



Highlights from Adherence 2015: Advances, Challenges, and Opportunities

Michael J. Stirratt PhD
Program Chief, Adherence to Treatment and Prevention
NIMH Division of AIDS Research



- IAPAC Adherence Conference
- YouTube
- “Hollaback Girl” by Gwen Stefani



Presentation Outline (and Conference Evolution)

- ART adherence
- Care continuum
- Biomedical prevention



With Great Thanks

- Rivet Amico
- Michael Mugavero
- José Zuniga
- IAPAC

- Christopher Gordon
- Dianne Rausch
- Wairimu Chege
- Naana Cleland
- Vanessa Elharrar
- Sonja Lee
- Tia Morton
- David Purcell
- Mark Rubert

- Oni Blackstock
- Amanda Castel
- Mirjam Collette-Kempf
- Sannisha Dale
- Marjin de Bruin
- Tom Giordano
- Jessica Haberer
- Ingrid Katz
- Doug Krakower
- Robert Remien
- Steve Safren
- Jane Simoni
- Patrick Sullivan
- Ira Wilson

All views are my own!



ART ADHERENCE: ADVANCES, CHALLENGES, & OPPORTUNITIES



“There’s no pill to help you take a pill.” – Jane Simoni,
#Adherence2015



Advance: Approaching a “90” in “90-90-90”

^{oral}**259** Diminishing “Clinic Viral Load” in a Nationally Distributed Cohort in the United States: What’s Adherence Got to do With It?

Jane Simoni (presenting)¹, Robin Nance¹, Ira Wilson²,
Kenneth Mayer², Frances Aunon¹, Steven Safren³, J Delaney¹,
Chris Mathews⁴, Michael Mugavero⁵, Mari Kitahata¹, Heidi Crane¹



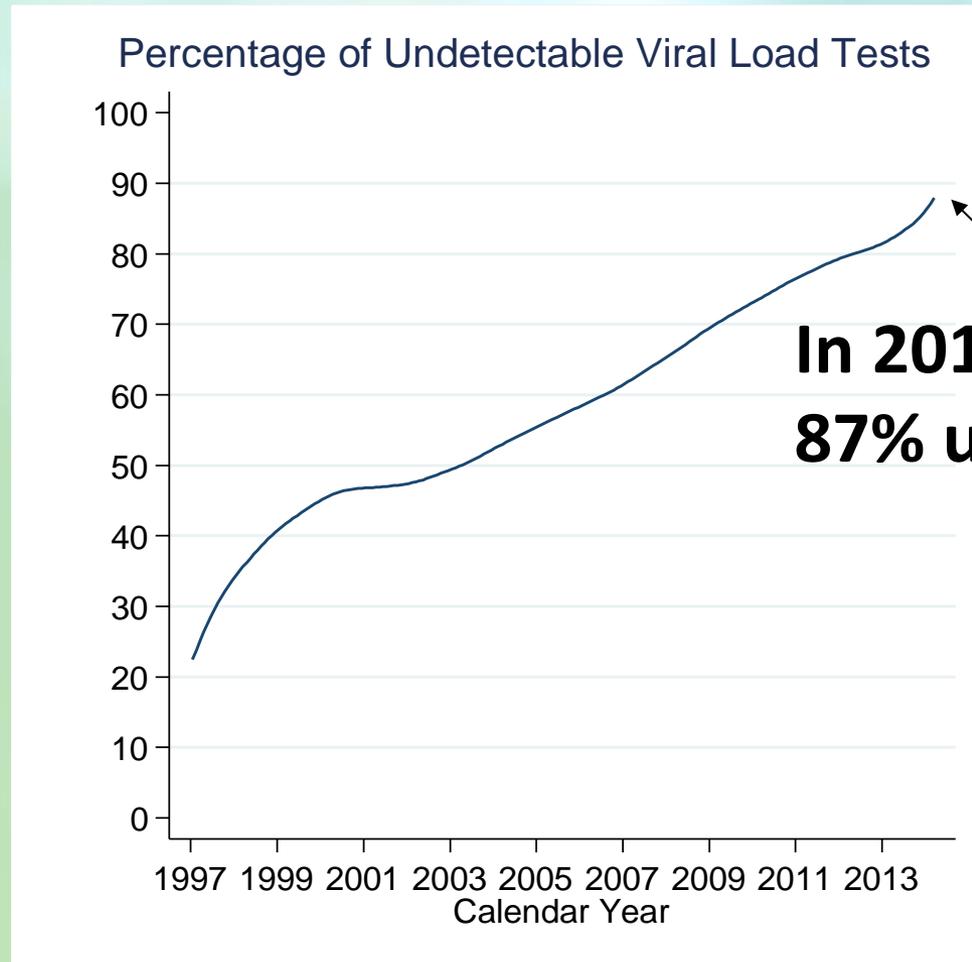
CNICS

- CFAR Network of Integrated Clinical Systems
- HIV-positive adults in routine care
- 8 clinics across the US
- 1996 to present
- ~30,000 patients





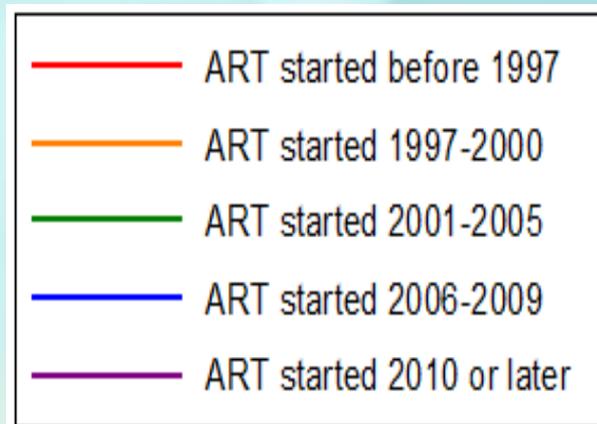
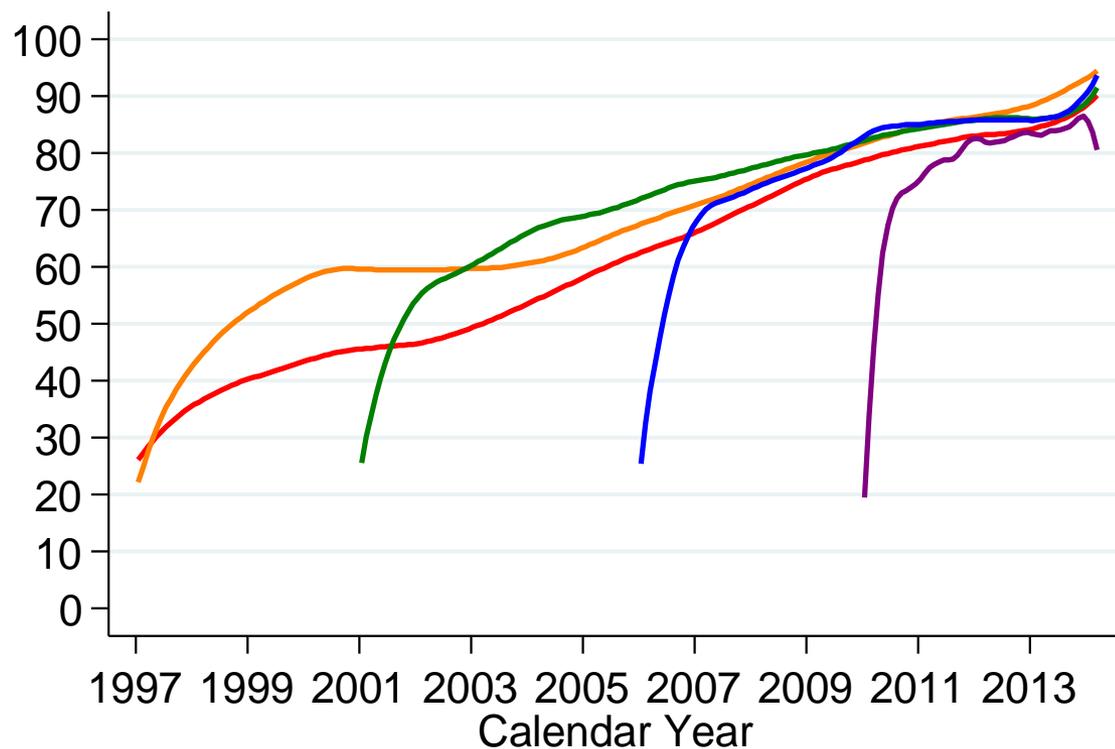
Undetectable Viral Load Increasing in CNICS clinics





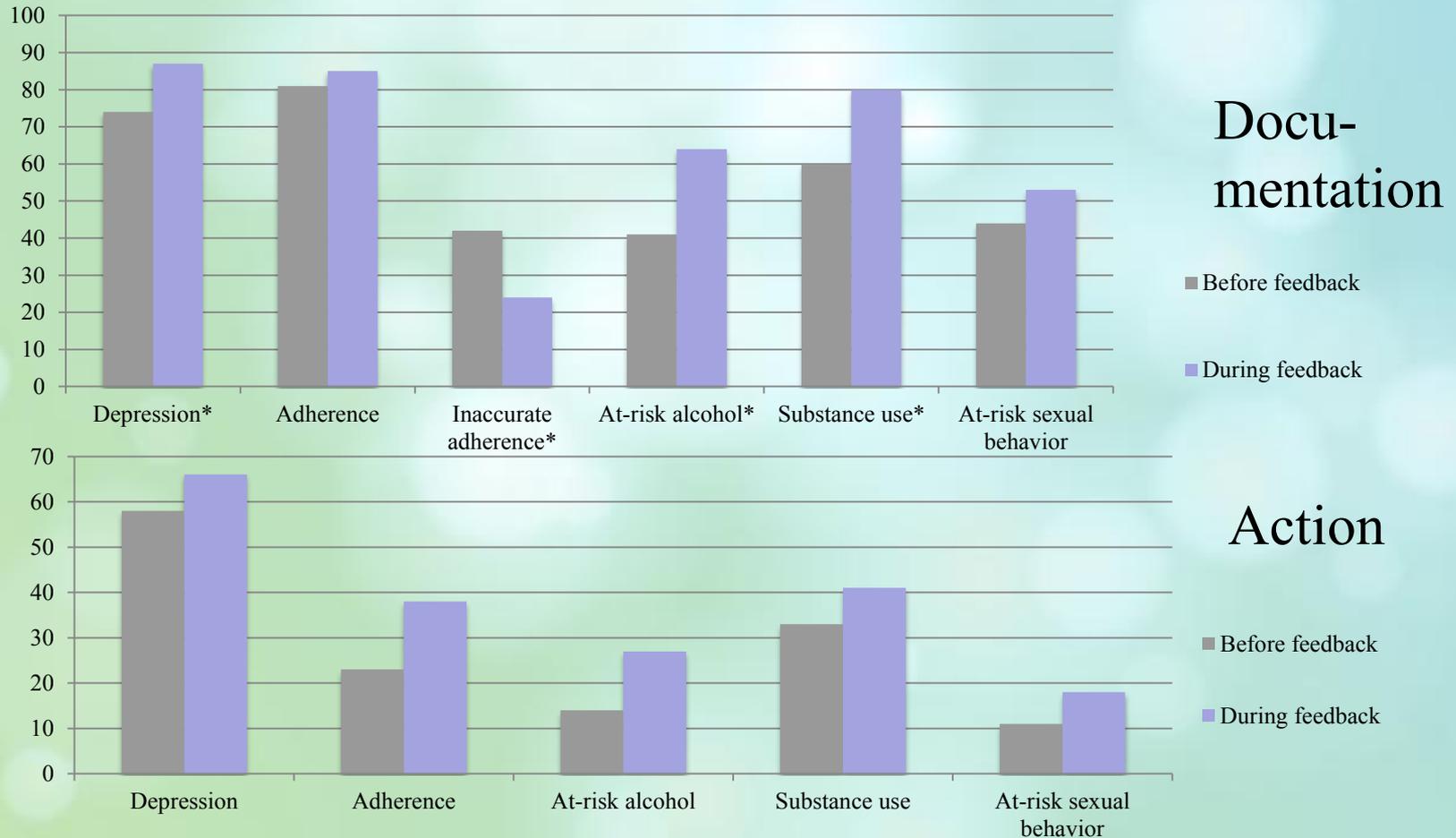
Path to Suppression Shorter in Later Years in CNICS

Percentage of UDVL Tests Among Those On ART





CNICS Point-of-Care Patient Surveys = Actionable Adherence Info



Heidi Crane, IAPAC Adherence 2015

Pre-Conference Symposium on High-Impact Technology



Advance:

Toolbox of Effective ART Adherence Interventions is Expanding

oral

19 Effectiveness and Cost-Effectiveness of the Adherence Improving Self-Management Strategy (AIMS) Delivered in HIV Care

*Marijn de Bruin (presenting)*¹, Edwin Oberje², Hans-Erik Nobel³, Silvia Evers⁴, Wolfgang Viechtbauer⁴, Jan Prins³



Novel intervention for depression & adherence in Sub-Saharan Africa

oral
281 **Treatment to Improve Adherence and Depression Among People Living With HIV in Zimbabwe**

Melanie Abas (presenting)¹, Dixon Chibanda², Tarisai Bere², Primrose Nyamayaro², Jessica Magidson³, Tariro Makadzange², Conall O’Cleirigh³, Kidia Khameer⁴, Kirsty Macpherson¹, Ricardo Araya⁵, Steven Safren³

¹ Kings College London, England, UK

² University of Zimbabwe, Harare, ZIMBABWE

³ Massachusetts General Hospital, Boston, MA, USA

⁴ Mount Sinai Medical School, New York, NY, USA

⁵ London School of Hygiene and Tropical Medicine, London, England, UK

Challenge:

#ADHERENCE2015



Durable suppression (still) requires ART adherence and persistence

oral
 **22** Non-Persistence to Antiretroviral
Therapy and Viral Suppression
Among HIV-Infected Adults in the United
States

Margaret Nyaku¹, Linda Beer (presenting)¹, Sandra Stockwell¹

¹ Centers for Disease Control and Prevention, Atlanta, GA, USA

- MMP data; ~12,000 US patients
- 80% report adherence/persistence over 12 mos
- Nonadherence &/or nonpersistence (2+ day gaps)
→ significantly higher viral breakthrough



Periods of viral detection are common longitudinally in individual patients

Time above 1500 copies: a viral load measure for
assessing transmission risk of HIV-positive
patients in care

Gary Marks^a, Lytt I. Gardner^a, Charles E. Rose^a, Anne Zinski^b,
Richard D. Moore^c, Susan Holman^d, Allan E. Rodriguez^e,
Meg Sullivan^f and Thomas P. Giordano^g

AIDS, 2015

- ~14000 CNICS patients, 90% on ART
- VL > 1500 copies/ml during 23% of observation time
- → 84 days per year, per patient, on average



Challenge: Troubling age disparities

oral
**8 Clinical and Behavioral Characteristics
in US HIV-Infected Young Adults**

Linda Beer (presenting)¹, Christine Mattson¹, Joseph Prejean¹,
R. Luke Shouse¹

Medical Monitoring Project

	US Youth (age 18-24)	US Adults (age 25+)
On ART	70%	91%
Adherent	73%	86%
Suppressed	33%	61%



Racial/ethnic disparities in ART prescriptions and thus viral suppression

oral

1 HIV Care Measured Over Multiple Time Periods Varies by Race and Ethnicity

Michael Horberg (presenting)^{1,2}, Leo Hurley^{3,4}, Daniel Klein⁵, William Towner⁶, Peter Kadlecik⁷, Carol Remmers⁸, Rebecca Gambatese⁸, Jackie Blank¹, Courtney Ellis^{3,4}, Michael Silverberg^{3,4}

¹ Mid-Atlantic Permanente Research Institute of Kaiser Permanente Mid-Atlantic States, Rockville, MD, USA

² HIV Initiative of Kaiser Permanente, Rockville, MD, USA

³ HIV Initiative of Kaiser Permanente, Oakland, CA, USA

⁴ Kaiser Permanente Northern California Division of Research, Oakland, CA, USA

⁵ Kaiser Permanente Northern California, San Leandro, CA, USA

⁶ Kaiser Permanente Southern California, Los Angeles, CA, USA

⁷ Kaiser Permanente Mid-Atlantic States, Washington, DC, USA

⁸ Kaiser Permanente, Oakland, California, USA

- Whites > Black / Latino in prescribed ART
- Whites > Black / Latino in viral suppression
- Controlling for ART use erases viral disparities



Challenges for Cisgender, Transgender, & Post-Partum Women

JoAnne Keatley on transgender individuals,
Community Discussion Panel, Monday June 29

poster

 **233** Use and Adherence to
Antiretroviral Therapy Among
Pregnant US Women: Results From the
Women's Interagency HIV Study

Elizabeth Golub (presenting)¹, Bin Liu¹, Seble Kassaye²,
Roksana Karim³, Susan Cohn⁴, Rodney Wright⁵, Deborah Cohan⁶,
Howard Minkoff⁷

poster

 **40** Trends in HIV Viral Load
Suppression During and After
Pregnancy — United States, January 1996–
March 2014

Monita Patel (presenting)¹, Carl Armon², Steven Nesheim¹,
Ellen Tedaldi³, Richard Novak⁴, Frank Palella⁵, Margaret Lampe¹,
Madeline Sutton¹, John Brooks¹, Kate Buchacz¹

poster

159 The Importance of Gender in
Understanding Adherence: A
Longitudinal Study Within a Population
Based Cohort of HIV-Positive Individuals

Cathy Puskas (presenting)¹, Kate Salters², Wendy Zhang²,
Angela Kaida¹, Cari Miller¹, Robert Hogg²

poster

91 HIV-1 Viral Suppression and
Adherence to ART During
Periconception, Pregnancy, and Postpartum
Follow-Up in Uganda

Lynn Matthews (presenting)¹, Heather Ribaudo², Angela Kaida³,
Kara Bennett⁴, Mark Siedner¹, Nicholas Musinguzi⁵, Jerome Kabakyenga⁵,
Yap Boum⁶, Jessica Haberer¹, Peter Hunt⁷, Jeffrey Martin⁷,
David Bangsberg¹



Opportunity: Mobile electronic communication

oral
39 Meanings of SMS Reminders for
Adherence Support Among Adults
Initiating ART in Rural Southwestern Uganda

Norma Ware (presenting)¹, Monique Wyatt¹, Emily Pisarski¹,
Melanie Tam¹, Esther Atukunda², Angella Musiimenta², Jessica Haberer³

- ¹ Harvard Medical School, Boston, MA, USA
- ² Mbarara University of Science and Technology, Mbarara, UGANDA
- ³ Massachusetts General Hospital, Boston, MA, USA

oral
87 SMS Interventions to Improve
Antiretroviral Therapy Adherence:
A Pilot Randomized Controlled Trial

Jessica Haberer (presenting)¹, Angella Musiimenta², Esther Atukunda²,
Nicholas Musinguzi², David Bangsberg¹

- ¹ Massachusetts General Hospital, Boston, MA, USA
- ² Mbarara University of Science and Technology, Mbarara, UGANDA

poster
 **245** Real-Time Antiretroviral
Therapy Adherence Monitoring
in Rural Alabama: A Proof of Concept Study
Using Wisepill Technology in the United
States

Kristi Stringer (presenting)¹, Corilyn Ott¹, Steven Safren²,
Jessica Haberer², Mirjam-Colette Kempf¹



Opportunity: Novel assays for ART detection

210 Feasibility and Acceptability of Hair- and Dried Blood Spot-Derived ARV Biomarkers as Objective Measures of Treatment Adherence in South Africa

Reuben Robbins (presenting)¹, Hetta Gouse², Yoliswa Mtingeni², Javier Lopez Rios¹, Claude Mellins¹, John Joska², Patricia Warne¹, Robert Remien¹

241 Utility of Dried Blood Spot-Derived ARV Biomarkers as an Objective Measure of Treatment Adherence in South Africa

Patricia Warne (presenting)¹, Reuben Robbins¹, Peter Anderson², Hetta Gouse³, John Joska³, Cheng-Shiun Leu¹, Yoliswa Mtingeni³, Michelle Henry³, Javier Lopez Rios¹, Jose Castillo-Mancilla², Bruce Levin¹, Claude Mellins¹, Robert Remien¹



Correlation of TFV-DP_{adj} with % Wisepill openings in previous 28 days:

Exclude 6 participants with significant TFV-DP_{adj} but sustained absence of Wisepill openings

	All participants (N=29)			Participants excluded (N=23)		
	N (data points)	r	p	N (data points)	r	p
All visits	142	.348	<.001	112	.510	<.001



Opportunity: Systems and policy interventions to support ART use & adherence

oral
205 Antiretroviral Prescription Delivery
for Persons Living With HIV/AIDS
in Alabama: Do Mailed Medications With
Enhanced Pharmacy Services Affect Biologic
Outcomes?

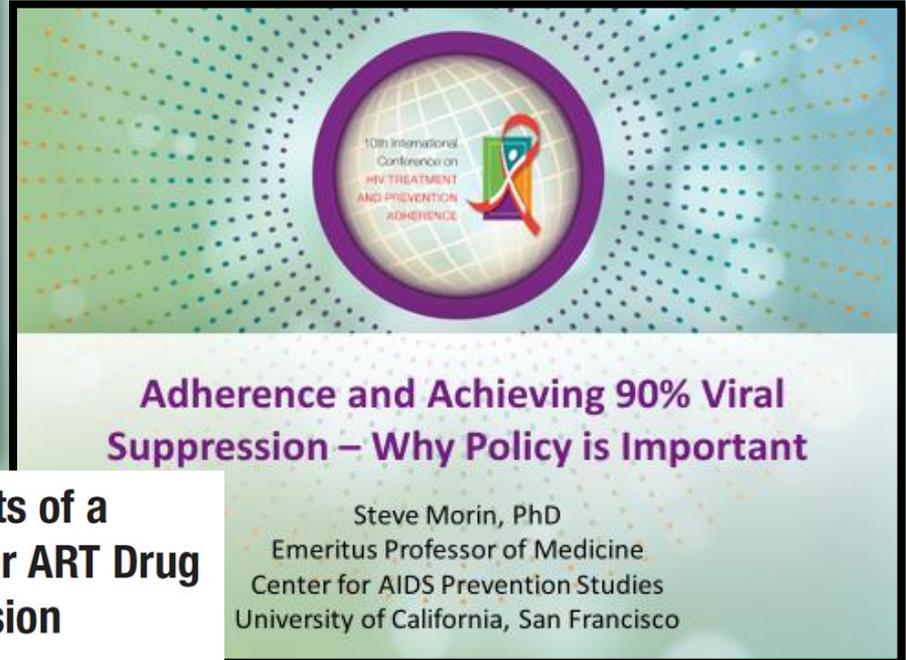
Will Rutland (presenting)¹, Ashutosh Tamhane¹,
Michael Mugavero¹, Ranjith Kasanagottu¹, James Raper¹, Anne Zinski¹

¹ University of Alabama, Birmingham, AL, USA

poster
 **218** Evaluating the Effects of a
Centralized Portal for ART Drug
Program Access on Viral Suppression

Ranjith Kasanagottu¹, Ashutosh Tamhane¹, Will Rutland¹,
Michael Mugavero¹, James Raper¹, Anne Zinski (presenting)¹

¹ University of Alabama, Birmingham, AL, USA



10th International
Conference on
HIV TREATMENT
AND PREVENTION
ADHERENCE

**Adherence and Achieving 90% Viral
Suppression – Why Policy is Important**

Steve Morin, PhD
Emeritus Professor of Medicine
Center for AIDS Prevention Studies
University of California, San Francisco



ART Adherence

- Advances
 - Increasing viral suppression
 - Expanding toolbox of proven interventions
- Challenges
 - Disparities in ART/adherence/viral load
 - Adherence monitoring so we can “Do the Right Thing at the Right Time” -- Ambassador Birx
- Emerging opportunities
 - Improved technologies and assays
 - Systems approaches



CARE CONTINUUM: ADVANCES, CHALLENGES, & OPPORTUNITIES



“I don’t see myself in that continuum”
-- Vanessa Johnson, #Adherence2015



Curious Cascade Complexities

68 The Paradox of Retention

Daniel Feller (presenting)¹, Bruce Agins¹

¹ New York State Department of Health, Albany, NY, USA

- Viral suppression higher in retained patients vs. those with appt gaps
- Yet many maintained suppression out of care – esp. older patients and those on private insurance

20 Retention in HIV Care Among a Commercially Insured Population, 2006-2012

Kathy Byrd (presenting)¹, Melissa Furtado¹, Tim Bush¹

¹ Centers for Disease Control and Prevention, Atlanta, GA, USA

- 35-43% of people considered not in care continued to receive HIV lab testing
- Why?



Access alone cannot erase gaps in the care cascade

57 The MSM HIV Care Cascade in Rio de Janeiro, Brazil

Rodolfo Castro (presenting)¹, Marcelo Ribeiro-Alves¹, Monica Derrico¹, Katia Lemos¹, José Grangeiro², Beto Jesus³, Denise Pires⁴, Valdilea Veloso¹, Beatriz Grinsztejn¹

¹ Fundação Oswaldo Cruz, Rio de Janeiro, BRAZIL

² Grupo Arco- Íris, Rio de Janeiro, BRAZIL

³ International Lesbian, Gay, Bisexual, Trans and Intersex Association for Latin America and the Caribbean, Buenos Aires, ARGENTINA

⁴ Secretaria de Estado de Saúde do Rio de Janeiro, BRAZIL

	~800 MSM In Rio de Janeiro
Linked	73%
Retained	69%
On ART	61%
Suppressed	38%



Disparities persist

199 Age Matters: Inconsistent HIV Care Among Adolescents and Young Adults in Nigeria

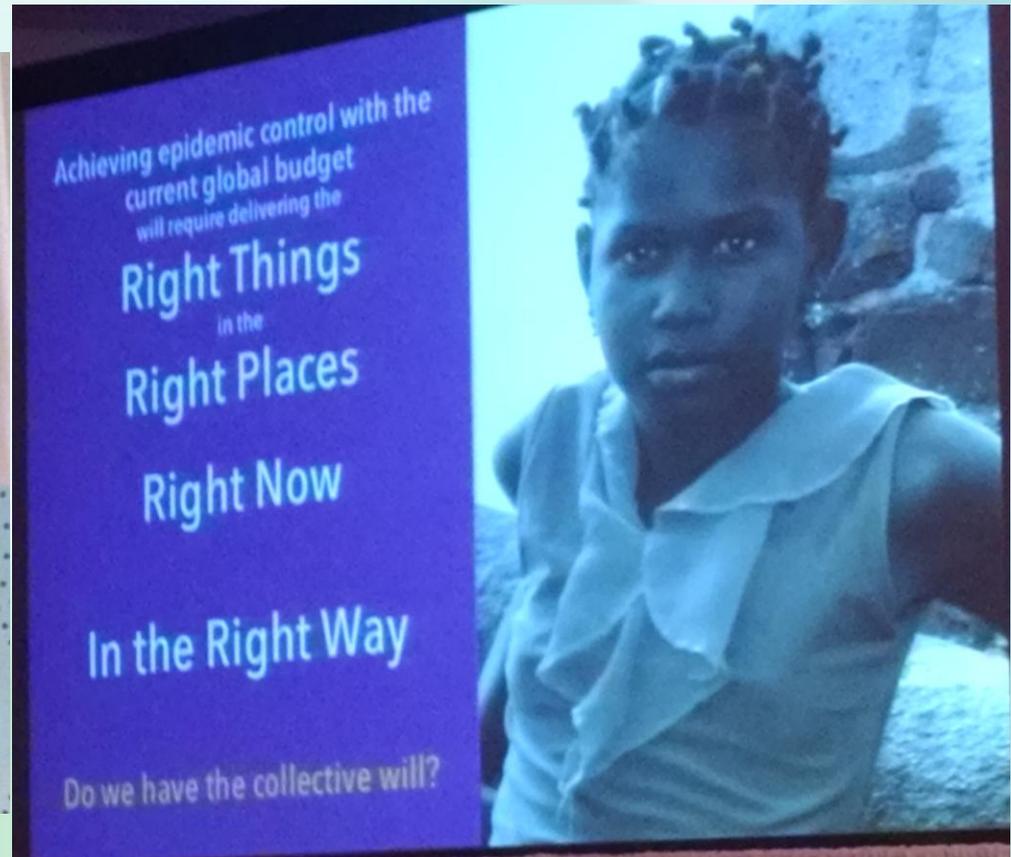
Aimalohi Ahonkhai (presenting)¹, Bolanle Banigbe², Juliet Adeola², Abdulkabir Adegoke¹, Susan Regan¹, Ingrid Bassett¹, Ifeyinwa Onwuatuelo², Elena Losina¹, Prosper Okonkwo², Kenneth Freedberg¹

1 HIV Care Measured Over Multiple Time Periods Varies by Race and Ethnicity

Michael Horberg (presenting)^{1,2}, Leo Hurley^{3,4}, Daniel Klein⁵, William Towner⁶, Peter Kadlecik⁷, Carol Remmers⁸, Rebecca Gambatese⁸, Jackie Blank¹, Courtney Ellis^{3,4}, Michael Silverberg^{3,4}

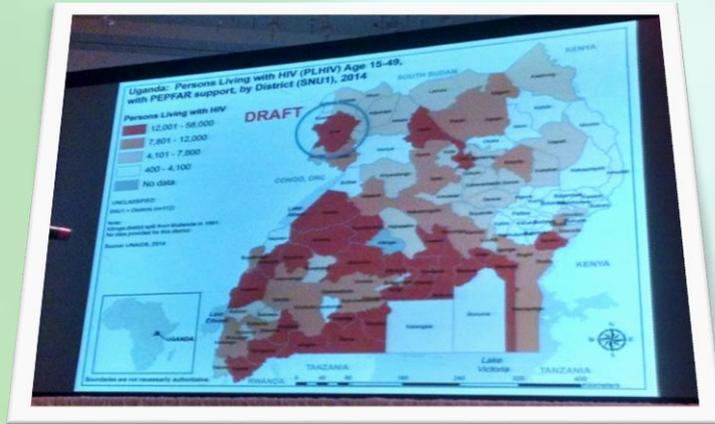


Ambassador Birx Plenary





Geomapping: Target the Right Places



Ambassador Birx, Opening Plenary



Patrick Sullivan, Pre-Conference Tech Symposium

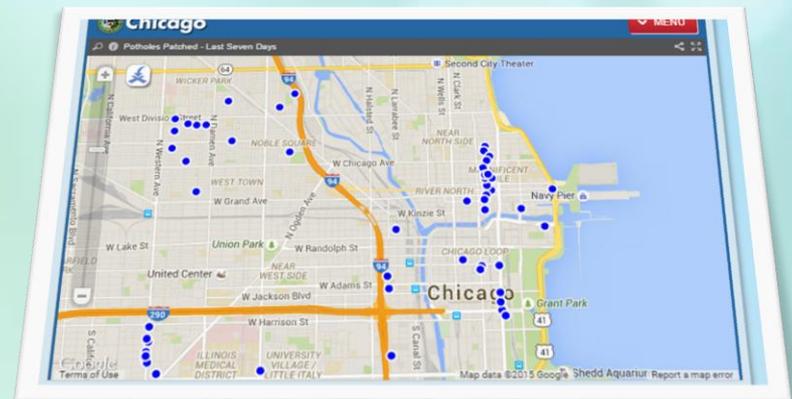
216 Feasibility of Using HIV Care Continuum Outcomes to Identify Geographic Areas for HIV Testing

Amanda Castel (presenting)¹, Irene Kuo¹, Meriam Mikre¹, A. Toni Young², Geoffrey Maugham², Carol Reisen¹

Results: Geospatial Mapping of Continuum of Care Outcomes by Census Tract



Amanda Castel, Oral Abstract #216



Rueben Granich, Tuesday Plenary



It's more than place:

Multilevel determinants of lost patients

poster
 **232** Structural, Psychological and Clinic-Based Barriers to Re-Engagement Among Patients Lost to Follow-Up From HIV Care in Eastern Africa

Elvin Geng (presenting)¹, Thomas Odeny², Rita Lyamuya³, Wendy Hartogensis¹, Alice Nakiwogga-Muwanga⁴, Lameck Diero⁵, Mwebesa Bwana⁶, Paula Braitstein⁷, Geoffrey Somi³, Andrew Kambugu⁴, Elizabeth Bukusi², Kara Wools-Kaloustian⁷, David Glidden¹, Constantin Yiannoutsos⁷, Eric Vittinghoff¹, Jeffrey Martin¹

¹ University of California, San Francisco, CA, USA

² Kenya Medical Research Institute and the Family AIDS Care and Education Services Program, Kisumu, KENYA

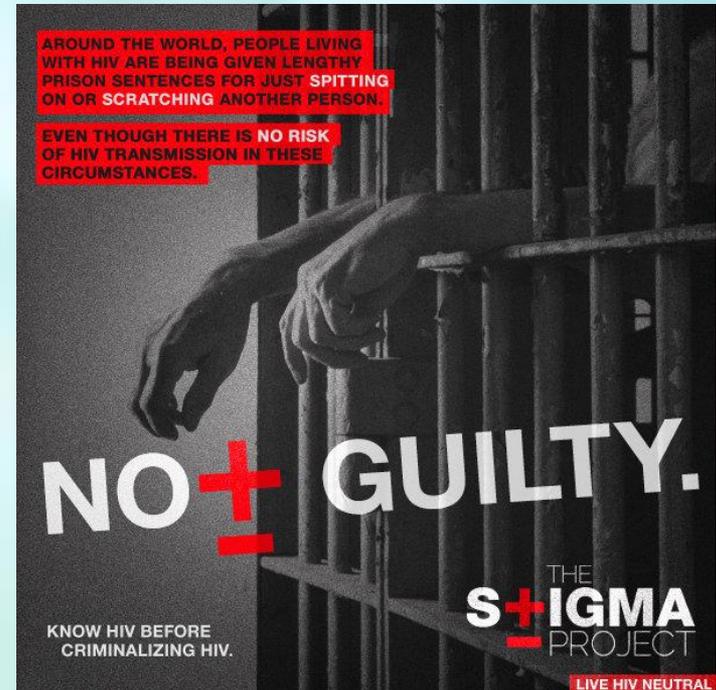
³ National AIDS Control Program. Dar Es Salaam. TANZANIA

- Traced 364 LTFU patients
- 59% reported structural, 46% psychosocial, 23% clinic-based, and 12% no specific barriers
- Psychosocial barriers = longer lapses; structural barriers = shorter lapses
- Focus on psychosocial? (e.g., stigma, denial)



The challenge of stigma

- Jason Sigurdson:
 - “The Hardest Zero”
 - HIV criminalization reform
- Ambassador Birx
 - Stigma as a major barrier
 - Pervasive in healthcare settings
 - Fresh efforts to monitor stigma
- Anna Zakowicz: Promoting love and respect
- Bob Grant: “People are more than the result of two assays.”





“Data to Care” Approaches for finding/re-linking those out of care

Data to Care: Leveraging Public Health Partnerships Across the HIV Care Continuum

Moderator: Patrick Sullivan, PhD, DVM

Presenter: Eugene McCray, MD

Panelists: Julia Dombrowski, MD, MPH; Jorge Saavedra, MD; Baligh Yehia, MD, MPP, MSHP



17 Re-Linkage and Retention in Care of HIV-Diagnosed Persons Presumed to be Out-of-Care Based on New York City HIV Surveillance Data

Chi-Chi Udeagu (presenting)¹, Christopher Williams¹,
Sarah Braunstein¹

¹ New York City Department of Health and Mental Hygiene, New York,
NY, USA



Social network approaches for finding/re-linking

30 Out-of-Care PLHIV in St. Petersburg,
Russia, can be Located and
Successfully Reached in the Community
Through Their Social Network Connections

Yuri Amirkhanian (presenting)¹, Jeffrey Kelly ¹,
Anna Kuznetsova², Anastasia Meylakhs², Alexei Yakovlev²



RCT of Peer Mentoring For Retention

34 Effect of Peer Mentoring to Improve Retention in HIV Care and HIV Viral Load in Hospitalized, Out-of-Care Patients

Thomas Giordano (presenting)¹, Jeffrey Cully¹, Jessica Davila¹,
K. Rivet Amico², Michael Kallen³, Jackie Wear⁴, Christine Hartman⁵,
Melinda Stanley¹

¹ Baylor College of Medicine, Houston, TX, USA

² University of Michigan, Ann Arbor, MI, USA

³ Northwestern University, Evanston, IL, USA

⁴ Harris Health System, Houston, TX, USA

⁵ DeBakey VA Medical Center, Houston, TX, USA

Background: Few interventions have been shown to improve retention in HIV care. Peer mentoring is used in some settings, but has not been rigorously tested.



Care Coordination: Growing Evidence for Impact

109 Improved Care Engagement and Viral Load Suppression Among HIV Care Coordination Clients With Poor Mental Health, Unstable Housing, and Substance Use at Baseline

Stephanie Chamberlin (presenting)¹, Mary Irvine¹, Rebekkah Robbins¹, Sarah Gorrell Kulkarni², McKaylee Robertson³, Denis Nash²

¹ New York City Department of Health and Mental Hygiene, New York, NY, USA

² CUNY School of Public Health, New York, NY, USA

³ Centers for Disease Control and Prevention, Atlanta, GA, USA

223 the Impact of Care Coordination Services on HIV Care Outcomes Among Formerly Incarcerated Individuals in Virginia

Lauren Yerkes¹, Kate Gilmore¹, Steven Bailey¹, Misty Johnson¹, Safere Diawara¹, Anne Rhodes (presenting)¹

¹ Virginia Department of Health, Richmond, VA, USA

161 Short-Term Navigation can Lead to Successful Re-Engagement of Out-of-Care Patients With HIV: Results of San Francisco's LINGS Navigation Program

Darpun Sachdev¹, Sharon Pipkin¹, Erin Antunez (presenting)¹, Susan Scheer¹, Stephanie Cohen¹

¹ San Francisco Department of Public Health, San Francisco, CA, USA

282 Improvements in Retention in Care and Viral Suppression: Results From the First Year of the Medical Care Coordination Program in Los Angeles County

Wendy Garland (presenting)¹, Sonali Kulkarni¹

¹ Los Angeles County Department of Public Health, Los Angeles, CA, USA



Quaraisha Abdool-Karim:

Impacting the HIV care continuum with Implementation Science

- Implementation science is *research to promote the integration of research findings and evidence into healthcare policy and practice*
- The intent of implementation science is to:
 - investigate & address **major bottlenecks** (eg. social, behavioral, management) impeding effective implementation,
 - test **new approaches** to improve health programming, &
 - determine a **causal relationship** between the intervention and its impact.
- Below I draw upon 4 examples of implementation science to identify real-world strategies to help optimize each of the 5 key steps in the HIV care continuum



Care Continuum

- Advances
 - Growing evidence for care coordination
- Challenges
 - Structural barriers and stigma
 - Complexities in the cascade
- Opportunities
 - Data to care, geomapping
 - Social network approaches
 - Implementation science



BIOMEDICAL PREVENTION: ADVANCES, CHALLENGES, & OPPORTUNITIES

“PrEP is a gateway drug...
to primary care.”

– Demetre Daskalakis, via
Sarit Golub, #Adherence2015



PrEP Care: Achieving Prevention -- and More

#ADHERENCE2015



^{oral} 174 Evidence that PrEP can “Do More”: Synergistic Effects on Primary Care, Insurance Status, and Mental Health

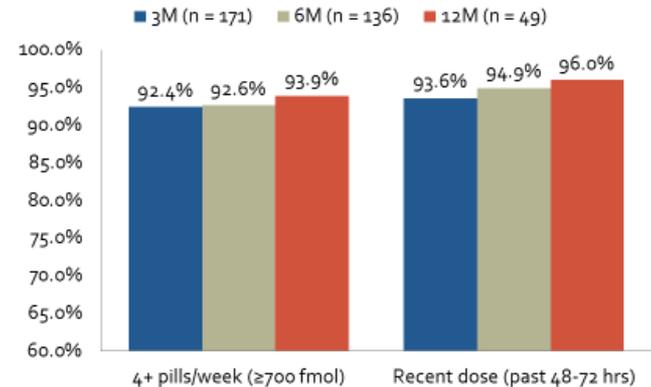
Sarit Golub (presenting)¹, Anita Radix², Amy Hilley²,
Anthony Catalanotti², Kailip Boonrai¹, Nora Douglas²

1 Hunter College, New York, NY, USA

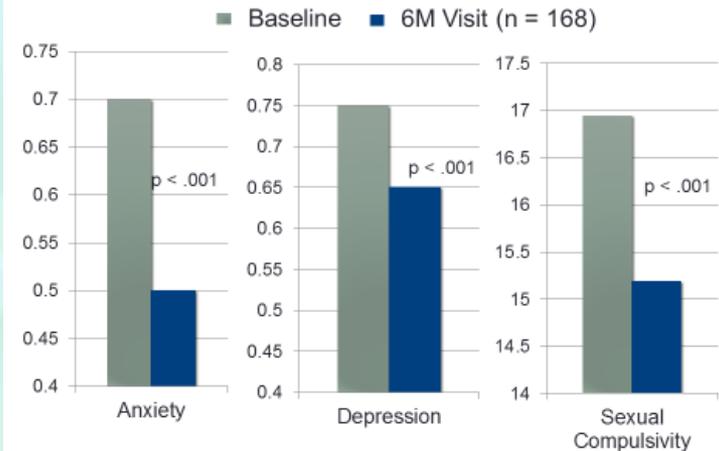
2 Callen-Lorde Community Health Center, New York, NY, USA

- 200 NYC MSM in SPARK PrEP demo project
- High oral PrEP adherence; low discontinuation
- PrEP use → connections to primary care
- Significant reductions in anxiety, stress

SPARK Adherence (DBS Data)



Improve Psychological Wellbeing





Increases in oral PrEP uptake -- and adherence

oral
74 Significant Uptake of Truvada for
Pre-Exposure Prophylaxis Utilization
in the US in 2014

Staci Bush (presenting)¹, Leslie Ng¹, David Magnuson¹,
David Piontkowsky¹, Robertino Mera¹

- PrEP starts ↑ 319% from 2012-2014
- Adherence higher among those initiating PrEP in 2014 compared to 2013 (91% vs. 70% by MPR)



HIV Testing as a Conduit to PrEP Care

 **115** Perspectives on HIV Risk and
HIV Pre-Exposure Prophylaxis
(PrEP) Among Patients in an HIV Prevention
Program in Houston, TX

Charlene Flash (presenting)¹, Carmen Avalos¹, Xiaoying Yu¹,
Kenneth Mayer², Thomas Giordano¹

¹ Baylor College of Medicine, Houston, TX, USA

² Fenway Community Health, Boston, MA, USA



Provider-Level Barriers -- and Opportunities

272 Low Adoption of PrEP Guidelines Among Health Care Providers in 2014-2015: Results of a Statewide Survey of North Carolina Primary Care Physicians

Becky White (presenting)¹, Ashley Appiagyei¹, Julia Hill², Prianca Reddi¹, Donald Pathman¹, Adaora Adimora¹, Carol Golin¹

¹ University of North Carolina, Chapel Hill, NC, USA

² Gillings Global School of Public Health, Chapel Hill, North Carolina, USA

41 HIV Pre-Exposure Prophylaxis Capacity, Experience, Knowledge, Attitudes, and Barriers Among a National Sample of US Primary Care Providers and HIV Providers

Andrew Petroll (presenting)¹, Laura Bogart², Keith Horvath³, Timothy McAuliffe¹

¹ Medical College of Wisconsin, Milwaukee, WI, USA

² Boston Children's Hospital/Harvard Medical School, Boston, MA, USA

³ University of Minnesota, Minneapolis, MN, USA



183 Diffusion Of HIV Pre-Exposure Prophylaxis Into Specialist and Primary Care: A Qualitative Study With Primary Care Providers

Douglas Krakower (presenting)¹, Norma Ware², Ira Wilson³, John Wong⁴, Kevin Maloney¹, Kenneth Mayer²

¹ Beth Israel Deaconess Medical Center, Boston, MA, USA

² Harvard Medical School, Boston, MA, USA

³ Brown University, Providence, RI, USA

⁴ Tufts Medical Center, Boston, MA, USA



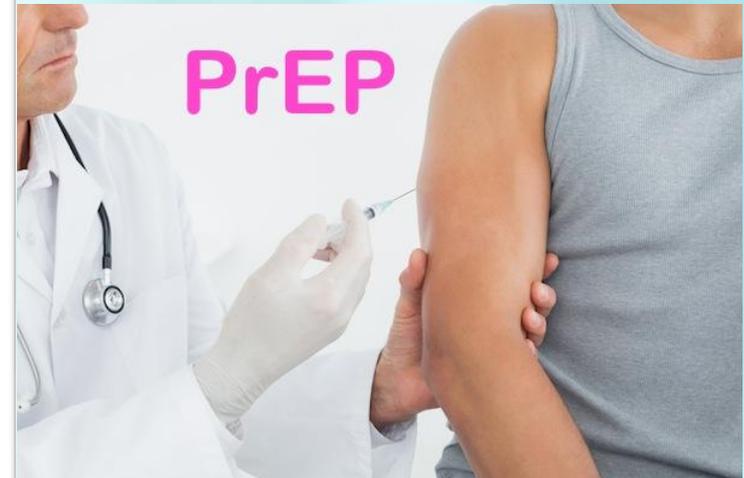
Interest in Injectable PrEP

poster
114 Familiarity With and Preferences
for Oral Versus Long-
Acting Injectable PrEP in a Nationally
Representative US Sample of Gay and
Bisexual Men

Jeffrey Parsons (presenting)¹, H. Jonathon Rendina²,
Thomas Whitfield², Christian Grov²

¹ Hunter College, New York, NY, USA

² Center for HIV Educational Studies and Training, New York, NY, USA



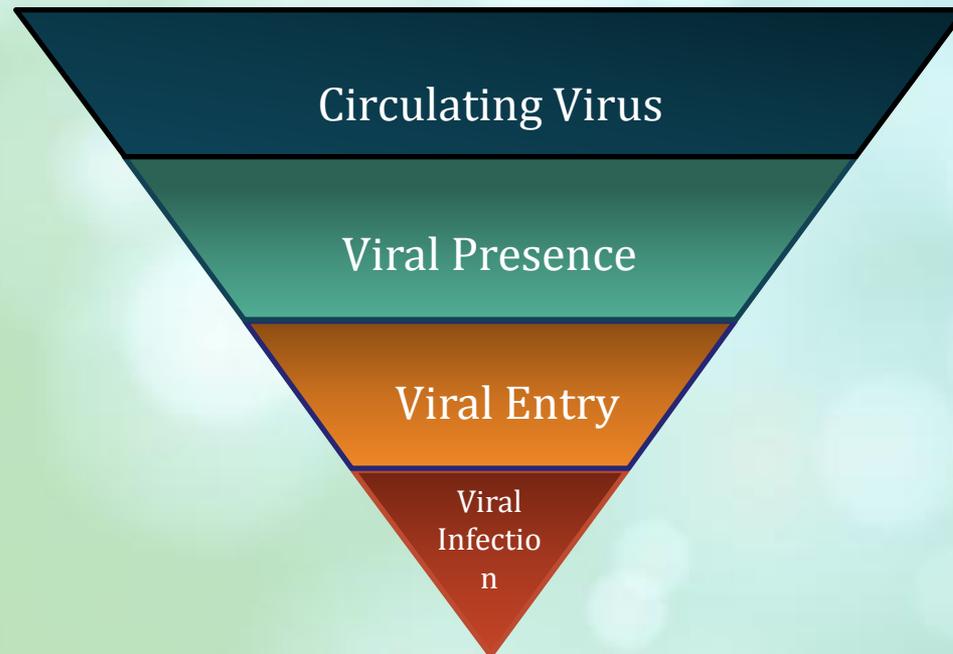
- 84% of MSM unaware of injectable PrEP
- Preference if offered choice:
 - 47% injectable
 - 14% daily oral
 - 10% whichever was more effective

Sharon Hillier:
Need for multiple
products



Towards a Prevention Cascade

Rivet Amico, Tuesday Plenary:
HIV Infection Cascade



~50,000 in US



Biomedical Prevention

- Advances
 - PrEP uptake growing
 - Great adherence in MSM
 - Synergies of PrEP, primary care, mental health
- Challenges
 - Provider-level barriers
 - Addressing “seasons of risk” – Bob Grant
- Emerging opportunities
 - PrEP linkage through testing
 - New PrEP products (injectables, vaginal ring)
 - Prevention continuum to guide/target our work



A Decade of Success,
(A set of challenges),
A World of Opportunities

#ADHERENCE2015



NIMH Science Officers – Here to help



Chris Gordon



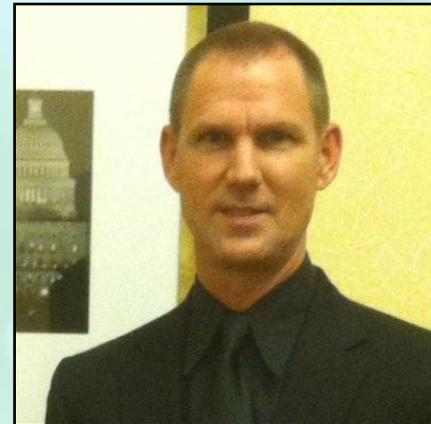
Cyndi Grossman



Mike Stirratt



Susannah Allison



Greg Greenwood



Selected NIMH/NIAID HIV Research Funding Opportunities

Targets	Funding Opps
Care continuum gaps	PA-14-132
Adherence to ART and PrEP	PA-14-126
Approaches	
Basic behavioral and social science	PA-14-127
“R34” intervention development projects	PA-14-179
Mental health/syndemics	Stay tuned
Social determinants/structural interventions	PA-14-133
Implementation science	PA-14-131
Populations	
Key populations evidencing disparities	Throughout

