# Innovative Strategies to Telehealth Implementation at the University of Mississippi Medical Center

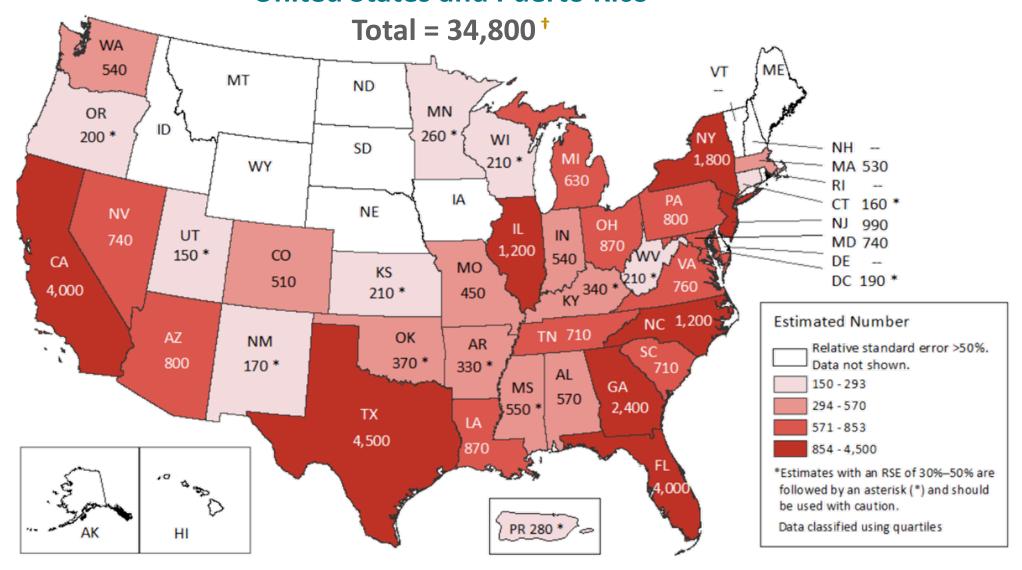
Presented by: Dr. Thomas Dobbs Dean, School of Population Health



## Acknowledgment

These projects were made possible by grant number U6631459 from the Office for the Advancement of Telehealth, Health Resources and Services Administration, DHHS

#### Estimated HIV Incidence among Persons Aged ≥13 Years, by Area of Residence 2019— United States and Puerto Rico

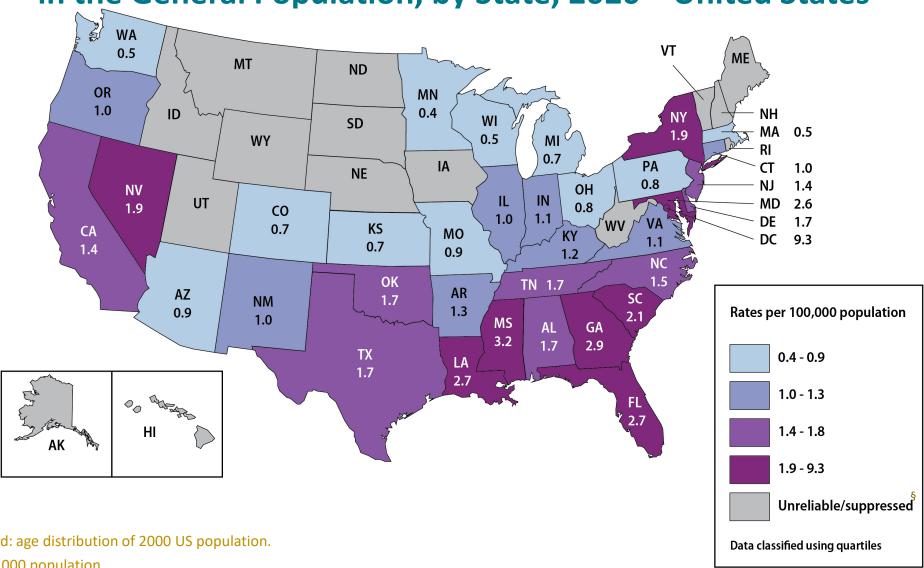




Note. Estimates were derived from a CD4 depletion model using HIV surveillance data. Estimates rounded to the nearest 100 for estimates >1,000 and to the nearest 10 for estimates ≤1,000 to reflect model uncertainty.

<sup>†</sup>Total estimate for the United States does not include data for Puerto Rico.

## Age-Adjusted\* Rates<sup>†</sup> of Death with HIV Disease as the Underlying Cause in the General Population, by State, 2020—United States

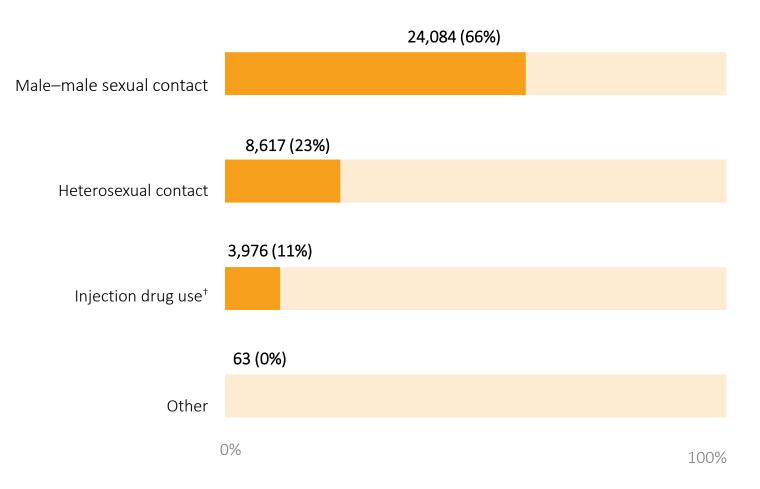


\*Standard: age distribution of 2000 US population.

Per 100,000 population.

Death rates are not shown when unreliable (rate is calculated with a numerator of 20 or less) or suppressed (the data neet the criteria for confidentiality constraints).

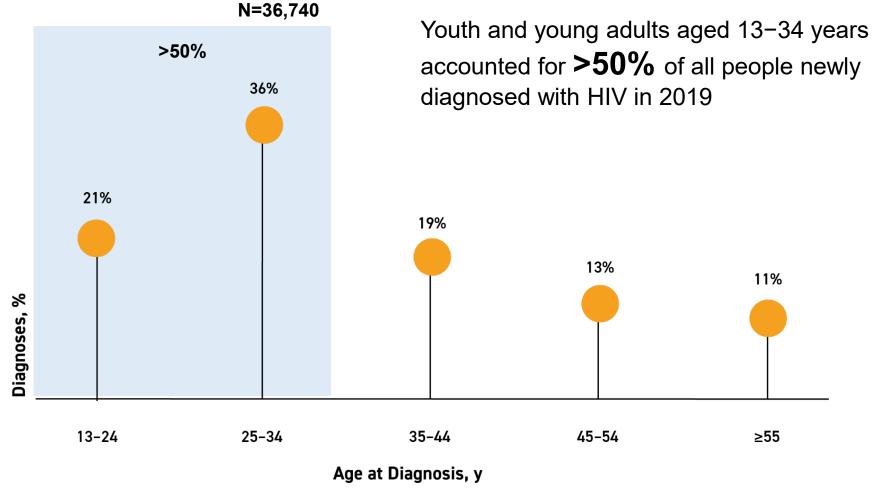
## HIV Diagnoses by Transmission Category\*



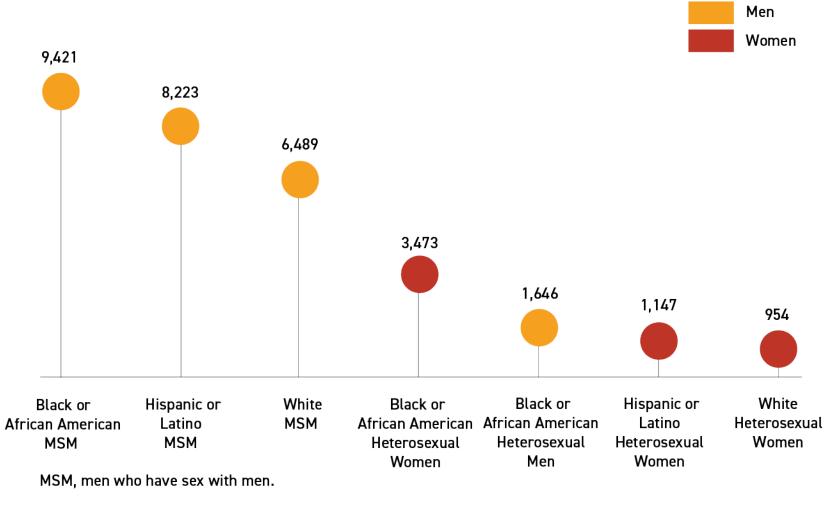
**Two-thirds** of new HIV diagnoses in 2019 were among gay, bisexual, and other men who have sex with men

<sup>\*</sup>Excluding children (aged <13 y; n=61); †Includes infections attributed to both male-male sexual contact and injection drug use.

## HIV Diagnoses by Age at the Time of Diagnosis



## HIV Diagnoses by Subpopulation



## Ending the HIV Epidemic: Four Pillars



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.



#### Through its four pillars—

Diagnose, Treat, Prevent,
Respond—Phases I and II of
Ending the HIV Epidemic aim to
reduce the number of new HIV
diagnoses by 90% by 2030

Phase III will leverage intensive case management to maintain <3,000 new HIV infections per year

### What Is PrEP?

PrEP is the use of antiretroviral medications by people without HIV to protect themselves from getting HIV

PrEP is recommended for adults and adolescents weighing at least 35 kg (77 lb) who are at risk of getting HIV

#### **Injectable PrEP**

Cabotegravir (CAB) 600 mg injection (brand name Apretude®)

#### **Oral PrEP**

Emtricitabine (F) 200 mg in combination with tenofovir disoproxil fumarate (TDF) 300 mg (F/TDF – brand name Truvada® or generic equivalent)

Emtricitabine (F) 200 mg in combination with tenofovir alafenamide (TAF) 25 mg (F/TAF – brand name Descovy®)\*

<sup>\*</sup>F/TAF is not approved for use by women or other people who could get HIV through receptive vaginal sex

## PrEP's Efficacy

Multiple studies have demonstrated that PrEP is highly effective when taken as prescribed. 1,2

Transmission Route	Effectiveness Estimate	Interpretation
Sexual	~99%	Very high levels of adherence to PrEP provide maximum effectiveness
Injection drug use	at least 74%	This estimate is based on tenofovir alone and not necessarily when taken daily  The effectiveness may be greater for the two-drug oral therapy and if used daily

<sup>&</sup>lt;sup>1</sup> Centers for Disease Control and Prevention. Effectiveness of prevention strategies to reduce the risk of acquiring or transmitting HIV. Updated June 17, 2022. Accessed January 20, 2023. <a href="https://www.cdc.gov/hiv/risk/estimates/preventionstrategies.html">https://www.cdc.gov/hiv/risk/estimates/preventionstrategies.html</a>

<sup>&</sup>lt;sup>2</sup> Centers for Disease Control and Prevention, US Public Health Service. *Preexposure prophylaxis for the prevention of HIV infection in the United States—2021 update—a clinical practice guideline*. Published December 2021. Accessed January 20, 2023. https://www.cdc.gov/hiv/pdf/risk/prep/cdc-hiv-prep-guidelines-2021.pdf



#### CARES HIV



We are happy that you are here! What are you most interested in today:

Learning More About HIV and Prevention?



Getting Tested for HIV











**Seeking Treatment** 



The University of Mississippi Medical Center, located in Jackson, is the state's only academic health science center. The Medical Center's three-part mission is to improve the lives of Mississippians by educating tomorrow's health care professionals, by providing







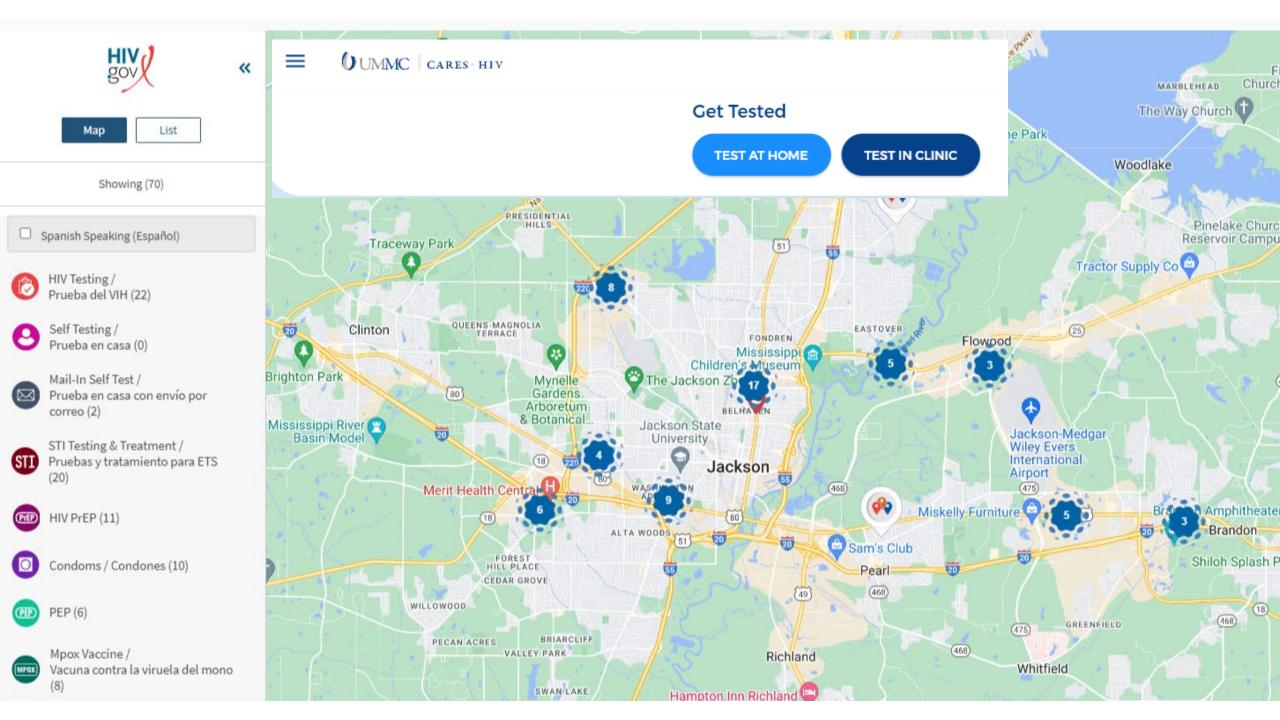


Learn More

Get Tested

PrEP

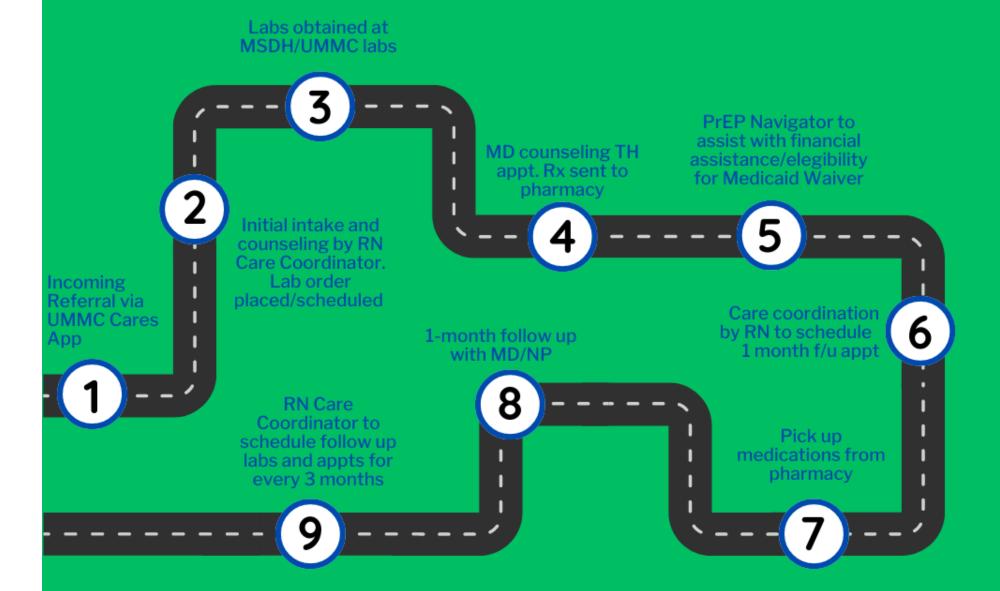
Treatment



#### PrEP

About PrEP	>
PrEP Effectiveness	>
Deciding to take PrEP	>
Paying for PrEP	>
Starting and Stopping PrEP	>
Continuing PrEP	>
On Demand PrEP	>

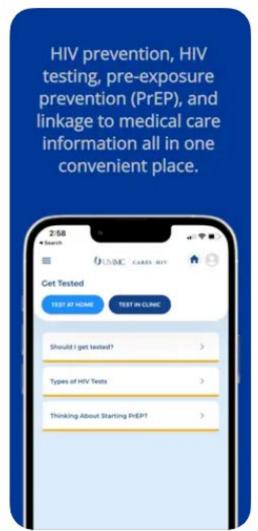
## **TELEPREP**



## Status of UMMC Cares App and Linkage to Care

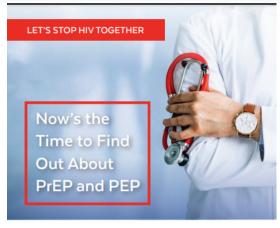
#### Successes

- App launched and available on Apple and Android devices
- Nationwide Utility
- Direct to Consumer self HIV test kits
- Created work flow to link patients to tele-PrEP and STI prevention services (see next slide)
- Effectively engaged multi-disciplinary team to provide services
- Successfully engaged patients to initiate PrEP (including injectable)
- Initiating patients on DoxyPEP



#### What's Next?

- Community outreach and advertising
- Increase patient participation
- Expand treatment network statewide
- Mail to consumer lab tests (HIV, STI's, Creatinine, Hep B, Pregnancy)



#### **HIV Cares App**

Download the FREE UMMC HIV Cares app to find medically recommended steps for preventing HIV and to schedule an appointment to start PrEP (pre-exposure prophylaxis). The app also has detailed information about:

- · At-home testing
- PrEP (pre-exposure prophylaxis)
- HIV treatment

Download the free app by scanning the QR code below.











## Number of Gaze Fixations M (SD)

Gaze Area	Mild (n=7)	Moderate (n=2)	Severe (n=1)
Left Eye	3.7 (3.1)	35.5 (46.0)	0
Right Eye	4.0 (2.8)	76.0 (0)	0
Mouth	42.5 (62.8)	230.5 (320.3)	0
Other face area	52.3 (38.5)	224.5 (311.8)	0

 Moderate ASD had significantly more eye contacts

## Duration of Gaze Fixations M (SD), seconds

Gaze Area	Mild (n=7)	Moderate (n=2)	Severe (n=1)
Left Eye	2.6 (3.2)	2.9 (2.7)	0
Right Eye	1.7 (1.7)	3.3 (4.1)	0
Mouth	5.6 (9.0)	7.1 (12.3)	0
Other face area	3.2 (5.9)	5.2 (10.4)	0

 No significant difference in time spent on contacts

## Discussion

- Small n
- Mild ASD tended to look at fewer facial features, but for the same amount of time
  - Novel VR experience?
- Moderate ASD tended to shift more
  - Rapid changes look like poor eye contact?





## Year 1 Accomplishments

- Captured and measured eye movement
- Increased the complexity of the virtual reality environment
- Incorporated an emotional processing component where the avatars could show emotional responses on their faces





## **Future Goals**

- Expand the application state-wide
- Gain marketing support
- Engage with other rural entities

The Telehealth Centers of Excellence(COEs) develop resources for telehealth organizations, researchers, providers, and staff based on their experience, research, and innovation.

TelehealthCOE.org

Telehealth Centers of Excellence



