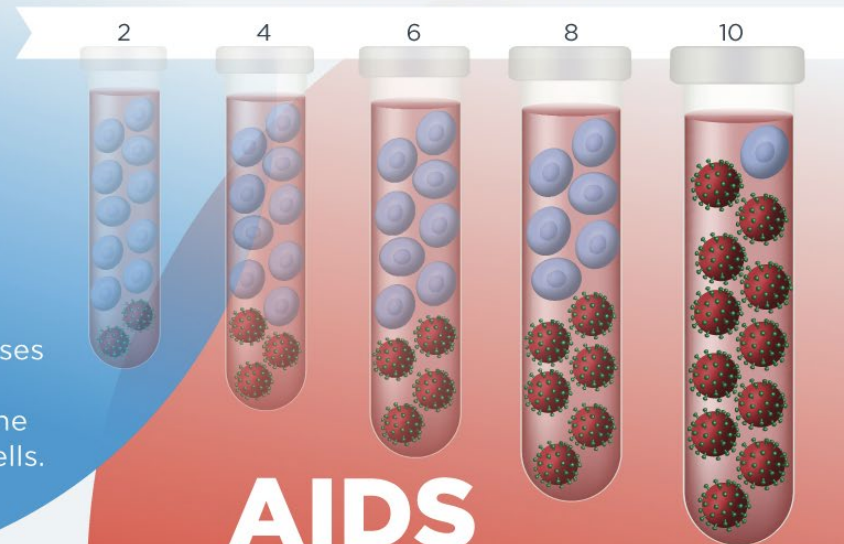
- HIV is the virus that causes HIV infection.
- HIV damages the immune system by killing CD4 cells.

CD4 Cells

- CD4 cells are part of the immune system.
- HIV attacks and kills CD4 cells.
- Loss of CD4 cells makes it hard for the body to fight off infections.



Years without HIV medicines



AIDS

- AIDS is the last stage of HIV infection.
- As HIV infection advances to AIDS, the amount of HIV in the body increases and the number of CD4 cells decreases.
- HIV medicines can stop HIV infection from advancing to AIDS.
- Without HIV medicines, HIV advances to AIDS in about 10 years.

For more information, visit [AIDSinfo](https://aidsinfo.nih.gov)

HIV Transmission

Transmitted By:

- Sexual contact
- Sharing needles
- Maternal

Not Transmitted By:

- Air/Water
- Saliva, sweat, tears, or closed-mouth kissing
- Insects or pets
- Sharing toilets, food or drinks

HIV Transmission

HIV 101

Without treatment, HIV (human immunodeficiency virus) can make a person very sick and even cause death. Learning the basics about HIV can keep you healthy and prevent transmission.

HIV CAN BE TRANSMITTED BY



Sexual Contact



Sharing Needles to Inject Drugs



Mother to Baby During Pregnancy, Birth, or Breastfeeding

HIV IS NOT TRANSMITTED BY



Air or Water



Saliva, Sweat, Tears, or Closed-Mouth Kissing



Insects or Pets



Sharing Toilets, Food, or Drinks

You can safely share

a desk



a toilet



dishes



a hug



a handshake



with someone who has HIV.

For more information, visit [AIDSinfo](https://aidsinfo.nih.gov)

<https://www.cdc.gov/hiv/basics/whatisshiv.html>

<https://aidsinfo.nih.gov/understanding-hiv-aids/infographics/10/you-can-safely-share---with-someone-with-hiv>

Protection against HIV

- Testing
- Condoms
- Limit sexual partner and activities
- Avoid injecting drugs, don't share needles, or injection equipment
- Pre-Exposure Prophylaxis (PrEP)
- Post- Exposure Prophylaxis (PEP)
- STI screening and treatment

Living with HIV

- Engage in HIV care
- Take HIV medicine as prescribed
- Use condoms and talk to partner about PrEP
- STI screening and treatment

HIV Burden in the United States

- Over 1.1 million people are living with HIV in the United States.
- African-Americans (AA) account for 44% of new infections.
- Gay and bisexual men or men who have sex with men (MSMs) account for the majority of people living with HIV and over four-fifths of new HIV infections.
- In 2016, there were 15,807 deaths among people with diagnosed HIV in the United States. These deaths may be due to any cause.

HIV in the United States and Dependent Areas

OF THE 38,739 NEW HIV DIAGNOSES IN THE US AND DEPENDENT AREAS IN 2017:*

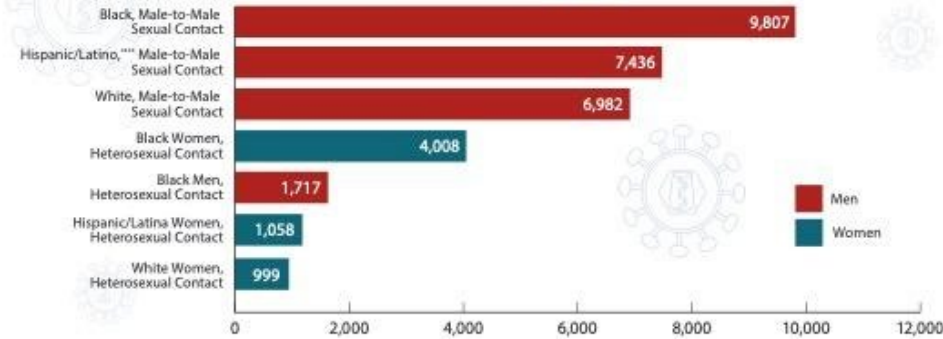
25,748 (66%) WERE AMONG GAY AND BISEXUAL MEN**

9,170 (24%) WERE AMONG HETEROSEXUALS***

2,389 (6%) WERE AMONG PEOPLE WHO INJECT DRUGS (PWID)**

1,252 (3%) WERE AMONG GAY AND BISEXUAL MEN WHO INJECT DRUGS

New HIV Diagnoses in the US and Dependent Areas for the Most-Affected Subpopulations, 2017



From 2012 to 2016, HIV diagnoses in the US and dependent areas:



* American Samoa, Guam, the Northern Mariana Islands, Puerto Rico, the Republic of Palau, and the US Virgin Islands.
 ** Does not include gay and bisexual men who reported injection drug use.
 *** Does not include heterosexuals who reported injection drug use.
 **** Hispanics/Latinos can be of any race.

National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention
 Division of HIV/AIDS Prevention



People with HIV need to know their HIV status so they can take medicine to treat HIV. Taking HIV medicine as prescribed can make the level of virus in their body very low (called viral suppression) or even undetectable.

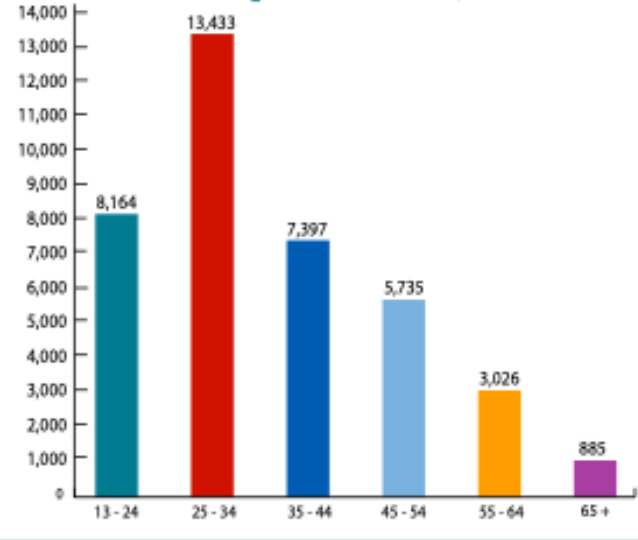


A person with HIV who gets and stays virally suppressed or undetectable can stay healthy and has effectively no risk of transmitting HIV to HIV-negative partners through sex.

AT THE END OF 2015, AN ESTIMATED
1,122,900
 PEOPLE HAD HIV.*

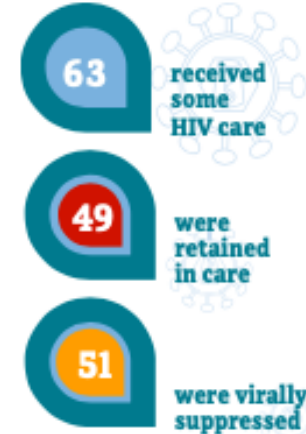
6 in 7
 KNEW THEY HAD THE VIRUS.

New HIV Diagnoses by Age in the US and Dependent Areas, 2017



* In just the 50 states and District of Columbia.

FOR EVERY 100 PEOPLE LIVING WITH HIV IN 2015:†



Reduce Your Risk

- Not having sex
- Using condoms
- Not sharing syringes
- Taking medicine to prevent or treat HIV



HIV IS A VIRUS THAT ATTACKS THE BODY'S IMMUNE SYSTEM.

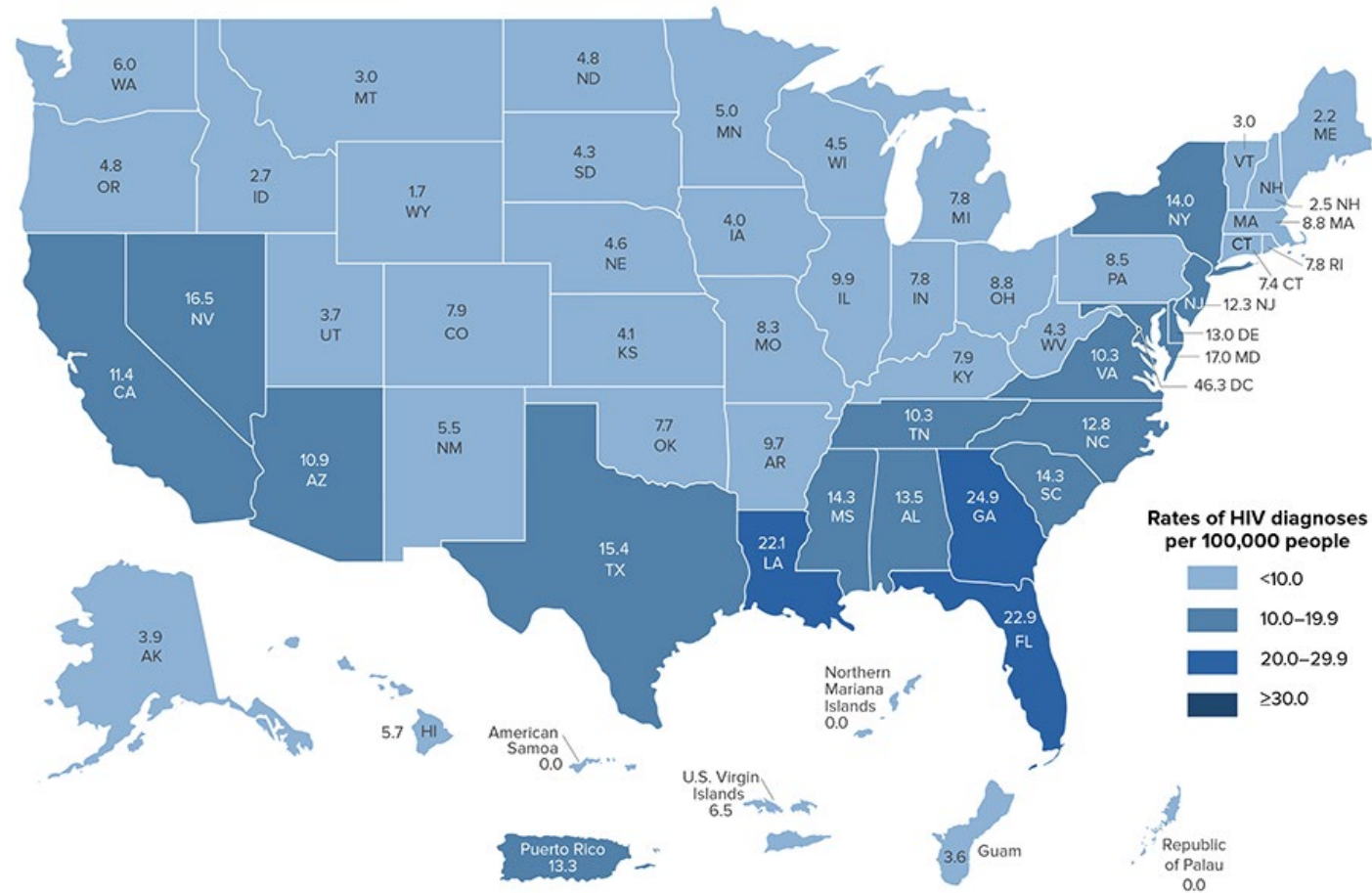
It is usually spread by anal or vaginal sex or sharing syringes with a person who has HIV. The only way to know you have HIV is to be tested. Everyone aged 13-64 should be tested at least once, and people at high risk should be tested at least once a year. Ask your doctor, or visit gettested.cdc.gov to find a testing site. Without treatment, HIV can make a person very sick or may even cause death. If you have HIV, start treatment as soon as possible to stay healthy and help protect your partners.

For More Information Call 1-800-CDC-INFO (232-4636) Visit www.cdc.gov/hiv

HIV in the southern United States

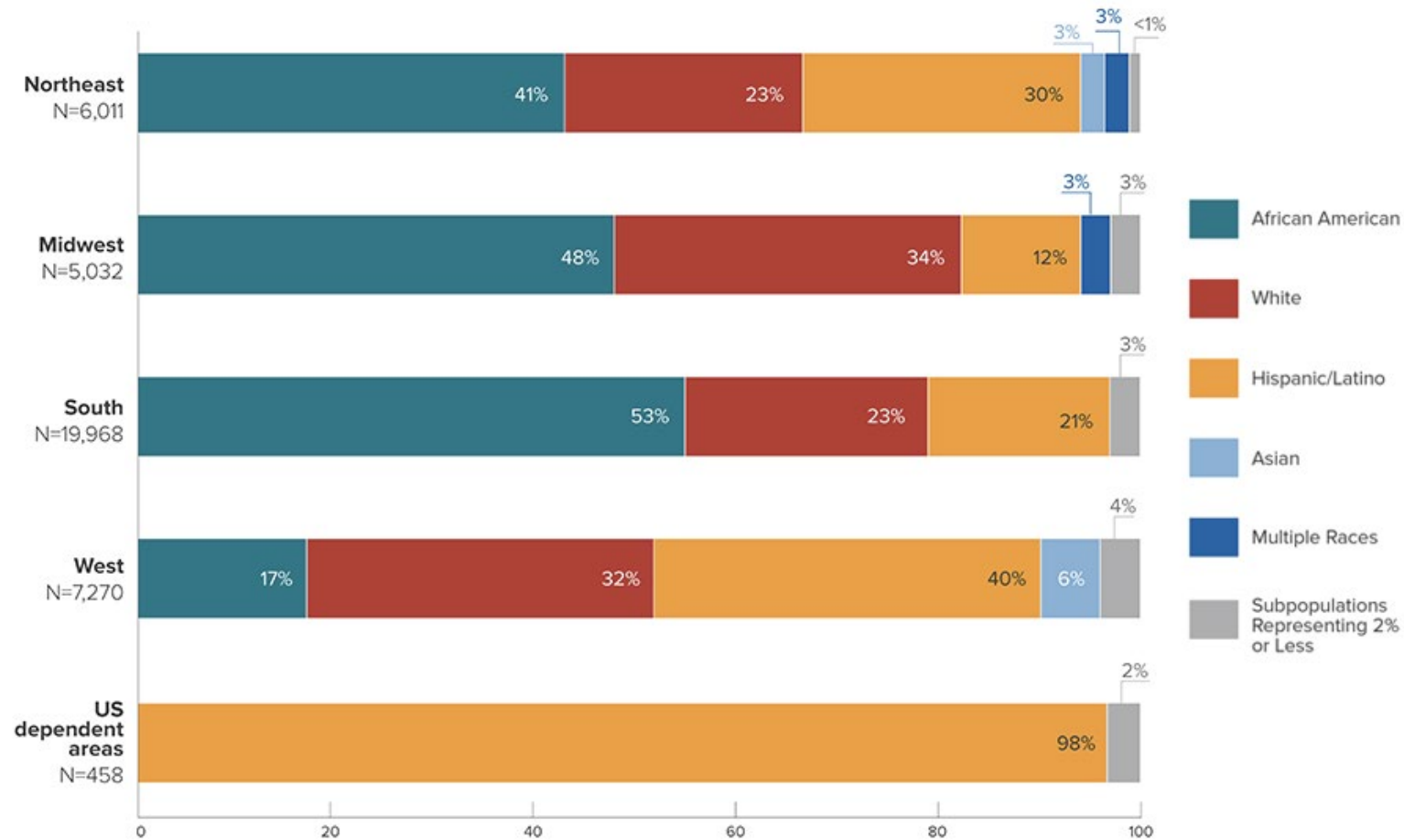
- The southern US disproportionately accounts for about 50% of new HIV cases annually.
- HIV infections among African-American men who have sex with men (MSMs) are twice that of Hispanic MSMs and Whites MSM in the South.
- Check out AIDSVUE for local incidence and prevalence by zip codes
 - Prep Article by Dr. Sheldon D. Fields: <https://aidsvu.org/fields-2/>

HIV in the southern United States



Source: CDC. [Diagnoses of HIV infection in the United States and dependent areas, 2017pdf icon](#) *HIV Surveillance Report* 2018;29.

HIV in the southern United States



Subpopulations representing 2% or less of all people who received an HIV diagnosis in 2017 are combined in this chart.

Source: CDC. [Diagnoses of HIV infection in the United States and dependent areas, 2017pdf icon](#). *HIV*

Men Living with HIV

- Among the general population African-American (AA) men have highest lifetime risk of HIV at 1 in 20. Among MSMs, African-Americans have highest lifetime risk of 1 in 2 (50%).
- HIV infections have stabilized among men with a decrease in African-Americans and increase among Hispanics/Latinos and Asians.
- Age groups 25-34 have also had increases in HIV infections
- Ethnic minority men account for almost three-fourths of new HIV infections with African-American men at 39%.

Men Living with HIV

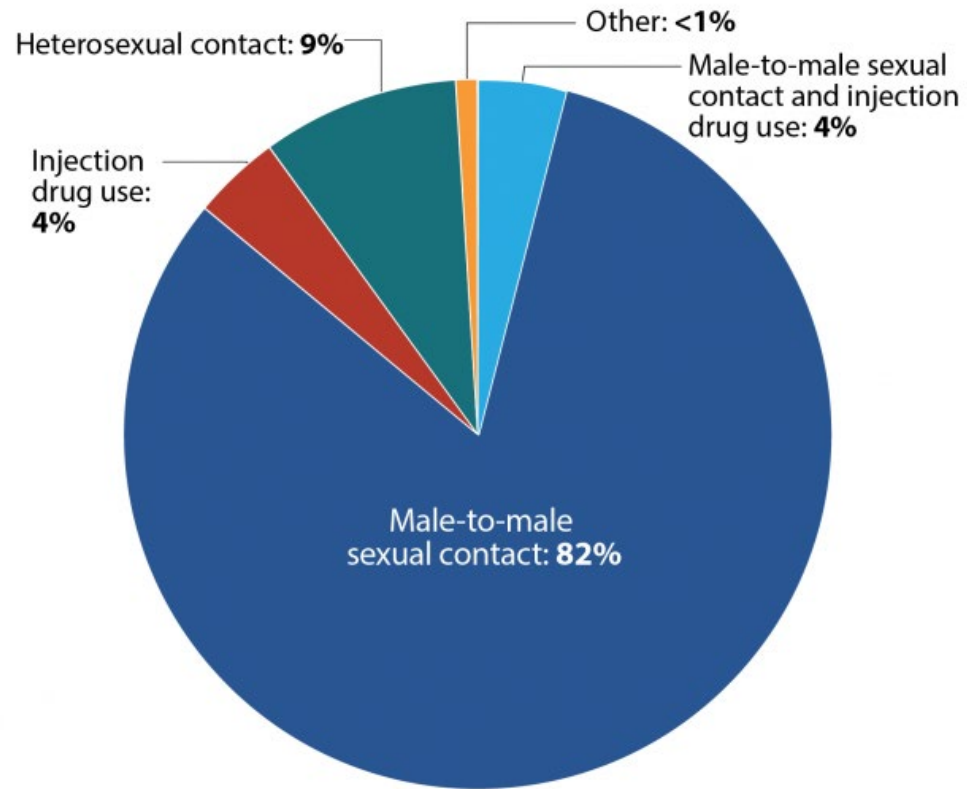
Men With HIV in the 50 States and District of Columbia



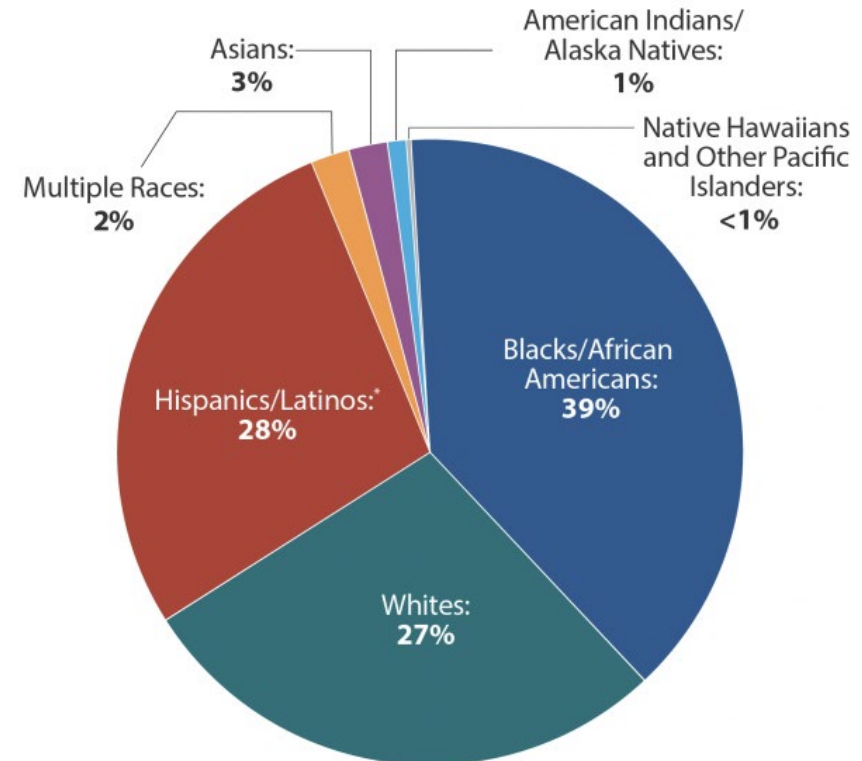
Source: CDC. [Estimated HIV incidence and prevalence in the United States 2010–2016](#). *HIV Surveillance Supplemental Report*. 2018;24(1).

Men Living with HIV

New HIV Diagnoses Among Men in the US and Dependent Areas by Transmission Category, 2017



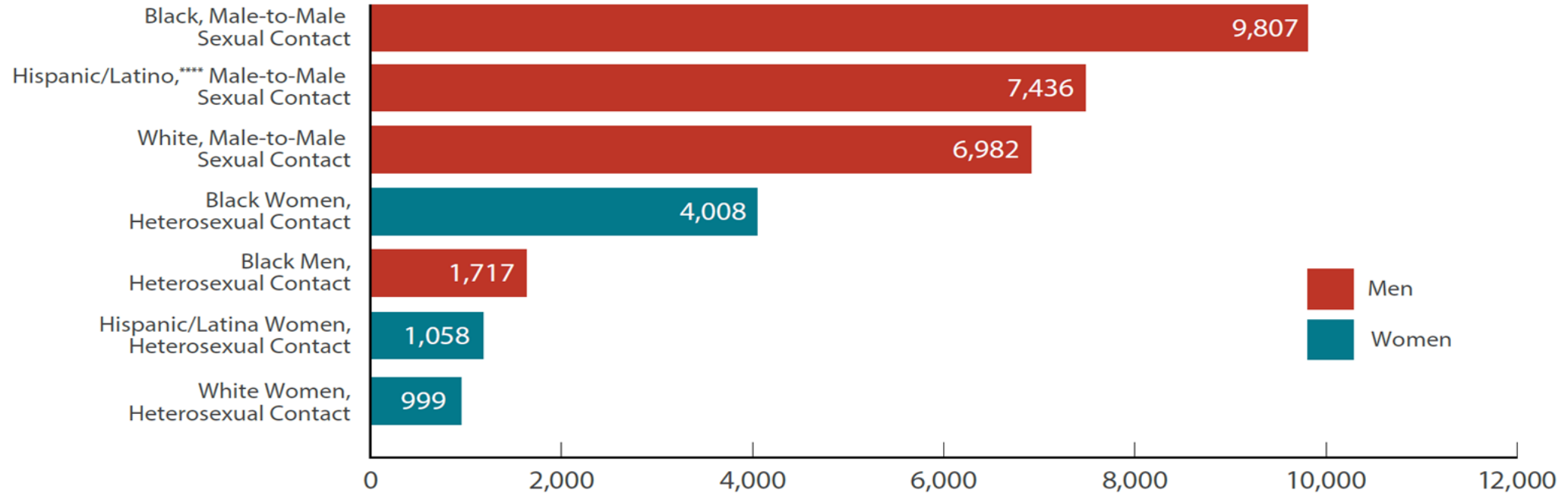
New HIV Diagnoses Among Men in the US and Dependent Areas by Race/Ethnicity, 2017



* Hispanics/Latinos can be of any race.

Source: CDC. [Diagnoses of HIV infection in the United States and dependent areas, 2017](#). *HIV Surveillance Report* 2018;29.

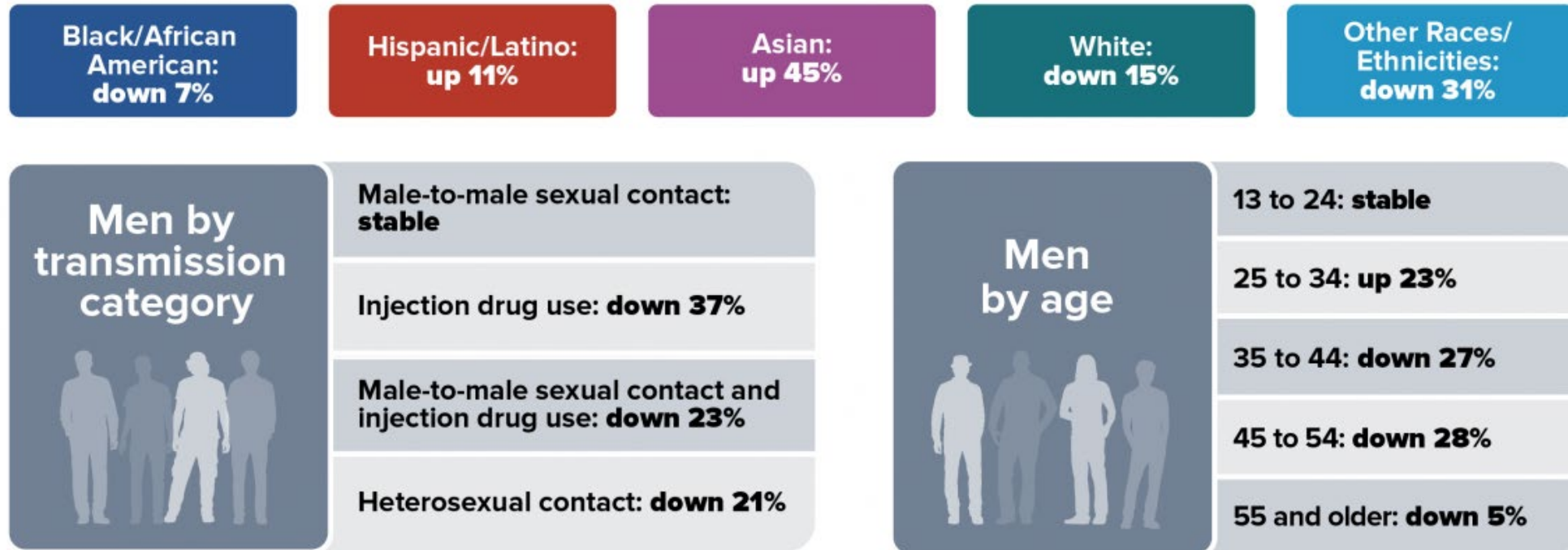
New HIV Infections in 2017



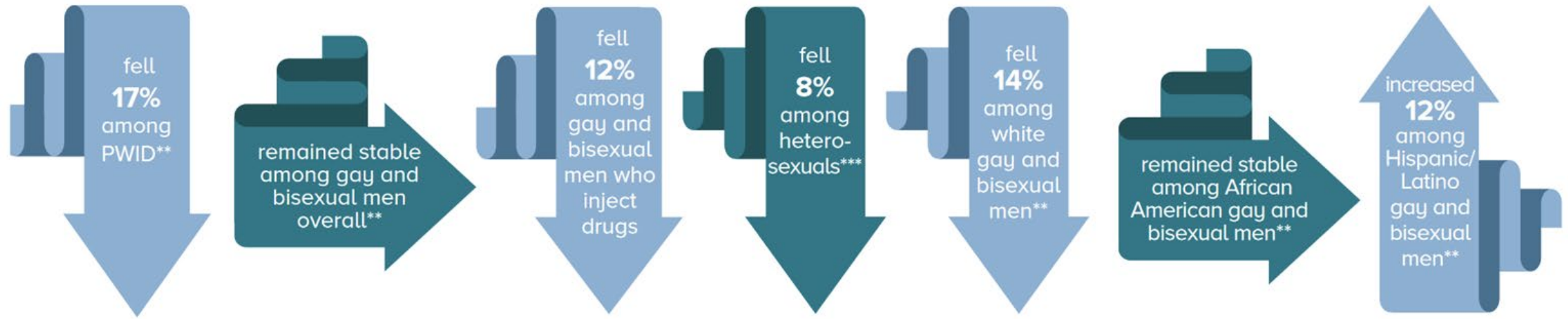
Source: CDC, [HIV in the United States and Dependent Areas](#), Jan. 2019.

HIV Trends among men from 2010-2016

HIV Diagnoses Among Men in the 50 States and District of Columbia, 2010-2016



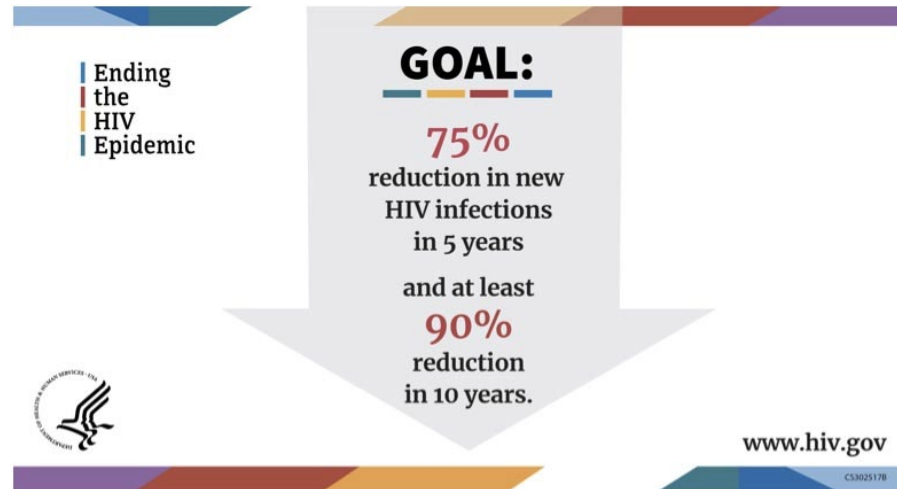
HIV Diagnoses in the U.S. and Dependent Areas, 2012–2016



Source: CDC, [HIV in the United States and Dependent Areas](#), Jan. 2019.

Ending the HIV Epidemic: A Plan for America

- HHS plan to eliminate new HIV infections in the United States
- Reduce new HIV infections by 75% in 5 years and at least 90% in 10 years
- Forty-eight counties, Washington DC, San Juan, PR, and seven states with substantial rural burden



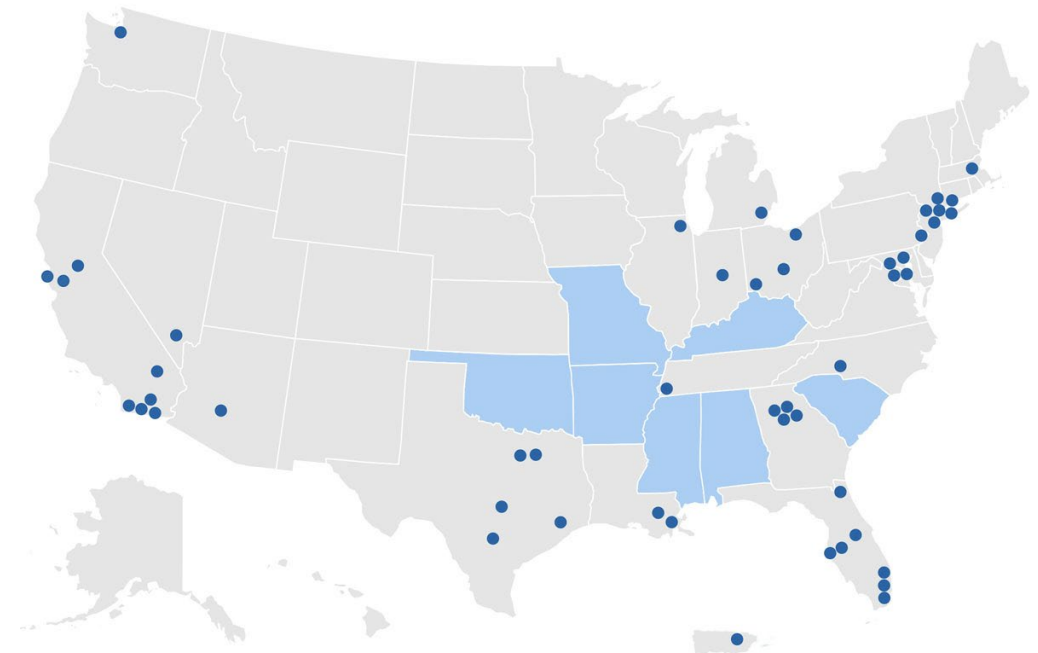
Ending
the
HIV
Epidemic

GOAL:
75%
reduction in new
HIV infections
in 5 years
and at least
90%
reduction
in 10 years.

www.hiv.gov

CS302517B

The graphic features a large downward-pointing arrow containing the goal text. To the left is the 'Ending the HIV Epidemic' logo, and to the right is the website 'www.hiv.gov' and a small alphanumeric code 'CS302517B'. The background has a colorful gradient bar at the top and bottom.



Ending the HIV Epidemic: A Plan for America



Diagnose all people with HIV as early as possible.

Treat people with HIV rapidly and effectively to reach sustained viral suppression.



Prevent new HIV transmissions by using proven interventions, including pre-exposure prophylaxis (PrEP) and syringe services programs (SSPs).

Respond quickly to potential HIV outbreaks to get needed prevention and treatment services to people who need them.



Ending the HIV Epidemic: A Plan for America

Men With HIV in the 50 States and District of Columbia



A person with HIV who takes HIV medicine as prescribed and gets and stays virally suppressed or undetectable can stay healthy and has effectively no risk of sexually transmitting HIV to HIV-negative partners.

* Had 2 viral load or CD4 tests at least 3 months apart in a year.

[†] Based on most recent viral load test.

New Advances in HIV Prevention

- **Pre-Exposure Prophylaxis (PrEP)**
 - The use of daily antiretroviral medications to prevent HIV infection.
 - Over [95%](#) effective with sexual activity.
 - About 75% effective in people who inject drugs.
 - Condoms up to [90%](#) effective with consistent use
 - Truvada and Descovy FDA approved drugs for adults over 35kg (77lbs).
 - Descovy not proven to be effective with vaginal intercourse.
- [CDC PrEP Video](#)
- [Dr. Sheldon Fields-PrEP and Black MSM](#)

New Advances in HIV Prevention

- **Post-Exposure Prophylaxis (PEP)**
 - The use of a 28-day antiretroviral regimen after a single high-risk event to stop HIV seroconversion.
 - Condom breakage
 - Needle sharing or injection equipment
 - Sexual assault
- Ideally should be started within **72** hours of exposure.
- For emergency use, if recurrent, discuss PrEP use.

PrEP vs. PEP

PrEP and PEP are methods for preventing HIV infection that involve taking HIV medicines. When you take steps to protect yourself against a disease, like HIV, it's called prophylaxis.

PrEP and PEP are for people who don't have HIV, but are at risk of getting it.

PrEP stands for pre-exposure prophylaxis.

What's it called?

PEP stands for post-exposure prophylaxis.

Before HIV exposure.
PrEP is taken every day, before possible exposure.

When is it taken?

After HIV exposure.
In emergency situations, PEP is taken within 72 hours (3 days) after possible exposure.

PrEP is for people who don't have HIV and:

- have a sex partner with HIV
- have sex with people whose HIV status is unknown
- share injection drug equipment

Who's it for?

PEP is for people who don't have HIV but may have been exposed:

- during sex
- at work through a needlestick or other injury
- by sharing injection drug equipment
- during a sexual assault

Consistent use of **PrEP** can reduce the risk of getting HIV from sex by about 99% and from injection drug use by at least 74%.

How effective is it?

PEP can prevent HIV infection when taken correctly, but it is not always effective.
Start PEP as soon as possible to give it the best chance of working.

Ask your health care provider about a prescription for **PrEP**, or use PrEPLocator.org to find a health care provider in your area who can prescribe PrEP.

How do you get it?

To get a prescription for **PEP**, contact your health care provider or go to an urgent care facility or emergency room within 72 hours of the potential exposure.

For more information, visit [AIDSinfo](https://aidsinfo.nih.gov)



New Advances in HIV Prevention

- **Undetectable=Untransmittable (U=U)**
 - people with HIV who achieve and maintain an undetectable viral load—the amount of HIV in the blood—by taking antiretroviral therapy (ART) daily as prescribed cannot sexually transmit the virus to others.
- **Evidence**
 - HPTN052 (Cohen, 2016),
 - PARTNER (Rodger, 2016),
 - Opposites Attract (Bavinton, 2018), and
 - PARTNER2 (Rodger, 2018)

<https://www.cdc.gov/hiv/risk/estimates/preventionstrategies.html>

<https://www.niaid.nih.gov/diseases-conditions/treatment-prevention>

<https://www.preventionaccess.org/>

HIV TRANSMISSIONS IN 2016

% OF PEOPLE WITH HIV	STATUS OF CARE	ACCOUNTED FOR X% OF NEW TRANSMISSIONS*
15%	didn't know they had HIV	38%
23%	knew they had HIV but weren't in care	43%
11%	in care but not virally suppressed	20%
51%	taking HIV medicine and virally suppressed	0%

*Values do not equal 100% because of rounding

SOURCE: Vital Signs, 2019

<https://www.cdc.gov/vitalsigns/end-hiv/index.html>

Challenges with Ending the HIV Epidemic

- Unknown Status
- Social Stigma and Discrimination
- High HIV Prevalence
- Substance Use
- Low and disparate PrEP Uptake
 - Overall increase in MSM but remains low in black and Hispanic MSM
 - **70% of PrEP uses are disproportionately White**
 - Low provider and patient awareness
 - **NP's and PA's prescribe PrEP in higher numbers**
 - Limited access and Cost
 - Evolving long term health concerns

Discussion

1. What are the factors that influence the current trends in HIV infections among the male population?
2. What evidence based biomedical interventions have been effective in reducing HIV infections?
 - 2a. What is PrEP?
3. What are the key strategies of the End the HIV Epidemic: A plan for America?

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