



# Linkage and Retention to Care for Vulnerable Populations in Sub-Saharan Africa

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**Adherence 2018 • June 8-10 • Miami**



# Disclosure

- I have no financial conflicts of interest



# Learning Objectives

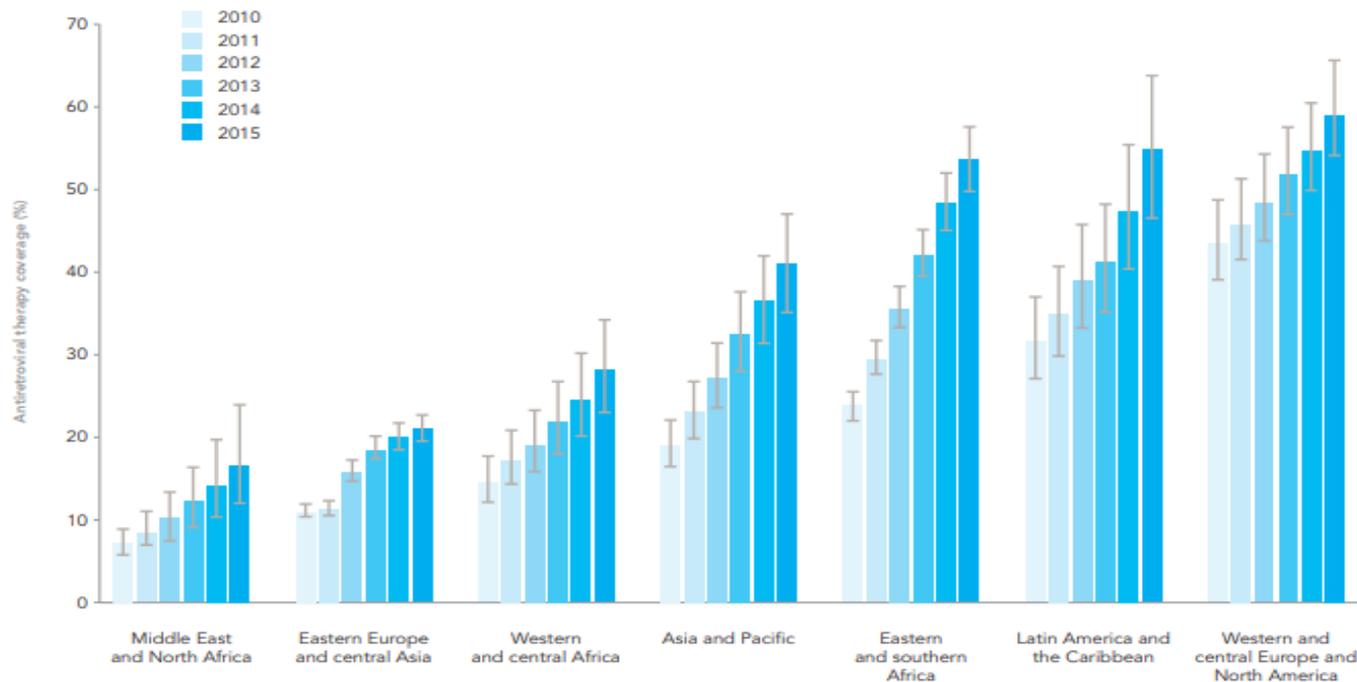
- **The Good News and Bad News –**
  - The impact of ART in Sub-Saharan Africa
  - The gaps and losses in care throughout the care continuum
- **Improving linkage and retention**
- **The Wave of the future**



# The Good News



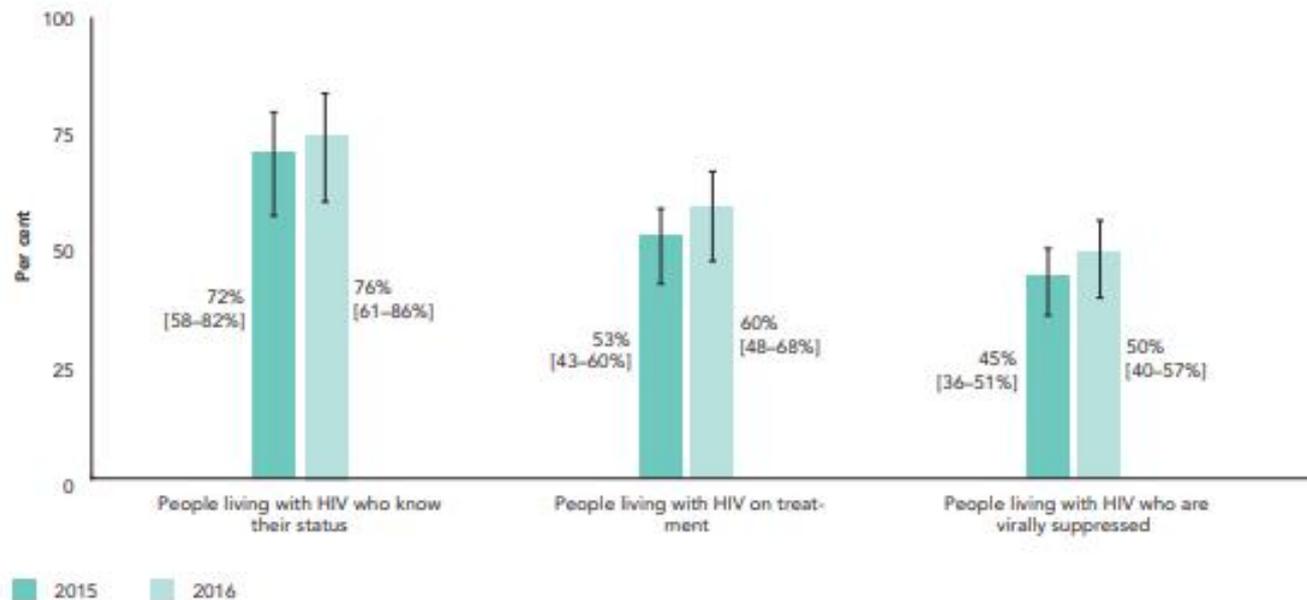
## Antiretroviral therapy coverage among people living with HIV, by region, 2010–2015



Sources: GARPR 2016; UNAIDS 2016 estimates.



## GAINS ACROSS THE TREATMENT CASCADE



KNOWLEDGE OF HIV STATUS, ANTIRETROVIRAL THERAPY COVERAGE AND VIRAL SUPPRESSION AMONG PEOPLE LIVING WITH HIV, EASTERN AND SOUTHERN AFRICA, 2015 AND 2016

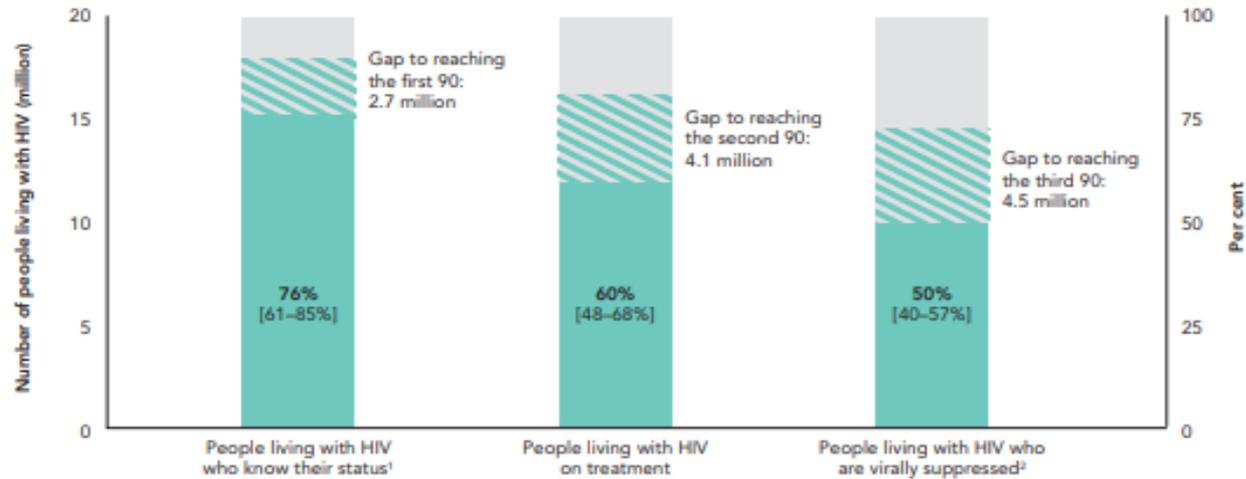
Source: UNAIDS special analysis, 2017; see annex on methods for more details.



# The Bad News



## HIV TESTING AND TREATMENT CASCADE IN EASTERN AND SOUTHERN AFRICA



### KNOWLEDGE OF HIV STATUS, ANTIRETROVIRAL THERAPY COVERAGE AND VIRAL SUPPRESSION AMONG PEOPLE LIVING WITH HIV, EASTERN AND SOUTHERN AFRICA, 2016

Source: UNAIDS special analysis, 2017; see annex on methods for more details.

<sup>1</sup> 2016 measure derived from data reported by 17 countries, which accounted for 99% of people living with HIV in western and central Africa.

<sup>2</sup> 2016 measure derived from data reported by 11 countries. Regionally, 37% of all people on antiretroviral therapy were reported to have received a viral load test during the reporting period.



	First 90: Knowledge of status among all people living with HIV	2 <sup>nd</sup> 90: Percentage of PLWH who know their status and are on treatment	3 <sup>rd</sup> 90: Percentage of PLWH on ART who are virally suppressed
Angola	40%	55%	72%
Botswana	85%	>89%	>89%
Ethiopia	67%	88%	86%
Kenya			79%
Lesotho	72%	74%	
Malawi	70%	>89%	89%
Mauritius			58%
Mozambique	61%	88%	
Namibia	77%	84%	
Rwanda	87%	>89%	
South Africa	86%	65%	81%
Swaziland			86%
Uganda	74%	>89%	
United Republic of Tanzania	70%	88%	
Zambia	66%	>89%	89%
Zimbabwe	75%	>89%	81%
Eastern and Southern Africa	76%	79%	83%

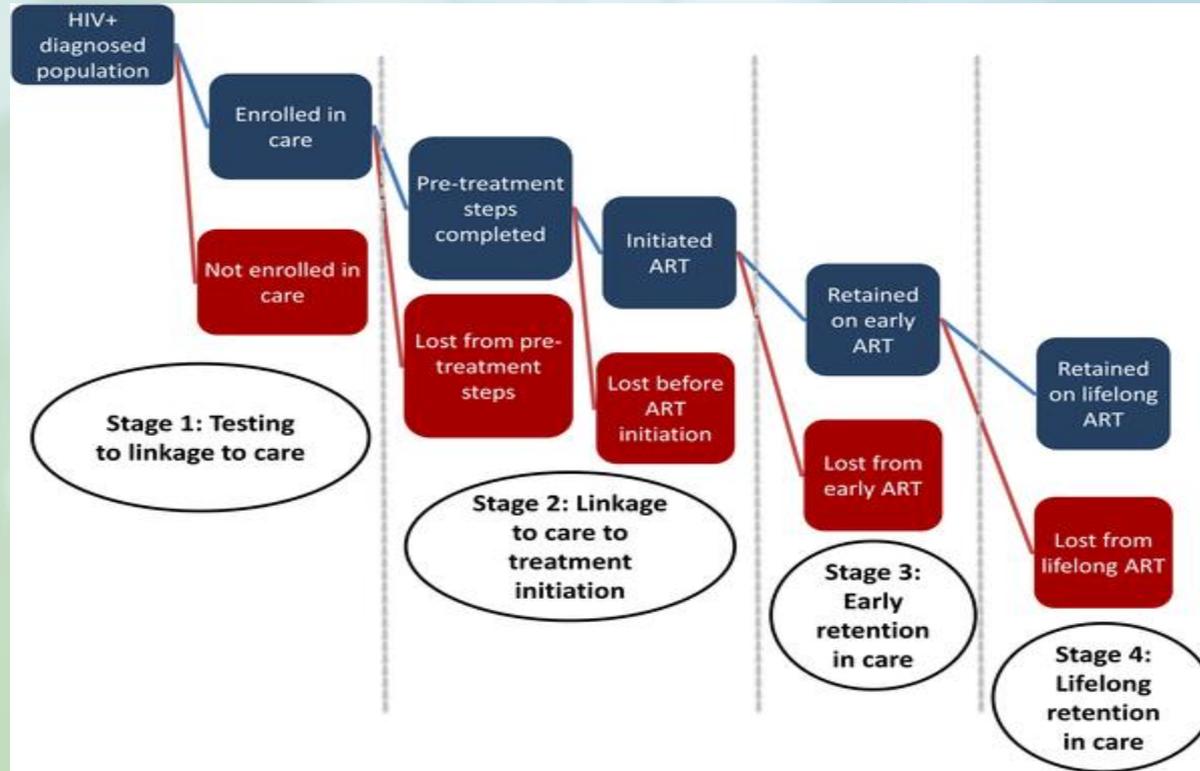
**KEY**

	85% and above
	70-84%
	50-69%
	Less than 50%

Modified from UNAIDS:  
[http://www.unaids.org/sites/default/files/media\\_asset/2017\\_data-book\\_en.pdf](http://www.unaids.org/sites/default/files/media_asset/2017_data-book_en.pdf)

# A New HIV Care Cascade and Opportunities to Become Lost to Care After Moving to Treatment for All

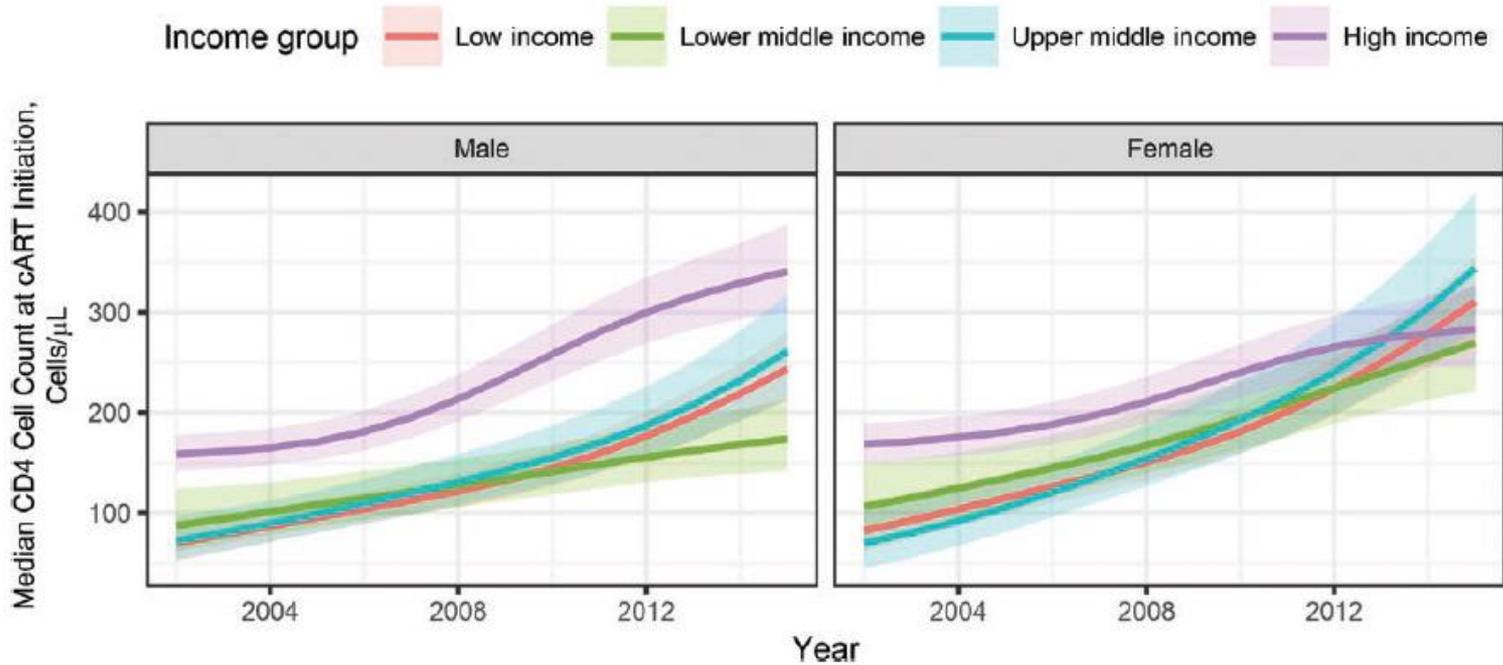
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# Stage 1: How are we doing in Testing? #ADHERENCE2018



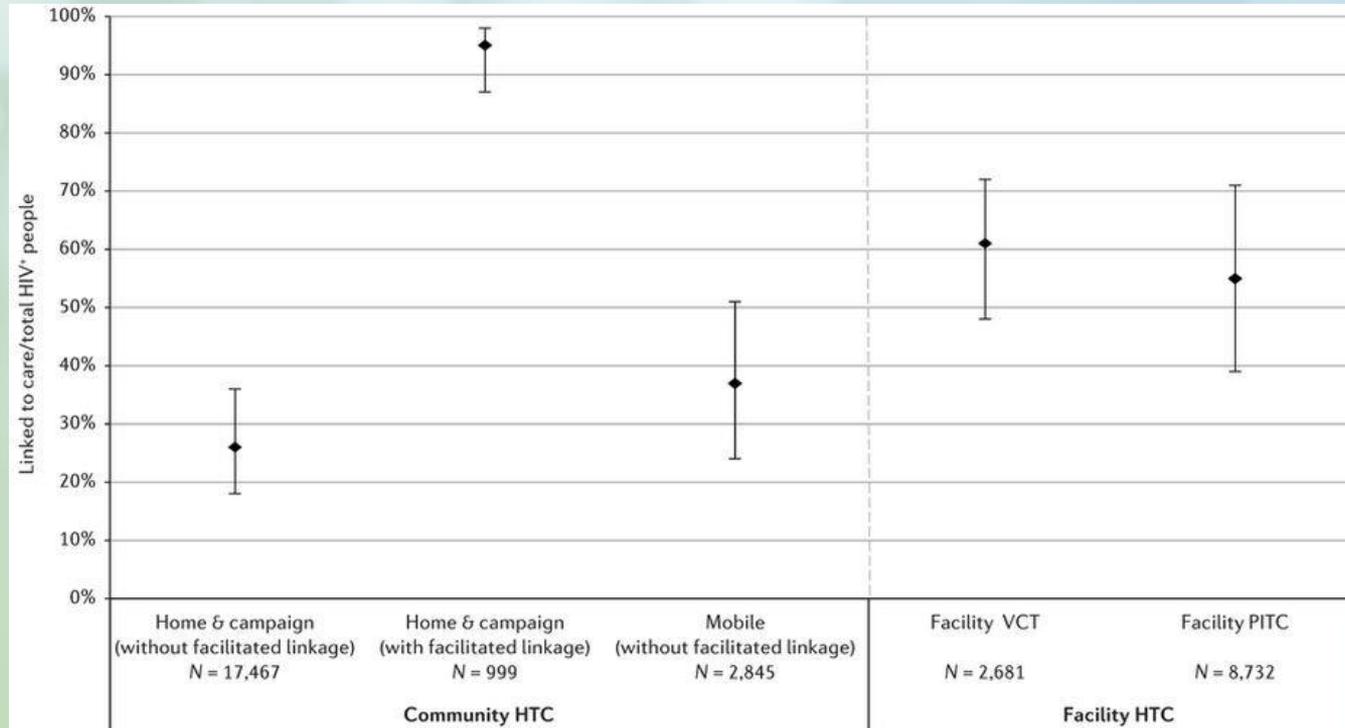
Median CD4 cell count in adults at the start of combination antiretroviral therapy (cART) by sex and country income group.





## Stage 2: How are we doing in linkage to Care and Treatment Initiation?

– Linkage to care after Community and Facility HIV Testing



# Stage 3: How are we doing in early Retention in Care?

## Attrition in the care cascade in South Africa

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### Low CD4 ( $\leq 350$ cells/ $\mu$ l)

2323 ART – eligible PLWH underwent testing

1924 (90.6%) initiated ART

199 (9.4%) lost before ART initiation

1577 (82.0%) in care through 16 wks

305 (15.9%) stopped care < 16 wks

42 (2.2%) died  $\leq 16$  wks

### High CD4 (<500 cells/ $\mu$ l)

1902 ART eligible PLWH underwent testing

1716 (90.2%) initiated ART

1806 (9.85%) lost before ART initiation

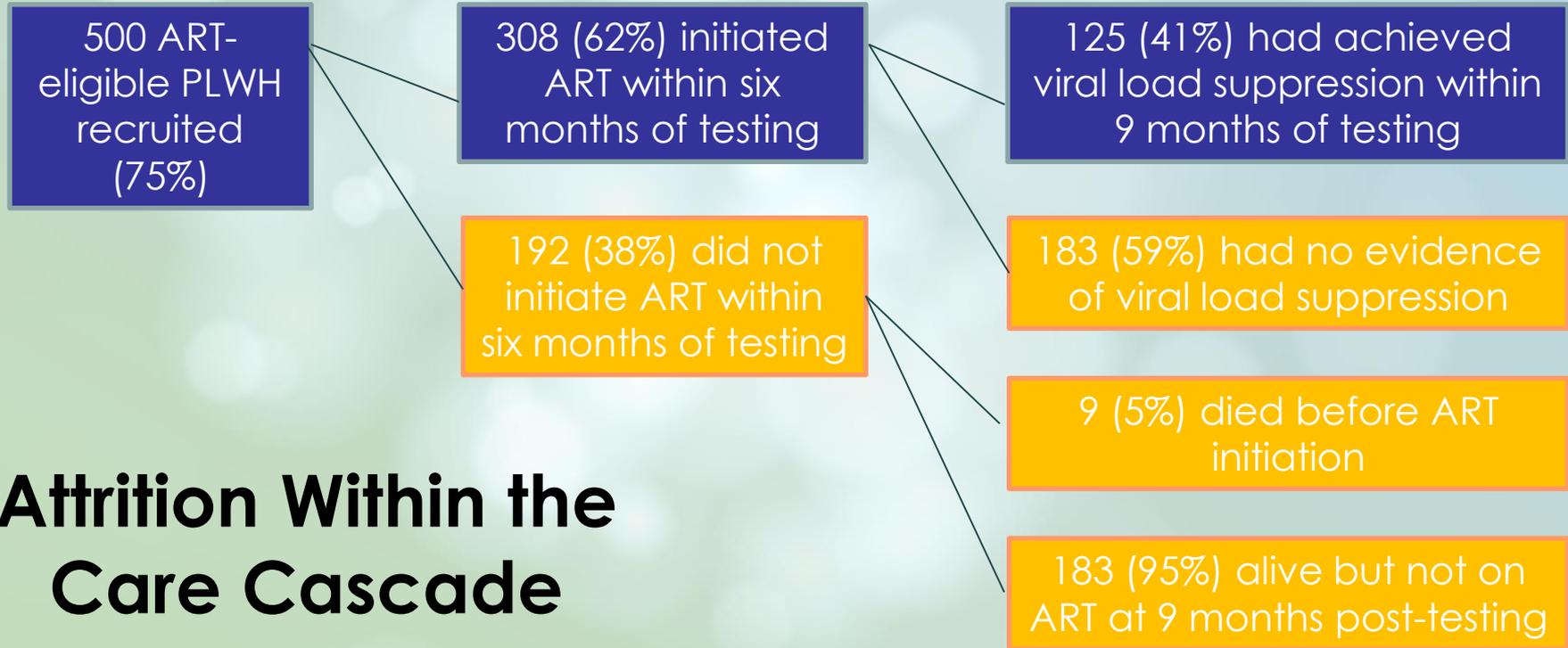
1361 (79.3%) in care through 16 wks

339 (19.8%) stopped care < 16 wks

16 (0.9%) died  $\leq 16$  wks



## Stage 4: How are we doing in lifelong retention in care?



## Attrition Within the Care Cascade



# Improving Linkage and Retention



# Moving the Needle

- **Stage 1: TESTING**

- Moving VCT closer to patients' homes
- Self-Testing

- **Stage 2: Linkage**

- Employing behavioral economics techniques (e.g., noncash financial incentives)
- Refining and simplifying pre-ART screening
- Same Day ART
- Peers providing support and navigation
- Tailored service delivery models for diverse groups (Differentiated Care)

- **Stage 3 and 4: Early and long-term retention**

- Poverty alleviation and addressing food insecurity
- Addressing concomitant mental health and adherence training
- Adherence Clubs



# Examples

- **Stage 1: TESTING**

- CASCADE – Lesotho – Labhardt et al, JAMA 2018

- **Stage 2: Linkage**

- Link4Health – Swaziland – McNairy et al, PLoS Med, 2017
- Treatment Ambassador Program – South Africa - Katz et al, In Progress
- Sizanani – South Africa – Bassett et al, JAIDS, 2016
- Differentiated ART services (DARTS) - Wafaa El Sadr et al
- Testing and Linkage to Care – Bogart et al, Springer 2017

- **Stage 3 and 4: Early and long-term retention**

- Differentiated Care is Adherence Clubs – Lynne Wilkinson and Anna Grimsrud
- Savings-led economic interventions – Ssewamala – Aids and Behavior 2018
- Wisepill feedback – Haberer, Sabin, and Orrell



# The Wave of the Future



# More Results to come...

- **Strategies to Improve Efficiency of ART Initiation:**
  - RapIT Study – Rosen et al – South Africa;
  - DoART – Barnabas – Uganda and South Africa
- **Addressing Mental Health and Adherence Training:**
  - Nurse-Delivered CBT for Depression-Adherence in HIV Primary Care - Safren and O' Cleirigh –South Africa
  - Comparative Trial of Antidepressant Treatment Models in HIV Care in Uganda - Wagner - Uganda
- **Community Mobilization:**
  - TasP through Community Mobilization – Pettifor – South Africa



# More Results to come...

- **Behavioral Economics Incentives:**
  - Lottery prizes based on clinic attendance or wise-pill usage - Linnemayr et al - Uganda
- **Adaptive Strategy:**
  - SMS/Peer/Voucher – re-randomized based on outcome - Geng et al – Kenya
- **Poverty Alleviation and Addressing Food Insecurity:**
  - Shamba Maisha: Pilot agricultural intervention for food security and HIV health outcomes in Kenya: design, methods, baseline results and process evaluation of a cluster-randomized controlled trial - Weiser and Cohen - Kenya

# Thank You



#ADHERENCE2018



- **Treatment Refusal Research (K23 MH097667):** David Bangsberg, Glenda Gray, Norma Ware, Laura Bogart, Ingrid Bassett, Janan Dietrich
- **Treatment Ambassador Program (R34 MH108393):** Catherine Orrell, Laura Bogart, Ingrid Bassett, Marya Gwadz, Garrett Fitzmaurice, Kathy Goggin
- **Standing Tall (R34 MH114897):** Linda-Gail Bekker, Claude Mellins, Lisa Butler
- **MGH Center for Global Health** (Jessica Haberer, Mark Siedner, Alex Tsai, Lynn Matthews) **& the Connors Center for Gender Biology**
- **RA's and study coordinators:** Sonja Steck, Dominick Leone, Ingrid Courtney, Gugu Tshabalala
- **Funders:** NIMH, Burke Family, CFAR



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