

HPTN 2019

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 inform public health policy/practice
- That inform guidelines, care, and practice
- In a timely fashion (FAST)

The Year in Review: Metrics

- 5 studies completed !!!!!
- 5 studies ongoing
- 13 studies in development
- 69 active sites (22 HPTN assigned)
- 70 presentations
- 61 publications

HIV Treatment /S Prevention

- **HPTN 052 (2011,2016)**
- Opposites Attract (Lancet HIV, 2017)
- Partner Study (JAMA, 2018)
- Partner 2 (Lancet, 2019)

THE LANCET

Risk of HIV transmission through condomless sex in serodifferent gay couples with the HIV-positive partner taking suppressive antiretroviral therapy (PARTNER): final results of a multicentre, prospective, observational study

*Alison J Rodger, Valentina Cambiano, Tina Bruun, Pietro Vernazza, Simon Collins, Olaf Degen, Giulio Maria Corbelli, Vicente Estrada, Anna Maria Geretti, Apostolos Beloukas, Dorte Raben, Pep Coll, Andrea Antinori, Nneka Nwokolo, Armin Rieger, Jan M Prins, Anders Blaxhult, Rainer Weber, Arne Van Eeden, Norbert H Brockmeyer, Amanda Clarke, Jorge del Romero Guerrero, Francois Raffi, Johannes R Bogner, Gilles Wandeler, Jan Gerstoft, Felix Gutiérrez, Kees Brinkman, Maria Kitchen, Lars Ostergaard, Agathe Leon, Matti Ristola, Heiko Jessen, Hans-Jürgen Stellbrink, Andrew N Phillips, Jens Lundgren, for the PARTNER Study Group**

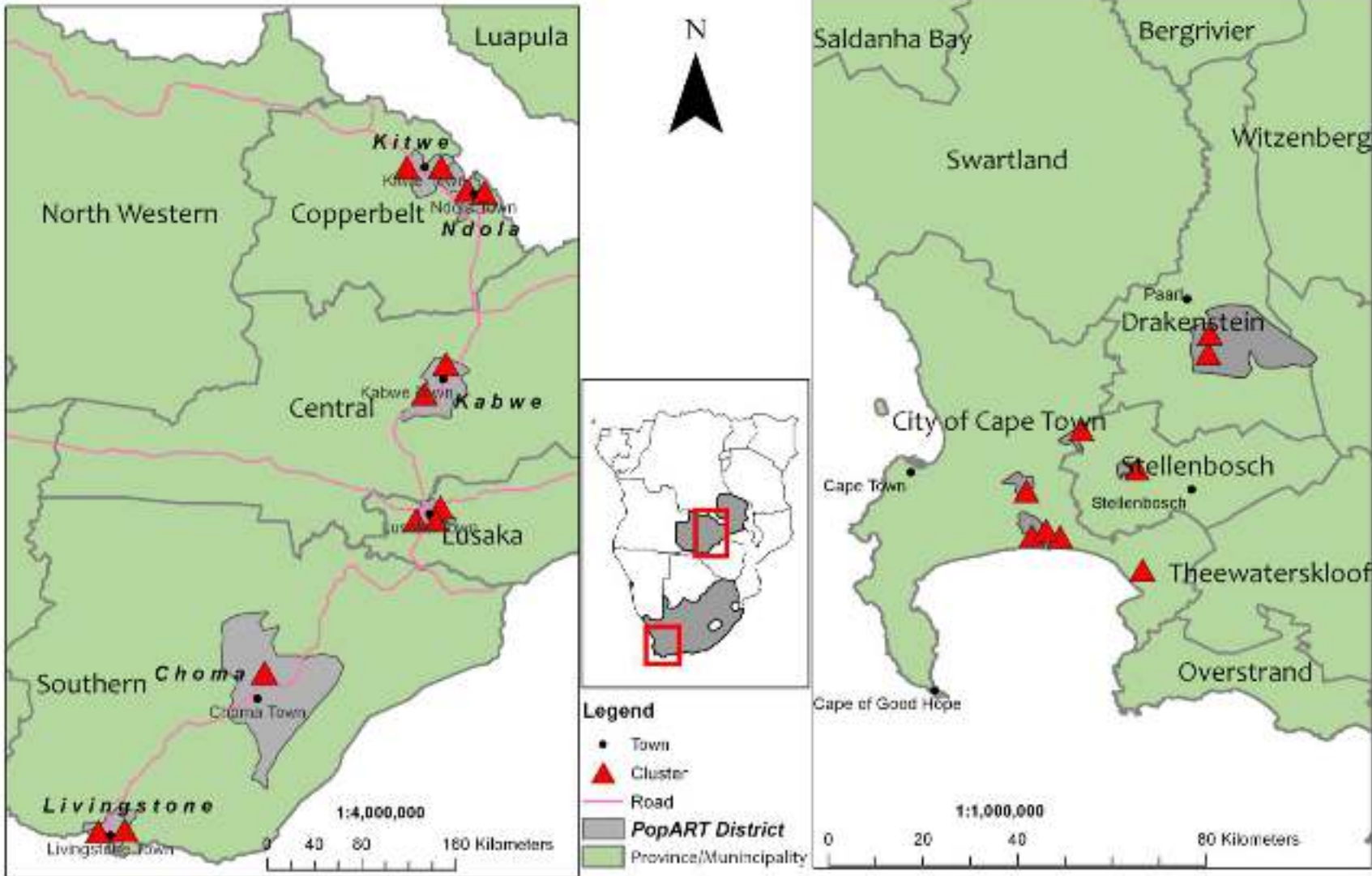
TASP at the Population Level?

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

HPTN 071 (PopART)

Population Effects of Antiretroviral Therapy to Reduce HIV Transmission

IMPACT OF UNIVERSAL TESTING AND TREATMENT
IN ZAMBIA AND SOUTH AFRICA:
RESULTS OF A COMMUNITY-RANDOMIZED TRIAL
CROI: SEATTLE
6 MARCH 2019

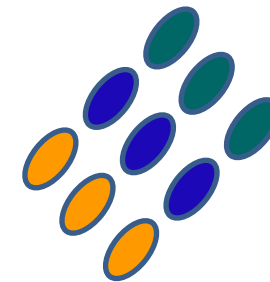


21 Communities

7 per arm (A, B & C)



12 in Zambia

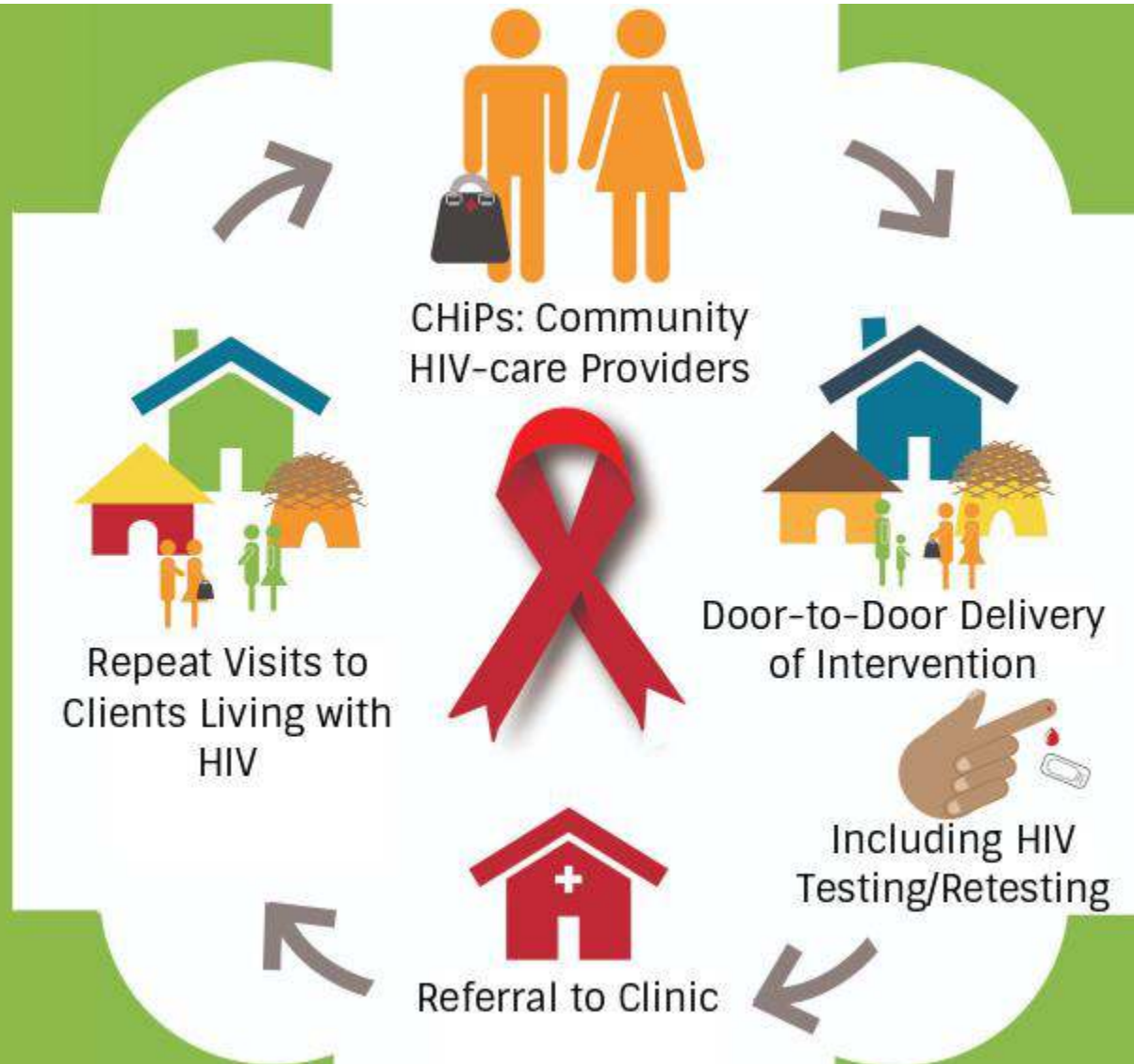


9 in S Africa

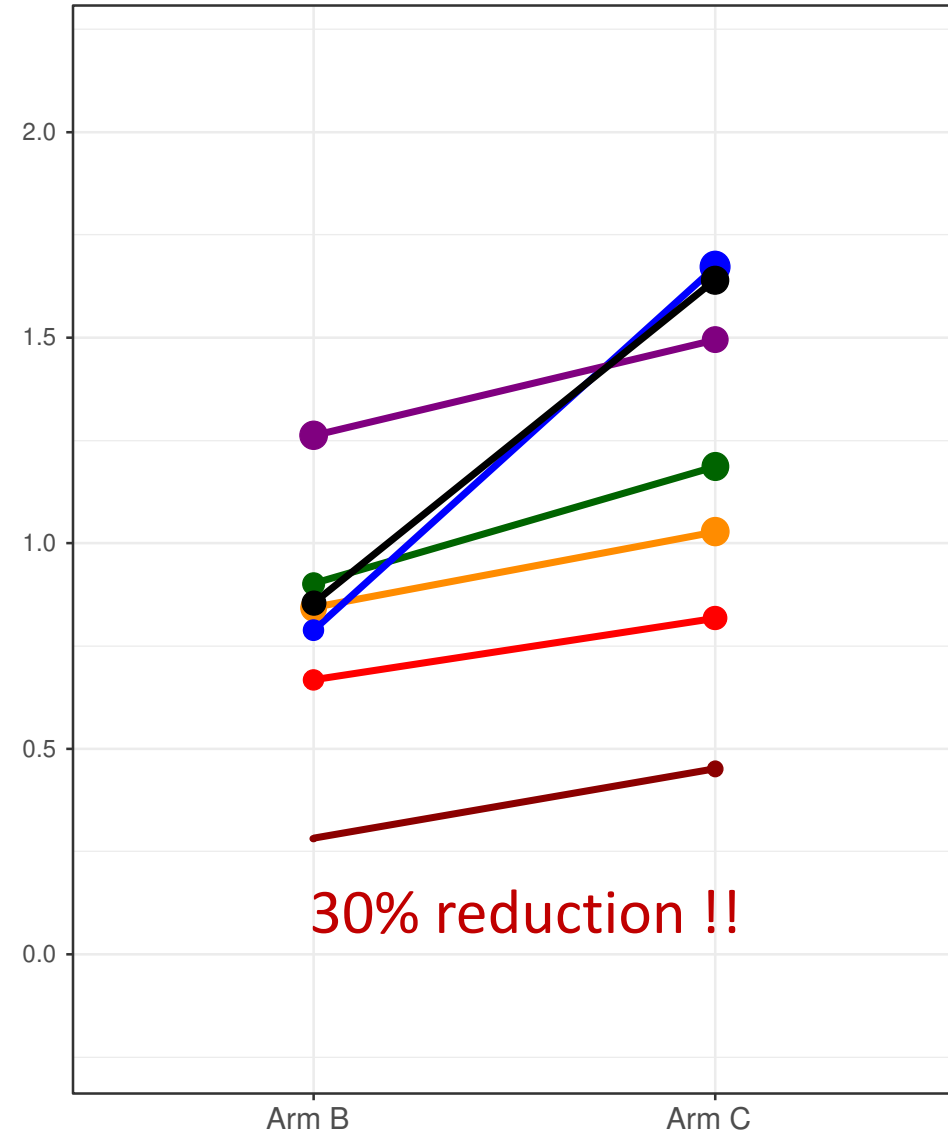
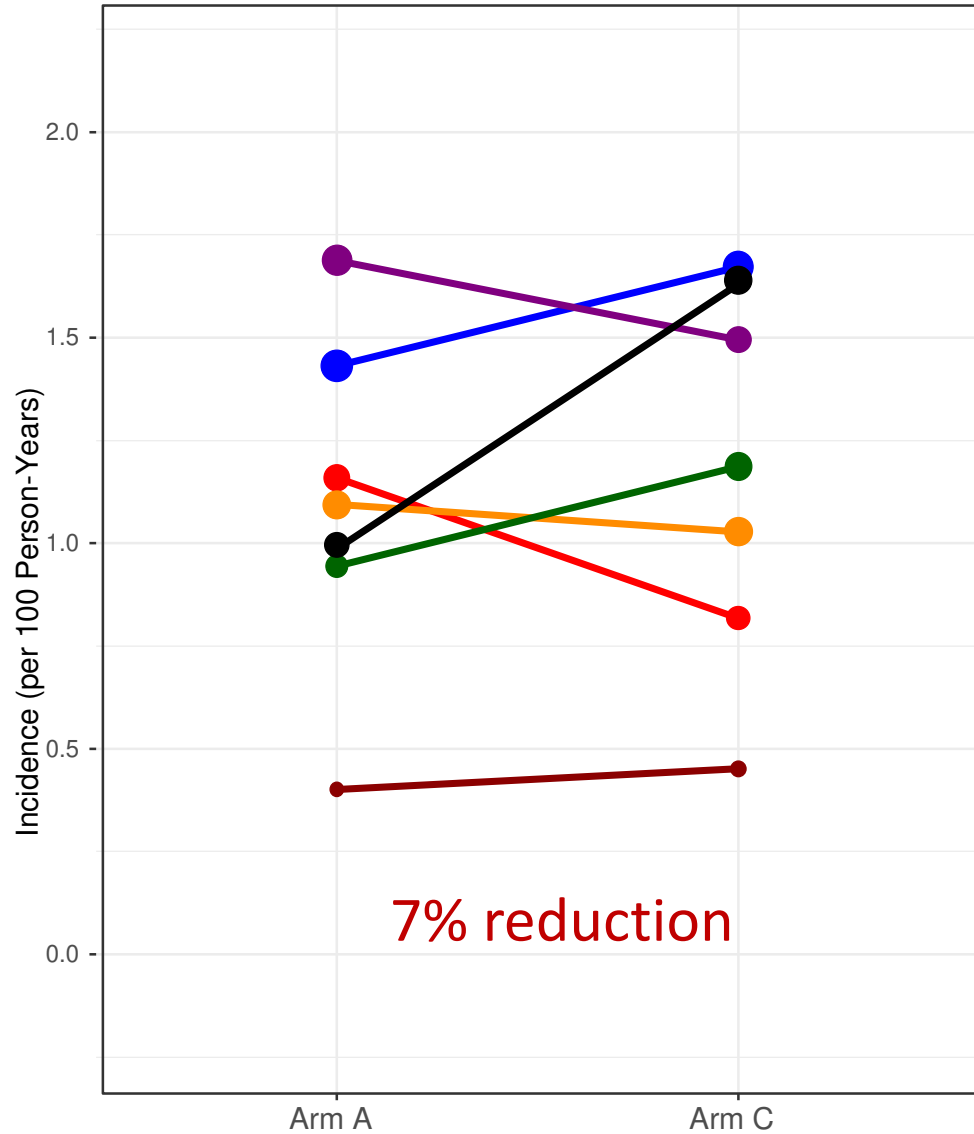
Total population ~1M

CHiPs Door-To-Door Intervention

- Universal HIV counselling and testing
- VMMC referral
- PMTCT referral
- STI screening
- TB screening
- Condoms



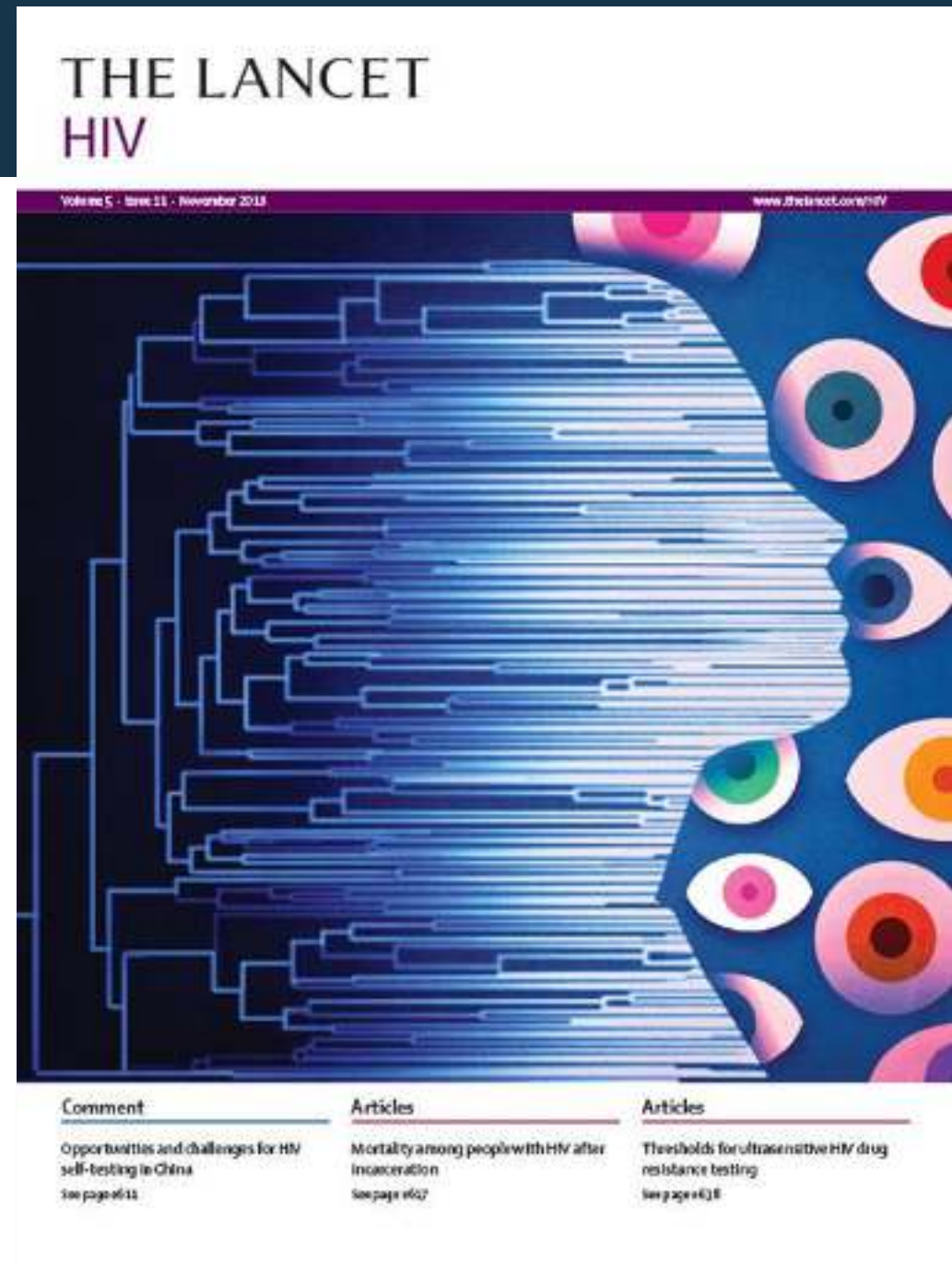
HIV Incidence by Community (PC12-PC36)



Ethical considerations in global HIV phylogenetic research

Cordelia E M Coltart, Anne Hoppe, Michael Parker, Liza Dawson, Joseph J Amon, Musonda Simwinda, Gail Geller, Gail Henderson, Oliver Laeyendecker, Joseph D Tucker, Patrick Eba, Vladimir Novitsky, Anne-Mieke Vandamme, Janet Seeley, Gina Dallabetta, Guy Harling, M Kate Grabowski, Peter Godfrey-Faussett, Christophe Fraser, Myron S Cohen, Deenan Pillay; on behalf of the Ethics in HIV Phylogenetics Working Group

[Lancet HIV](#). 2018 Nov;5(11):e656-e666



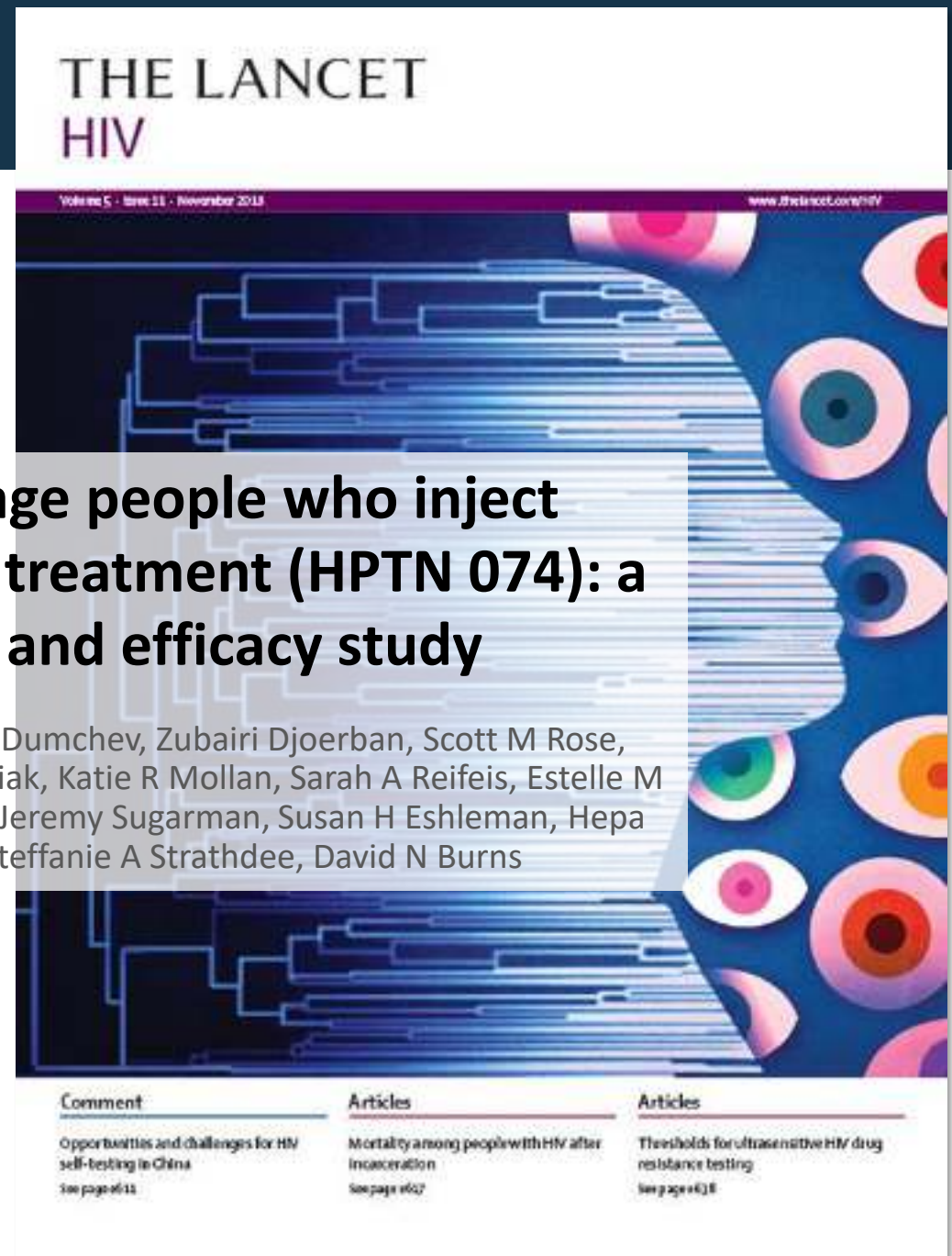
PWID: HPTN 074

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

A scalable, integrated intervention to engage people who inject drugs in HIV care and medication-assisted treatment (HPTN 074): a randomized, controlled phase 3 feasibility and efficacy study

William C Miller, Irving F Hoffman, Brett S Hanscom, Tran V Ha, Kostyantyn Dumchev, Zubairi Djoerban, Scott M Rose, Carl A Latkin, David S Metzger, Kathryn E Lancaster, Vivian F Go, Sergii Dvoriak, Katie R Mollan, Sarah A Reifeis, Estelle M Piwowar-Manning, Paul Richardson, Michael G Hudgens, Erica L Hamilton, Jeremy Sugarman, Susan H Eshleman, Hepa Susami, Viet Anh Chu, Samsuridjal Djauzi, Tetiana Kiriazova, Duong D Bui, Steffanie A Strathdee, David N Burns



Implementation of ART for PWID in Vietnam (Go, Hoffman, Miller et al NIH 1R01DA047876)

Specific Aims:

- Compare standard implementation mapping (IM) vs. tailored implementation mapping (TIM)] for scaling-up the HPTN 074 systems navigation and psychosocial counseling (SNaP) intervention among HIV+ PWID in HIV test sites
- Measure cost-effectiveness of IM vs. TIM for SNaP implementation

Primary outcomes → Fidelity to the HPTN 074 intervention (site-level); ART uptake (PWID-level)

MSM: HPTN 075 and HPTN 078

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

HPTN 075: Study Design

- One year feasibility and prospective cohort study
 - In preparation for future HIV prevention studies in SSA
- Four sites:
 - Soweto, South Africa
 - Cape Town, South Africa
 - Blantyre, Malawi
 - Kisumu, Kenya



HPTN 075 Results



RESEARCH ARTICLE

HIV testing and the HIV care continuum among sub-Saharan African men who have sex with men and transgender women screened for participation in HPTN 075

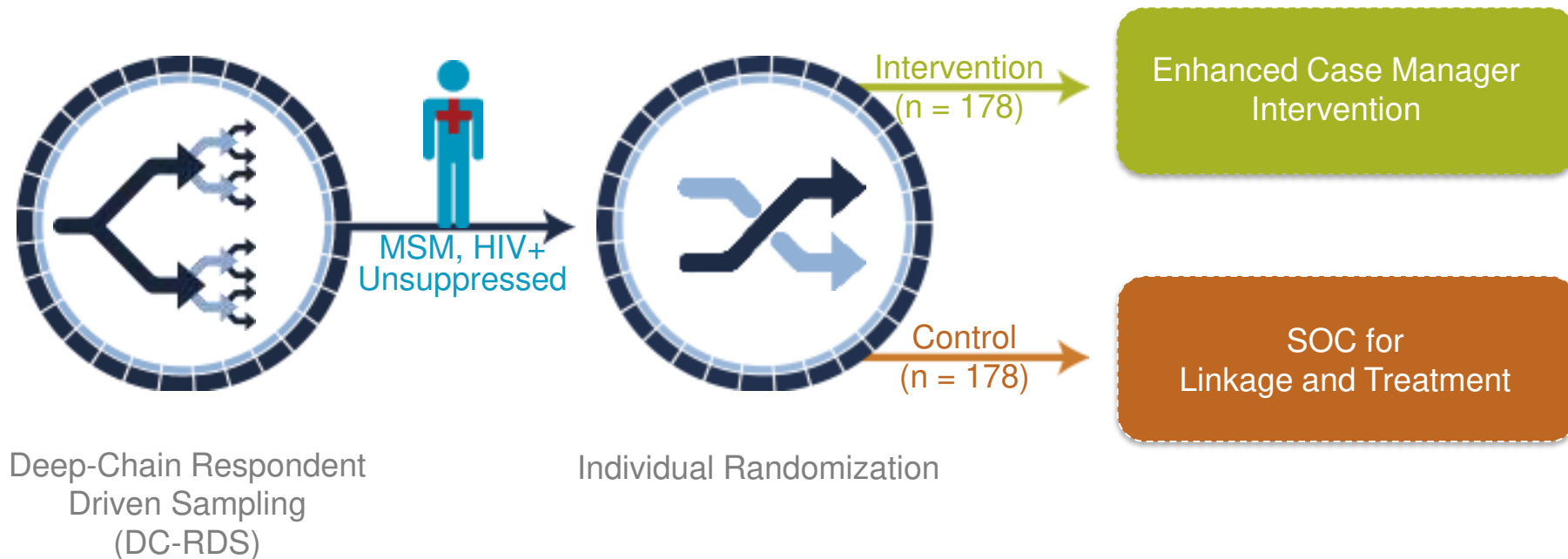
Theo G. M. Sandfort^{1*}, Karen Dominguez², Noel Kayange³, Arthur Ogendero⁴, Ravindre Panchia⁵, Ying Q. Chen⁶, Wairimu Chege⁷, Vanessa Cummings⁸, Xu Guo⁶, Erica L. Hamilton⁹, Michael Stirratt¹⁰, Susan H. Eshleman⁸

1 HIV Center for Clinical and Behavioral Studies, Columbia University, New York, NY, United States of America, **2** Desmond Tutu HIV Centre, UCT Medical School, Cape Town, South Africa, **3** Johns Hopkins Medical College, Malawi, Blantyre, Malawi, **4** Kenya Medical Research Institute (KEMRI) CDC, Kisumu, Kenya, **5** Perinatal HIV Research Unit, Univ. of the Witwatersrand, Soweto HPTN CRS, Soweto, South Africa, **6** Vaccine and Infectious Disease Division, Fred Hutchinson Cancer Research Center, Seattle WA, United States of America, **7** National Institute of Allergy and Infectious Disease, National Institutes of Health (NIH), Bethesda MD, United States of America. **8** Department of Pathology, Johns Hopkins University School

Original targets:

Screened population	Enrolled participants
2700	356
MSM \geq 16 yo	MSM HIV+, Unsuppressed
Study Duration: 24 M Follow-up	

HPTN 078: Enhancing Recruitment, Linkage to Care and Treatment for HIV-Infected Men Who Have Sex with Men (MSM) in the United States



HPTN 078 Summary

- 1,305 MSM identified and screened in 4 US cities
- **Very high prevalence of HIV (69% overall) and syphilis (21%)**
 - **78%, were virally suppressed**
- MSM living with HIV and not virally suppressed (N=154)
 - offered enrollment in a randomized comparative assessment of enhanced case management vs standard of care.
- 144 viremic men enrolled
 - Black (84%)
 - Latinx (7%)
 - 77% had history of past ART treatment, and had defaulted from care

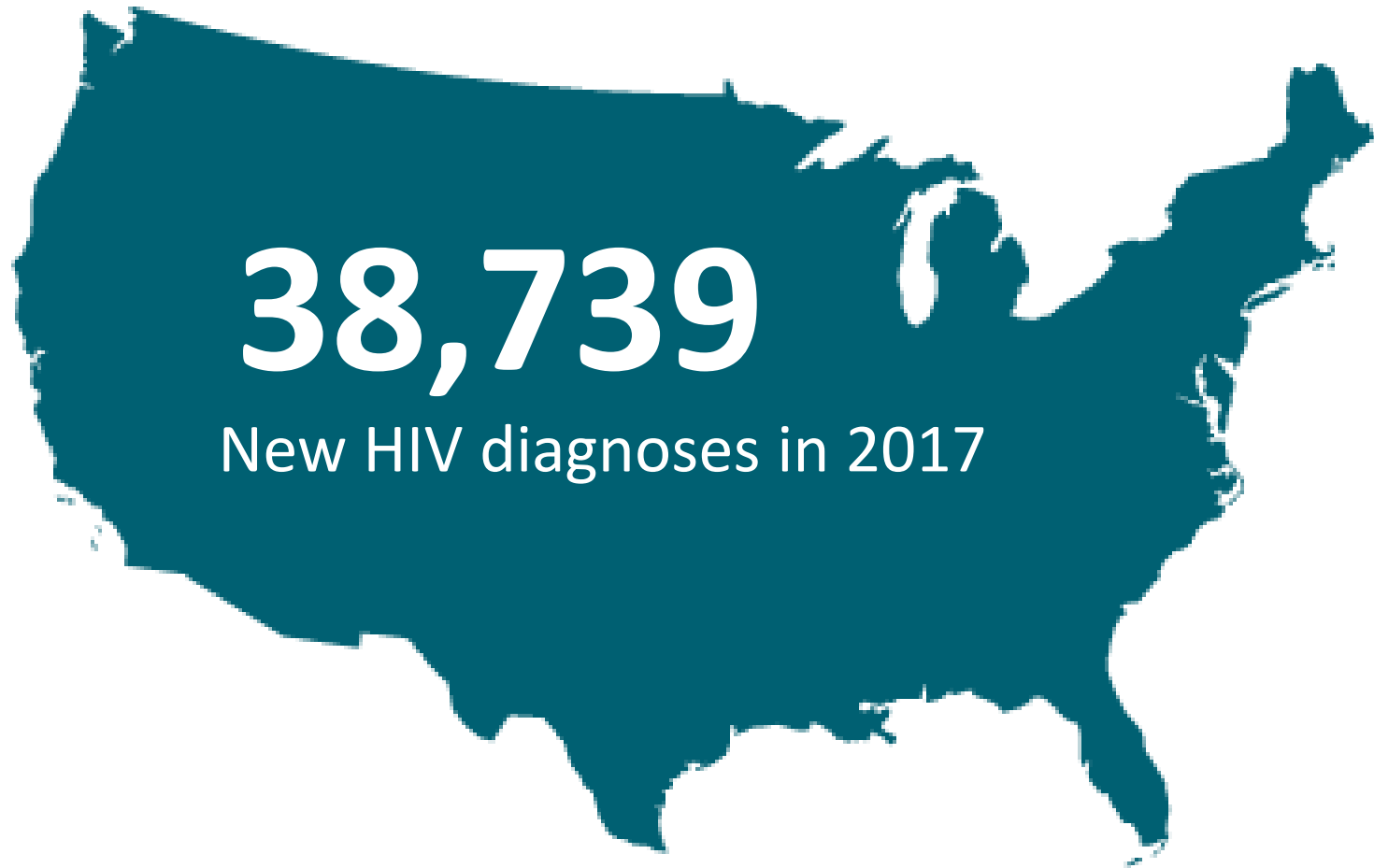
Final Results at IAS 2019

JAMA The Journal of the
American Medical Association

Ending the HIV Epidemic: A Plan for the United States

Fauci AS, Redfield RR, Sigounas G, Weahkee MD, Giroir BP

HIV Diagnoses in the United States and Dependent Areas



1 in 5

of all new HIV diagnoses were among women



67%

of new HIV diagnoses were from male-to-male sexual contact

HPTN *and* End of AIDS U.S. 2030

Building on lessons learned (HPTN 073, 078)...

- HPTN 096: MSM and End of AIDS 2030

AND...

- HPTN 091: Intervention for TGW
- HPTN 094: HIV and the Opioid Crisis

Perspective

AIDS in America — Back in the Headlines at Long Last

Wafaa M. El-Sadr, M.D., M.P.H., M.P.A., Kenneth H. Mayer, M.D., Miriam Rabkin, M.D., M.P.H.,
and Sally L. Hodder, M.D.

And NOW...New PrEP Tools

TDF/FTC was FDA Approved for use for Prevention on July 16, 2012



Success depends entirely on adherence

Alternatives to daily dosing are possible

Truvada PrEP uptake has been limited to date

Perhaps longer acting agents will prove more attractive?

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

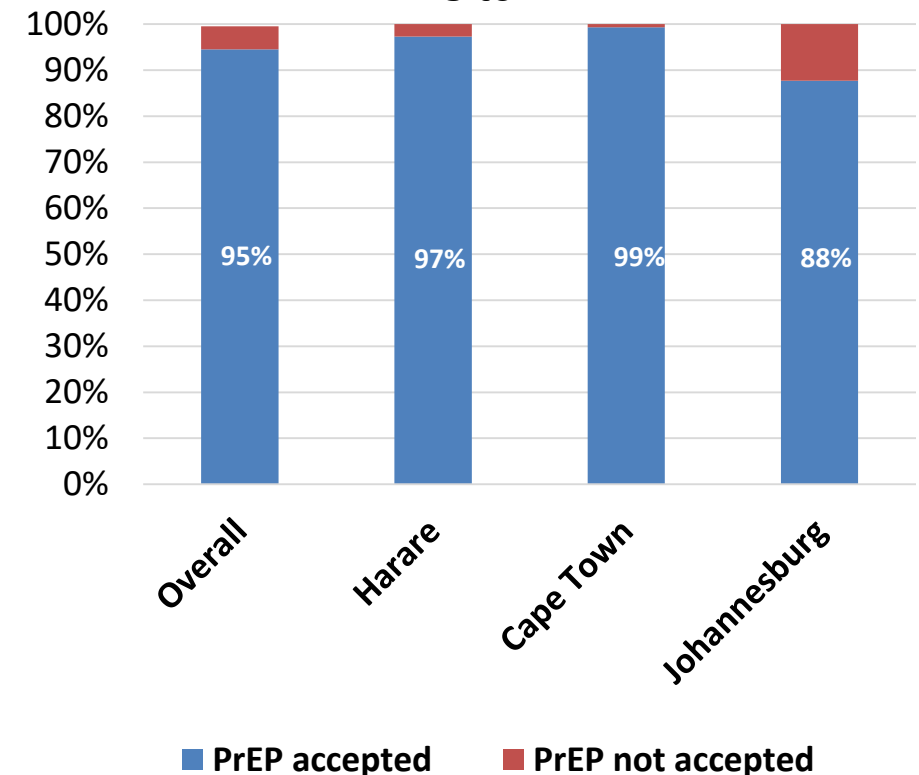
Target Enrollment

- 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 082: Results

Conference abstracts

– CROI 2019

- Early adherence (poster)
- STI incidence (poster)
- Modeling (oral and poster)

– IAS 2019

- **Primary adherence results (oral) !!**
- Community engagement (poster)
- Qualitative sexual risk timelines (poster)



HPTN 082 poster on adherence three months after PrEP initiation among young African women. From left to right, Dr. Sybil Hosek, Dr. Connie Celum, Dr. Nyaradzo Mgodzi, Bonnie Dye, Dr. Linda-Gail Bekker. #CROI2019



Like Comment Share

New PrEP Agents and Approaches

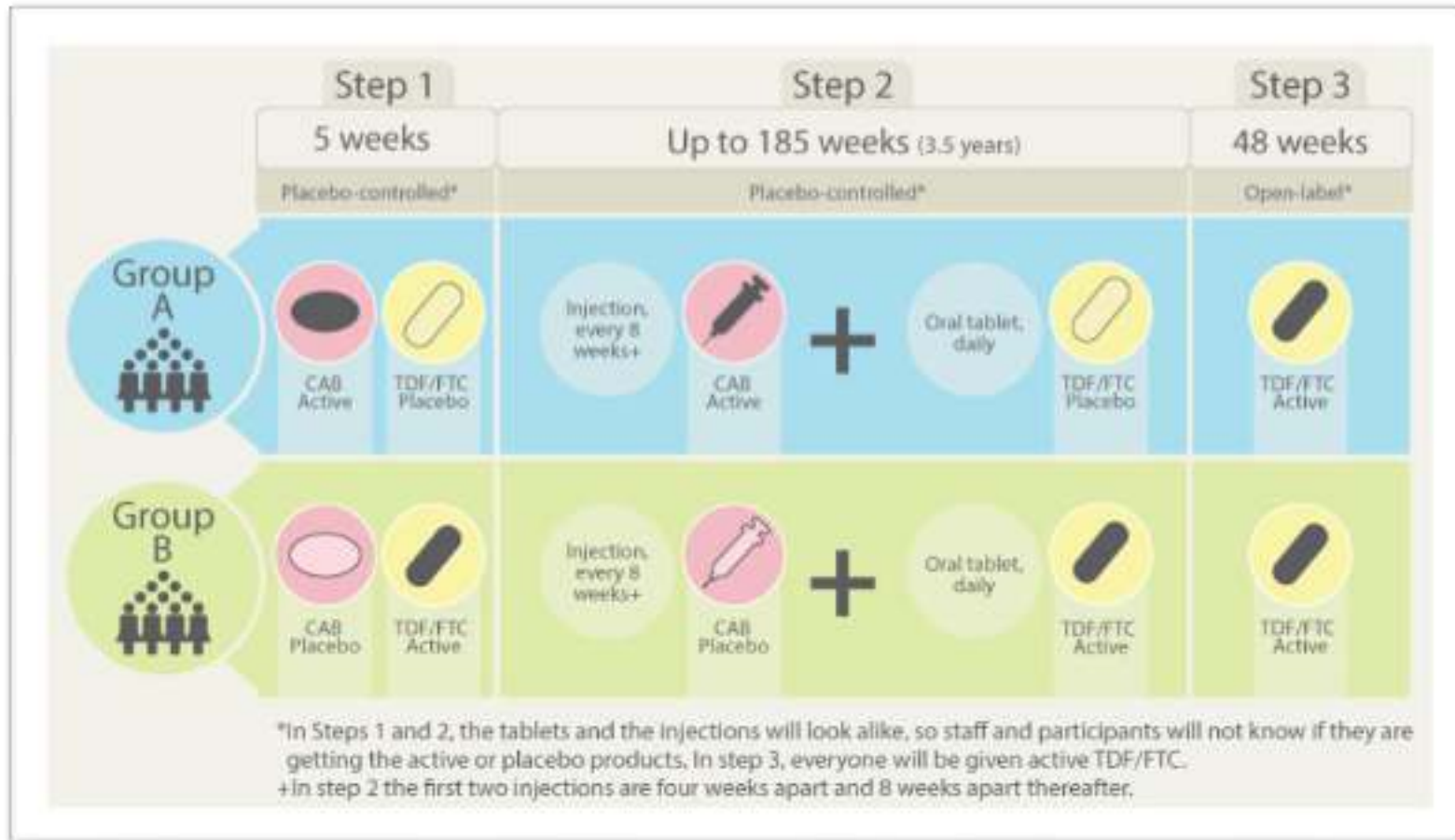
- **New ARVs**
 - *Cabotegravir*
 - MK8591 (potent, long half-life)
 - Capsid inhibitors (potent, long half-life)
- **New Devices**
 - Rings (Regulatory Review)
 - Implants
 - Transdermal needles and patches

Cabotegravir-LA: The Process and the Product

Safety, tolerability, and pharmacokinetics of long-acting injectable cabotegravir in low-risk HIV-uninfected individuals: HPTN 077, a phase 2a randomized controlled trial

Raphael J. Landovitz, Sue Li, Beatriz Grinsztejn, Halima Dawood, Albert Y. Liu, Manya Magnus, Mina C. Hosseinipour, Ravindre Panchia, Leslie Cottle, Gordon Chau, Paul Richardson, Mark A. Marzinke, Craig W. Hendrix, Susan H. Eshleman, Yinfeng Zhang, Elizabeth Tolley, Jeremy Sugarman, Ryan Kofron, Adeola Adeyeye, David Burns, Alex R. Rinehart, David Margolis, William R. Spreen, Myron S. Cohen, Marybeth McCauley, Joseph J. Eron

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)

Bridging to Adolescents: “Twin Studies”

HPTN 083-01 and 084-01 to move forward in adolescents

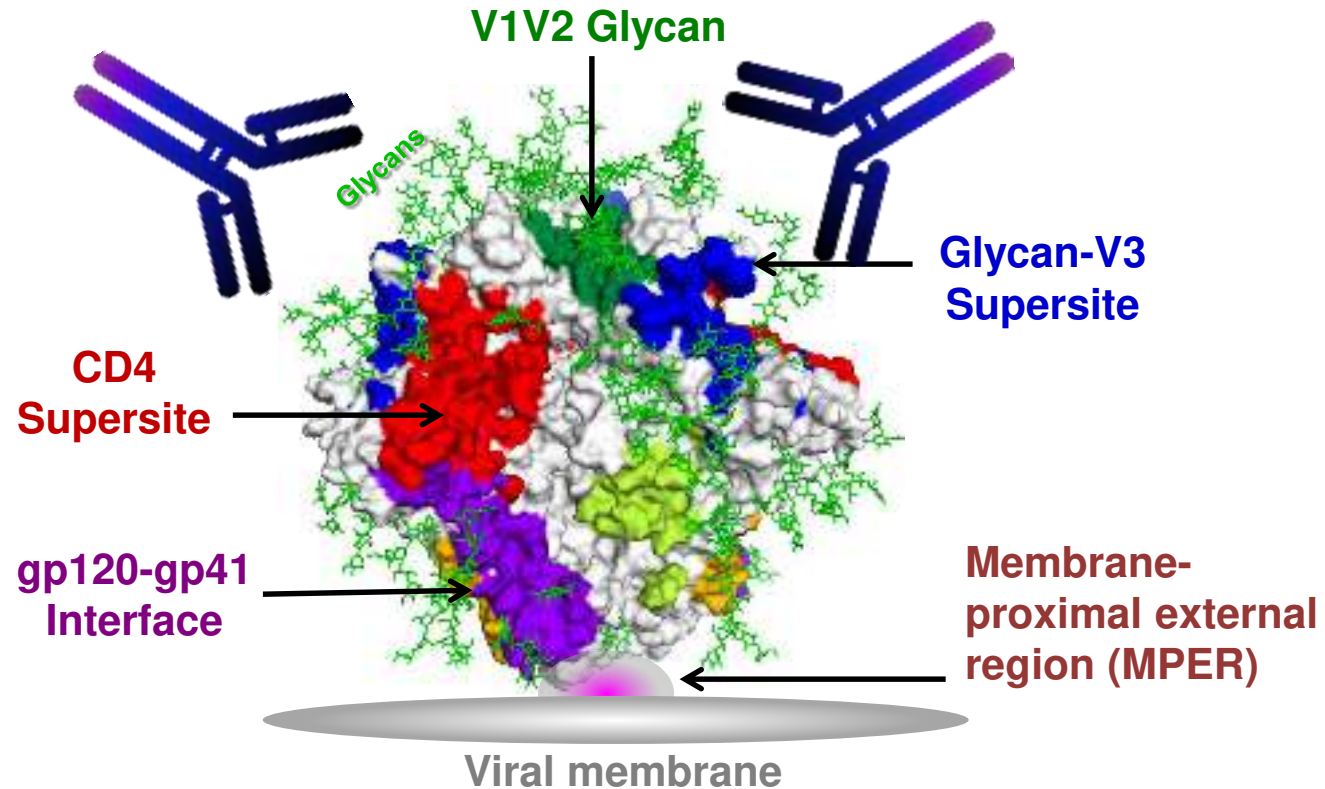
Tailored to youth

- different venues
- modified schedules



Many Broadly Reactive Neutralizing Antibodies Isolated 2009 - present

Broadly neutralizing mAb to 5 major regions of Env



*Image by Stewart-Jones, Doria-Rose, Stuckey
Adapted from Stewart-Jones et al Cell 2016 and Pancera et al Nature 2014*

Passive Antibody Prevention Phase IIB Efficacy Studies

AMP = Antibody Mediated Prevention

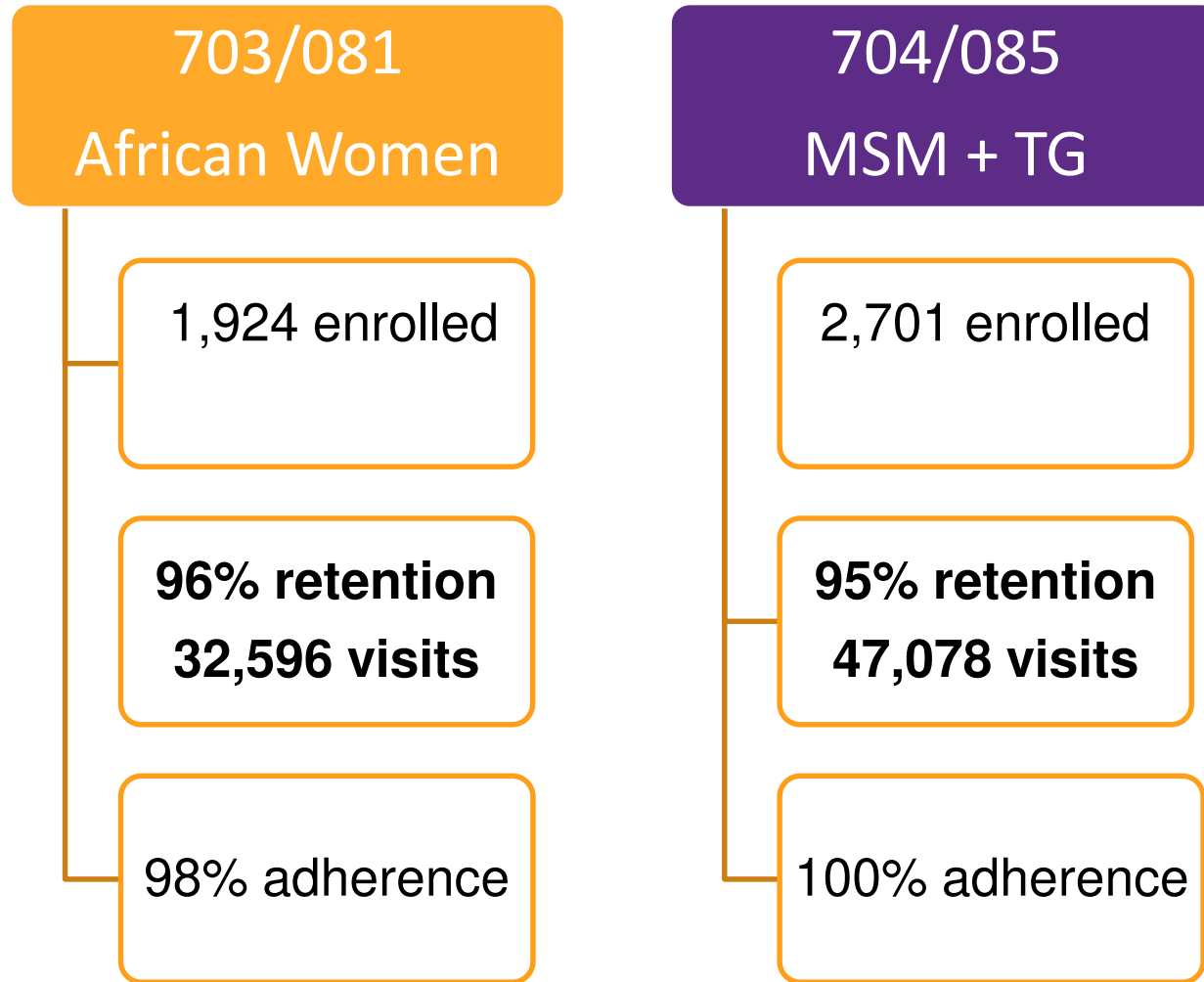
Can a passively infused monoclonal antibody
prevent HIV-1 infection in high risk adults:

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

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

Co-chairs: Srilatha Edupuganti
Nyaradzo Mgodzi

Enrollment and Retention Updates



Acceptability of bNAbs



Michele Andrasik, PhD
Director Social and Behavioral Sciences and Community Engagement
HIV Vaccine Trials Network (HVTN)

AMP Success Summary

- Strength of relationships
- Altruism-being part of the solution:
 - Let's make a vaccine
- Community support
- Responding to concerns

Next Generation BnAB Studies

Safety and PK/PD and Potential

- HVTN 127/HPTN 087: VRC01-523LS
- HVTN 129/HPTN 088: Sanofi trispecific antibody
- HVTN 130/HPTN 089 and HVTN 136/HPTN 092: Iterative combinations of 2-3 antibodies:

Evaluation of safety, PK, antiviral activity of combinations:

VRC07-LS

PLUS PGT121 and PGT121-LS

PLUS PDGM 1400 and PDGM 1400-LS

Which is the BEST bNab “triple threat”

HPTN is More than a Series of Studies

Internal/External Capacity Building

- External Stakeholder Consultations
- CWG Capacity-Building sessions
- Education, recruitment, retention materials – study support
- Social marketing
- Cross Network collaboration (workplan and community engagement database)
- Strengthening evaluation

Results Dissemination

- 11 presentations across 8 international conferences
 - HIV R4P, National HIV Prevention Conference, National Transgender Health Summit, IAS, Saving Ourselves Symposium, NAESM, US Conference on AIDS, and SA AIDS Conference
- 3 presentations at 2019 IAS
- Webinars
- Three publications – HPTN 073 and HPTN 074

HPTN Scholars: Status Update

- 2 components: Domestic and International
- Current cycle: Cohorts 9 and 10 Domestic/Cohorts 4 and 5 International (1 May 2018-31 Oct 2019/1 June 2019-30 Nov 2020)
- 56 Scholars since 2010; 6 to start on 1 June 2019
- 56 Mentors have graciously provided expertise and time
- 15 study datasets: HPTN 037-HPTN 075

HPTN Scholars: Key Accomplishments

- HPTN involvement
 - Protocol Team Members (HPTN 073, HPTN 078)
 - Protocol Team Leadership (HPTN 091, HPTN 096)
 - Scientific Committees and Black Caucus
- Six K01 awards
- Individual research career progression
 - One PI on R03; One PI on U01
 - Two PIs on R01s
 - Three PIs on R21s
- 32 first-authored HPTN manuscripts so far (+1 *in press*)

2019-2020 Scholars



Rodman Turpin



Anita Marais



Derek Dangerfield



**Elzette Rousseau-
Jemwa**



Rogers Sekabira



Raquel Ramos

2019...
>700 PTNers
WORLDWIDE

Simultaneous
translators:

Spanish
Portuguese
Vietnamese
Thai





United States



Thailand



Uganda



Brazil



United States



South Africa



Zimbabwe



Peru



Thailand



Peru



Argentina



United States



HIV R4P



IAS



071 Results Dissemination



HPTN 082 CWG Writing Team

Cross Site Exchange Best Practices Expo June 2019



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