HPTN US PrEP and TasP
Scientific Agenda

UNITED STATES CONFERENCE ON AIDS
MONDAY, SEPTEMBER 9, 2013
NEW ORLEANS, LA
Overview

- Overview of HPTN
- PrEP
  - HPTN 073
  - HPTN 067
  - HPTN 069
  - HPTN 076
- Treatment as Prevention (TasP)
  - HPTN 052
  - HPTN 065
- Conclusions
- Questions and Answers
HPTN Overview
HPTN UNITS AND SITES
HIV Combination Prevention

- Male Circumcision
- HIV Counseling and Testing
- Treatment for Prevention
- Treatment of STIs
- Behavioral Interventions
- Prevention for Positives
- Needle Exchange
- PrEP
- Cash Incentives
- Condoms
- Microbicides
- Vaccines
## Breadth of the HPTN Portfolio

<table>
<thead>
<tr>
<th>Variable</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIV Status</td>
<td>HIV negative, acute infection, established HIV infection</td>
</tr>
<tr>
<td>Populations</td>
<td>Adolescents, MSM, women, IDU, communities</td>
</tr>
<tr>
<td>Interventions</td>
<td>Behavioral, HIV testing, PrEP, ART, male circumcision, substitution/antagonist therapy, financial incentives, integrated strategies</td>
</tr>
<tr>
<td>Types of Studies</td>
<td>Observational, individual randomized, site randomized, community randomized, implementation science</td>
</tr>
</tbody>
</table>
HPTN Pre- Exposure Prophylaxis (PrEP) Studies
HPTN 073: PrEP Adherence and Uptake Among BMSM in Three US Cities
HPTN 073 Study Design

- Demonstration project
- Once daily oral emtricitabine 200 mg / tenofovir disoproxil fumarate 300 mg (FTC/TDF)
- Client-centered care coordination (C4)
Chapel Hill, NC
75 Participants
- 5 PrEP Uptake Interviews
- 5 PrEP Non-Initiator Interviews
- Site Staff C4 Focus Group

Los Angeles, CA
75 Participants
- 5 PrEP Uptake Interviews
- 5 PrEP Non-Initiator Interviews
- Site Staff C4 Focus Group

Washington, DC
75 Participants
- 5 PrEP Uptake Interviews
- 5 PrEP Non-Initiator Interviews
- Site Staff C4 Focus Group
HPTN 073 Main Study Questions

• Will BMSM use PrEP?
• Is it safe for BMSM to use PrEP?
• Is it acceptable for local health care facilities to administer client-centered care coordination (C4) along with PrEP to BMSM?
HPTN 073 Main Study Questions

• Will BMSM use PrEP?
• Is it safe for BMSM to use PrEP?
• Is it acceptable for local health care facilities to administer client-centered care coordination (C4) along with PrEP to BMSM?

Learn more about a research project that may help protect you and your community.
HPTN 073 Main Study Questions

• Will BMSM use PrEP?
• Is it safe for BMSM to use PrEP?
• Is it acceptable for local health care facilities to administer client-centered care coordination (C4) along with PrEP to BMSM?
HPTN 073 Main Study Questions

• Will BMSM use PrEP?
• Is it safe for BMSM to use PrEP?
• Is it acceptable for local health care facilities to administer client-centered care coordination (C4) along with PrEP to BMSM?
HPTN 073 Main Study Questions

• Will BMSM use PrEP?
• Is it safe for BMSM to use PrEP?
• Is it acceptable for local health care facilities to administer client-centered care coordination (C4) along with PrEP to BMSM?
HPTN 067
The ADAPT Study: Alternative Dosing to Augment PrEP pill-Taking
Study Groups

1. Daily
2. Event-driven (before and after sex)
3. Time-driven (2 times a week and a booster after sex)

No more than
  • 2 tablets in a 24-hour period
  • 7 tablets in a week.
Daily
180 Participants

120 MSM
60 Women

Time Driven
180 Participants

120 MSM
60 Women

Event Driven
180 Participants

120 MSM
60 Women
Main Study Questions

• How does taking oral Truvada® tablets intermittently compare to taking the tablets daily? Will participants in the intermittent groups:
  – have the same coverage of sex events,
  – need fewer tablets for coverage, and
  – report fewer side effects compared to participants who take their tablets daily?
HPTN 069/ACTG 5305
NEXT-PREP:
Novel Exploration of Therapeutics for PREP

NEXT>PrEP
AN HPTN/ACTG STUDY
HPTN 069 Study Groups

- There are 3 active drugs:
  - maraviroc (MVC)
  - emtricitabine (FTC)
  - tenofovir (TDF)

- Study Regimens (3 pills/arm):
  - maraviroc + FTC placebo + TDF placebo
  - maraviroc + emtricitabine + TDF placebo
  - maraviroc + tenofovir + FTC placebo
  - tenofovir + emtricitabine + MVC placebo
MVC
150 Participants

100 MSM

50 Women

MVC + FTC
150 Participants

100 MSM

50 Women

MVC + TDF
150 Participants

100 MSM

50 Women

FTC + TDF
150 Participants

100 MSM

50 Women
Are the four different combinations of PrEP drugs maraviroc, emtricitabine, and tenofovir safe and tolerable for at-risk men who have sex with men (MSM) and at-risk women?
Are the four different combinations of PrEP drugs maraviroc, emtricitabine, and tenofovir safe and tolerable for at-risk men who have sex with men (MSM) and at-risk women?

HPTN 069 Main Study Question
Are the four different combinations of PrEP drugs maraviroc, emtricitabine, and tenofovir safe and tolerable for at-risk men who have sex with men (MSM) and at-risk women?

HPTN 069 Main Study Question

CUTE UNDERWEAR + CONDOM + PRE-EXPOSURE PROPHYLAXIS (PrEP)

HE INVITES YOU TO SPEND THE NIGHT.
BE PrEPARED FOR WHAT HAPPENS NEXT.
Are the four different combinations of PrEP drugs maraviroc, emtricitabine, and tenofovir safe and tolerable for at-risk men who have sex with men (MSM) and at-risk women?

HPTN 069 Main Study Question

CUTE UNDERWEAR + CONDOM + PRE-EXPOSURE PROPHYLAXIS (PrEP)

YOU’VE BEEN CHECKING HIM OUT ALL NIGHT. BE PrEPARED FOR WHAT HAPPENS NEXT.

FENWAY HEALTH
Are the four different combinations of PrEP drugs maraviroc, emtricitabine, and tenofovir safe and tolerable for at-risk men who have sex with men (MSM) and at-risk women?

HPTN 069 Main Study Question

3:1

Antiretroviral therapies have transformed living with HIV.

Now, the same therapies may transform how we prevent it.

If you’re a man or trans-woman who has sex with men, join our expertly guided clinical trial for Pre-Exposure Prophylaxis (PrEP). Compensation provided.

3 pills. 1 year.
Real meds. Real hope.
The NEXT-PrEP Trial.

Learn more online at clevelandaids.org/prep.
Find us on Facebook at clevelandclinicaltrials.
Or call 216.844.4444.
Are the four different combinations of 
PrEP

maraviroc, emtricitabine, and tenofovir

safe and tolerable for at-risk men who have sex with men (MSM) and at-risk women?

HPTN 069 Main Study Question

Antiretroviral therapies have transformed living with HIV.

Now, the same therapies may transform how we prevent it.

If you’re a man or trans-woman who has sex with men, join our expertly guided clinical trial for Pre-Exposure Prophylaxis (PrEP). Compensation provided.

3 pills. 1 year.
Real meds. Real hope.
The NEXT-PrEP Trial.

Learn more online at clevelandaids.org/prep.
Find us on Facebook at clevelandclinicaltrials.
Or call 216.844.4444.
HPTN 076: Injectable Pre-Exposure Prophylaxis (PrEP)
Study in Development

• Total of 132 participants at 4 sites
  – 48 at each international site
  – 18 at each US site
• Injectable PrEP vs placebo
HPTN 076 Main Study Questions

- Is injectable PrEP safe for women?
- Will women find injectable PrEP acceptable for use?
- Is injectable PrEP tolerable for women?
Treatment as Prevention (TasP)
Biomedical and Behavioral Research Goals

- Expanded testing
- Improved care linkage and engagement
- Earlier ART initiation
- ART Adherence

Decrease in new infections

Improved health outcomes for PLWHA
TEST

CARE CONTINUUM FOR HIV+ AND HIV- PERSONS

Positive

Engage, Counsel, Monitor and Support

HIV CARE (Pre-ART)

Retain, Counsel, Monitor, and Support

ART

Adherence and Viral Suppression

Support Adherence, Monitor, Repeat HIV Testing

Negative

Engage, Counsel, Monitor and Support

Counsel, Intervene, Monitor, and Support

Support Adherence, Monitor, Repeat HIV Testing

Pre-Exposure Prophylaxis (PrEP), Male Circumcision, Condoms
HPTN 052: Serodiscordant Couples Study
HPTN 052 Study Design

Randomization
Stable, healthy, serodiscordant couples, sexually active
CD4 count: 350 to 550 cells/mm$^3$

Immediate ART
CD4 350-550

Delayed ART
CD4 < 250

Primary Transmission Endpoint
Virally linked transmission events

Primary Clinical Endpoint
WHO stage 4 clinical events, pulmonary tuberculosis, severe bacterial infection and/or death
Results of the HPTN052 trial announced on 12 May 2011 show that if an HIV-positive person adheres to an effective antiretroviral therapy regimen, the risk of transmitting the virus to their uninfected sexual partner can be reduced by 96%.

“Treatment for prevention is a game changer.”

Michel Sidibe
Executive Director of UNAIDS
DHHS revised their HIV Treatment Guidelines in March 2012

ART recommended for all HIV-infected individuals, irrespective of CD4-cell count

Changes based on
  - Growing body of evidence demonstrating harmful effects of ongoing HIV replication
  - HPTN 052 – ART significantly reduces the likelihood of HIV transmission
Effective Implementation

Effective implementation of TasP requires addressing barriers to:

- Expanded testing,
- Improved care linkage and engagement
- Earlier ART initiation and adherence

Findings from studies such as HPTN 061 (BROTHERS) and HPTN 064 (ISIS) may help address some of those barriers.
HPTN 065: TLC Plus
Test, Link to Care Plus Treat
HPTN 065 was designed to evaluate the *feasibility* of an enhanced Test, Link to Care, Plus Treat approach for HIV prevention in the United States

- Study was not designed to evaluate changes in HIV acquisition rates.

- Study is using laboratory data reported through existing surveillance systems. People did not need to enroll in linkage-to-care or viral suppression portions of the study; individual level data was *not* collected from community members.
HPTN 065 Intervention Communities

• Washington, DC and Bronx, NY
  – Both communities already had well developed HIV testing and linkage-to-care programs
  – Hospitals agreed to participate in expanded HIV testing portion of study
  – All other activities carried out in existing community testing and treatment locations, not in research centers

• Required intensive engagement by those providers and fostered close communication with community organizations
HPTN 065 Non-Intervention Communities

- Chicago, IL
- Houston, TX
- Miami, FL
- Philadelphia, PA

No intervention related to this study took place in these communities; data about the epidemic was gathered from current epidemiology systems to be used in developing the data analysis for the study.
HIV Testing and Linkage-to-Care (L2C)

18 HIV Testing Sites in the Bronx, and 19 in DC, were randomized into either a Financial Incentive (FI) Test Site group or a Standard of Care (SOC) Test Site group.

FI Test Sites gave Linkage to Care coupons to anyone who received a new HIV+ test result, or who was reconfirmed to be HIV+ but out of care for at least one year.

- Financial Incentives
  - Traded 1st half of coupon for $25 gift card for getting lab work done (CD4 and VL) within three months of referral.
  - Traded 2nd half of coupon for $100 gift card for returning within three months of referral to review lab results and develop an HIV care plan.

Standard Of Care
- Linkage to Care
- Linkage to Care

Traded 1st half of coupon for $25 gift card for getting lab work done (CD4 and VL) within three months of referral.

Traded 2nd half of coupon for $100 gift card for returning within three months of referral to review lab results and develop an HIV care plan.
HIV Viral Suppression (VS)

20 HIV Care Sites in the Bronx, and 19 in DC, were randomized into either a Viral Suppression (VS) Financial Incentive Care Site group or a Standard of Care (SOC) Care Site group.

To receive $70 VS gift cards, patients at Viral Suppression Care Sites needed to be eligible for the program and then qualify for each gift card:

- Patients were eligible if they were an established patient and they were on ART.
- Patients qualified for a gift card if they had a suppressed viral load (<400 copies/mL) and had not earned a gift card in the last 3 months.
HPTN 065 (TLC Plus) Study Design

**HIV Testing & Linkage to Care**
- **Expanded HIV Testing**
  - Social Mobilization
  - Universal offer of testing in ED/hospital admission
- **HIV Testing Sites**
  - 37 Randomized HIV Test Sites to link HIV positives
  - Financial incentive plus SOC
  - Standard of care (SOC)

**HIV Treatment**
- **Initiate ART per guidelines**
  - 39 Randomized HIV Care Sites
  - Financial incentive plus SOC
  - Standard of care (SOC)

**Prevention for Positives**
- **Select HIV Care Sites**
  - Individual randomization of 660 patients in each community (1,230 total)
  - CARE plus Standard of Care
  - Standard of Care
HPTN 065: Timeline

Expanded HIV Testing

Social Mobilization

Linkage-to-Care & Viral Suppression

2010 2011 2012 2013 2014 2015

* Provider Surveys
* Patient Surveys (part of PfP)

Prevention for Positives *
Strengthening TasP Implementation

• HPTN is conducting studies in other countries that also seek to increase testing, expand linkage to care and engagement, and increase viral suppression.

• Information about some of those studies will be provided in an other USCA session.
Conclusions
The HPTN has a strong commitment for quality research

- PrEP and TasP are components of the Network’s diverse scientific portfolio
- Science will inform future community level studies and implementation of PrEP and TasP programs
Additional Information

- [www.hptn.org](http://www.hptn.org)
  - [www.facebook.com/HIVptn](http://www.facebook.com/HIVptn)
  - [www.twitter.com/HIVptn](http://www.twitter.com/HIVptn)

- [www.nih.gov](http://www.nih.gov)

- [www.cdc.gov](http://www.cdc.gov)
ACKNOWLEDGEMENTS

The HPTN is sponsored by NIAID, NIDA, NIMH under Cooperative Agreement #UM1 AI068619
The HPTN is sponsored by NIAID, NIDA, NIMH under Cooperative Agreement #UM1 AI068619.
The HPTN is sponsored by NIAID, NIDA, NIMH under Cooperative Agreement #UM1 AI068619
ACKNOWLEDGEMENTS

The HPTN is sponsored by NIAID, NIDA, NIMH under Cooperative Agreement #UM1 AI068619
ACKNOWLEDGEMENTS

The HPTN is sponsored by NIAID, NIDA, NIMH under Cooperative Agreement #UM1 AI068619
Questions or Comments?

Jonathan Paul Lucas, MPH
• 919-544-7040 ext 11458
• jlucas@FHI360.org

Georgette King, MPA
• 919-544-7040 ext 11448
• gking@FHI360.org

www.HPTN.org
Facebook/HIVptn
Twitter/HIVptn