

# Implementation & Uptake: The Achilles Heel of HIV evidence-based treatment, prevention and care

Deborah Jones Weiss, PhD  
University of Miami  
Miller School of Medicine

Academy of Behavioral Medicine Research  
June 25, 2015



# HIV Prevention & Treatment: Sabotaged by Implementation & Uptake

- Male or female condoms (consistent use ~24%)
- Microbicides – Vaginal/Rectal gels, Vaginal ring (>80% use, 61%)
- Voluntary medical male circumcision (South Africa, ~45%)
- Pre-exposure prophylaxis (PrEP) – ARV prophylaxis (US, 35-52%)
- Antiretroviral (ARV) Prophylaxis – combination ARV to prevent infection during pregnancy and including breastfeeding (~73%) (Prevention of Mother to Child Transmission, PMTCT)
- Antiretroviral therapy (ART) - use of combination of 3+ ARV drugs to achieve viral suppression < 50 copies/ml (consistent use ~66%)

# Implementation Science: Bridging the gap



*“...an interdisciplinary area of health research focusing on best methods to improve the uptake, implementation and translation of research findings into routine and common practices, addressing the evidence to program gap.”*

- NIH

**Evidence-based Practices**



# Challenges to PMTCT Uptake in Rural SA

## Patient challenges

- Stigma
- HIV status disclosure
- Knowledge
- Depression
- Intimate Partner Violence
- Male involvement
- Recency of diagnosis
- Partner HIV status

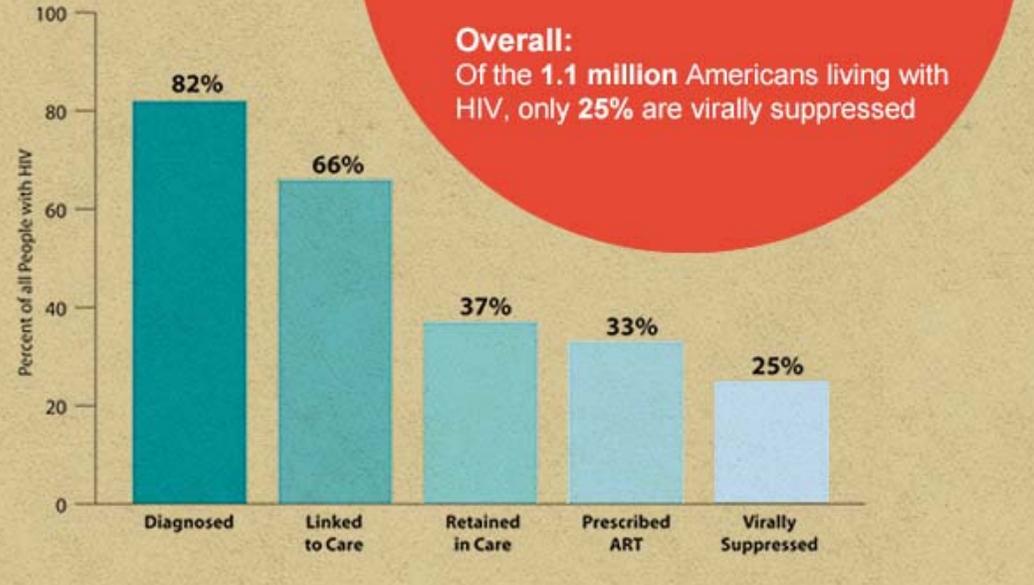
All impact adherence ~50%



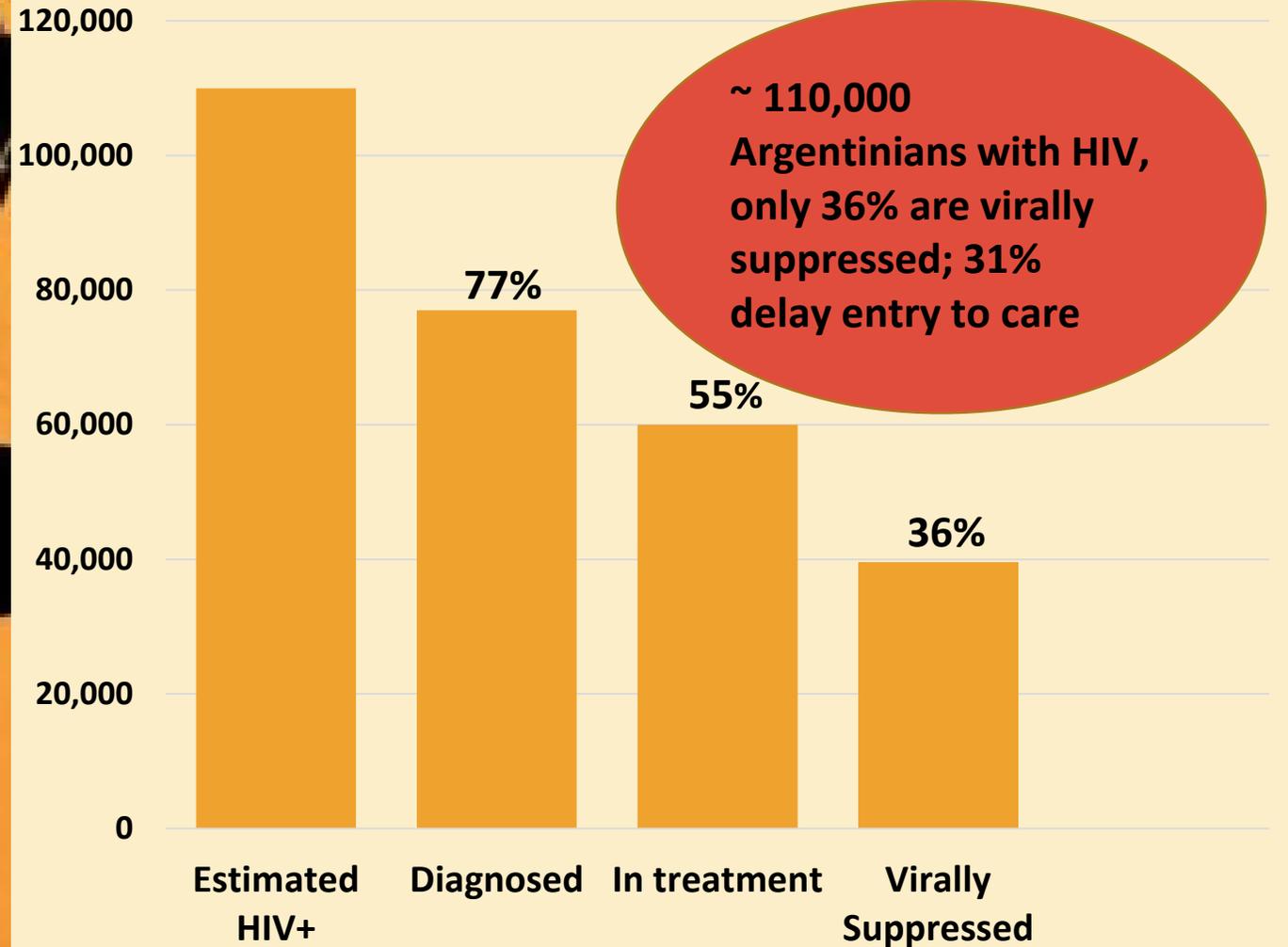
## Clinic & system challenges

- Low partner HIV testing
- Client mobility
- Medication stock out
- Test kits stock out
- Protocol confusion
- Work load
- Staff attitudes
- Poor records
- Inaccurate reports

# Conexiones y Opciones Positivas en la Argentina: COPA



## Argentina HIV Care Continuum



Adherence to ART can result in Viral Suppression and prevent ~98% of HIV transmission

# Applying Implementation Science Strategies to HIV care in Argentina

Challenges in linkage to care, viral suppression and retention in care

- 1992: Antiretroviral (ARV) medications available to all
- 2013: ARVs distributed to ~81% of those CD4 count <500 cells/mm<sup>3</sup>
- Resistance and transmission of resistant virus increases with greater treatment coverage and contributes to treatment failure; 23.8% are on 2<sup>nd</sup> line tx, low levels of VL testing

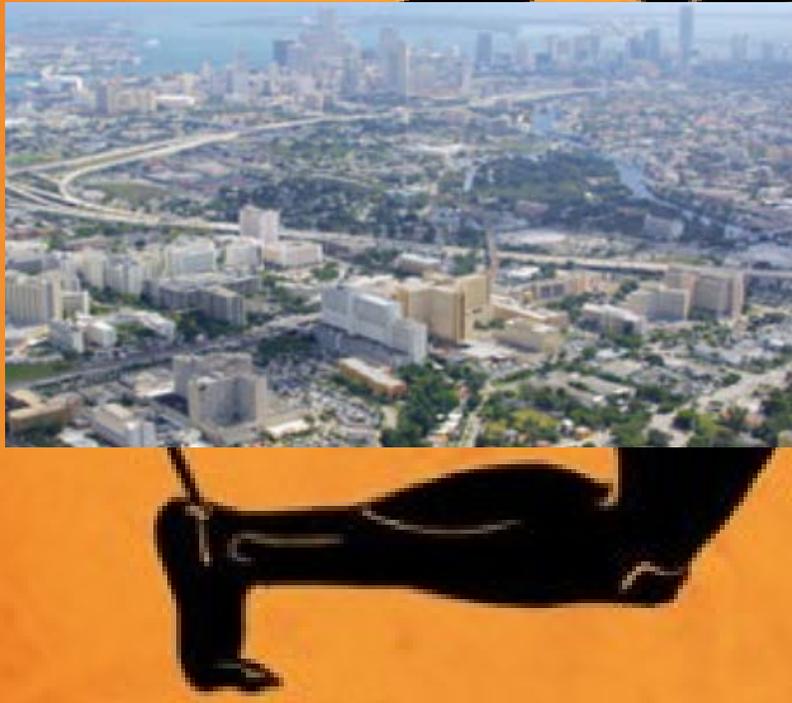


## “COPA” (Positive Connections)

- Applies Implementation Science methods to target ARV engagement, adherence and retention in care
- Examines the influence of Structural, Clinical and Patient characteristics on ARV uptake and retention
- Examines the influence of patient and provider interventions on viral suppression in HIV+ patients lost to care, i.e., “challenging patients”

# Applying Implementation Science Strategies to Preconception Counseling for HIV-infected Women in USA

- Preconception counseling can reduce the risk of fetal loss, preterm delivery, low birth weight and birth defects and HIV transmission to partners
  - 49% of women report becoming pregnant without clinical consultation
- 33% of pregnant US HIV+ women had discussed their last pregnancy with partners
  - 33% used no prenatal vitamins and continued substance use
- 68% used inconsistent or no contraception in the month they became pregnant



## “Pathways”

- Using Implementation Science methods to target preconception protocol delivery, coverage and uptake
- Examines the influence of Community, Systemic, Structural, Clinical and Patient characteristics on preconception counseling uptake and gaps in care
- Examines the impact of decision making on uptake of safer conception methods in HIV+ women

# Collaborative Implementation Research

- Increasing the Availability and Acceptability of Circumcision in Zambia (S Weiss)
  - Vaginal practices among HIV+ women in Zambia/ Miami (M Alcaide)



## Collaborative HIV Research

- Predictive Biomarkers of CVD Risk in Diverse HIV-1+ Cocaine Abusers (M Kumar)