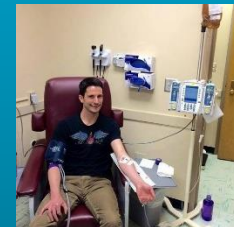


# HPTN 2018

## State of the Network

**Myron S. Cohen**  
**Wafaa El-Sadr**  
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

# What Does this Really Mean?

- We are trying to develop tools/strategies
  - That improve public health policy/practice
  - That improve medical care
  - In a timely fashion (FAST)

# The Year in Review: Metrics

- 9 ongoing studies including the HPTN 071 (PopART), the largest HIV prevention study to date
  - Many more (> 6) new studies planned
  - **6 studies completed**
- 78 sites are active (22 HPTN sites)
  - >25 new protocol-specific sites launched in the last year
- 65 presentations, 47 publications
- Robust engagement of communities
- Dissemination of results/best practices
- A successful “scholars” program

# HPTN STUDIES “BY THE NUMBERS”

# JAMA Internal Medicine

Research

JAMA Internal Medicine | [Original Investigation](#)

## Financial Incentives for Linkage to Care and Viral Suppression Among HIV-Positive Patients A Randomized Clinical Trial (HPTN 065)

Wafaa M. El-Sadr, MD; Deborah Donnell, PhD; Geetha Beauchamp, MS; H. Irene Hall, PhD; Lucia V. Torian, PhD;  
Barry Zingman, MD; Garret Lum, MPH; Michael Kharfen, BA; Richard Elion, MD; Jason Leider, MD;  
Fred M. Gordin, MD; Vanessa Elharrar, MD; David Burns, MD; Allison Zerbe, MPH; Theresa Gamble, PhD;  
Bernard Branson, MD; for the HPTN 065 Study Team

*El-Sadr, et al.; JAMA Intern Med. June 19, 2017*

## Daily and non-daily pre-exposure prophylaxis in African women (HPTN 067/ADAPT Cape Town Trial): a randomised, open-label, phase 2 trial

*Prof Linda-Gail Bekker, MD, Surita Roux, MBChB, Elaine Sebastien, RNRM, Ntando Yola, PgDPH, K Rivet Amico, PhD, Prof James P Hughes, PhD, Mark A Marzinke, PhD, Craig W Hendrix, MD, Prof Peter L Anderson, PharmD, Vanessa Elharrar, MD, Michael Stirratt, PhD, James F Rooney, MD, Estelle Piwowar-Manning, MT(ASCP), Prof Susan H Eshleman, MD, Laura McKinstry, MPH, Maoji Li, MMath, Bonnie J Dye, MPH, Robert M Grant, MD, on behalf of the HPTN 067 (ADAPT) study team*

### Articles

A network meta-analysis of second-line therapies

See page e433

### Articles

Effect of vaginal microbiota on oral PrEP efficacy

See page e443

### Articles

A household survey of HIV incidence in Rwanda

See page e457



## The Effect of a Conditional Cash Transfer on HIV Incidence in Young Women in Rural South Africa (HPTN 068): a Phase 3, Randomised Controlled Trial

*Audrey Pettifor, Catherine MacPhail, James P Hughes, Amanda Selin, Jing Wang, F Xavier Gómez-Olivé, Susan H Eshleman, Ryan G Wagner, Wonderful Mabuza, Nomhle Khoza, Chirayath Suchindran, Immitrude Mokoena, Rhian Twine, Philip Andrew, Ellen Townley, Oliver Laeyendecker, Yaw Agyei, Stephen Tollman, Kathleen Kahn*

*Pettifor, et al.; Lancet Glob Health Dec 2016;4(12):e978-88*





# Phase 2 Study of the Safety and Tolerability of Maraviroc-Containing Regimens to Prevent HIV Infection in Men Who Have Sex With Men (HPTN 069/ACTG A5305)

Roy M. Gulick, Timothy J. Wilkin, Ying Q. Chen, Raphael J. Landovitz, K. Rivet Amico, Alicia M. Young, Paul Richardson, Mark A. Marzinke, Craig W. Hendrix, Susan H. Eshleman, Ian McGowan, Leslie M. Cottle, Adriana Andrade, Cheryl Marcus, Karin L. Klingman, Wairimu Chege, Alex R. Rinehart, James F. Rooney, Philip Andrew, Robert A. Salata, Manya Magnus, Jason E. Farley, Albert Liu, Ian Frank, Ken Ho, Jorge Santana, Joanne D. Stekler, Marybeth McCauley, and Kenneth H. Mayer

# Treatment as Prevention Trials



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- **HPTN 071 (PopART)**
- CDC Botswana
- ANRS Africa Center
- SEARCH Uganda

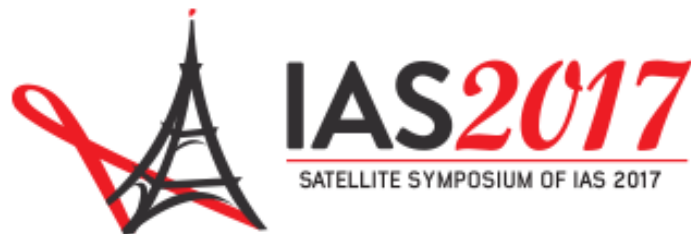
...and many smaller studies



## A universal testing and treatment intervention to improve HIV control: One-year results from intervention communities in Zambia in the HPTN 071 (PopART) cluster-randomised trial


Richard Hayes , Sian Floyd, Ab Schaap, Kwame Shanaube, Peter Bock, Kalpana Sabapathy, Sam Griffith, Deborah Donnell, Estelle Piwowar-Manning, Wafaa El-Sadr, Nulda Beyers, Helen Ayles, Sarah Fidler, for the HPTN 071 (PopART) Study Team 

Published: May 2, 2017 • <https://doi.org/10.1371/journal.pmed.1002292>




### HPTN 071 (PopART)

Cross-Disciplinary Approaches to Understand Successes and Challenges of Implementing a Community-Wide Universal Test and Treat Programme in Sub-Saharan Africa



**Organizer:** HIV Prevention Trials Network (HPTN)  
**Location:** Havana Amphitheater  
**Date & Time:** Wednesday 26, July 07:00 - 08:30  
**Chairs:** David Serwadda, Makerere University School of Public Health, Uganda  
Alasdair Reid, UNAIDS, Switzerland  
**Session Code:** WESA01

Breakfast will be served



**HPTN**  
HIV Prevention  
Trials Network

**Have We Reached the 90-90-90 Targets After Two Years of the PopART Intervention?**  
Richard Hayes, London School of Hygiene & Tropical Medicine, United Kingdom

# HPTN 073

## PrEP Uptake and Use by Black Men Who Have Sex With Men in Three U.S. Cities



*Darrell P. Wheeler; Sheldon Fields; LaRon E. Nelson; Leo Wilton; Lisa Hightow-Weidman; Steven Shoptaw; Manya Magnus; Geetha Beauchamp; Phaedrea Watkins; Kenneth H. Mayer for the HPTN 073 Study*

# HPTN 074

**Integrated intervention including supported ART  
compared to the standard of care for PWID**

- Vietnam, Ukraine, Indonesia
- 504 HIV infected PWID
- 810 PWID “partners”
- Results presented at CROI 2018

## **MSM: HPTN 075 and 078**

Studies designed to better inform our ability to prevent HIV in hard to reach MSM ...worldwide

**HPTN 075 recruited MSM in SSA**

**Results at IAS 2018!**

# Pre-Exposure Prophylaxis



# HPTN 082: Design & PrEP uptake

**HPTN 082: Evaluation of daily oral PrEP as a primary prevention strategy for young African women**



## Study Population

Uninfected women  
Ages 16-25 yrs

Johannesburg & Cape Town,  
South Africa  
Harare, Zimbabwe

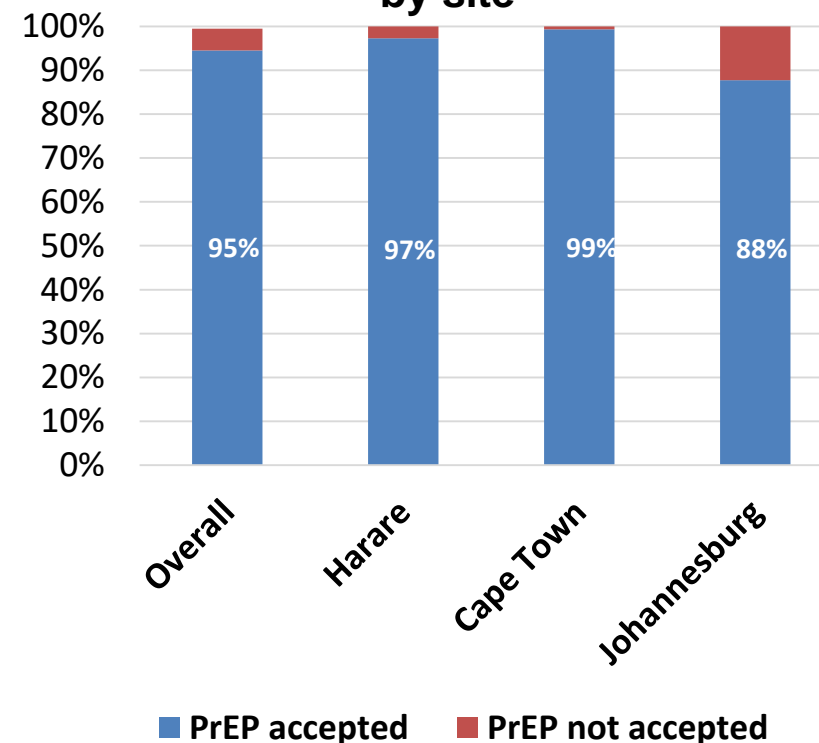
## Target Enrollment

- 400 women who accept PrEP at enrollment
- ≤ 200 women who decline PrEP at enrollment

## Primary Objectives:

- Assess the proportion and characteristics of women who accept versus decline PrEP
- Assess PrEP adherence using drug levels in young women

**Figure 1: PrEP uptake overall and by site**





# HPTN 076

## TMC278 LA (Rilpivirine) for PrEP



### **HPTN 076: TMC278 LA Safe, Tolerable, And Acceptable for HIV Pre-exposure Prophylaxis**

*Linda-Gail Bekker, Shuying S. Li, Betsy Tolley, Mark A. Marzinke, Nyaradzo Mgodì, Jessica E. Justman, Shobha Swaminathan, Adeola Adeyeye, Jennifer H. Farrior, Nirupama Sista*

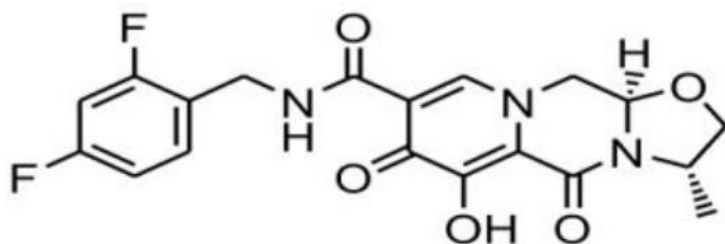


### **HPTN 076: Safety and Pharmacokinetics of Rilpivirine LA Through Week 76 in HIV-uninfected Women**

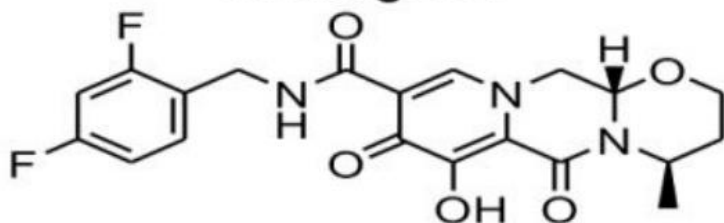
*N.D. Sista, S. Li, M. Marzinke, N. Mgodì, J. Justman, S. Swaminathan, A. Adeyeye, E. Piwowar-Manning, S. Pathak, J. Farrior, L.-G. Bekker, and the HPTN Study Team*

# CABOTEGRAVIR: GSK126744 Long Acting (744LA)

**GSK1265744  
(GSK744)**



**Dolutegravir**



**Favorable attributes for PrEP:**

- High genetic barrier to resistance
- PK profile – half life of 21-50 days -- allows once-daily oral or 1-3 month injectable dosing using nanosuspension formulation



*Muller et al, European Journal of Pharmaceutics and Biopharmaceutics, 2011*  
*Spreen, 7<sup>th</sup> IAS, 2013; Min, ICAAC, 2009*  
*Taoda, International Congress on Drug Therapy in HIV Infection, 2012*

# **Safety, Tolerability, and Pharmacokinetics of Long-Acting Injectable Cabotegravir in Low-Risk HIV-uninfected Women and Men**

## **HPTN 077**

**R. Landovitz, S. Li, B. Grinsztejn, H. Dawood, A. Liu, M. Magnus, M.  
Hosseiniipour, R. Panchia, L. Cottle, G. Chau, P. Richardson, M.  
Marzinke, C. Hendrix, B. Tolley, A. Adeyeye, D. Burns, A. Rinehart,  
D. Margolis, MB McCauley, J Eron**

**IAS 2017 - Paris, France  
July 25, 2017**

# HPTN 083: CAB LA 600mg

To Prevent HIV Acquisition in MSM and TGW

Landovitz and Grinsztejn, *Protocol Chairs*

Step 1	Daily oral CAB and TDF/FTC placebo	TDF/FTC and oral CAB placebo
Step 2	CAB LA at two time points 4 weeks apart and every 8 weeks thereafter and TDF/FTC placebo	TDF/FTC and injectable placebo at two time points 4 weeks apart and every 8 weeks thereafter
Step 3	Open-label TDF/FTC to cover the PK tail	Open-label TDF/FTC to Cover the PK tail



**Primary Objective: Reduce HIV Incidence (**non-inferiority**,  
double blind, double dummy design)**

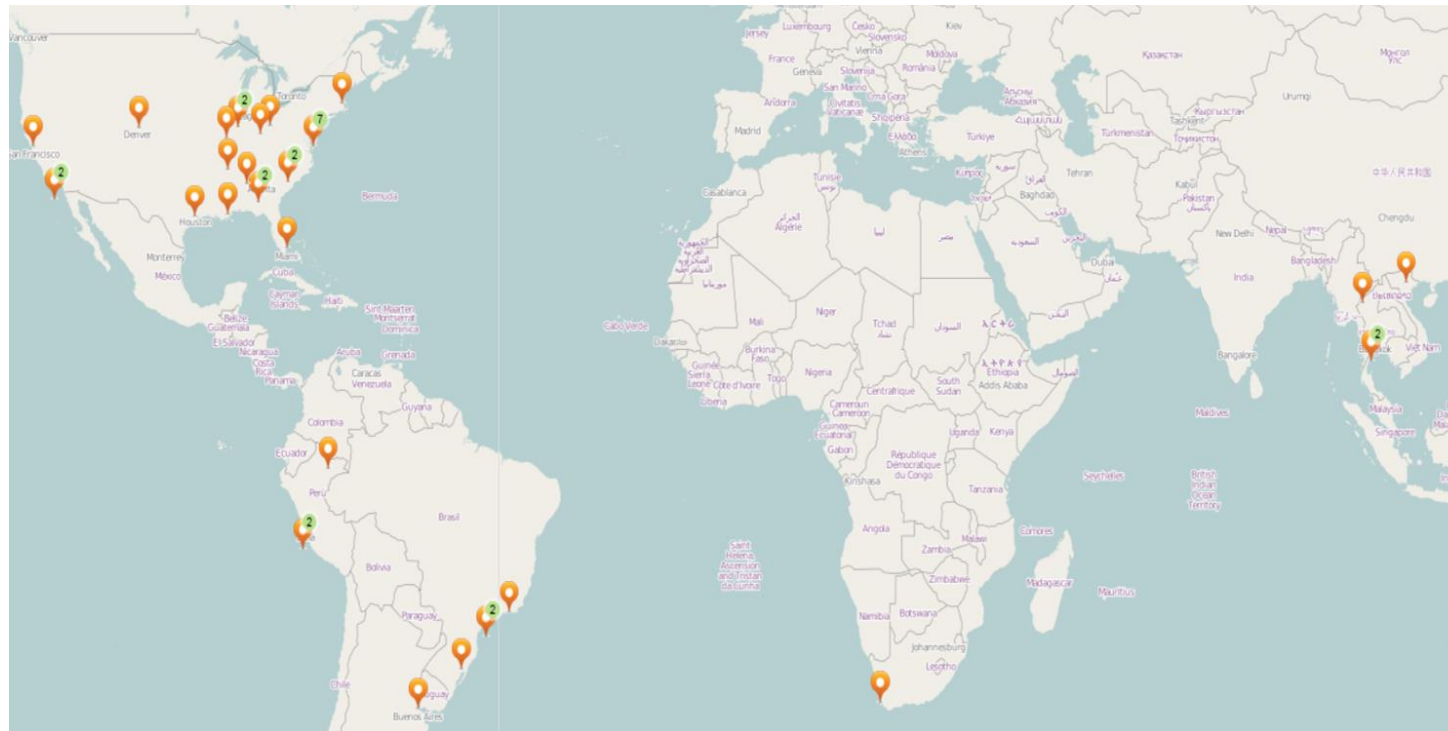
N=4500; Study duration: Enrollment 24-30 months; follow-up ~ 4.5 years

Enrollment goals:

- *Minimum* 50% of US enrollment Black MSM (~ 950)
- Overall minimum 10% TGW (~ 450)
- Overall > 50% under age 30

# HPTN 083 Research Sites

## 43 Sites in 7 Countries



**Study started in December 2016 in U.S.  
1252 Enrolled! (as of March 21 2018)**

# HPTN 084: CAB LA 600mg

To Prevent HIV Acquisition in Women

Delaney-Moretlwe and Hosseinipour, *Protocol Chairs*

Step 1	Daily oral CAB and TDF/FTC placebo	Oral TDF/FTC and oral CAB placebo
Step 2	CAB LA and oral TDF/FTC placebo at two time points 4 weeks apart and every 8 weeks thereafter	Oral TDF/FTC and injectable placebo at two time points 4 weeks apart and every 8 weeks thereafter
Step 3	Open-label oral TDF/FTC to cover the PK tail	Open-label oral TDF/FTC to cover the PK tail

**Primary Objective: Reduce HIV Incidence (**superiority**, double blind, double dummy design)**

Study duration: Enrollment 24 months; follow-up up to 4.5 years, N=3200

# Study Population

- 20 research sites in 7 countries in Sub-Saharan Africa
- 3,200 women who have sex with men
- Expected HIV incidence >3/100 person years



# Subcutaneous PrEP Implants?

## Like Implanon/Nexplanon Contraception

- Simple insertion AND removal
- Long-acting (months to years)
- PrEP + contraception?
- Current development:
  - TAF, EFdA (MK-8591), Cabotegravir



**Partnerships established!**  
**A Phase 1 study 2019**



# Passive Antibody Prevention

## Phase IIB Efficacy Studies

AMP = Antibody Mediated Prevention



Can a passively infused monoclonal antibody  
prevent HIV-1 infection in high risk adults:

MSM in Americas & Heterosexual Women in sub-Saharan Africa?

Chairs: Lawrence Corey, HVTN  
Myron S. Cohen, HPTN

Co-chairs: Srilatha Edupuganti  
Nyaradzo Mgodhi

## AMP Studies: Safety and Efficacy of VRC01 broadly neutralizing monoclonal antibody

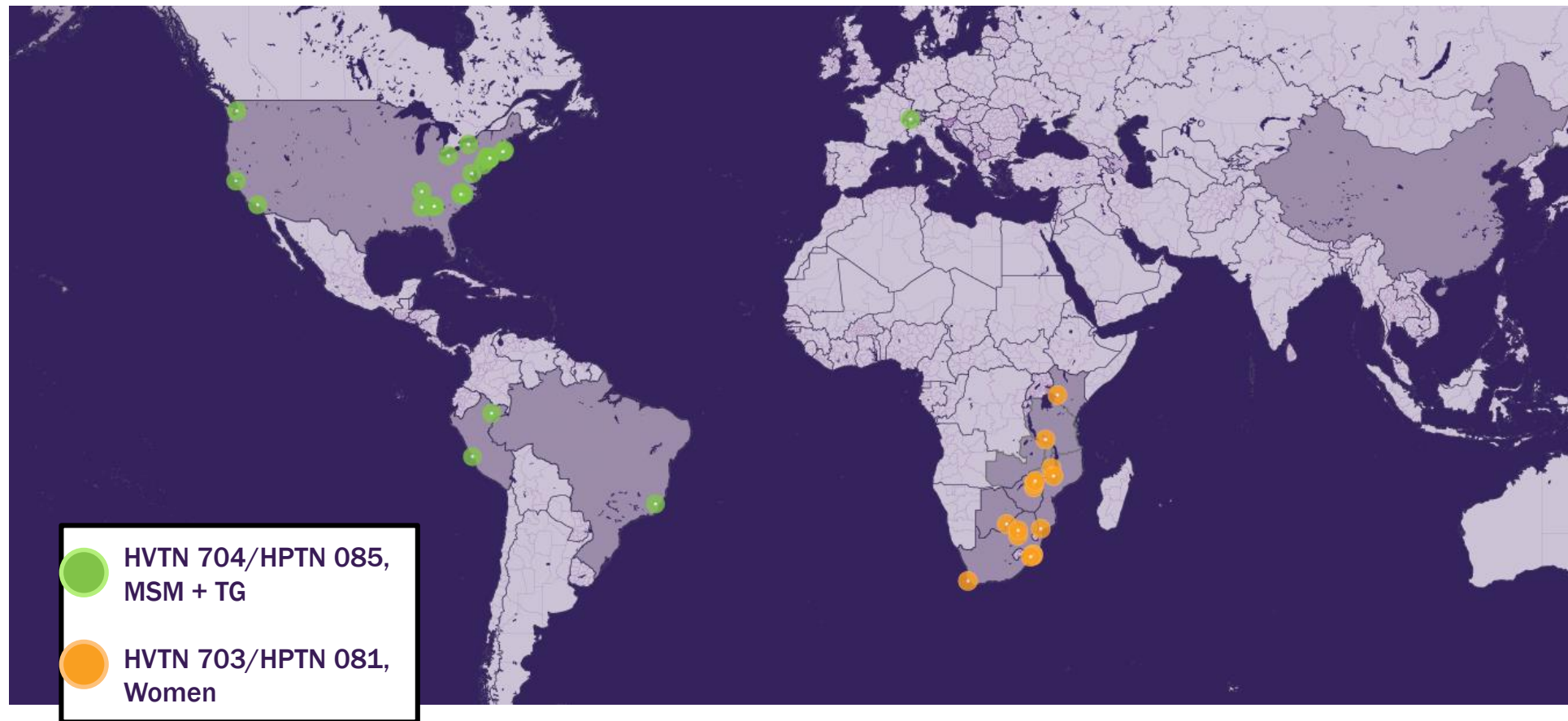
Regimen	 <b>HVTN 703/HPTN 081</b> Cisgender Women in sub-Saharan Africa	 <b>HVTN 704/HPTN 085</b> MSM & TG People in the Americas and Switzerland	Total
VRC01 10 mg/kg	634	900	1534
VRC01 30 mg/kg	634	900	1534
Control	634	900	1534
<b>Total</b>	<b>1900*</b>	<b>2700</b>	<b>4600*</b>

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

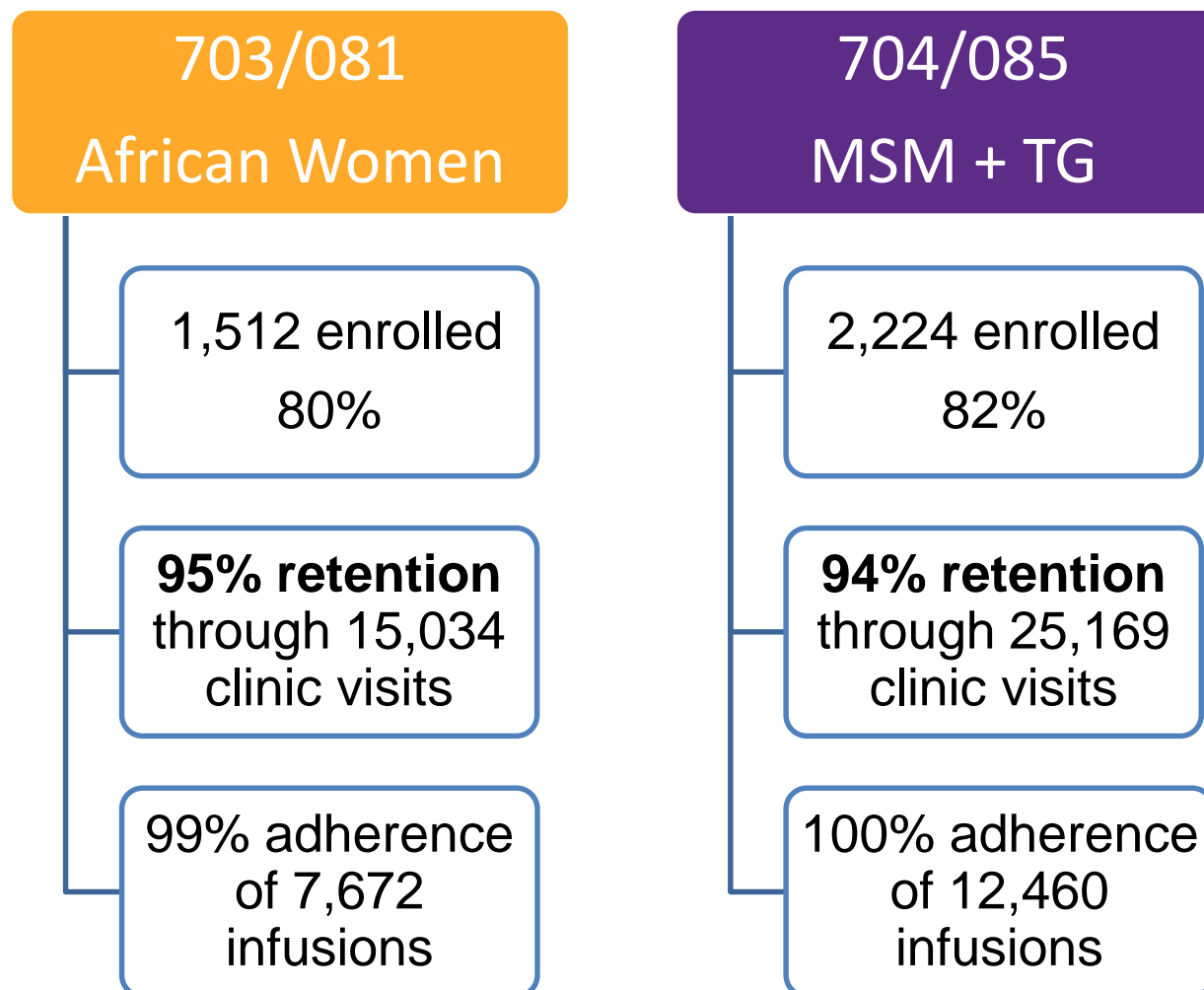
\*Due to randomization scheme the number of active product and control recipients may vary slightly.

# AMP Research Sites

47 sites in 11 countries



# Enrollment and Retention Updates





## *Broadly neutralizing antibodies to prevent HIV-1*

Studies show the potential of synthetic and  
Combinations of broadly neutralizing antibodies.

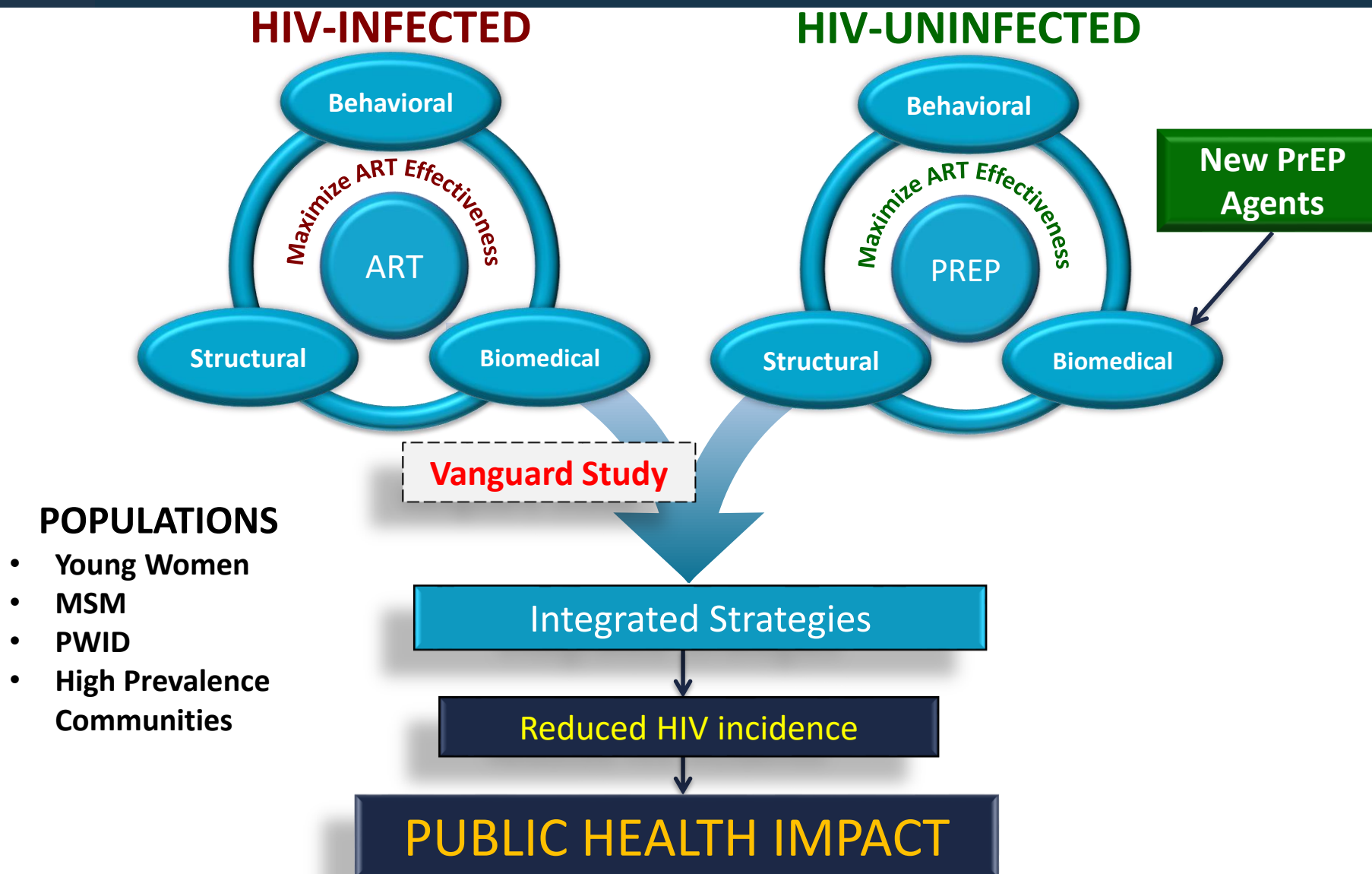
By Myron S. Cohen *and* Lawrence Corey

## Next Generation BnAB Studies Safety and PK/PD and Potential

- HPTN 087: VRC01-523LS
- HPTN 088: Sanofi trispecific antibody
- HPTN 089: Combination of 3 antibodies:

Evaluation of safety, PK, antiviral activity of combinations  
PGT121, PDGM 1400, VRC07-523LS, 10E8 to identify the  
best “triple threat”

# HPTN: Putting It All Together!





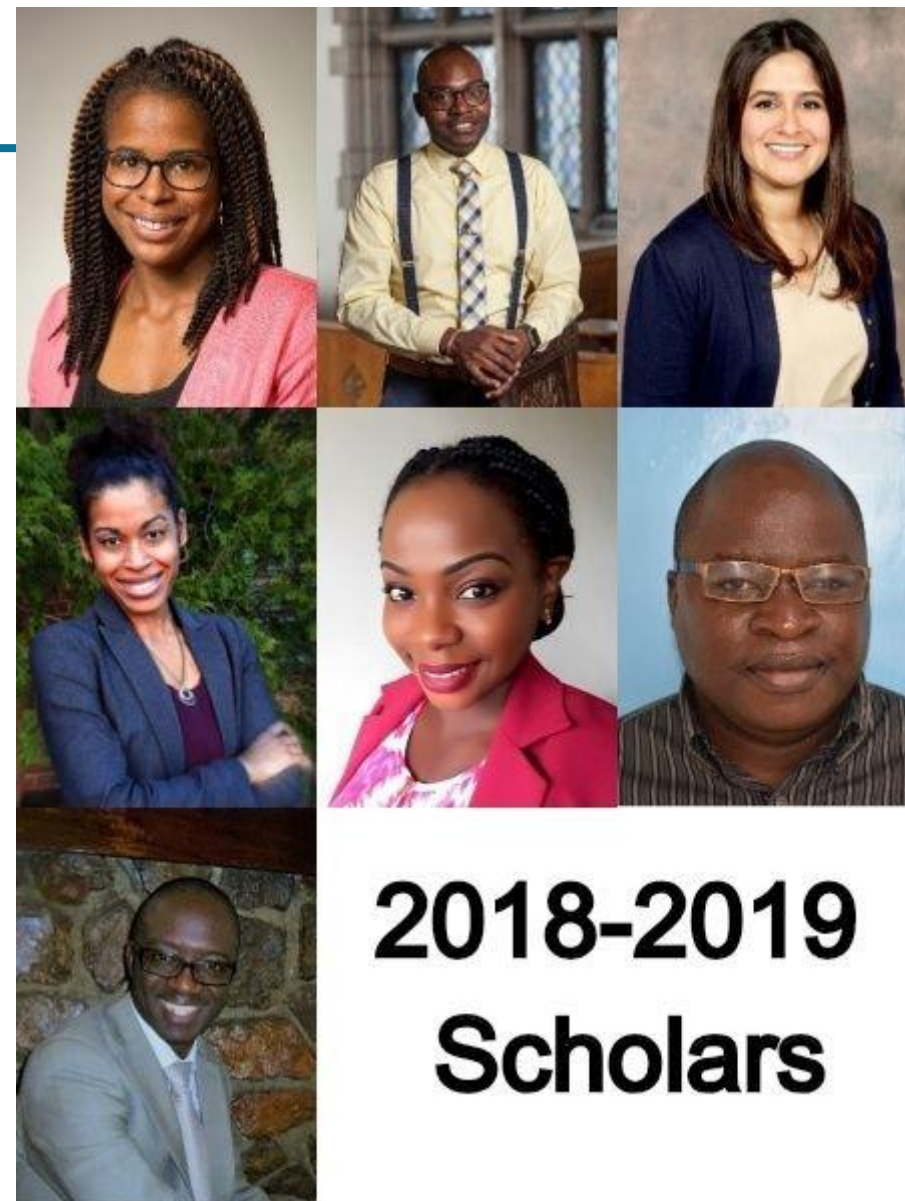
# **HPTN is More Than A Series of Studies**



# HPTN Scholars Program

**Goal:** To develop the next generation of HIV prevention scientists from under-represented racial/ethnic communities

- Scholars utilize HPTN data to develop analytic skills, conduct reviews, give presentations, write publications



# HPTN Scholars Program Achievements

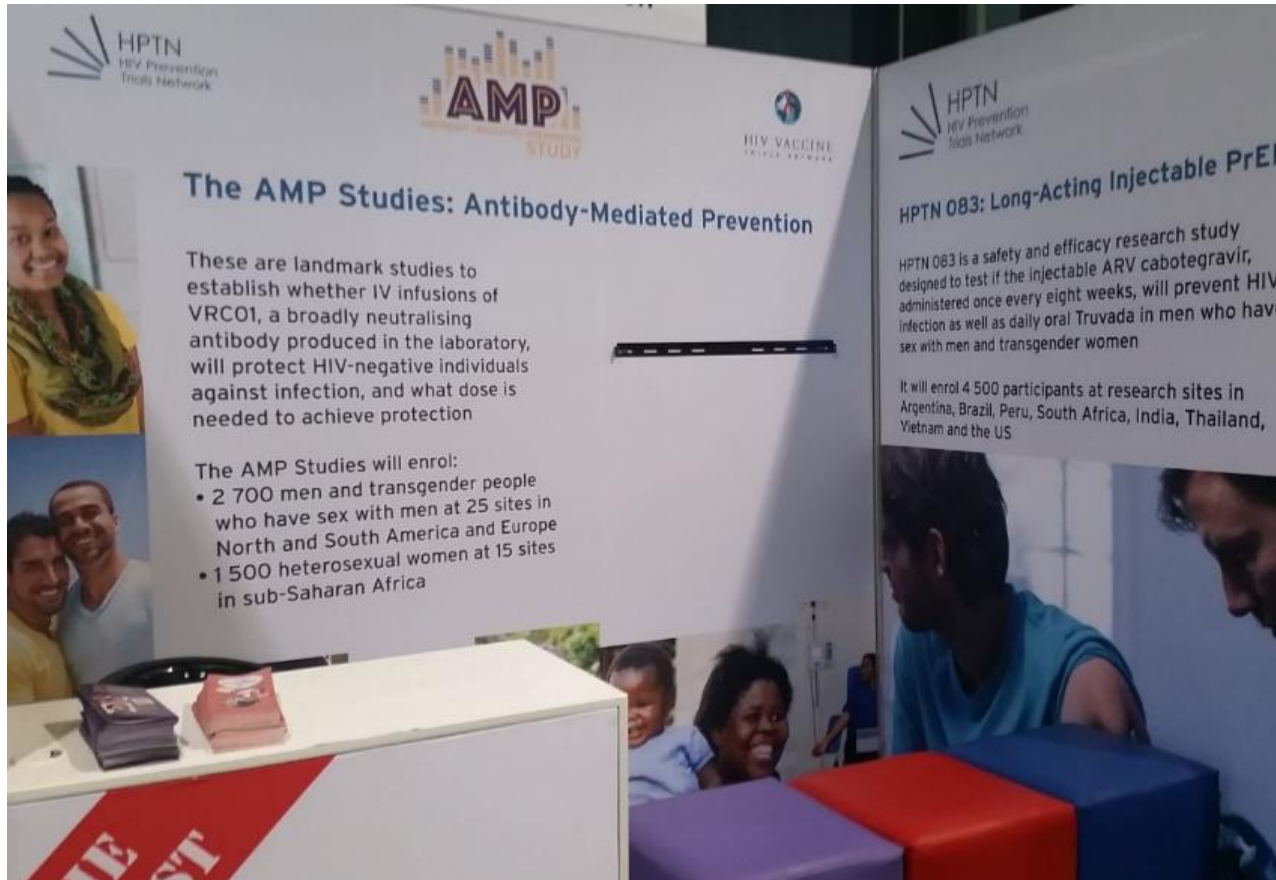
- 43 Scholars since 2010
  - Studies: 037, 039, 043, 058, 061, 063, 064, 065, 067, 068
  - 43 Mentors have graciously provided their expertise and time
  - Just added 052, 073, and 075 (qualitative)
- HPTN involvement
  - Protocol Team Members (HPTN 073, 078)
  - Black Caucus
  - Scientific Committees

# Community Cross Site Exchange of Best Practices





# Cross Network Collaborations/Partnerships



The image shows a white exhibition booth for HPTN studies. On the left, a sign for 'The AMP Studies: Antibody-Mediated Prevention' features the HPTN logo, a stylized 'AMP' logo, and a photo of a smiling woman. The text describes the study's goal to establish whether IV infusions of VRC01 will protect HIV-negative individuals. Below, it lists enrollment numbers: 2,700 men and transgender people at 25 sites in North and South America and Europe, and 1,500 heterosexual women at 15 sites in sub-Saharan Africa. On the right, a sign for 'HPTN 083: Long-Acting Injectable PrEP' features the HPTN logo and a photo of a man. The text describes the study of injectable ARV cabotegravir. Below, it lists enrollment of 4,500 participants at research sites in Argentina, Brazil, Peru, South Africa, India, Thailand, Vietnam, and the US. A table with red and blue folders is in the foreground.

**The AMP Studies: Antibody-Mediated Prevention**

These are landmark studies to establish whether IV infusions of VRC01, a broadly neutralising antibody produced in the laboratory, will protect HIV-negative individuals against infection, and what dose is needed to achieve protection

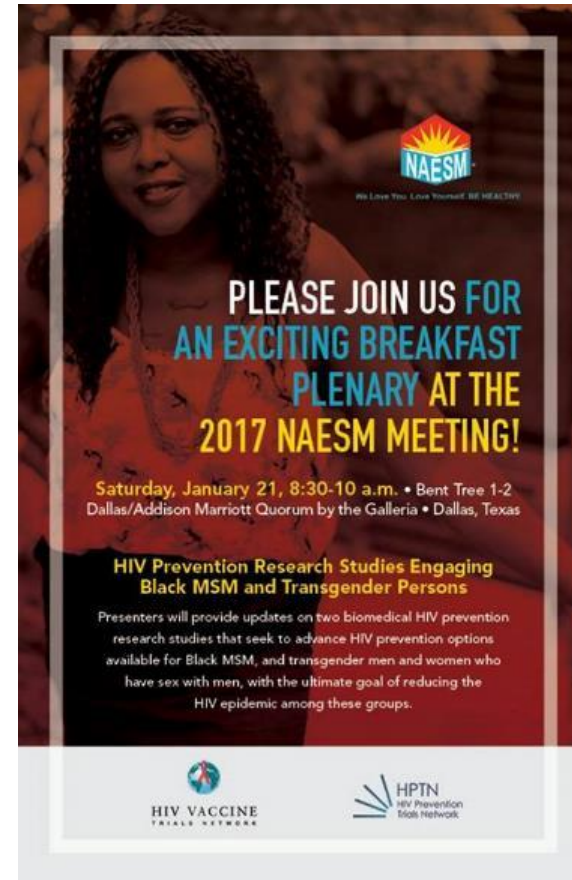
The AMP Studies will enrol:

- 2 700 men and transgender people who have sex with men at 25 sites in North and South America and Europe
- 1 500 heterosexual women at 15 sites in sub-Saharan Africa

**HPTN 083: Long-Acting Injectable PrEP**

HPTN 083 is a safety and efficacy research study designed to test if the injectable ARV cabotegravir, administered once every eight weeks, will prevent HIV infection as well as daily oral Truvada in men who have sex with men and transgender women

It will enrol 4 500 participants at research sites in Argentina, Brazil, Peru, South Africa, India, Thailand, Vietnam and the US



The image is a poster for the 2017 NAESM Meeting. It features a photo of a smiling woman with curly hair. The NAESM logo is in the top right. The main text invites people to join for an exciting breakfast plenary. The date and location are Saturday, January 21, 8:30-10 a.m. at Bent Tree 1-2, Dallas/Addison Marriott Quorum by the Galleria. The topic is HIV Prevention Research Studies Engaging Black MSM and Transgender Persons. The bottom text states that presenters will provide updates on two biomedical HIV prevention research studies. Logos for HIV Vaccine Trials Network and HPTN are at the bottom.

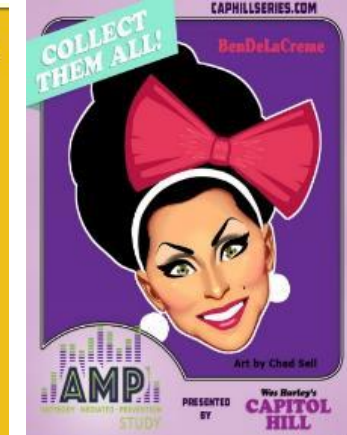
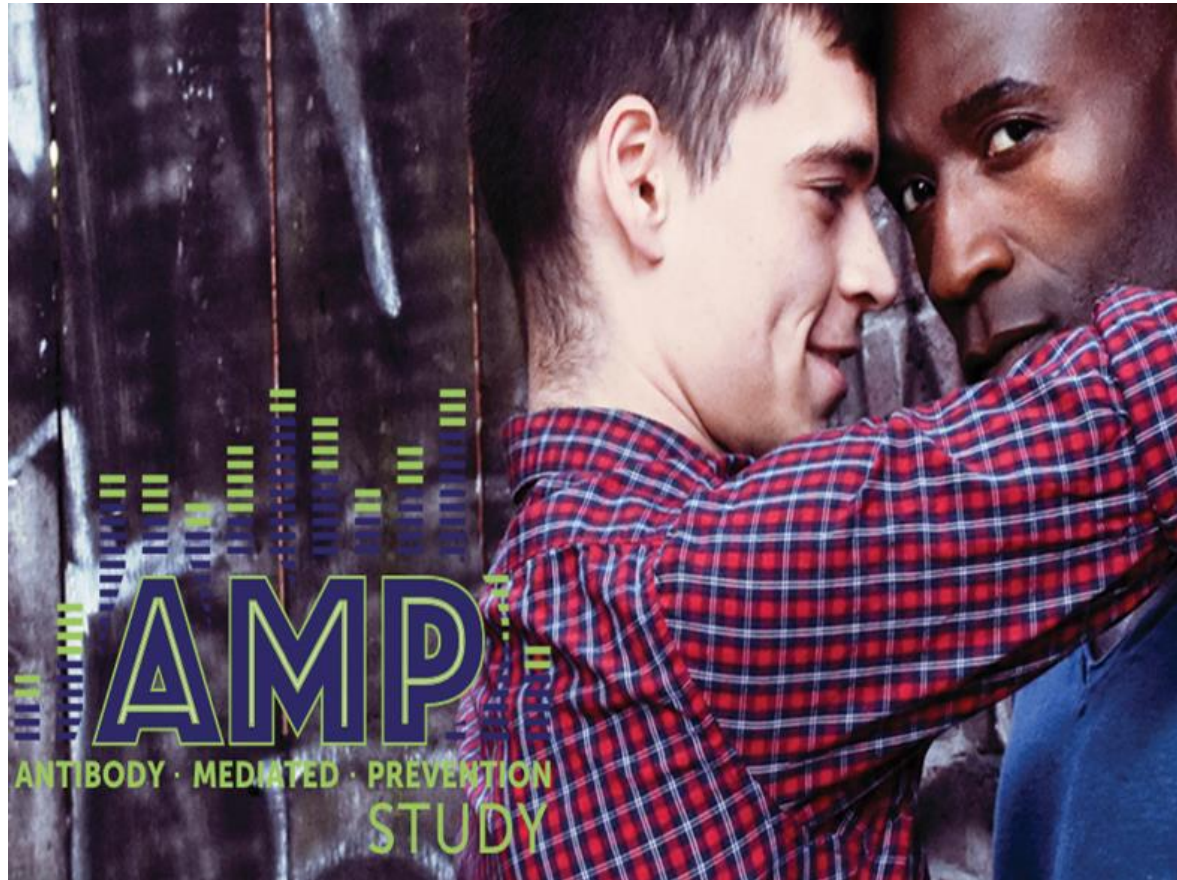
**PLEASE JOIN US FOR AN EXCITING BREAKFAST PLENARY AT THE 2017 NAESM MEETING!**

**Saturday, January 21, 8:30-10 a.m. • Bent Tree 1-2  
Dallas/Addison Marriott Quorum by the Galleria • Dallas, Texas**

**HIV Prevention Research Studies Engaging Black MSM and Transgender Persons**

Presenters will provide updates on two biomedical HIV prevention research studies that seek to advance HIV prevention options available for Black MSM, and transgender men and women who have sex with men, with the ultimate goal of reducing the HIV epidemic among these groups.

# AMP Social Marketing Strategies

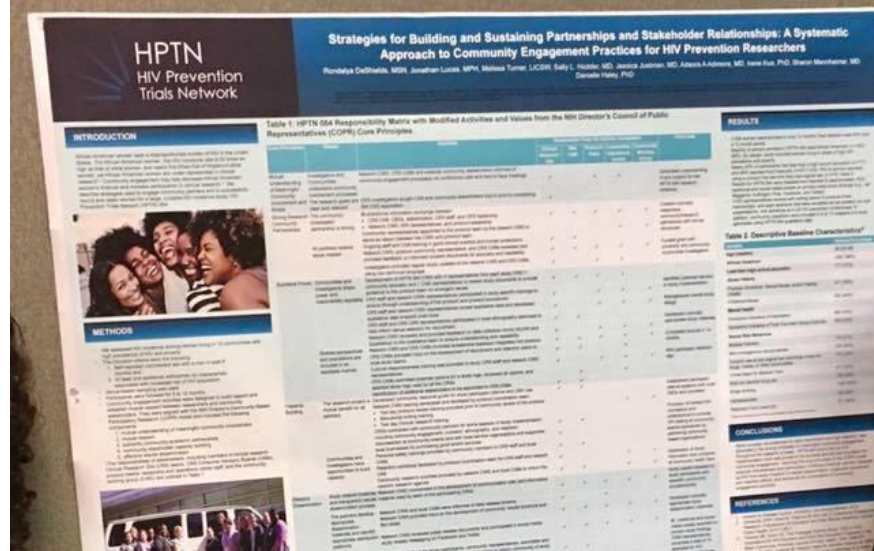




# Community Outreach/Education



# Dissemination – Best Practices



# One More Thing!

**Call for concepts: See HPTN Web Site**  
**August 15, 2018**



# The Team

- **Study participants and participating communities**
- **Site investigators, staff, and community representatives**
- BMGF, USAID, PEPFAR/OGAC, ViiV, Gilead, VRC, PANGEA, and many other partners
- NIH Institutes (NIAID, NIMH, NIDA) and OAR
- HPTN Scientific Committees, Working Groups, Executive Committee, and Scientific Advisory Group