

# HPTN 2020 State of the Network

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on behalf of the HPTN





### **HPTN Mission**

The HIV Prevention Trials Network (HPTN) advances HIV prevention through research:

- Integrated HIV prevention strategies
- Improve pre-exposure prophylaxis (PrEP)
- New strategies for key populations



### 2020 in Review

- 2 studies completed
- 13 studies ongoing
- 6 new studies in development
- 65 active sites
- 31 presentations
- 50+ publications



### Agents of Pre-Exposure Prophylaxis (PrEP)



### **PrEP: Today**

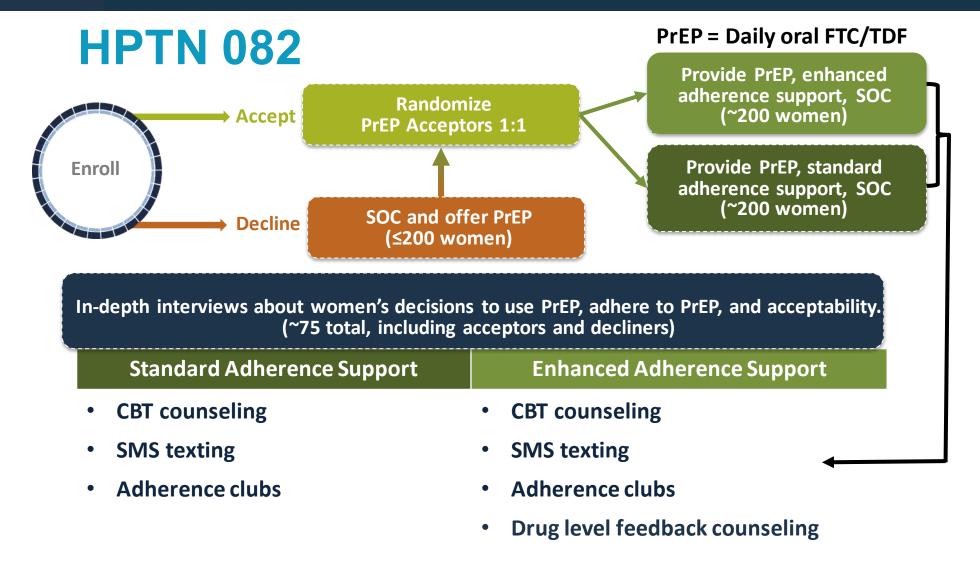


Approved July 2012



Approved October 2019







### **HPTN 082: Results**

- 95% PrEP uptake (95%) among young women.
- No effect of drug level feedback on proportions with detectable TFV-DP or high adherence by arm at 6 months
- Women who perceived themselves to be at risk of HIV and were motivated to use PrEP (HPRM score) had higher adherence at 6 months
- Adherence declined significantly after month 3
- Low HIV incidence (1%) given the risk profile of this cohort
- Counterfactual analysis suggests novel success in PrEP use in some young women

## THE LANCET HIV



Articles

Dolutegravir dosing for children with HIV Rupid ART initiation in Botowana See page 4515 Seepage 4515

Articles

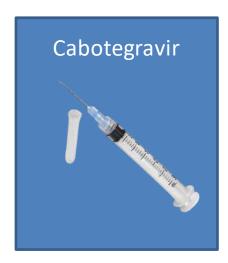
Articles

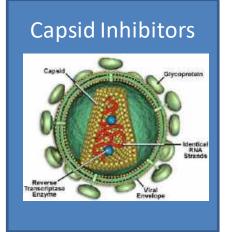
COVID-19 in adults with HIV SerangreSS4 Initiation, discontinuation, and restarting HIV pre-exposure prophylaxis: ongoing implementation strategies

Sarah E Rutstein, Dawn K Smith, Shona Dalal, Rachel C Baggaley, Myron S Cohen



### **PrEP: Tomorrow?**





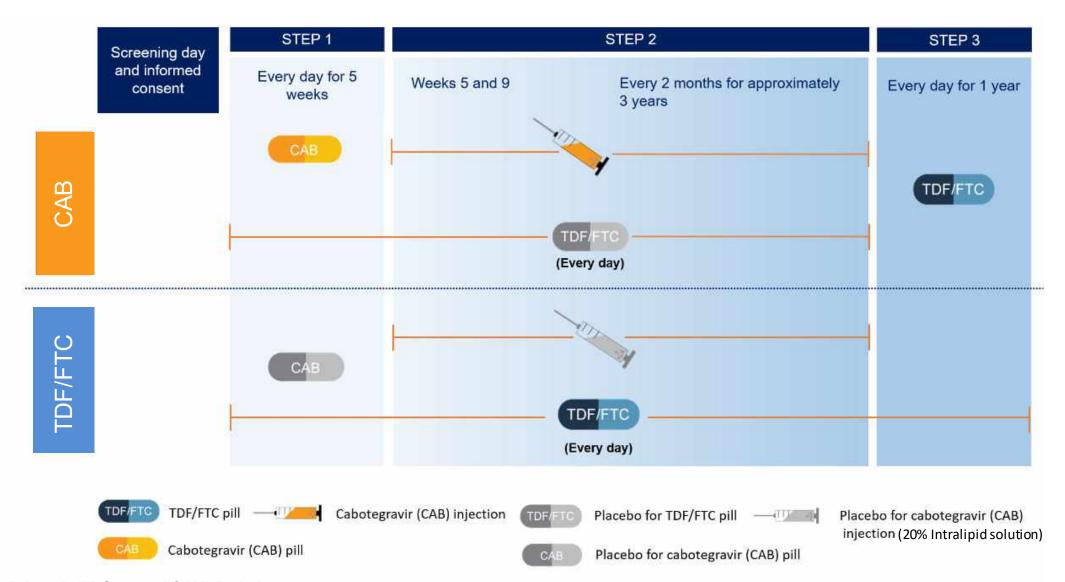








## **HPTN 083 Study Design**







### **Long-Acting Cabotegravir for PrEP**

May 18, 2020 DSMB review

"Long-acting Injectable Cabotegravir is Highly Effective for the Prevention of HIV Infection in Cisgender Men and Transgender Women Who Have Sex with Men"

July 7, 2020 HPTN Press Release "HPTN 083 Study Demonstrates Superiority of Cabotegravir for the Prevention of HIV"







Long-Acting Injectable Drug Prevents HIV Infections by Jon Cohen May 18, 2020

"It's not an AIDS vaccine but it may be the closest thing to one so far."





### **HPTN 084**



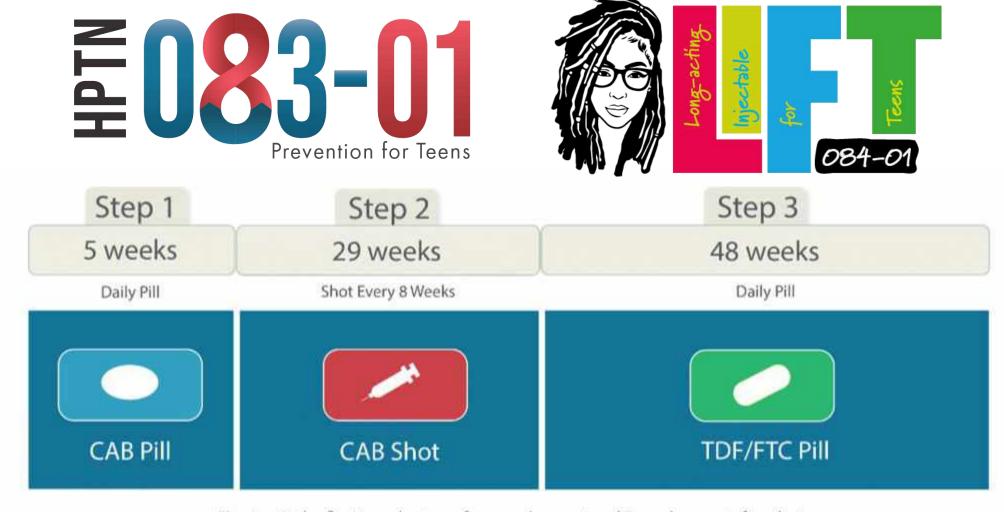
getting the active or placebo products. In step 3, everyone will be given active TDF/FTC.

+In step 2 the first two injections are four weeks apart and 8 weeks apart thereafter.

Graphics designed by Wits RHI

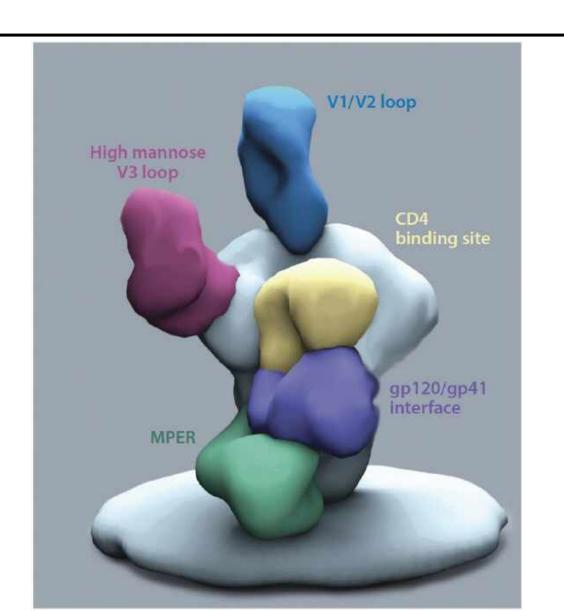
084 Schema Infographic V1.0 26 September 2017





\*In step 2, the first two shots are four weeks apart and 8 weeks apart after that

### The HIV-1 gp120/gp41 Trimer Accessible to Antibodies





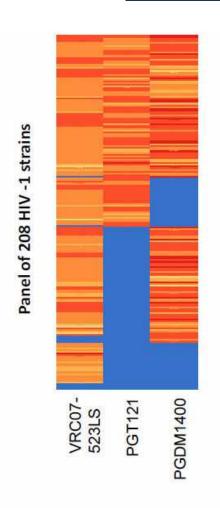
### **Passive Antibody Prevention**

Regimen	ANTIBODY - MEDIATED - PREVENTION STUDY	ANTIBODY - MEDIATED - PREVENTION STUDY	Total
VRC01 10 mg/kg	634	900	1534
VRC01 30 mg/kg	634	900	1534
Control	634	900	1534
Total	1900*	2700	4600*

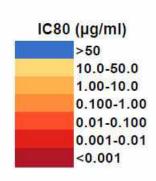
10 infusions total; Infusions every 8 weeks. Study duration: 24 months

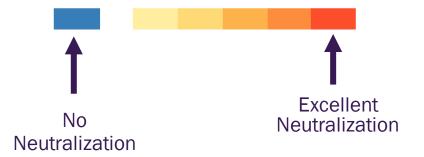
<sup>\*</sup>Due to randomization scheme the number of active product and control recipients may vary slightly.

### Theoretical combinations of bnAbs









Adapted from M Cohen and T Gamble







### **New PrEP Agents and Approaches**

#### New ARVs

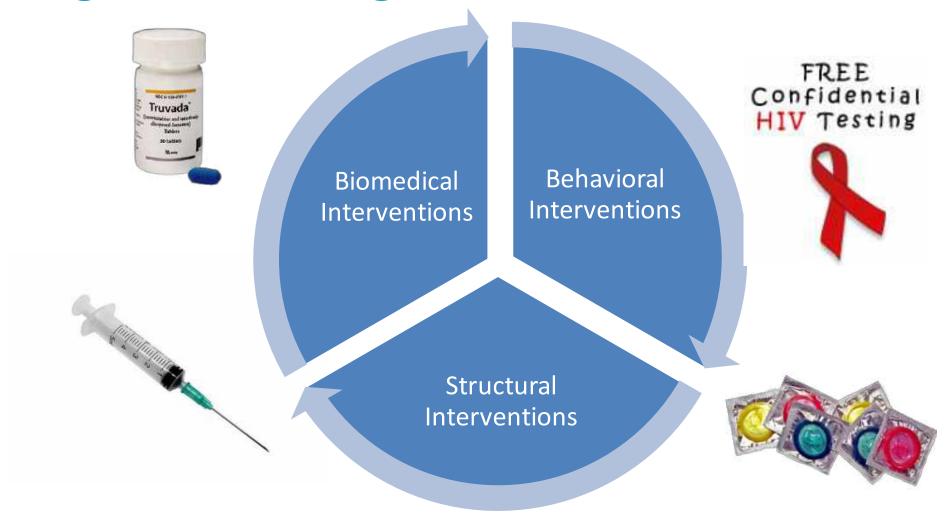
- Islatravir (MSK 8591; potent pill or implant)
- Lenacapravir (G 6207, sub Q)

#### New Devices

- Dapivirine Rings (Favorable EMA Regulatory Review)
- Implants
- Transdermal needles and patches
- Multipurpose technologies

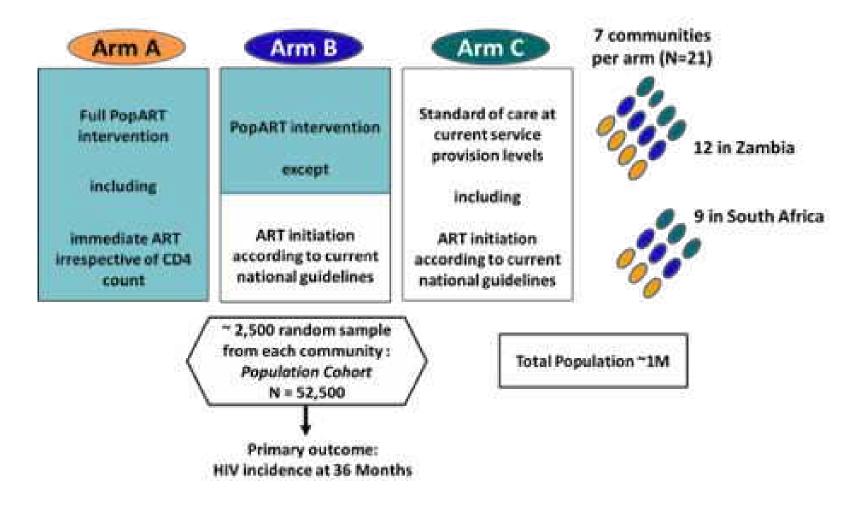


### **Integrated Strategies**

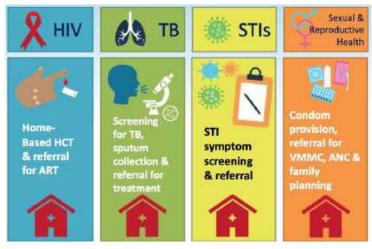


# HPTN 071 (PopART)









### Coming Attractions: PopART Phylogenetic Evaluation

90:90:90 targets were reached, leading to 20% reduction in incidence

Missing 25-40 men is a big gap, accounting for 40% of transmissions.

• Finding missing men is effective even if yield is much lower

40 % of transmissions occurred in first year of infection. 60-70% of transmissions occur later, some much later.

- Annual testing is needed
- Sustained viral suppression is also needed

20 % of transmissions linked different PopART sites.

- We may have under-estimated impact of the PopART intervention
- Continuity of care as people move is vital





# The Way Forward STAY Tuned



### **HPTN Community Programs**

- External stakeholder consultations
- CWG capacity-building sessions
- Education, recruitment, retention materials
- Social media marketing
- Cross-network collaboration





### **HPTN Scholars**



- 64 Scholars since 2010
- 52 Mentors have graciously provided expertise and time
- 19 study datasets: HPTN 037-HPTN 082
- 34 first-authored HPTN manuscripts





### **CoVPN Partners**



#### HIV Prevention Trials Network

The HIV Prevention Trials Network (HPTN) develops and tests the safety and efficacy of non-vaccine interventions designed to prevent the transmission of HIV.



#### HIV Vaccine Trials Network

The HIV Vaccine Trials Network (HVTN) is the world's largest publicly funded international collaboration focused on the development of vaccines to prevent HIV/AIDS.





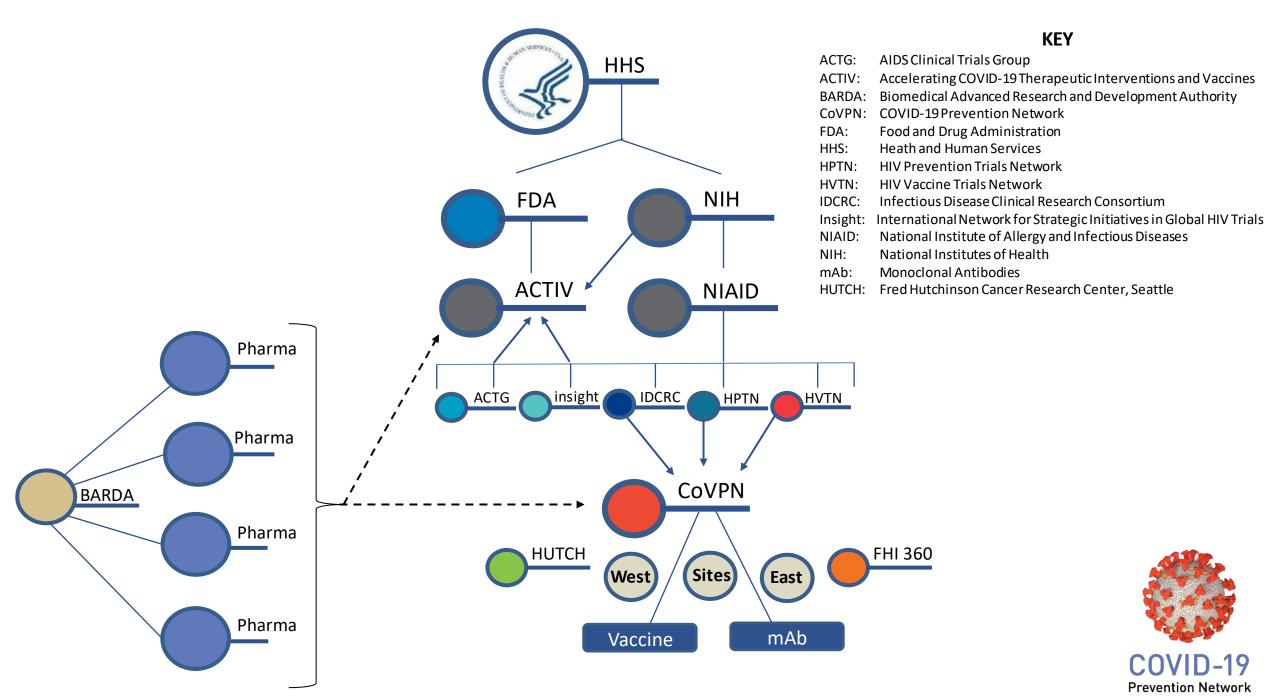
#### AIDS Clinical Trials Group

The ACTG established and supports the largest Network of expert clinical and translational investigators and therapeutic clinical trials units in the world. These investigators and units serve as the major resource for HIV/AIDS research on treatment and care for persons living with HIV/AIDS.



### Infectious Disease Clinical Research Consortium

NIAID established the Infectious Diseases Clinical Research Consortium in 2019. It encompasses the Institute's long-standing Vaccine and Treatment Evaluation Units (VTEUs) and a new leadership group.



'Provocative results' boost hopes of antibody treatment for COVID-19

By Jon Cohen Sep. 30, 2020, 5:15 PM

Companies are developing COVID-19 treatments using monoclonal antibodies, Y-shaped immune proteins that target the pandemic coronavirus.

KTSDESIGN/Science Source





### **Teamwork**

- Study participants and communities
- Site investigators, staff, and community representatives
- BMGF, USAID, PEPFAR/OGAC, ViiV Healthcare, Gilead, VRC, PANGEA, and many other partners
- NIH (NIAID, NIMH, Office of the Director, NIDA), OAR
- HPTN Scientific Advisory Group, Executive Committee, LOC, SDMC, LC, Network Oversight, Scientific Committees, and Working Groups