PrEP Awareness, Access, and Adherence

Meredith E. Clement, MD September 25, 2019

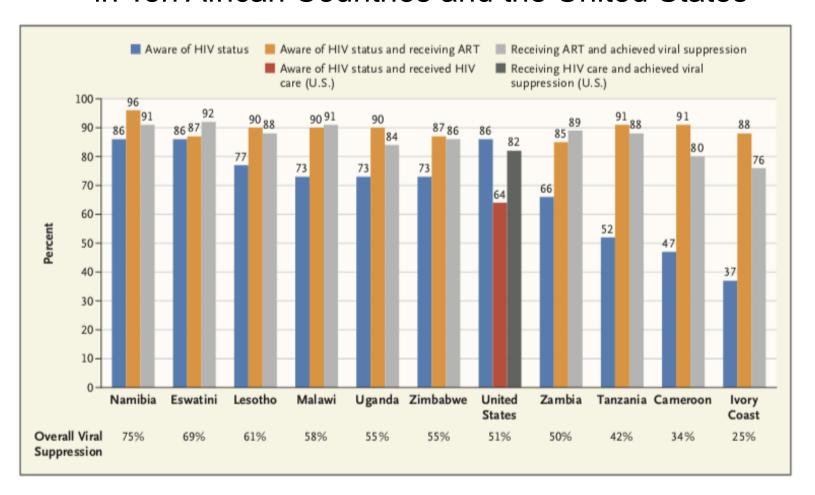
Outline

- Review HIV epidemiology with a focus on the South
- Discuss PrEP awareness, access, and adherence in various settings
- Discuss progress including novel strategies to promote PrEP coverage

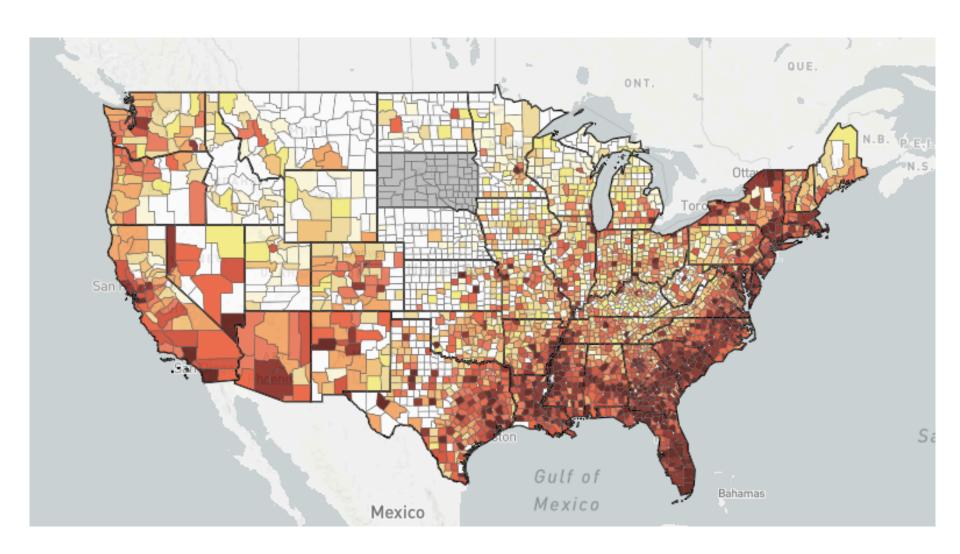
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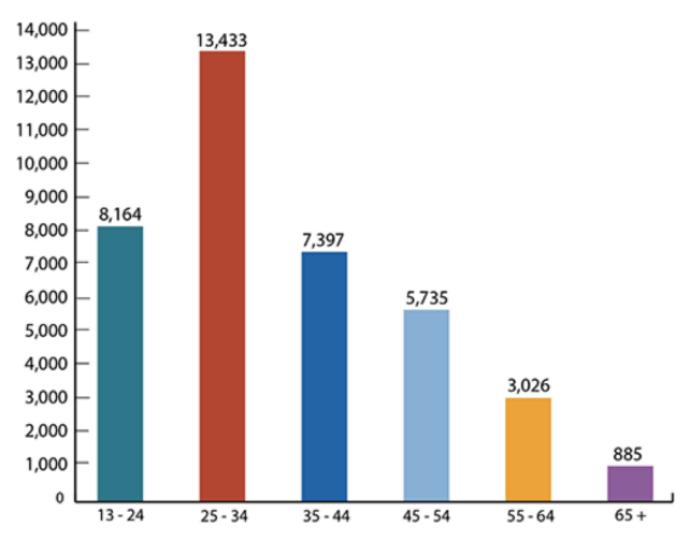
Diagnosis and Treatment Status of Persons Living with HIV in Ten African Countries and the United States



HIV in the United States

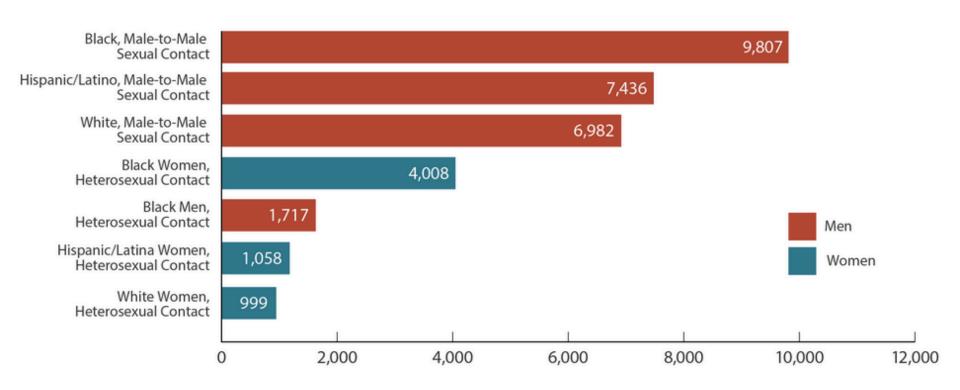


New HIV Diagnoses in the US and Dependent Areas for the Most-Affected Subpopulations, 2017



https://www.cdc.gov/hiv/statistics/overview/ataglance.html

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



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Enter PrEP

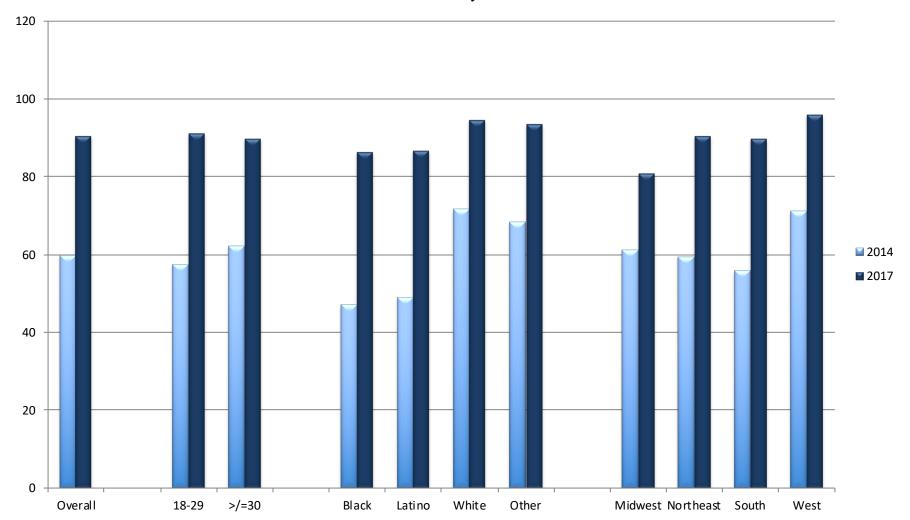
PrEP Awareness and Acceptability

- 2013-2014: 32% awareness among Black MSM in Chicago
- 2016: Young Black MSM across the country had 39% PrEP awareness, and 62% PrEP acceptability.
- 2017: 36.5% awareness among Latino
 MSM in TX, 52% willing to take PrEP daily.

PrEP Awareness and Acceptability

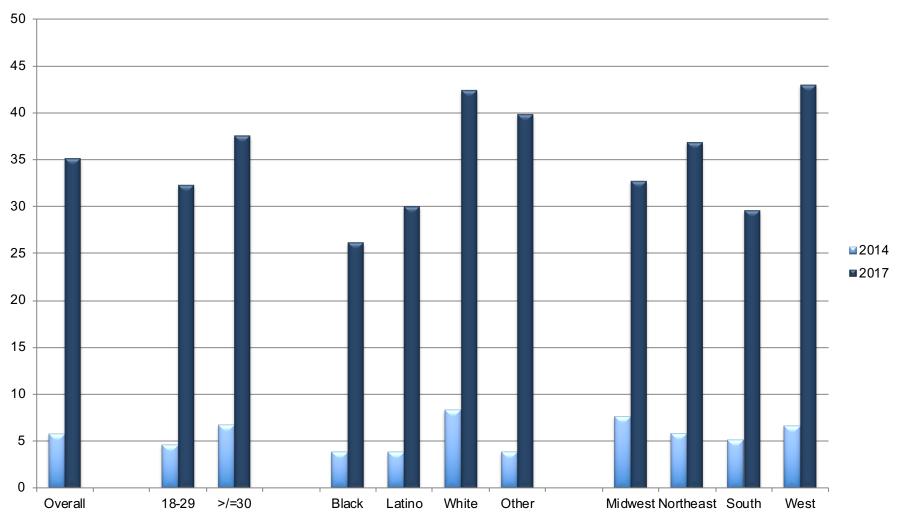
- Women in the South had low rates of PrEP awareness in 2014-2015, at 11%, but 88% were willing to use it.
- Among women who use drugs in the US, 20.6% are aware of PrEP, and 60% of those willing to use PrEP.
- FGD study in women in six US cities: "Women expressed anger at the fact that they had not heard of PrEP prior to the study, but once informed most found it attractive."

PrEP Awareness in US MSM, 20 Urban Areas, 2014 vs 2017



Finlayson T, et al. MMWR Morb Mortal Wkly Rep, 2019.

Reported PrEP Use in US MSM, 20 Urban Areas, 2014 vs 2017



Finlayson T, et al. MMWR Morb Mortal Wkly Rep, 2019.

PrEP Access: Stigma, Medical Mistrust, and Perceived Racism

"PrEP hasn't been cleared by FDA regulations; what does it do to your body?"

"I feel like they should be more accepting. I went and got tested for HIV and the doctor said to me, 'Are you a homosexual?' This made me really uncomfortable because I'm not even comfortable identifying myself as this. But, if you are participating or thinking about any anal sex with men or women you should be able to talk to your provider about it."

"I don't believe that PrEP works, because if it did, then they'd be handing out the pill like they do condoms. I'm gonna need some facts before I try it. I need to see someone do it and get their results."

"[H]istorically, African Americans have an aversion to any kind of healthcare, or any kind of medicine. So we, as African Americans, historically prefer natural healing or prayer. And we kind of, we avoid doctors."

"If someone were to come and say they have HIV, then you are going to say that they are going to spend the rest of their lives alone because no one is going to want you."

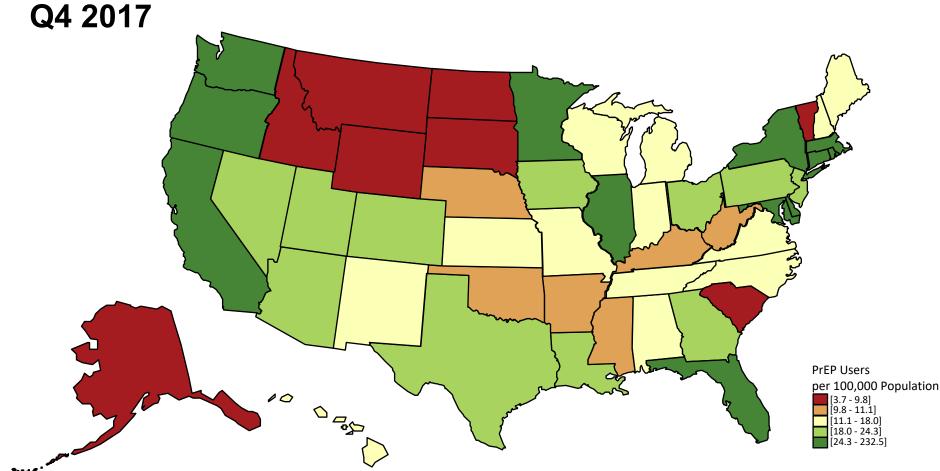
PrEP-to-Need

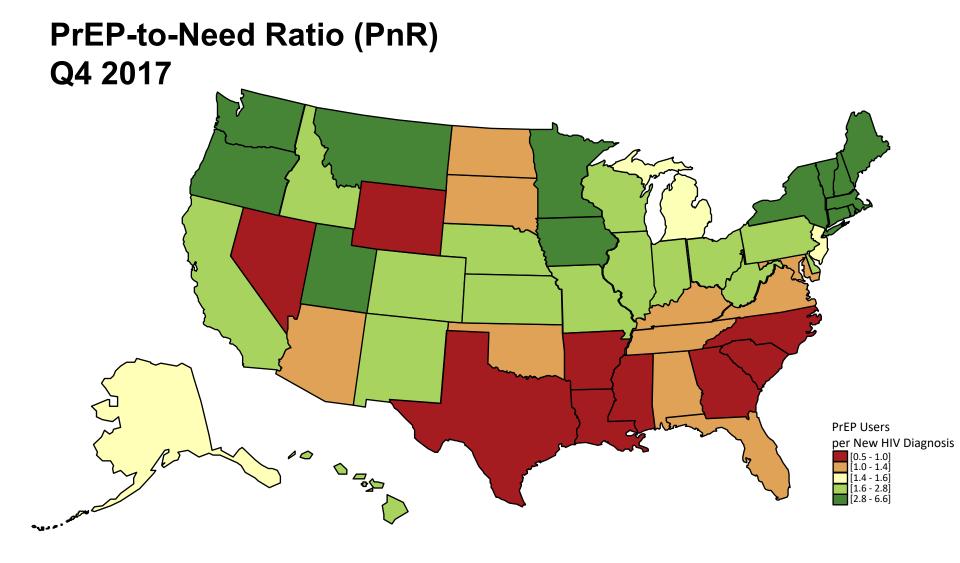
- Total on PrEP: 70,395
- Overall PnR 1.8

 (2.1 for males and
 0.4 for females)
- Varied by region and sex
- States with Medicaid expansion had double the PnR

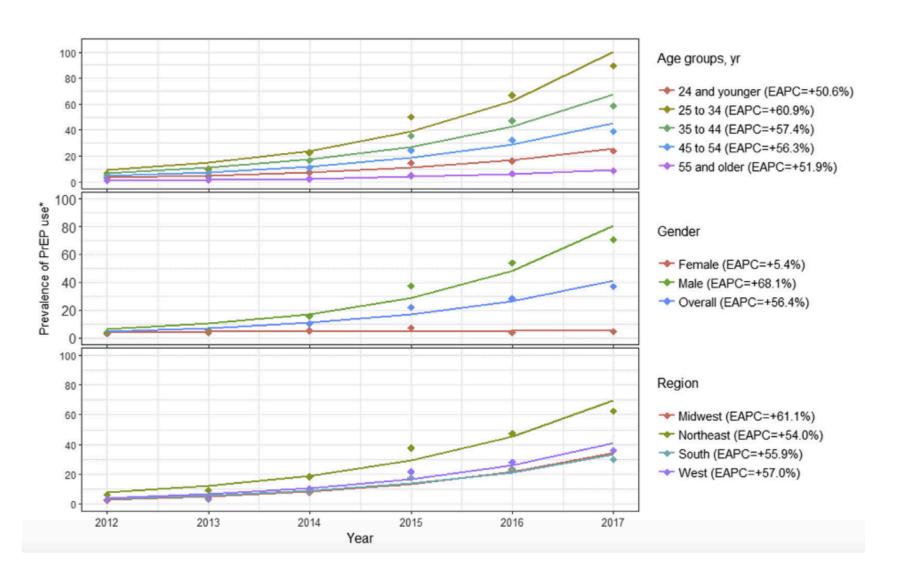
PrEP-to-Need Ratio			
by Region and Sex			
Region	Males	Females	
Midwest	2.8	0.6	
Northeast	4.1	0.7	
West	2.3	0.5	
South	1.2	0.2	
Total	2.1	0.4	

Prevalence of PrEP Users per 100,000 Population





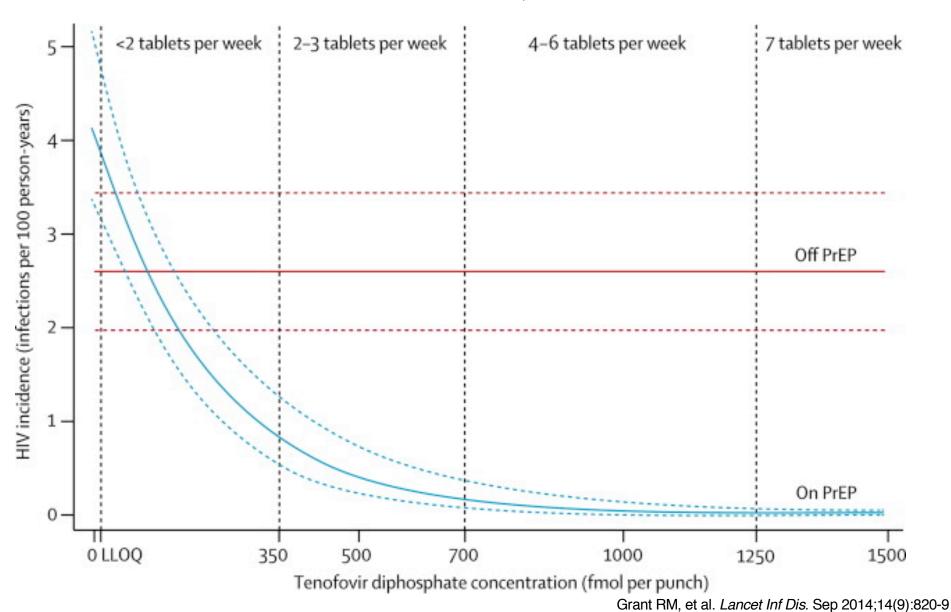
Trends in PrEP Use



Major PrEP Placebo-Controlled Clinical Trials

	Efficacy of TDF/FTC compared with placebo	Adherence
Partners PrEP	75%	82%
Botswana TDF	62%	79%
Bangkok Tenofovir	49%	67%
iPrEx	44%	51%
Fem-PrEP	6%	26%
VOICE	-4.2%	29%

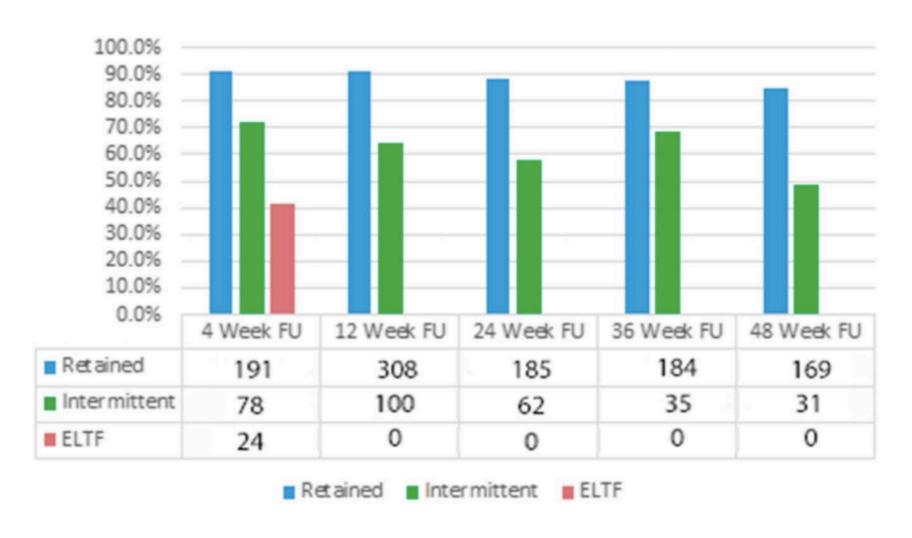
When Taken, It Works



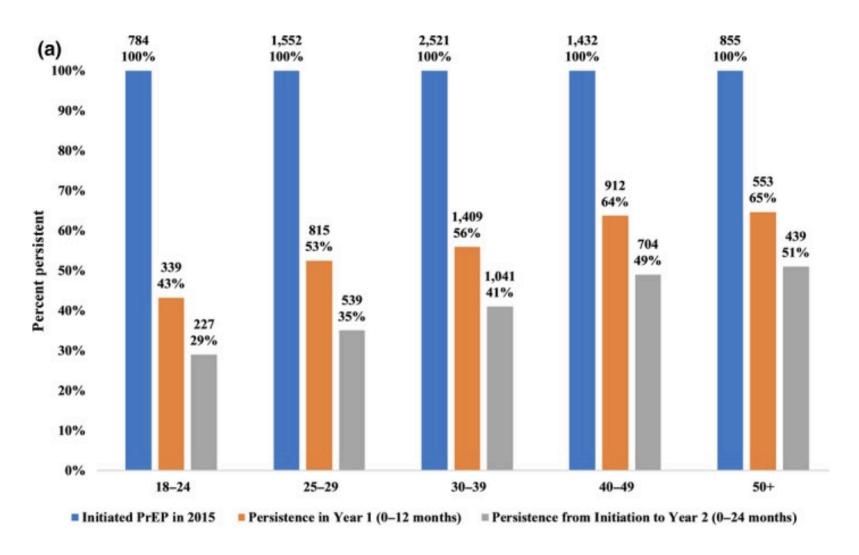
Adherence and Retention

- 2012-2014 Kaiser cohort:
 - Mean adherence was 92% overall.
 - Black race, higher copayments, and smoking were associated with <80% adherence.
- Providence, RI cohort: 92% and 95% reported taking ± 4 doses/week at three and six months.
- ATN 110 and 113: young MSM
 - Young black MSM were less likely to have therapeutic levels across all data points

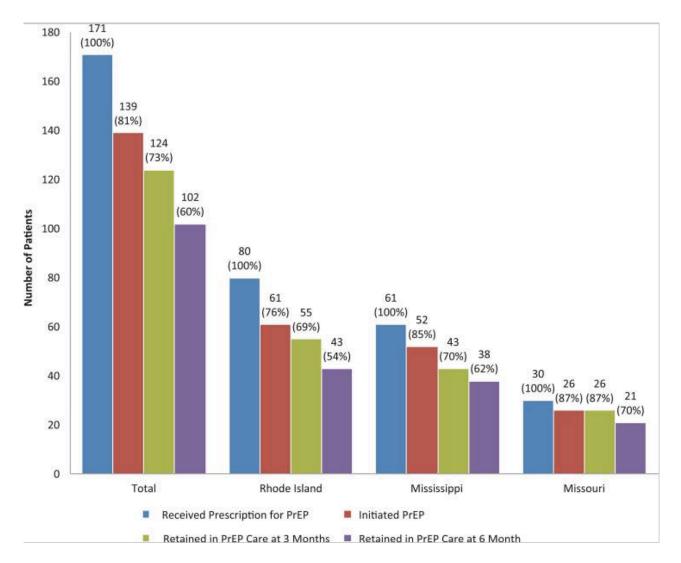
Adherence and Retention



Adherence and Retention



PrEP Adherence and Retention



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JAMA | US Preventive Services Task Force | EVIDENCE REPORT

Preexposure Prophylaxis for the Prevention of HIV Infection Evidence Report and Systematic Review for the US Preventive Services Task Force

Roger Chou, MD; Christopher Evans, MD, MPH; Adam Hoverman, DO; Christina Sun, PhD; Tracy Dana, MLS; Christina Bougatsos, MPH; Sara Grusing, BA; P. Todd Korthuis, MD

CONCLUSIONS AND RELEVANCE In adults at increased risk of HIV infection, PrEP with oral tenofovir disoproxil fumarate monotherapy or tenofovir disoproxil fumarate/emtricitabine was associated with decreased risk of acquiring HIV infection compared with placebo or no PrEP, although effectiveness decreased with suboptimal adherence.

JAMA | US Preventive Services Task Force | RECOMMENDATION STATEMENT

Preexposure Prophylaxis for the Prevention of HIV Infection US Preventive Services Task Force Recommendation Statement

US Preventive Services Task Force

CONCLUSIONS AND RECOMMENDATION The USPSTF recommends offering PrEP with effective antiretroviral therapy to persons at high risk of HIV acquisition. (A recommendation)



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Acceptability and feasibility of a pharmacist-led HIV pre-exposure prophylaxis (PrEP) program in the Midwestern United States 8

Joshua P Havens ™, Kimberly K Scarsi, Harlan Sayles, Donald G Klepser, Susan Swindells, Sara H Bares

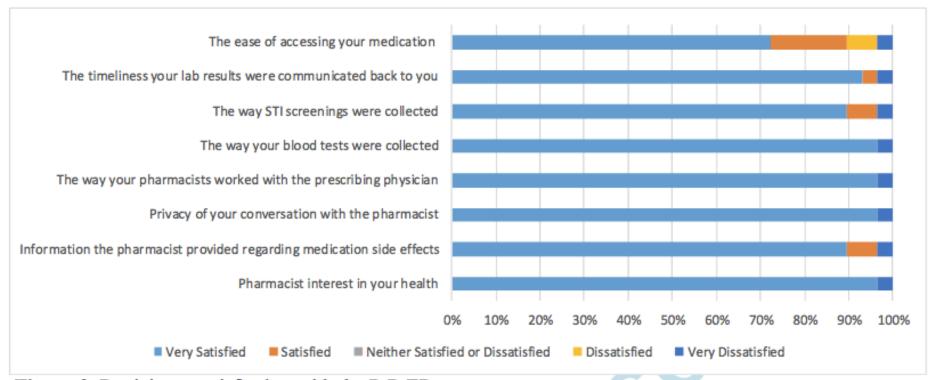


Figure 2. Participant satisfaction with the P-PrEP program.

TelePrEP

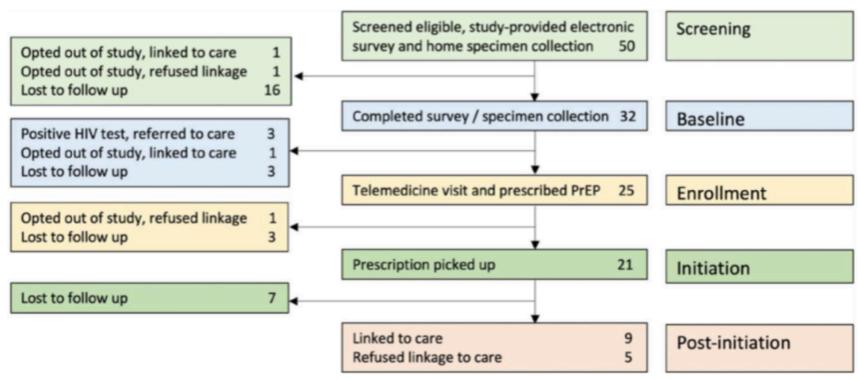
Telemedicine

Telemedicine visits conducted with secure video platform PrEP navigation to assist with securing access to medication

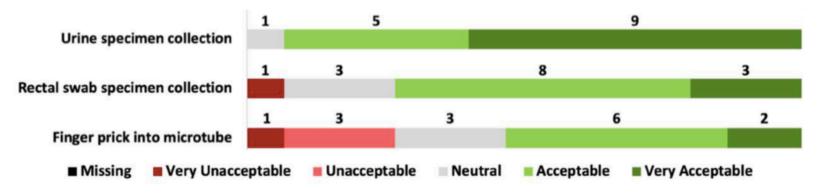


TelePrEP

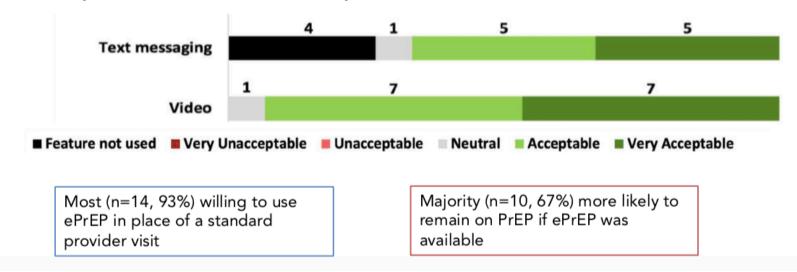
Study Flow Chart



Rated Experience with Specimen Self-collection (n=15)



Rated experience with telemedicine portal, n=15



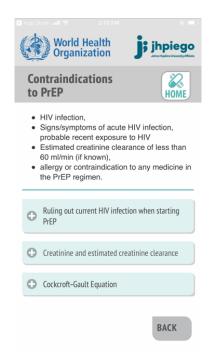
The WHO PrEP Implementation Tool App for Health Workers

A pathway to prevention on your mobile phone.

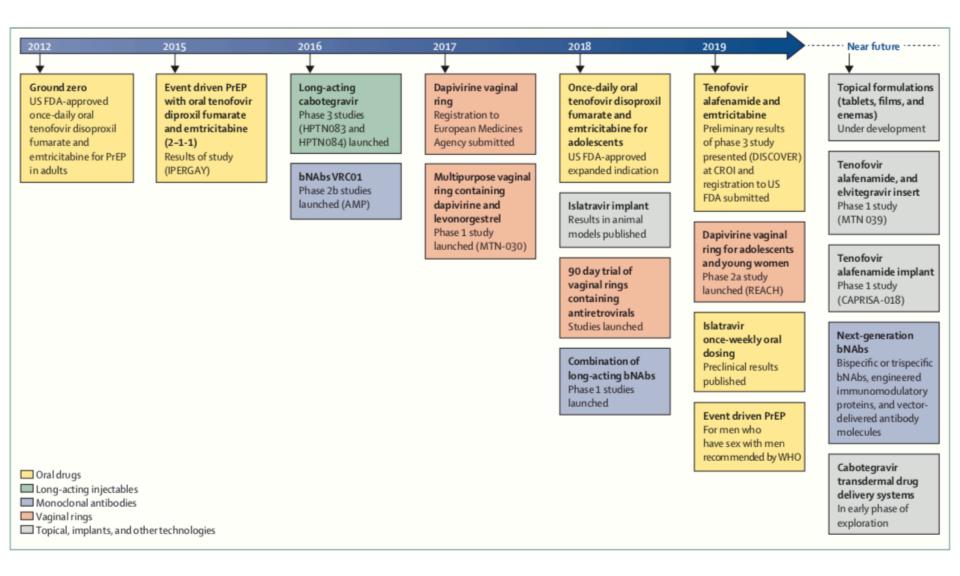




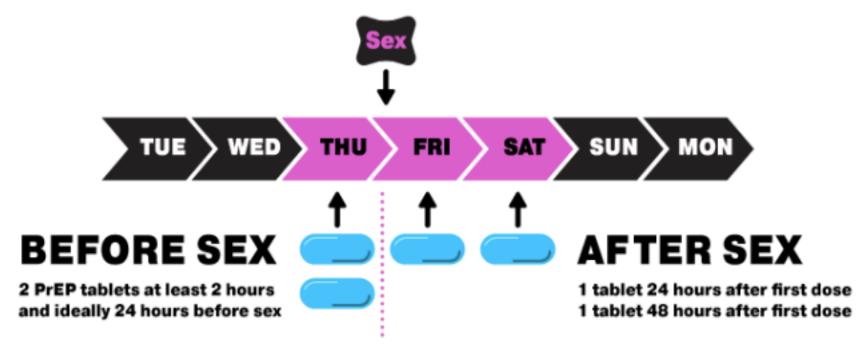




PrEP 2.0



On Demand PrEP



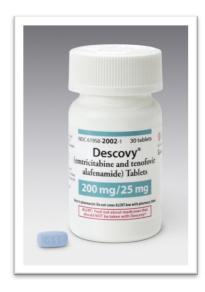
If sexual activity continues, take 1 PrEP tablet every 24 hours until 48 hours after last sex. (Adapted from i-Base.info.)

PrEP 2.0 is coming...



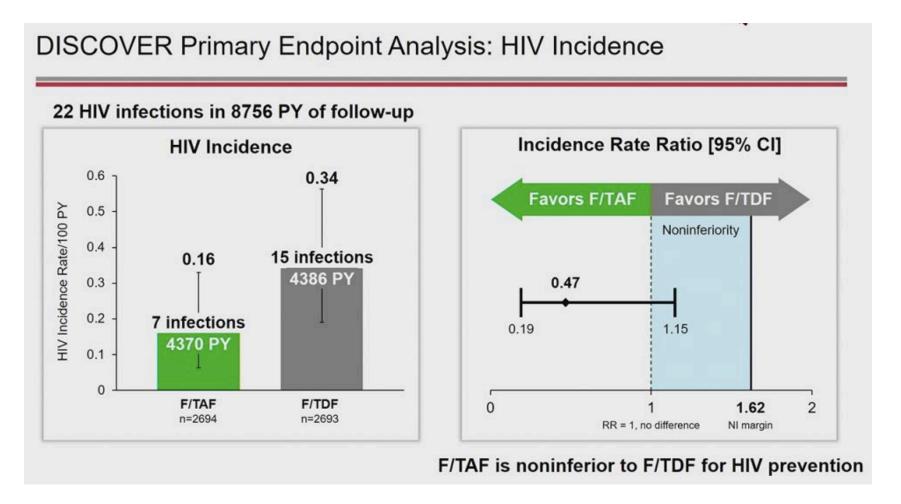


dapivirine



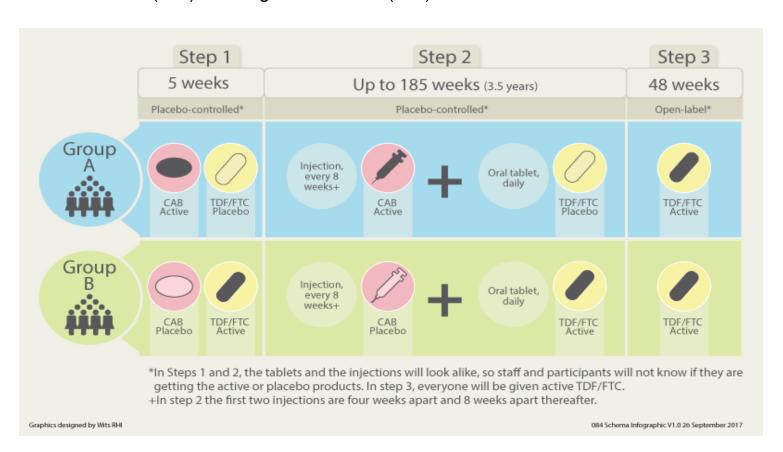
FTC / TAF

DISCOVER: Daily F/TAF or F/TDF for PrEP



HPTN 083 and 084: Phase 3 for CAB LA PrEP

Objective: To evaluate the safety and efficacy of CAB LA compared to TDF/FTC for PrEP in HIV uninfected MSM/TGW (083) and cisgender women (084)



Monthly Dapivirine Ring



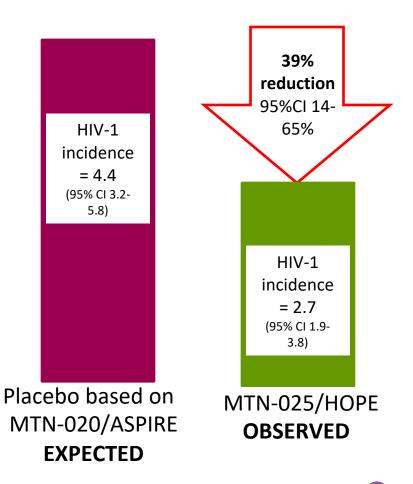
- Flexible silicone vaginal ring developed by IPM
- Self-inserted monthly, discreet
- Slowly releases ARV dapivirine
- Reduced women's HIV-1 risk by ~30% in two Phase III trials
- Under regulatory review



Nel A et al. NEJM 2016 Baeten J et al. NEJM 2016 Baeten J et al. CROI 2018, #143LB Nel A et al. CROI 2018, #144LB

HOPE: Open Label Extension

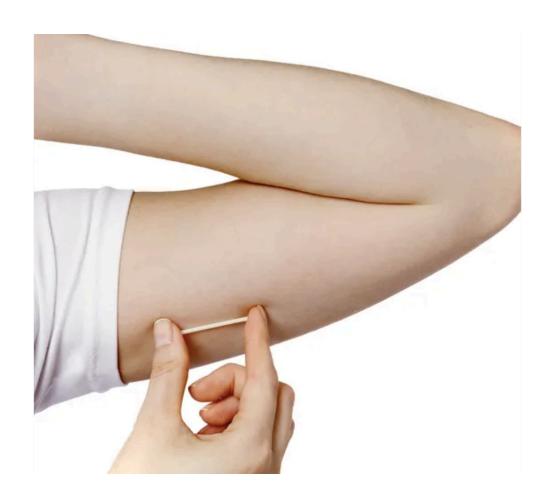
- · Acceptance was high
- Participants used it
- No G3 AEs attributed to SP
- 70 pregnancies, no congenital anomalies
- 39% reduction in HIV incidence
 - 35 infections, no dapivirine specific mutations



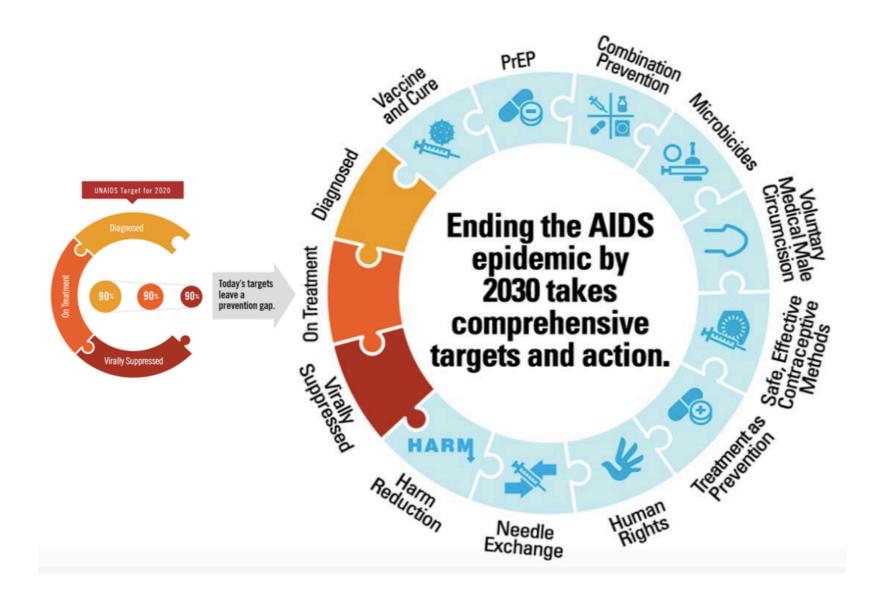




MK-8591 (Islatravir)



Matthews et al. TUAC0401LB IAS. Mexico City, Mexico. July 23, 2019.



Questions?