Persons Living with HIV

Top Priority for Programs!

Wafaa El-Sadr, MD, MPH




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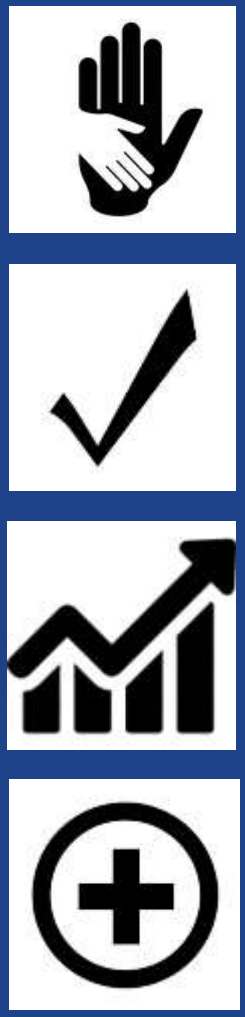
Columbia University
Mailman School of Public Health

Conflict of Interest

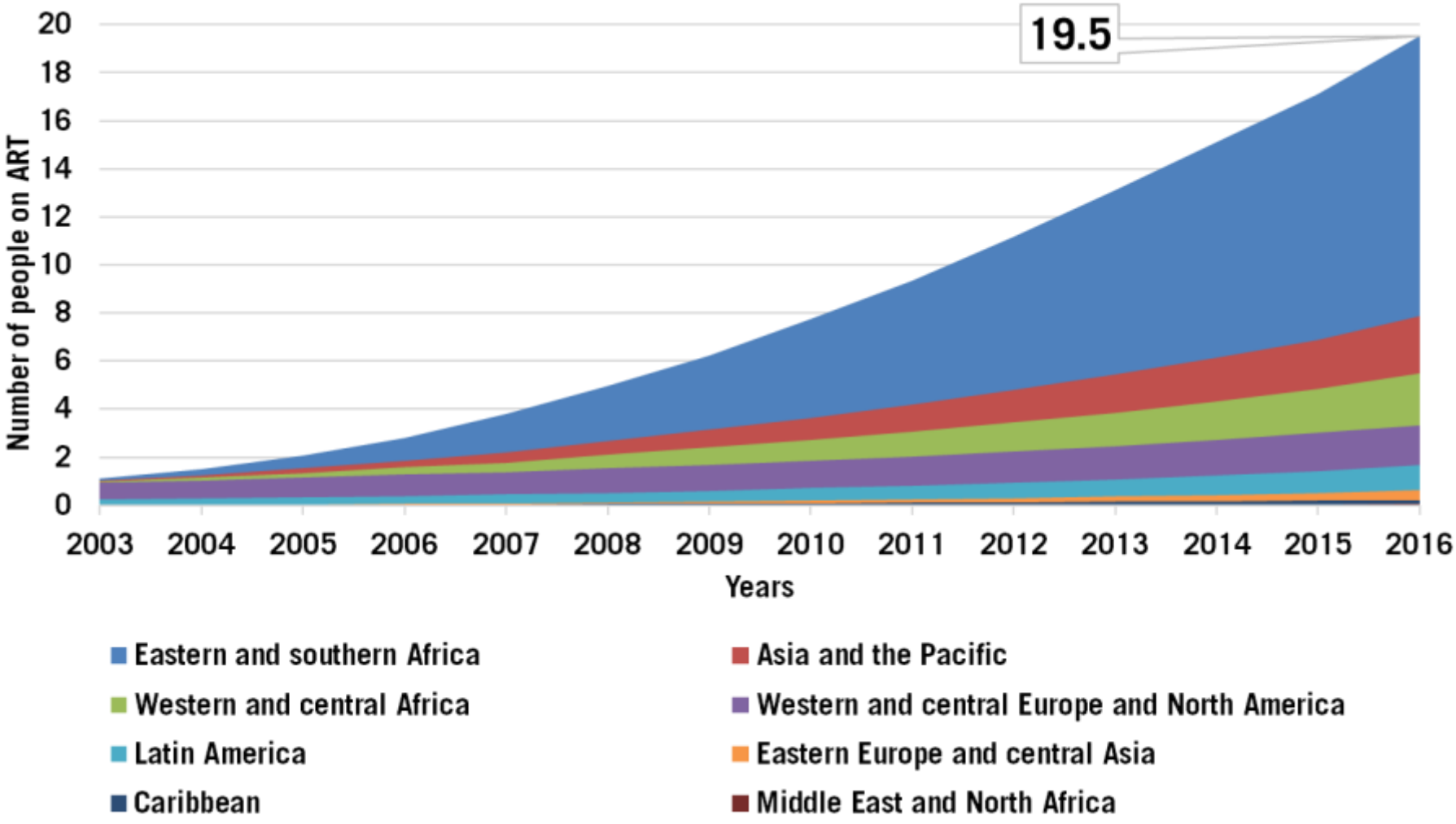
No Conflict of Interest

Outline of Presentation



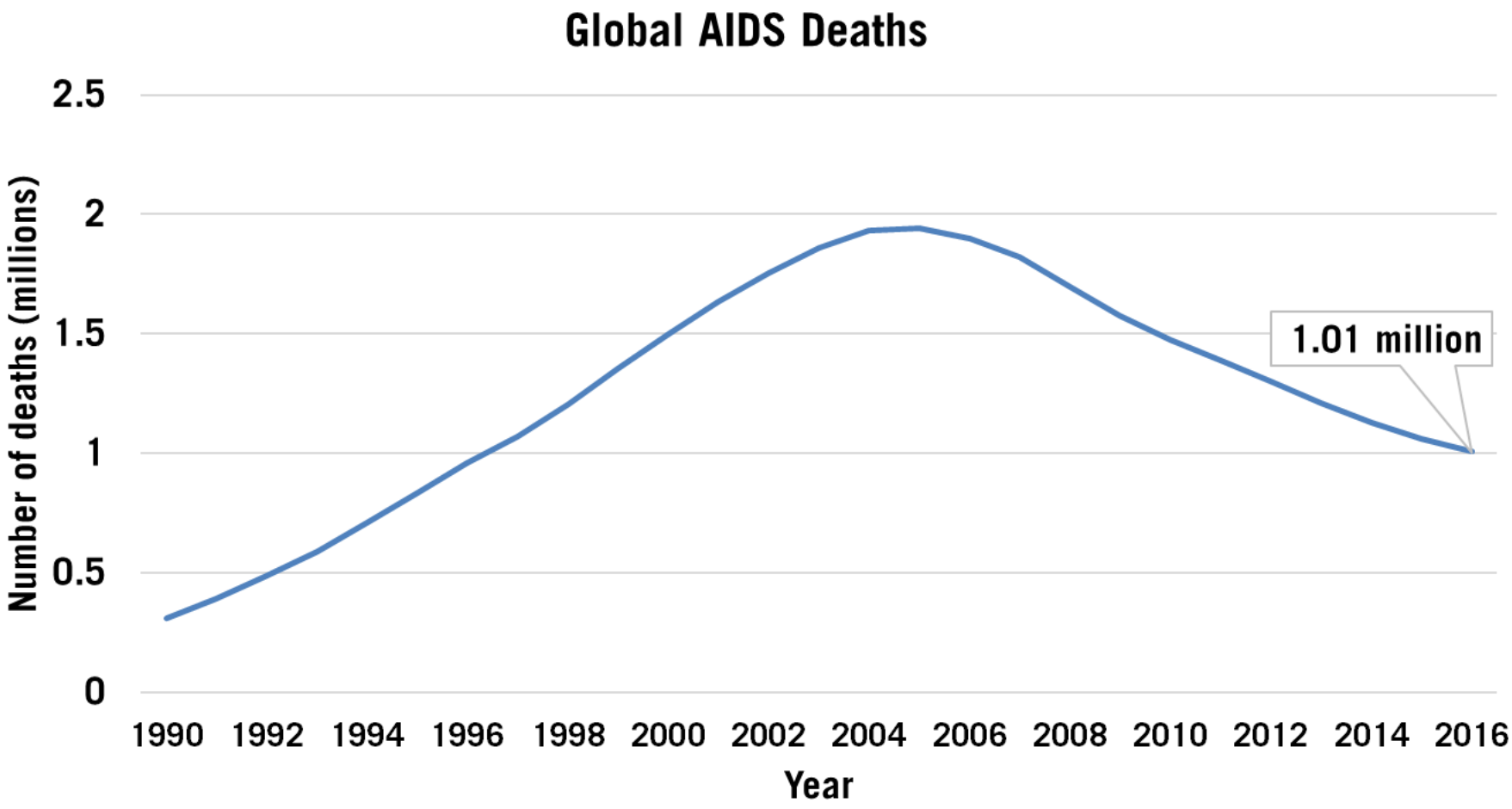
- Progress towards HIV epidemic control
- Challenges ahead
- Differentiated service delivery
- The way forward and Conclusions

Global Scale-up of HIV Treatment



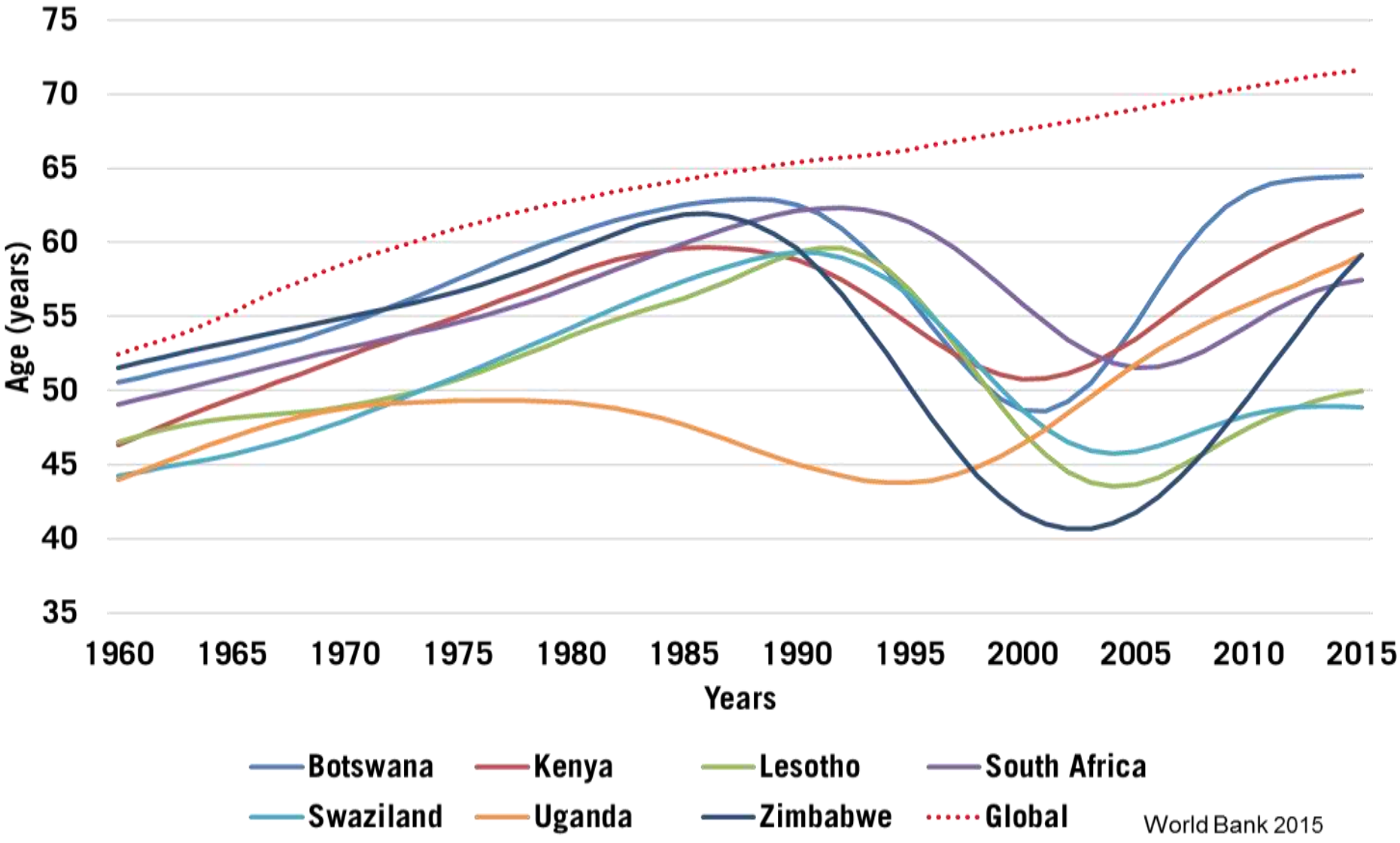
UNAIDS. Ending AIDS. Progress towards the 90-90-90 targets, 2017

Decline in AIDS Deaths



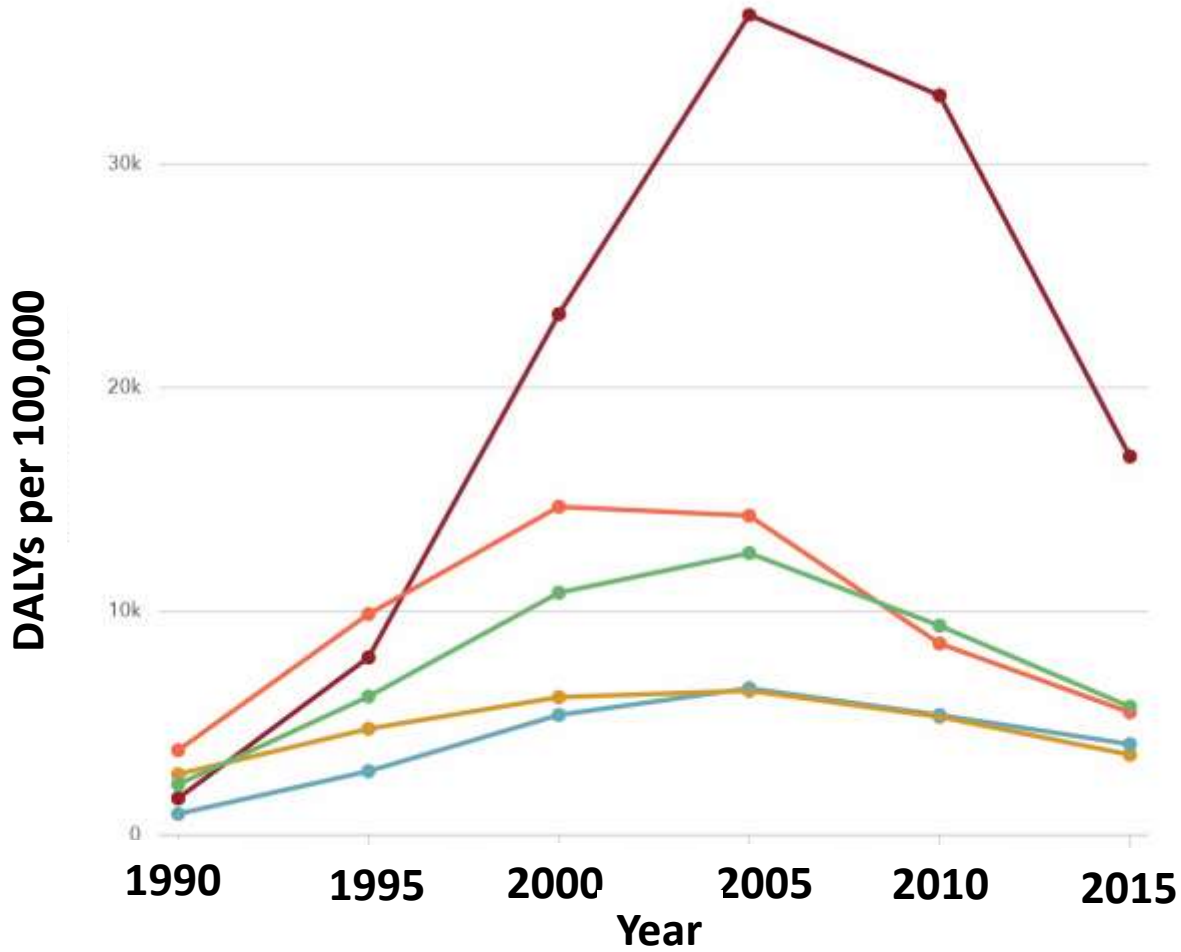
UNAIDS. Ending AIDS. Progress towards the 90-90-90 targets, 2017

Life Expectancy at Birth
Select African Countries



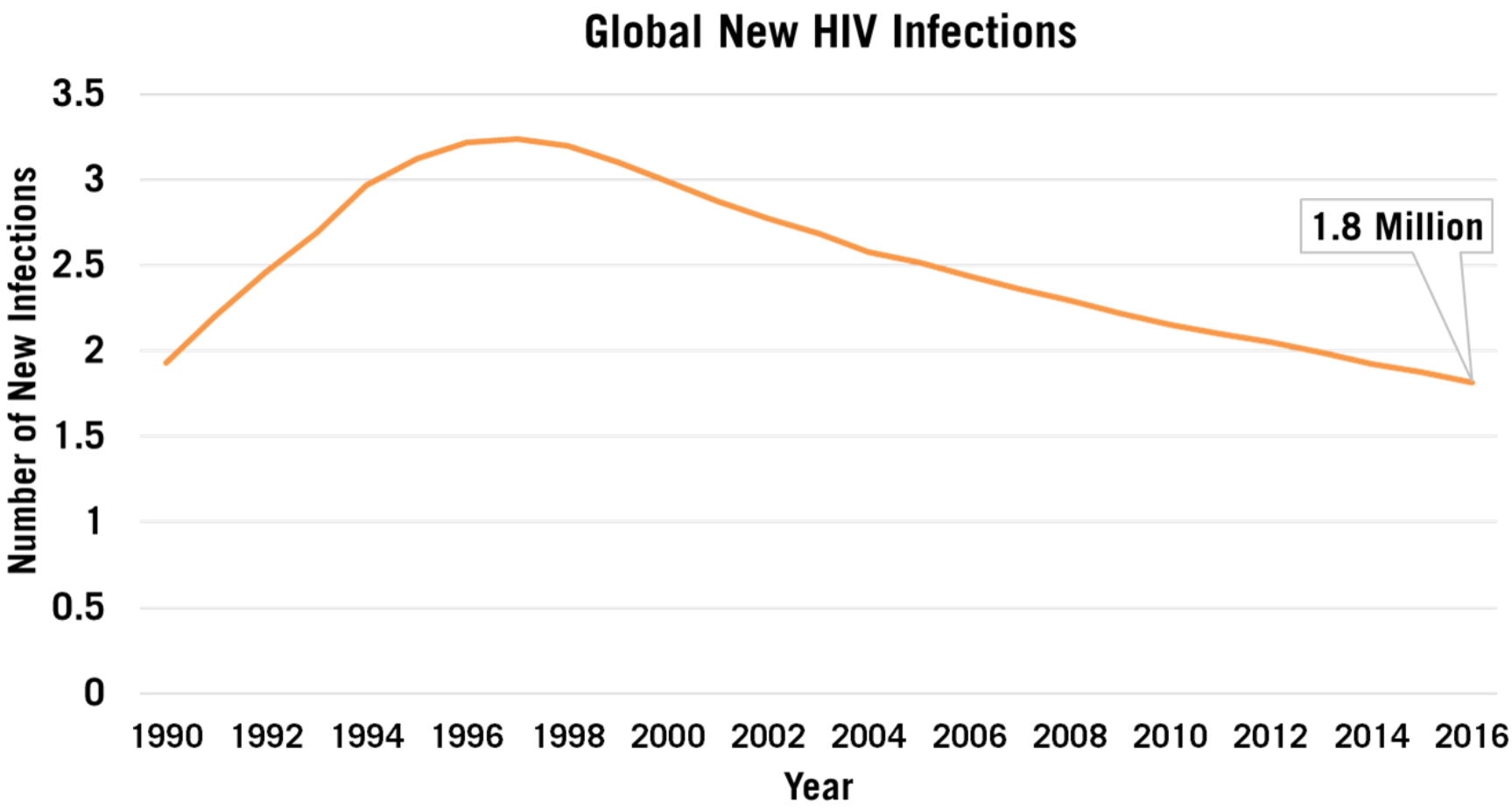
World Bank 2015

Decline in Age-Standardized HIV-Related DALYs



GBD 2015 Report

Decline in New Infections

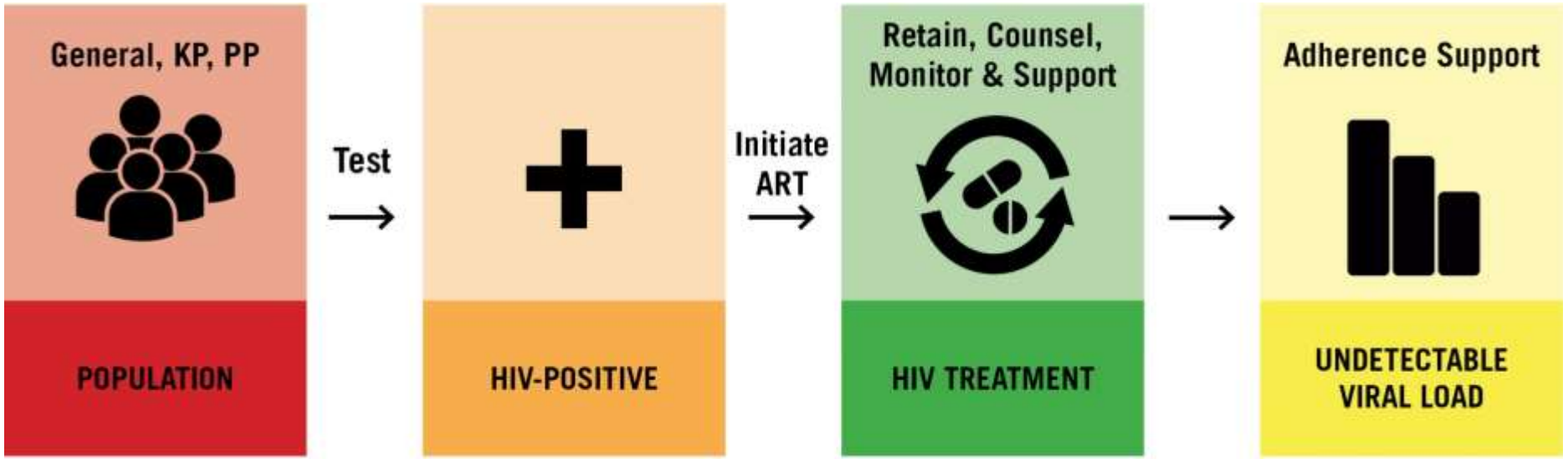


UNAIDS. Ending AIDS. Progress towards the 90-90-90 targets, 2017

Outline of Presentation

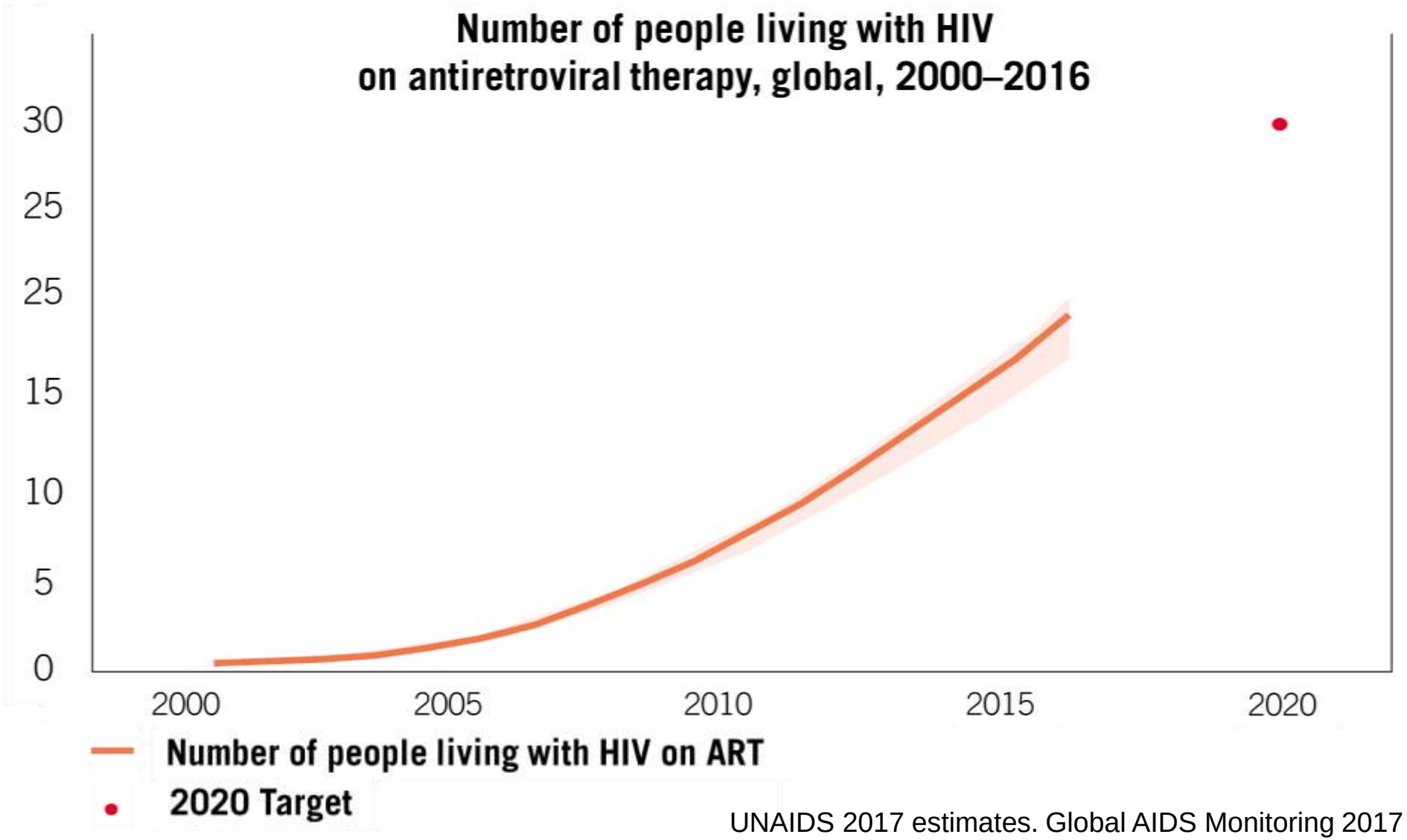
- Progress towards HIV epidemic control
- Challenges ahead
  - Coverage
  - Quality
  - Efficiency
- Differentiated service delivery (DSD)
- The way forward and Conclusions

HIV Treatment Continuum



COVERAGE

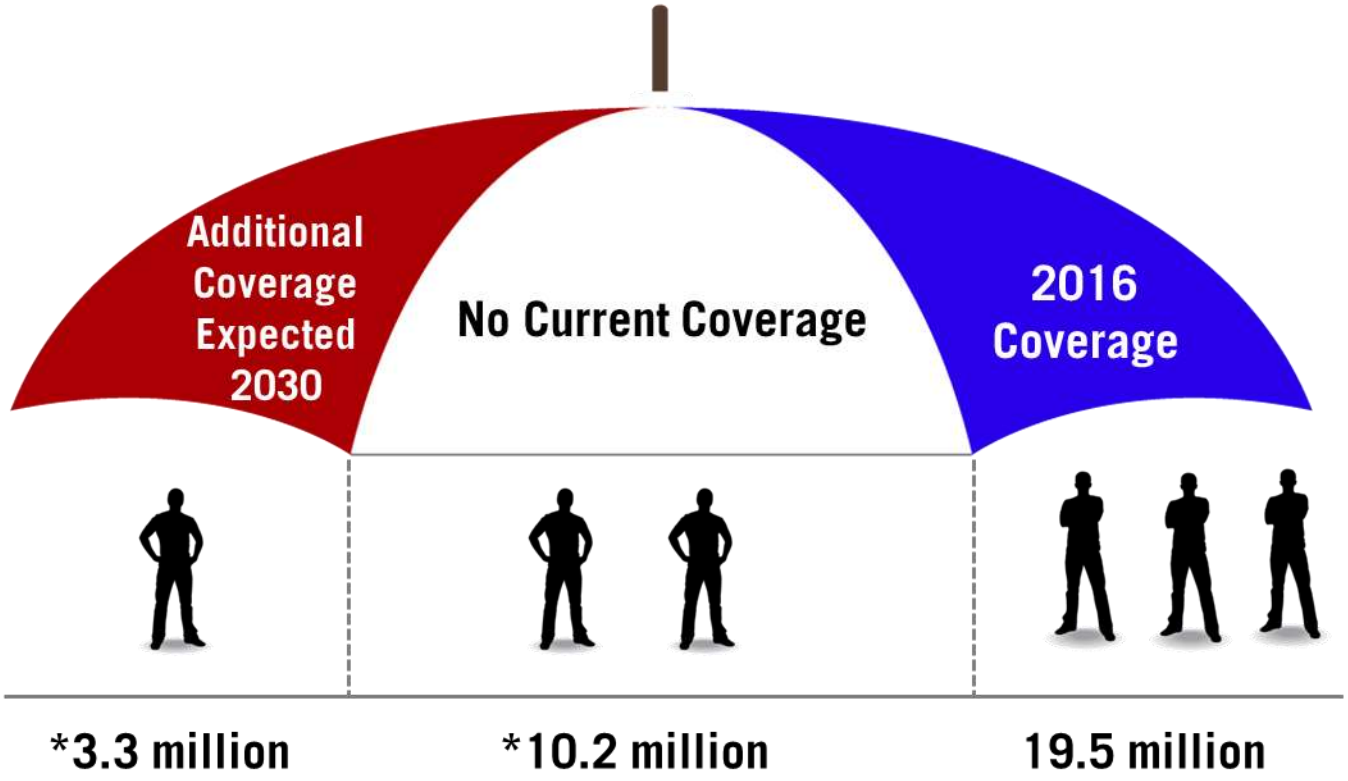
On Track to 30 Million People Accessing Treatment



UNAIDS 2017 estimates. Global AIDS Monitoring 2017

The Coverage Gap

By 2030,
33 million people living with HIV expected to be accessing ART



UNAIDS data as of July 2017

QUALITY

HIV Treatment-- Global Targets By 2020

90%

of all PLWH will know their HIV status

90%

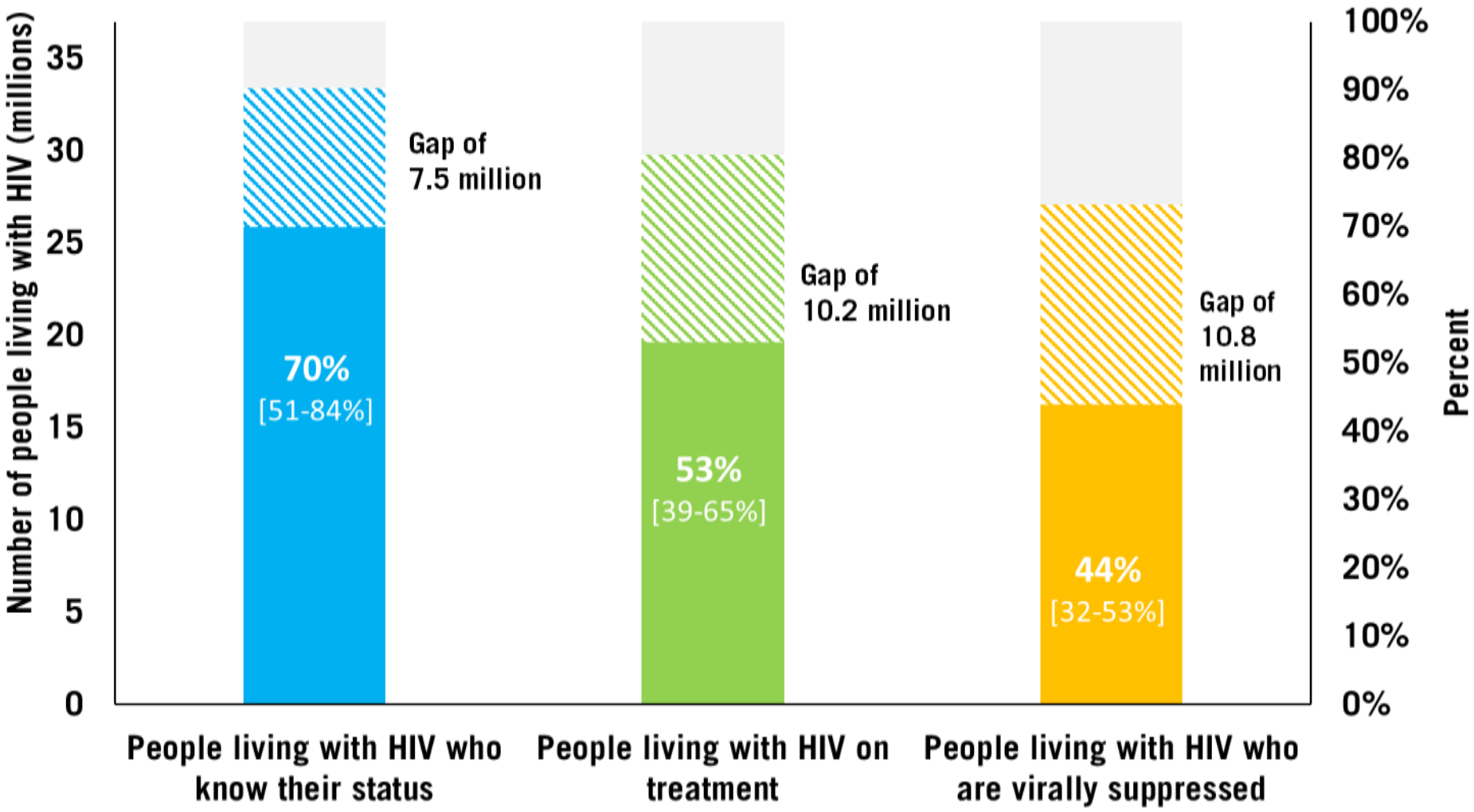
90% of all PLWH who know their status will receive sustained antiretroviral therapy

90%

of all PLWH receiving antiretroviral therapy will have durable suppression

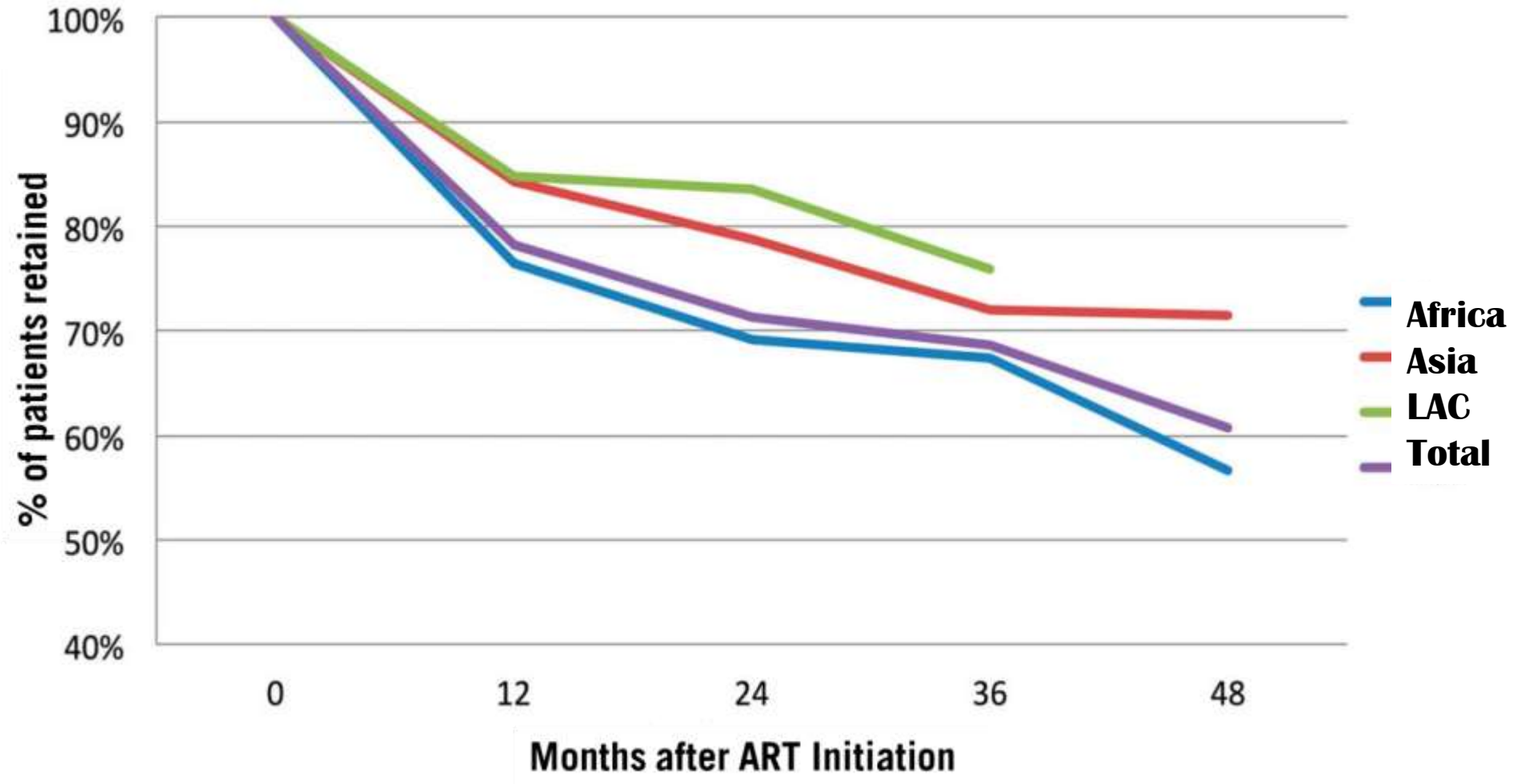
UNAIDS 2014

But Much Remains to be Accomplished



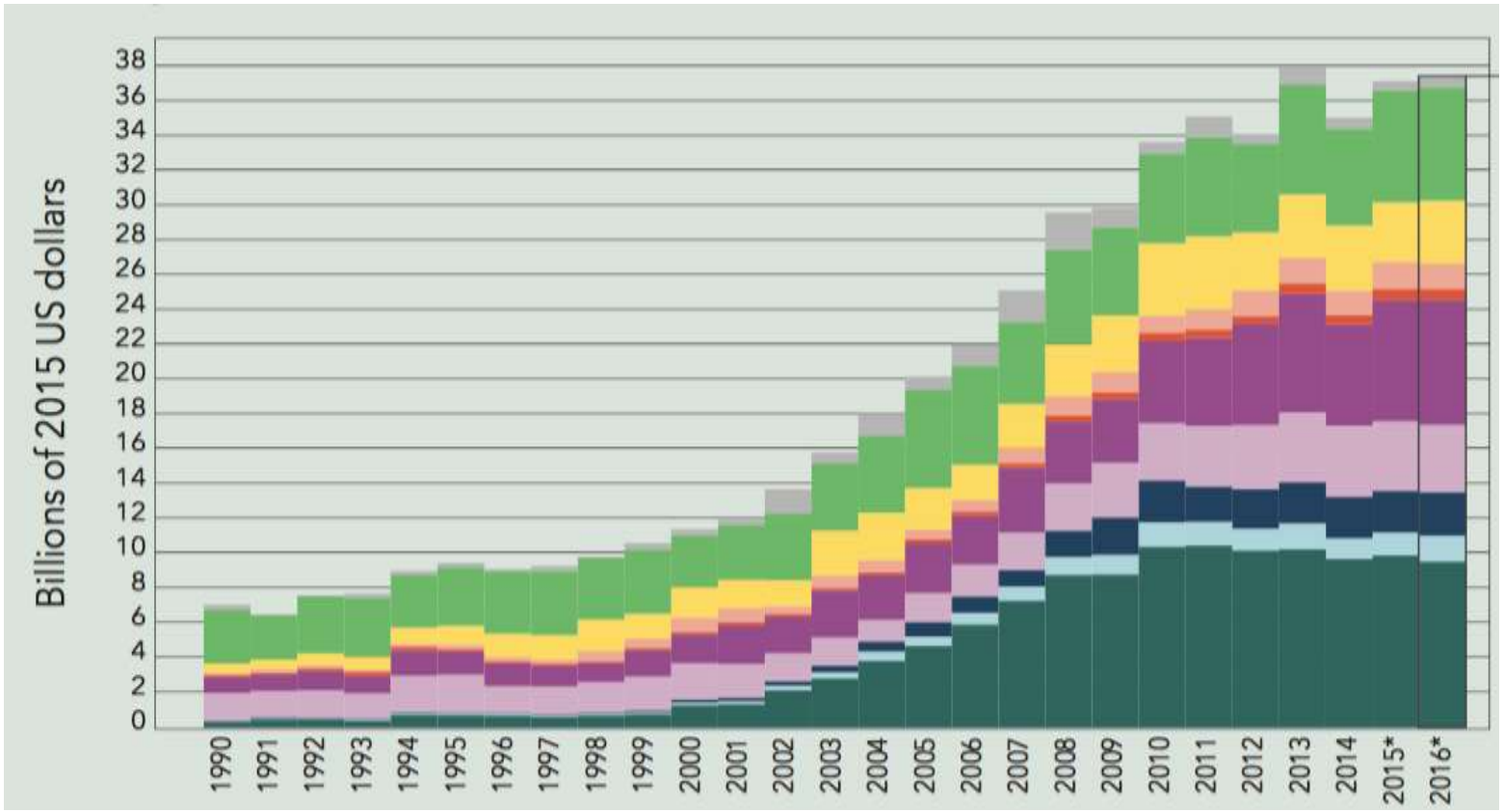
UNAIDS. Ending AIDS. Progress towards the 90-90-90 targets, 2017

Quality Gap



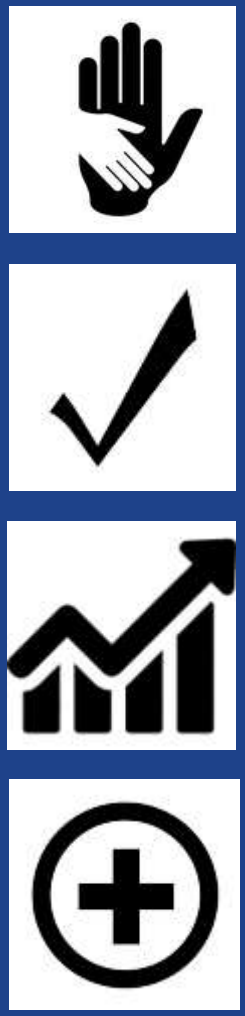
Fox and Rosen, JAIDS, 2015

EFFICIENCY



Healthdata.org

Outline of Presentation



- Progress towards HIV epidemic control
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The Bottom Line

What Got You Here Won't Get You There

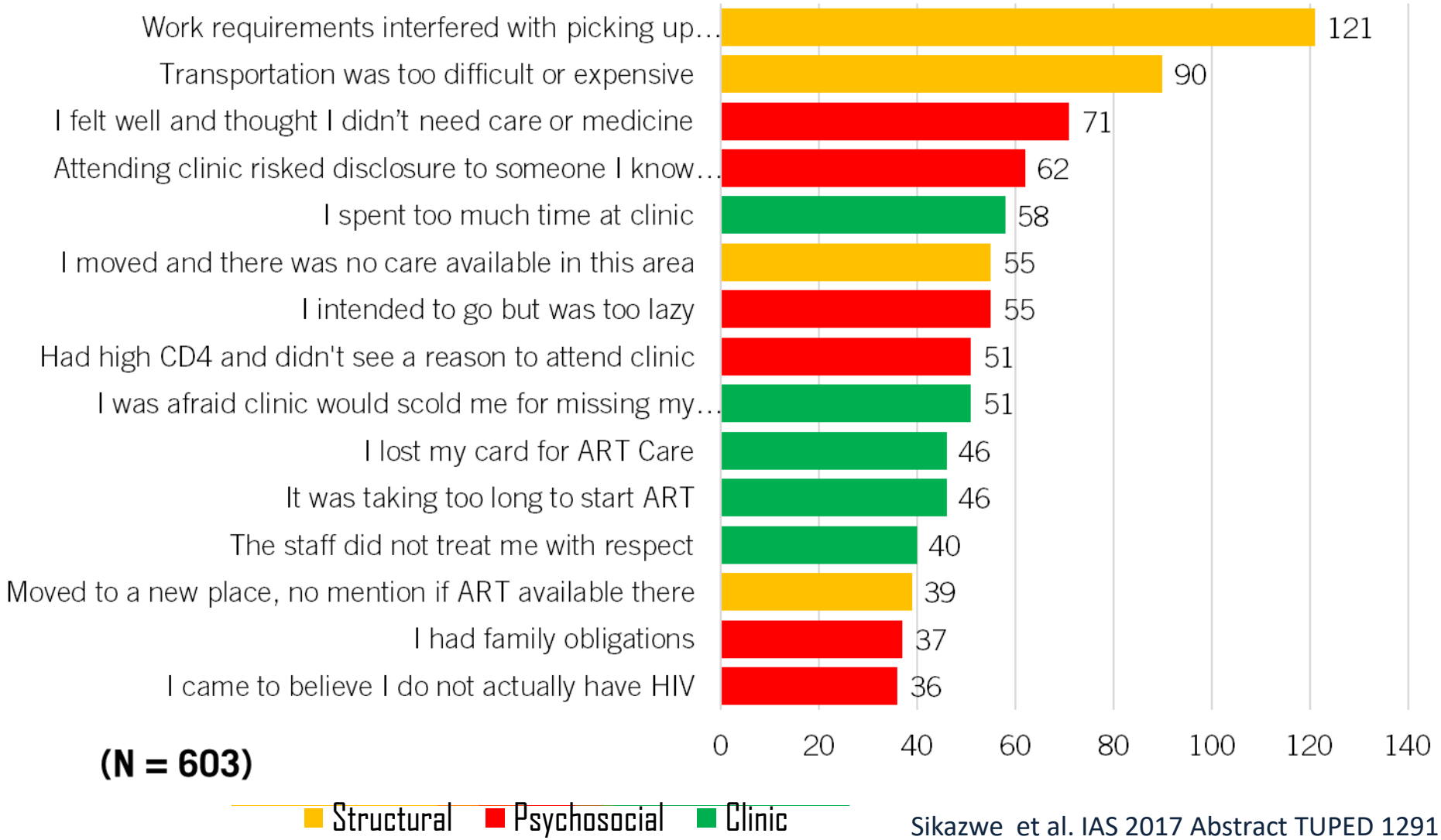
MARSHALL GOLDSMITH

What Got Us Here?
The Public Health Approach

- Consistent package of care (un-differentiated) with uniform ART regimen and monitoring approach
- Algorithmic approach
- Ease for training at scale
- Task shifting/task sharing
- Decentralization of services

Gilks et al. Lancet 2006

Reasons for Stopping Care



Sikazwe et al. IAS 2017 Abstract TUPED 1291

DSD to the Rescue!

"A client-centered approach that *simplifies and adapts* HIV services across the cascade to reflect the *preferences and expectations* of various groups of people living with HIV while *reducing unnecessary burdens* on the health system."

International AIDS Society

Putting PLHIV at the Center

WHICH?
Which clinical, laboratory and supportive services are needed?

WHEN?
How often are services provided?

WHERE?
Where are services being provided?

WHO?
Who is providing services?

Shaping the "How"

Service Frequency

Monthly
Bimonthly
Every 6 months
Every 12 months

Service Intensity

ART initiation and refills
OI prevention and treatment
Clinical monitoring
Laboratory monitoring
Psychosocial support

Service Location

Hospital (inpatient or outpatient)
HIV clinic
Primary care clinic
Community
Home

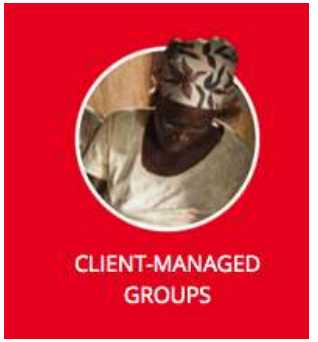
Service Provider

Physician Clinical Officer
Nurse CHW
Pharmacist Laboratorian
Peer Family

- 90:90:90
- Quality of Life
- Efficiency
- Equity
- Epidemic Control

DSD Models for Stable Patients

- Receiving ART for at least 1 year
- No adverse drug reaction
- No current illnesses or pregnancy
- Good understanding of lifelong adherence AND
- Evidence of treatment success:
  - Two consecutive undetectable viral load measurements
  - Rising CD4 count or CD4>200 cells/mm^3 and adherence measure

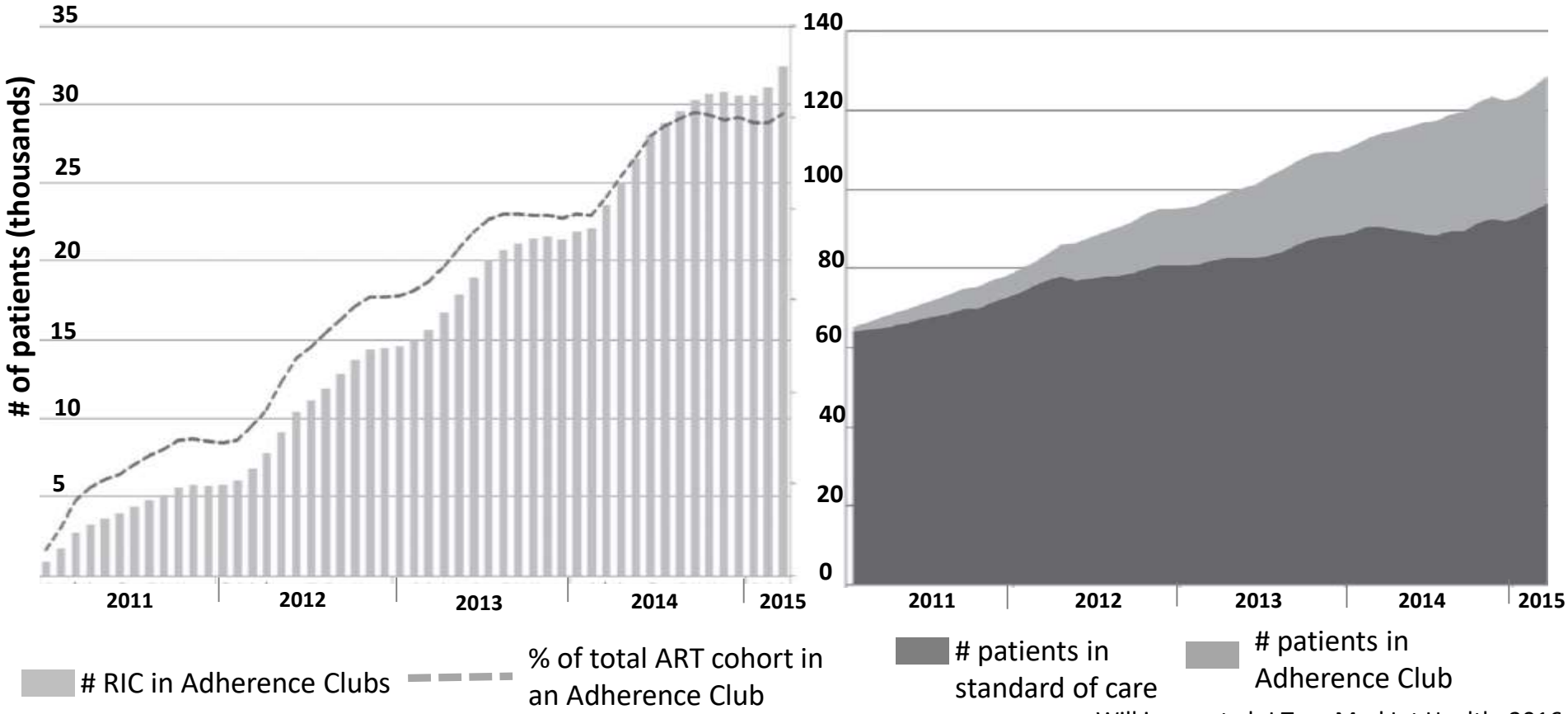


www.differentiatedcare.org

Waldrop et al. Trop Med & Intern Health, 2016

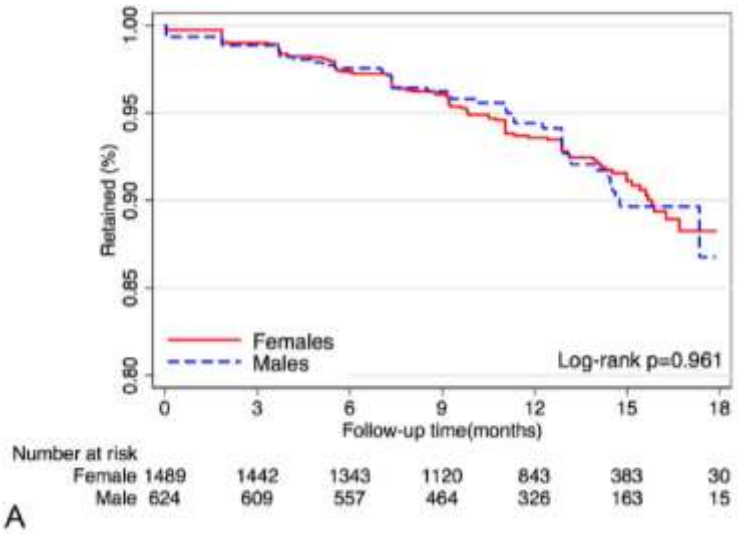
Adherence Clubs
South Africa, 2011-2015

- From 2011-15 32,425 patients enrolled in 1308 adherence clubs at 55 facilities
- During same period ART cohort increased from 66,616 to 128,697 patients



Wilkinson et al. J Trop Med Int Health, 2016

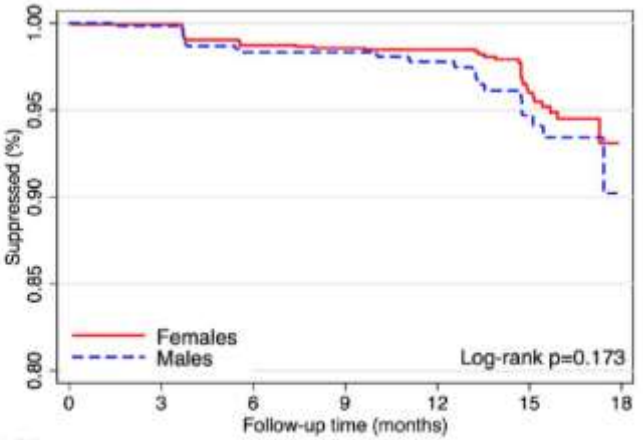
Community Adherence Clubs:
South Africa: Retention and Viral Suppression



Number at risk

Female	1489	1442	1343	1120	843	383	30
Male	624	609	557	464	326	163	15

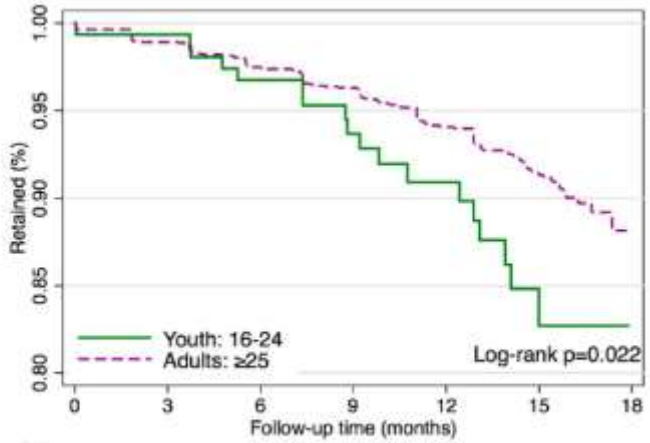
A



Number at risk

Female	1489	1441	1327	1105	831	373	28
Male	624	608	547	457	320	157	15

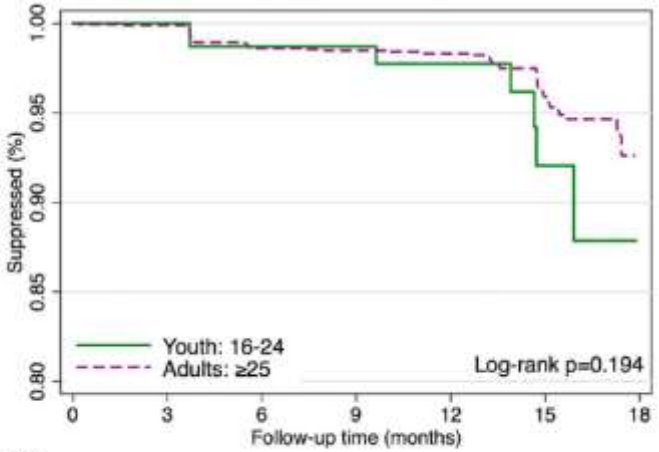
C



Number at risk

Youth	156	154	142	115	83	34	1
Adults	1957	1897	1758	1469	1086	512	44

B



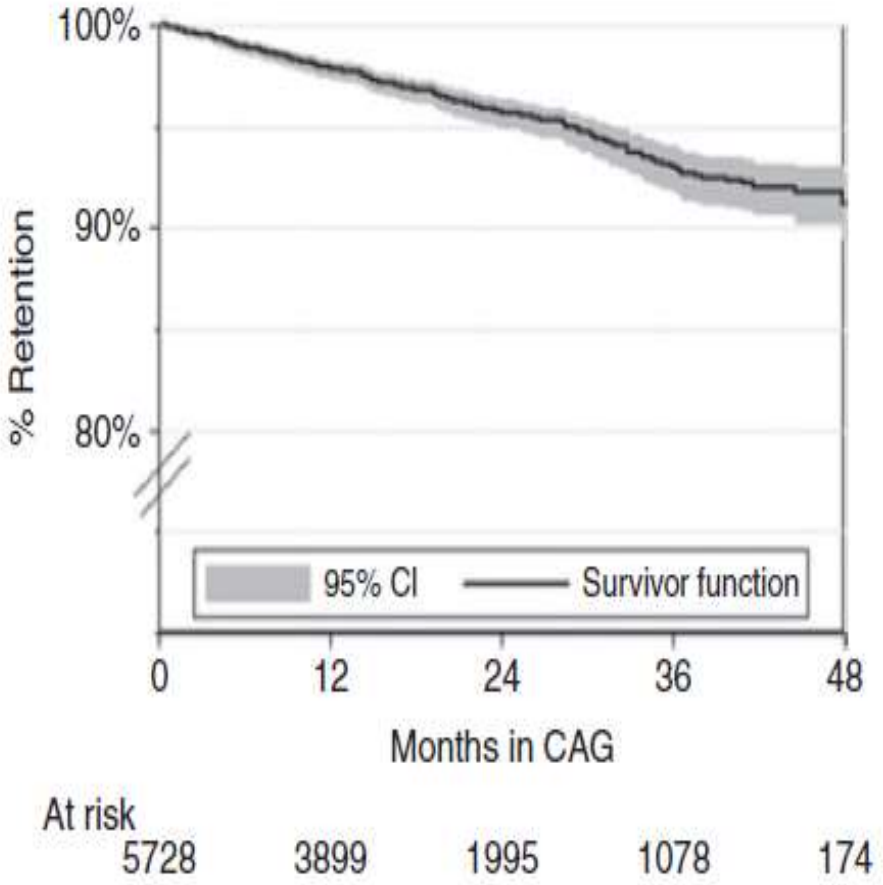
Number at risk

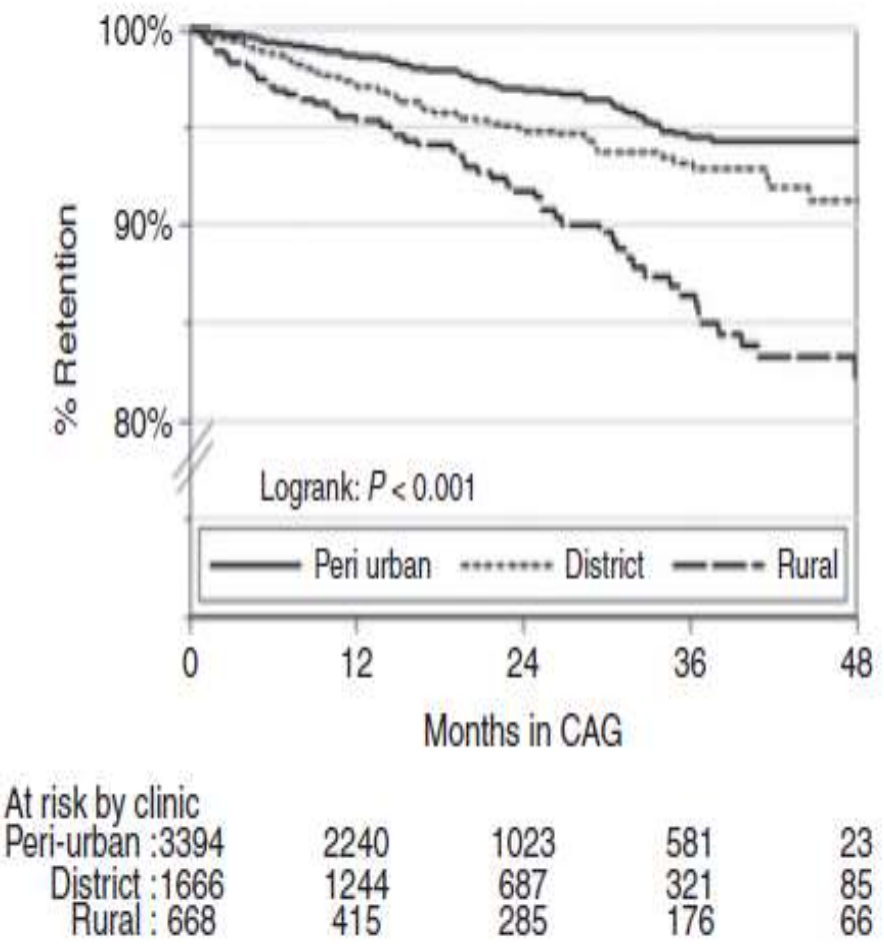
Youth	156	154	140	113	82	32	1
Adults	1957	1895	1734	1449	1069	498	42

D

Grimsrud et al. JAIDS 2016

Retention in Community ART Groups: Mozambique





Decroo et al. Trop Med & Int Health 2014

Giving Post-Partum Women the Choice: South Africa

Post-partum women were provided a choice to receive their follow up care from community adherence clubs or at primary care clinics (n= 129)

Top 4 Reasons for choice	
Community Adherence clubs (65%)	**Primary care clinics (35%)**
I prefer to receive care outside of the health facility	I live closer to the clinic
You have a few appointments a year	I want regular check-ups
Visits are short	I want to see a doctor/nurse frequently
I'm happy to receive my ART care from a counsellor	The clinic is closer to where my baby receives care

At six months post-partum, no significant difference in VL suppression

Myer et al. JIAS, 2017

Voices from Recipients of Care and their Providers

Sipho Mahlangu

Community ART Groups(CAGs): Malawi

"The group is good, it is like a family, doing things together like a family, understanding each other"

Female CAG member

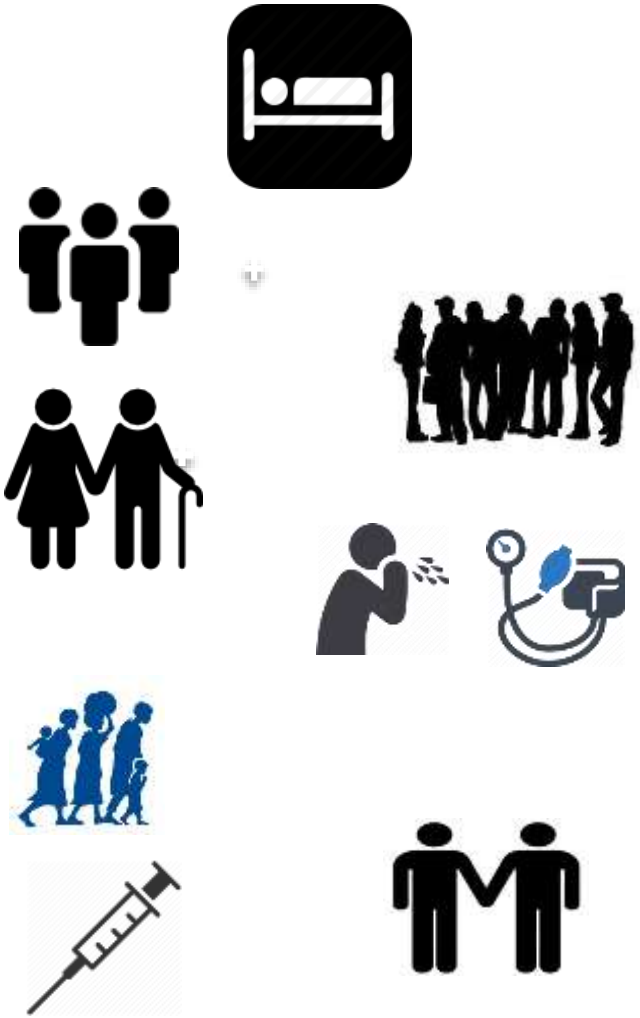
"At first, I had lots of patients and, instead of having time for them, I was busy looking at how many patients were left outside. …because of the CAGs, the congestion is reduced…"

Medical assistant

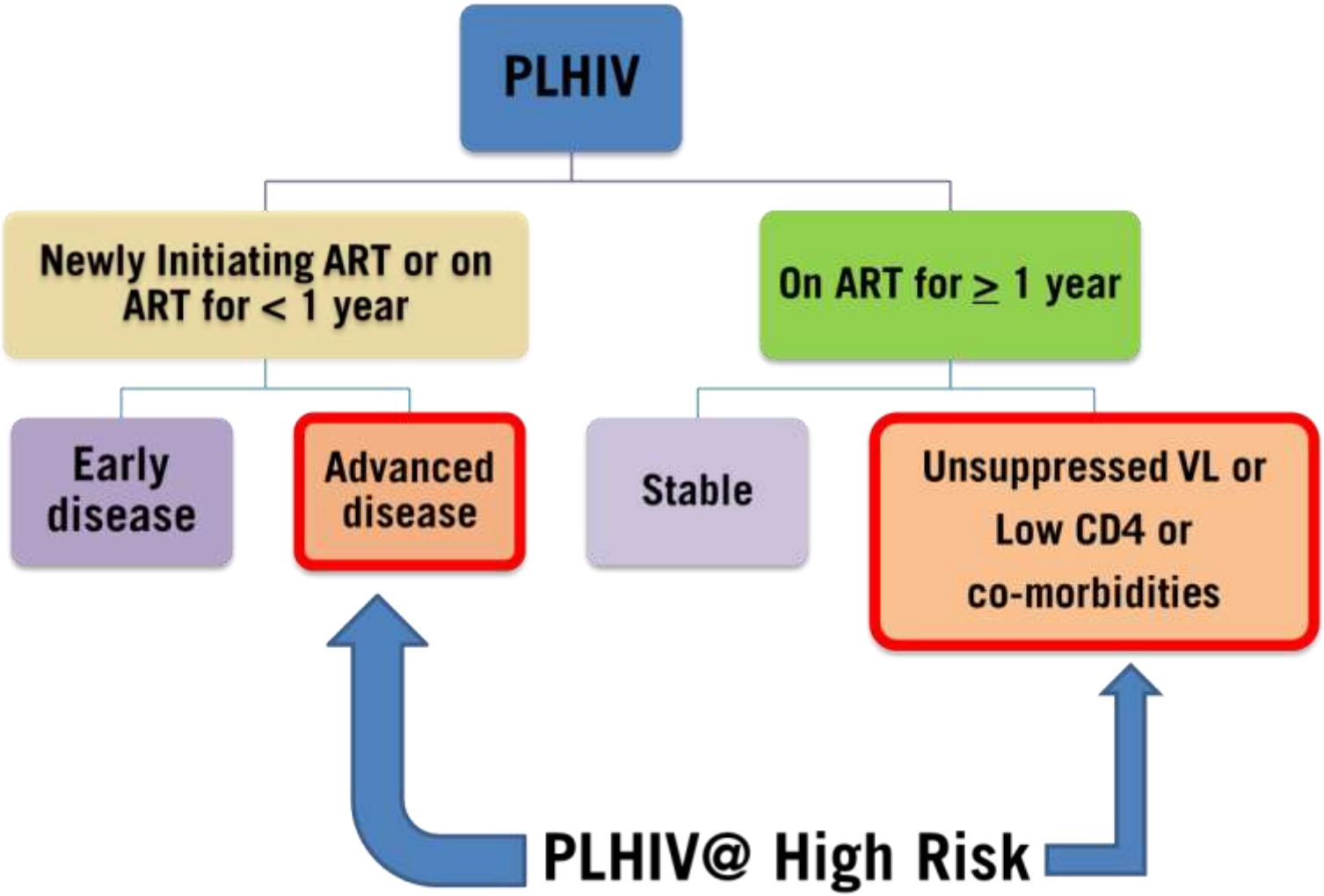
Pellecchia et al. JIAS 2017

Beyond "Stable Patients"

- PLHIV at high risk for disease progression (PLHIV@ High Risk)
- Men
- Adolescents
- Older PLHIV
- PLHIV and co-morbid conditions (TB, NCD)
- Migrants/mobile populations
- Key populations

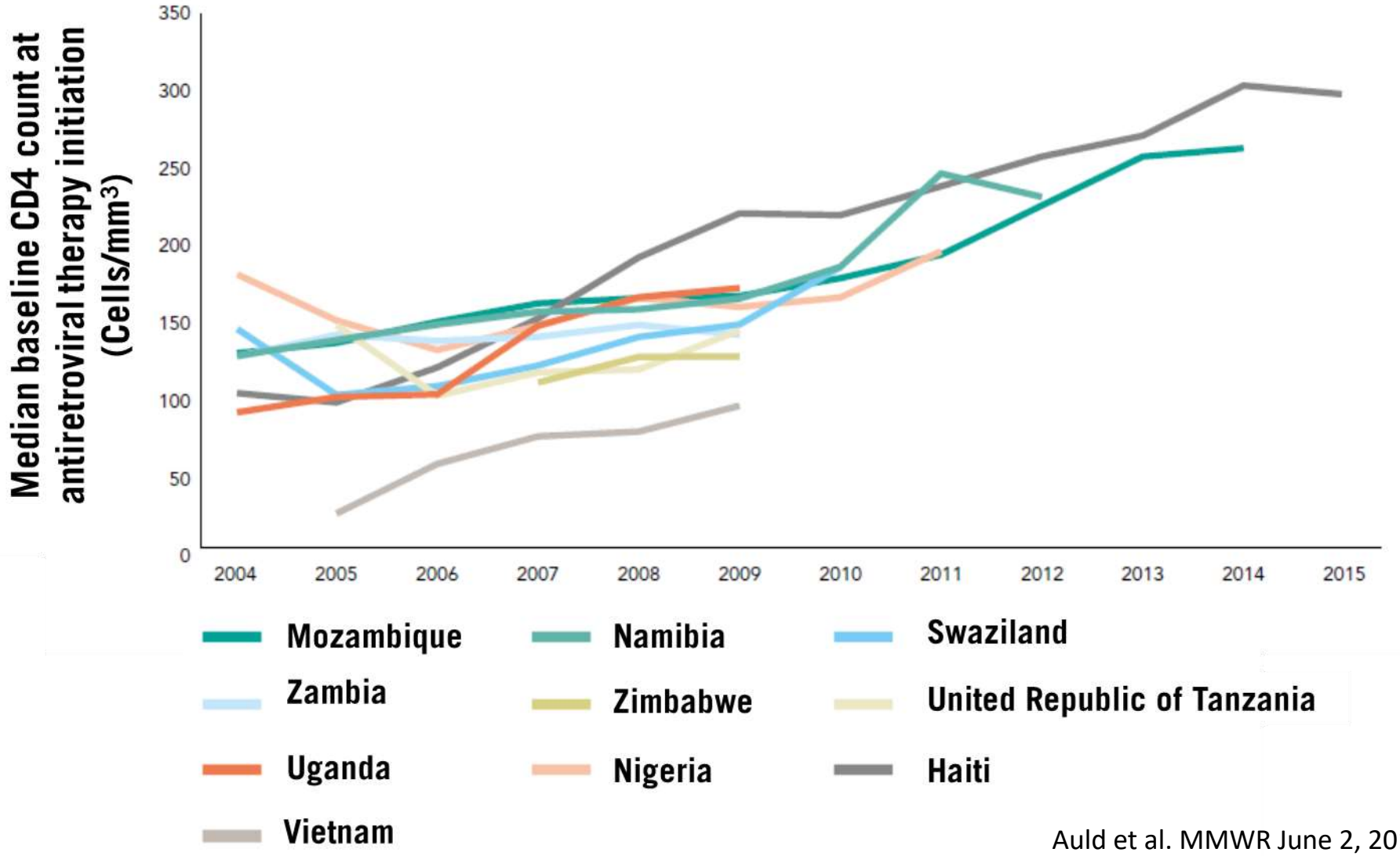


PLHIV @ High Risk for Disease Progression



https://cquin.icap.columbia.edu/

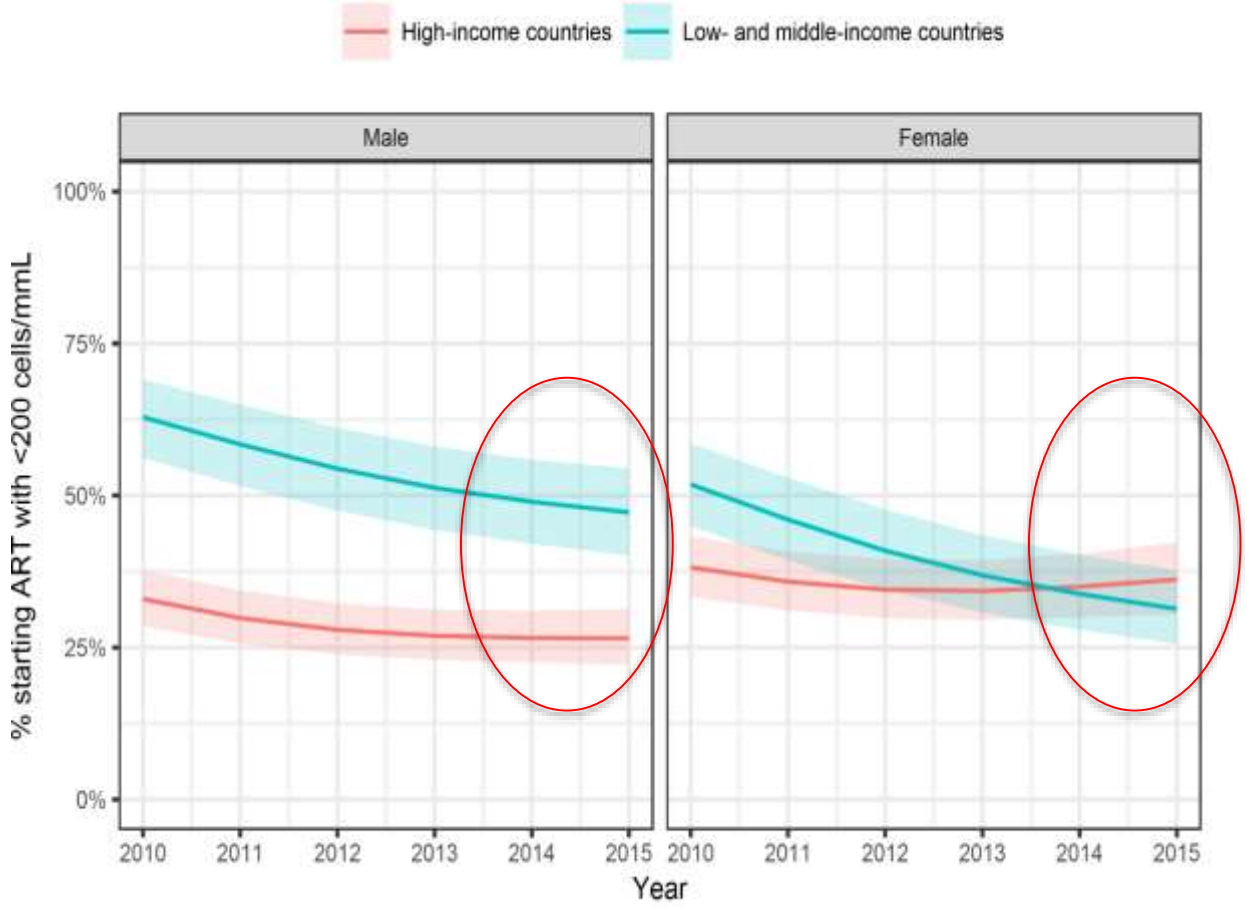
Median CD4+ Count at ART Initiation



Auld et al. MMWR June 2, 2017

Advanced HIV Disease at ART Initiation

In 2015, 30-40% of people started ART in LMICs with CD4 cell count <200 cells/mm^3

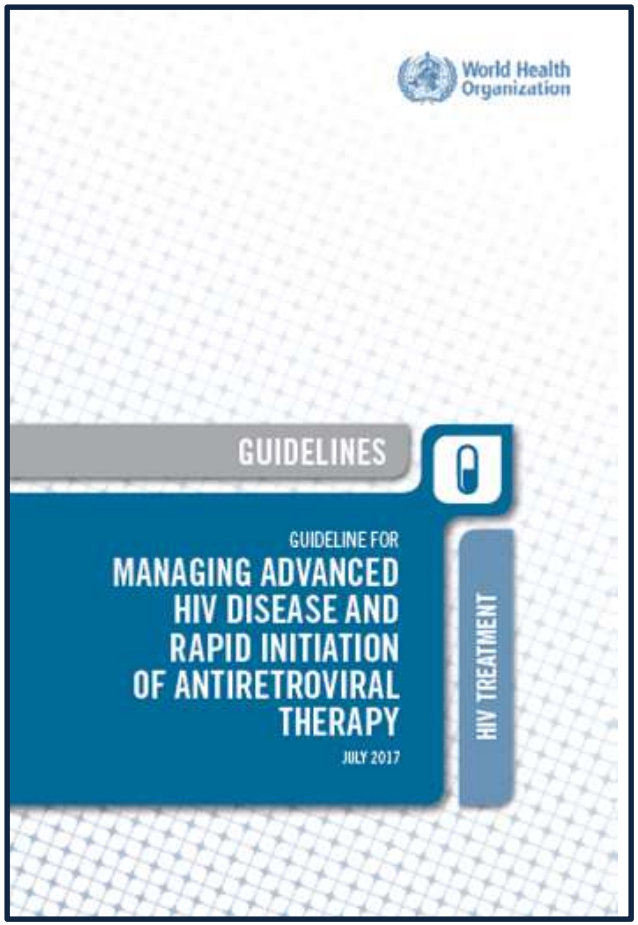


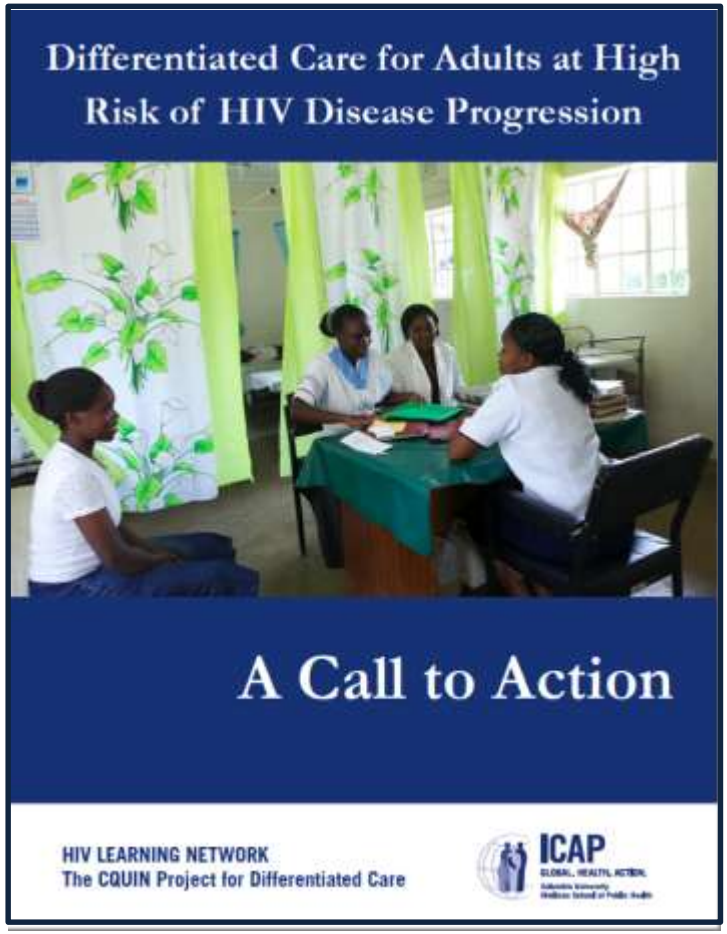
- **Approximately, 60% of the death on ART in SSA occur in the first few months**

leDEA-COHERE: Results based on 951 855 adults from 55 countries after imputation of missing data

WHO, 2017

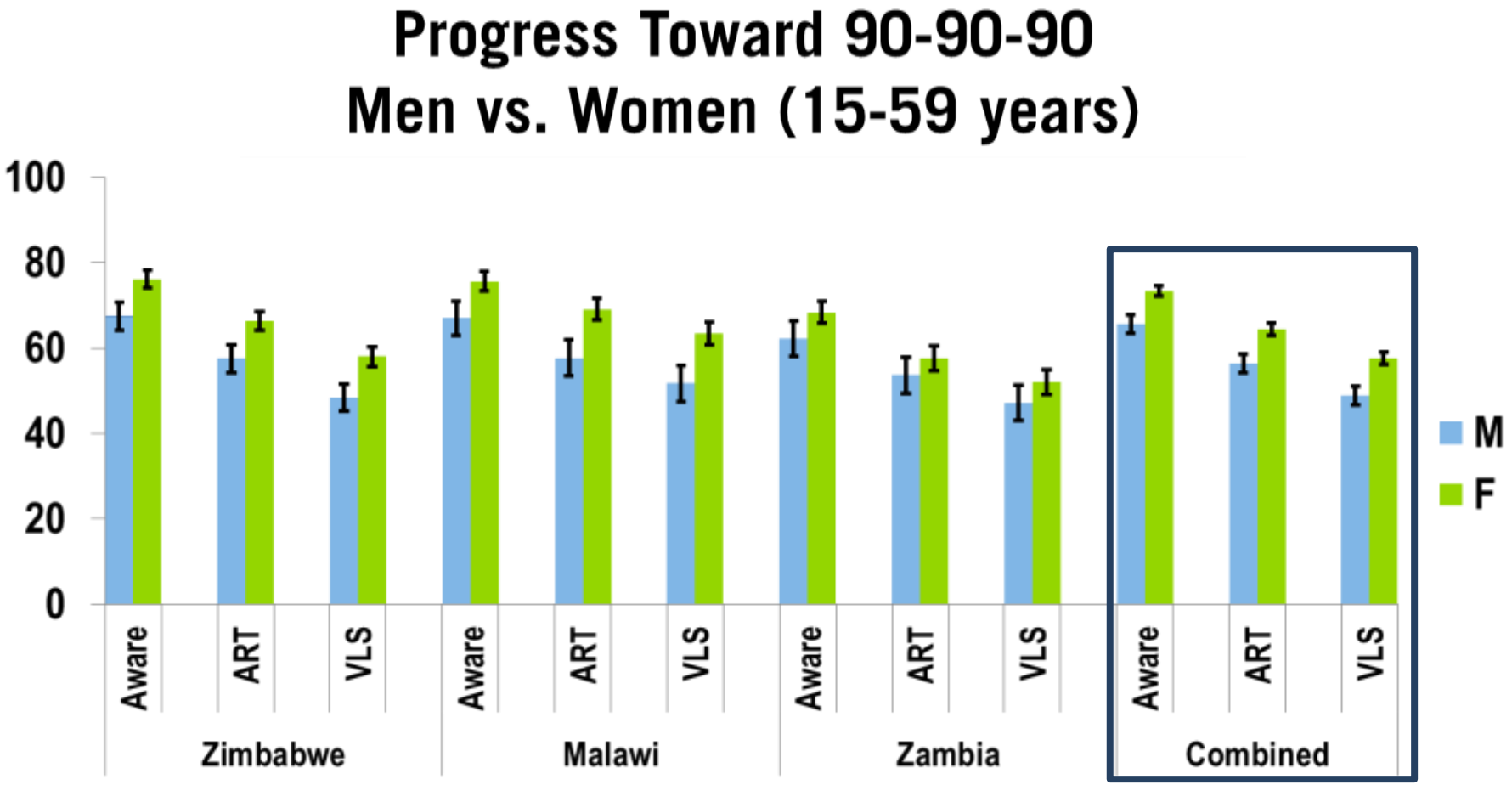
PLHIV @ High Risk





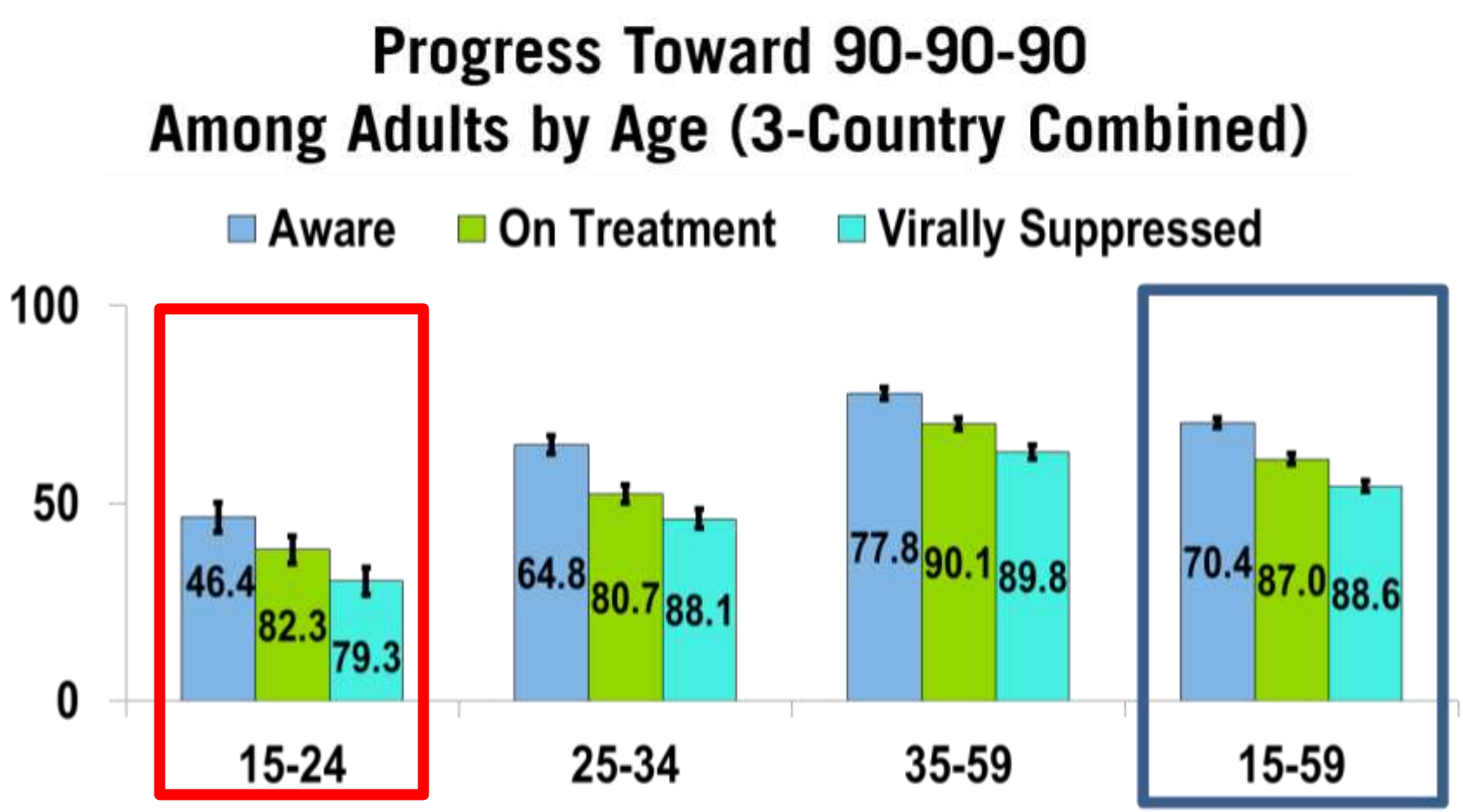
https://cquin.icap.columbia.edu/resources/call-to-action/

Gaps in Continuum Among Men



*The number within each bar represents the conditional percentage while the height of each bar represents the absolute percentage of all PLHIV.

Gaps in Continuum among Youths

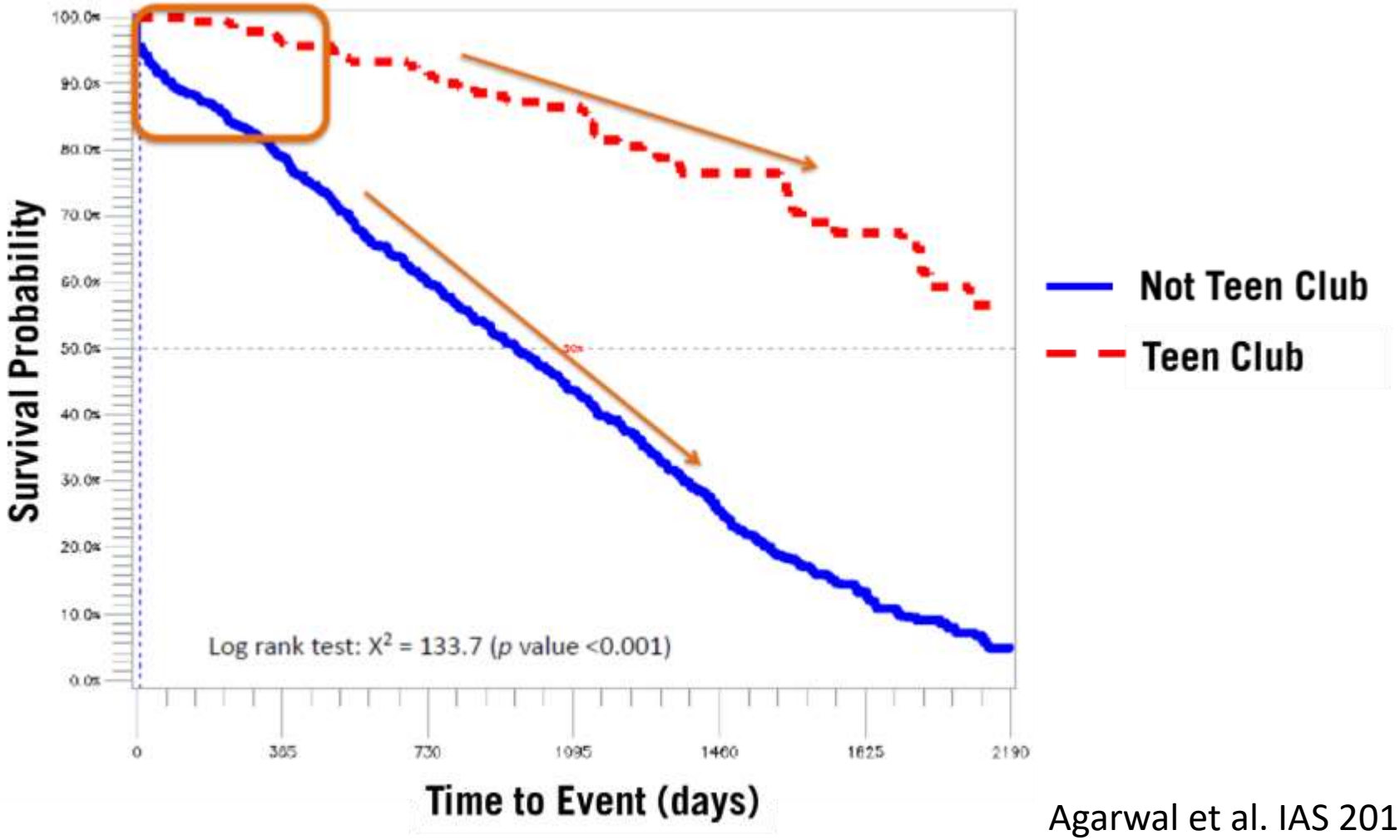


*The number within each bar represents the conditional percentage while the height of each bar represents the absolute percentage of all PLHIV.

www.PHIA.icap.columbia.edu

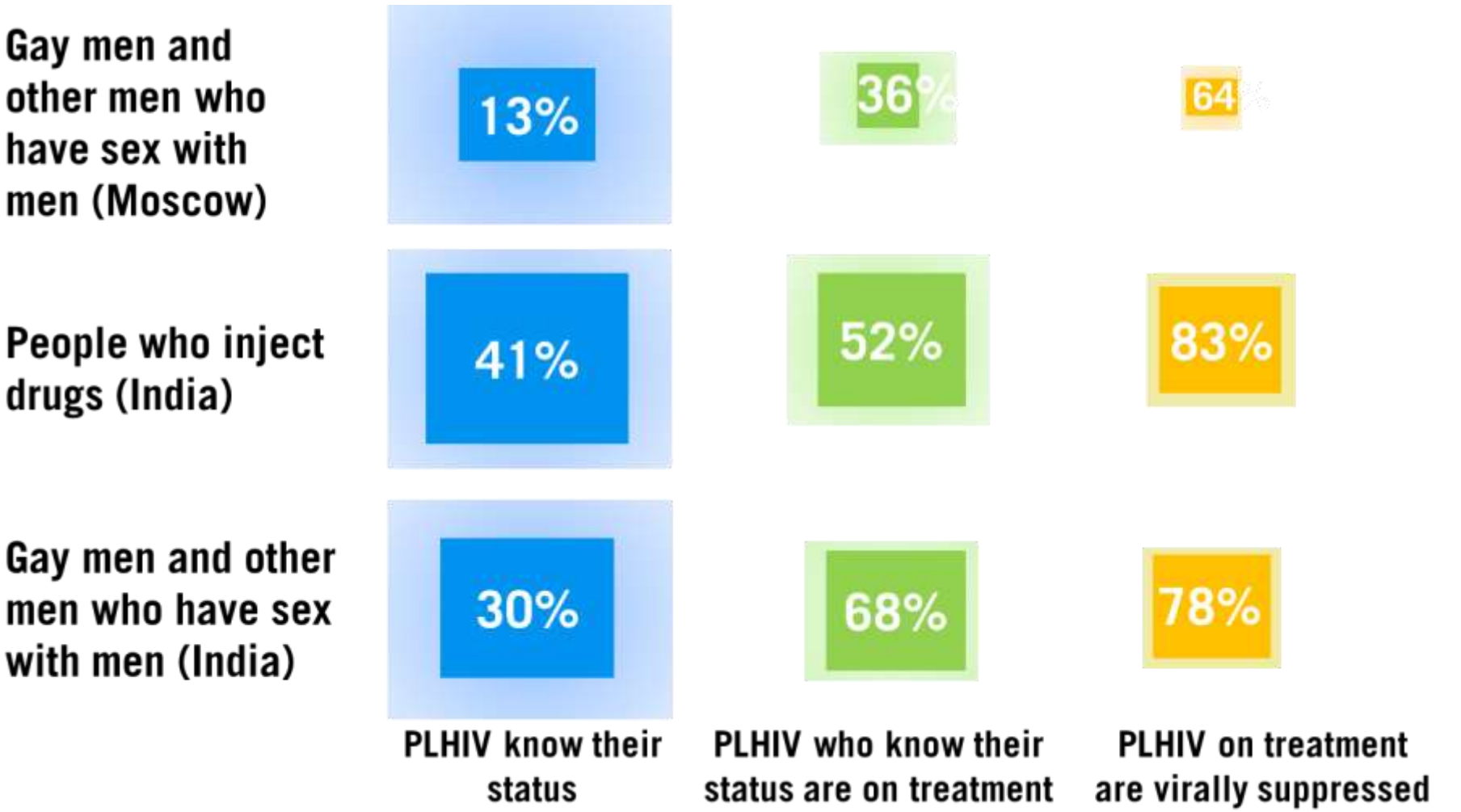
Teen Clubs: Malawi

Retention on ART (up to 6 years after ART initiation)



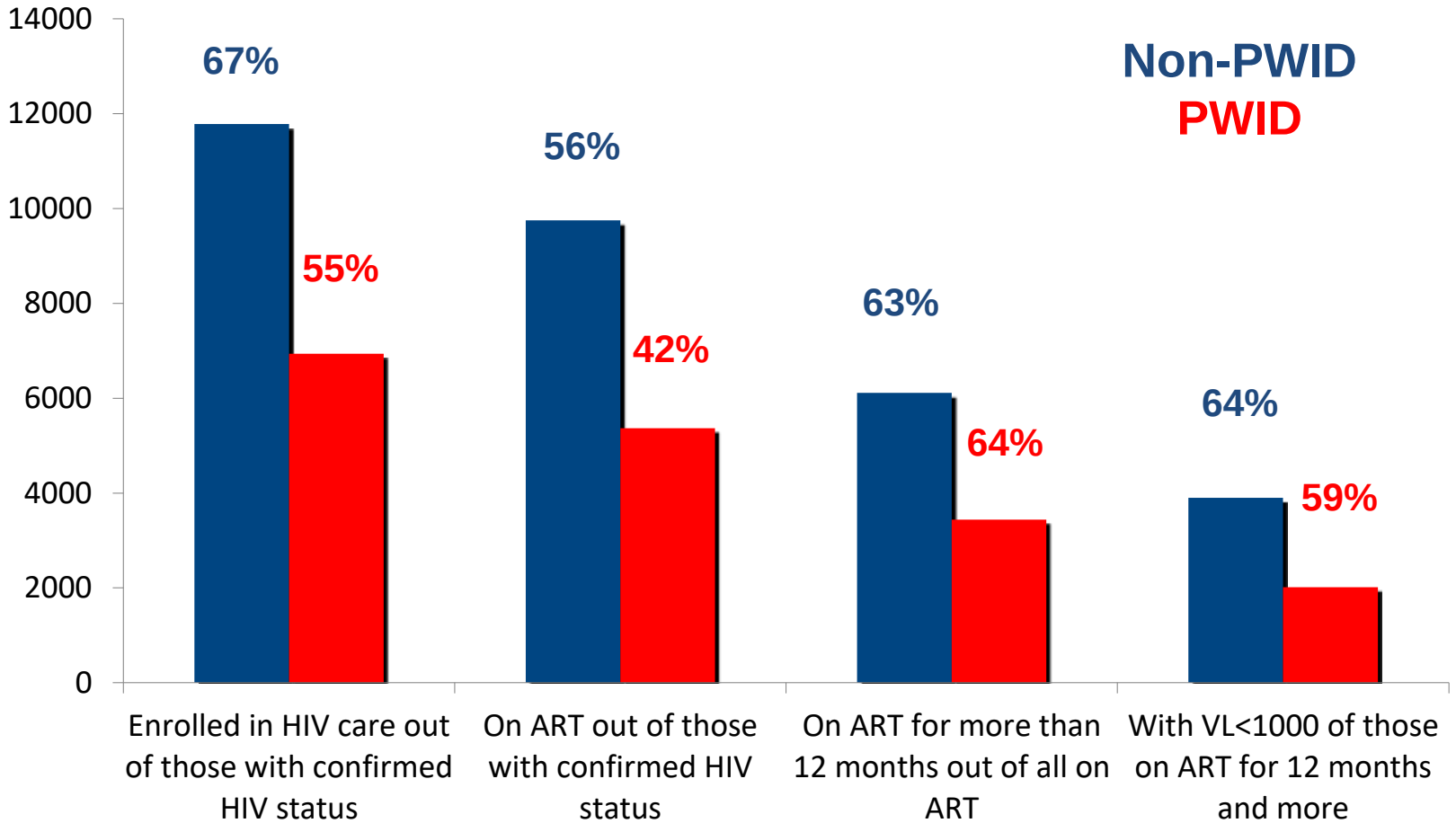
Agarwal et al. IAS 2013

Gaps in Continuum among Key Populations



UNAIDS. Ending AIDS. Progress towards the 90-90-90 targets, 2017

HIV Continuum for PLHIV who inject and do not inject drugs in Central Asia

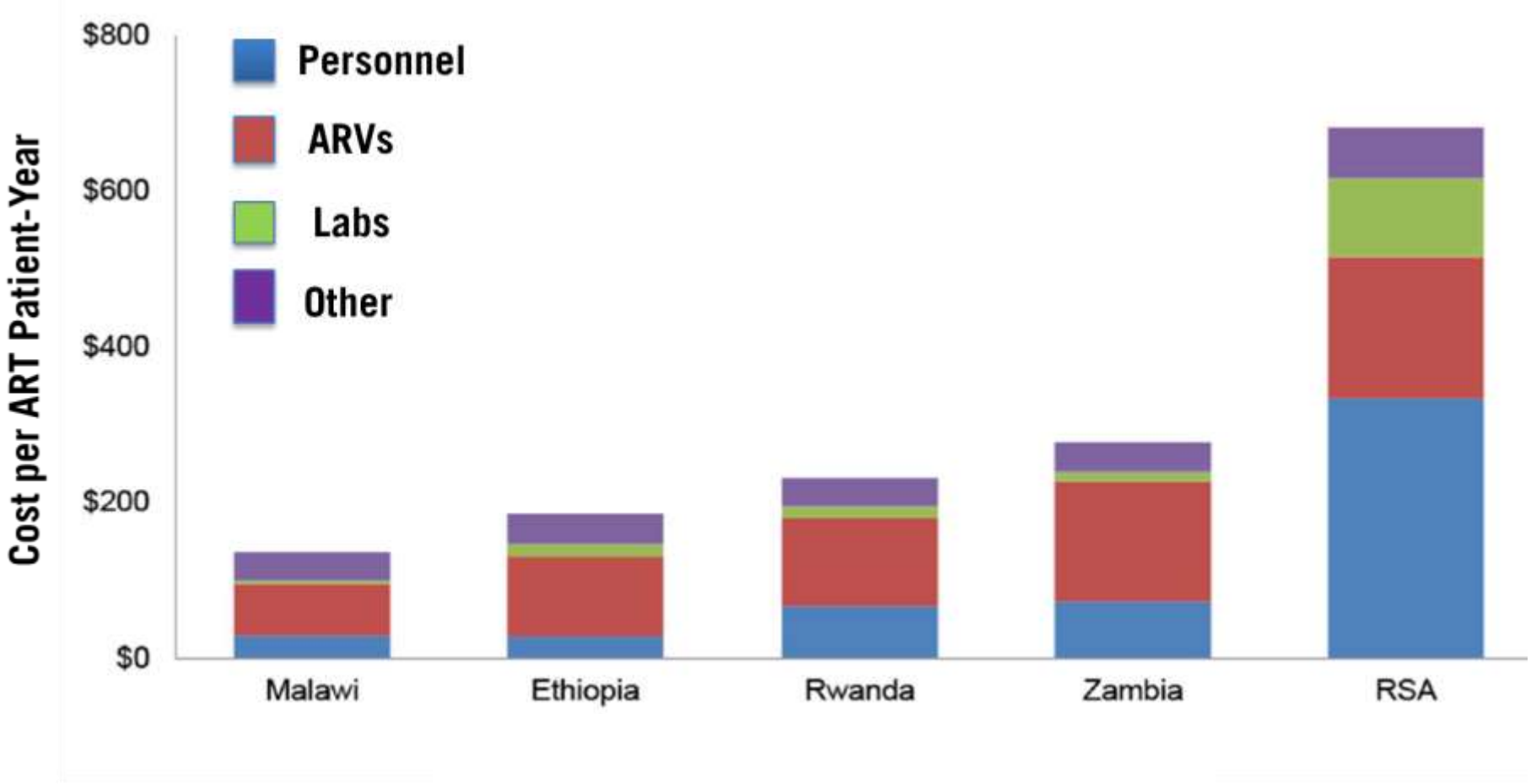


Kazakhstan, Kyrgyzstan and Tajikistan

MOH data from the national EHCMS, 2017

EFFICIENCY

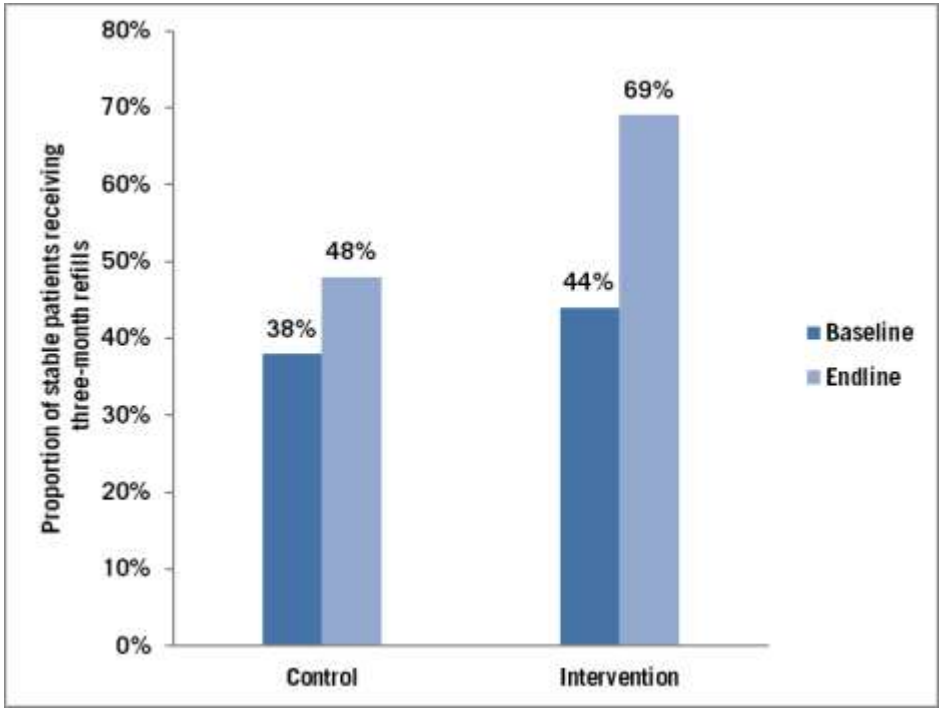
Facility-Level Annual Costs Per ART Patient



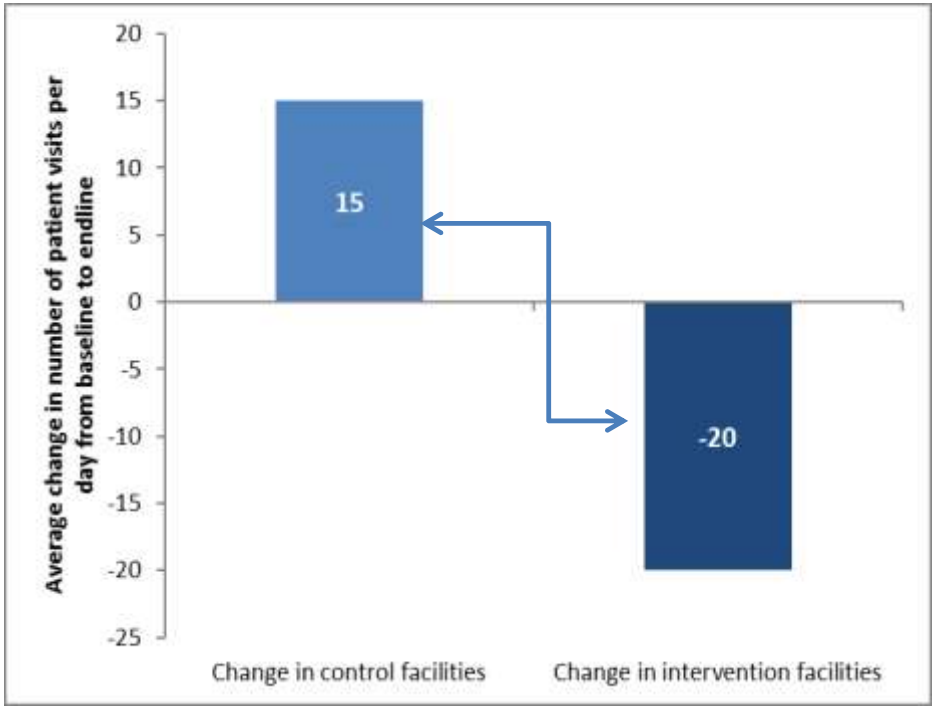
Tagar et al. PLOS One, 2014

Visit Spacing
Zambia

- 16 health facilities: control vs intervention
- Intervention: Pharmacist job aide, QI officer, checklists, troubleshooting, forecasting tool



Proportion of patients on 3-month refills



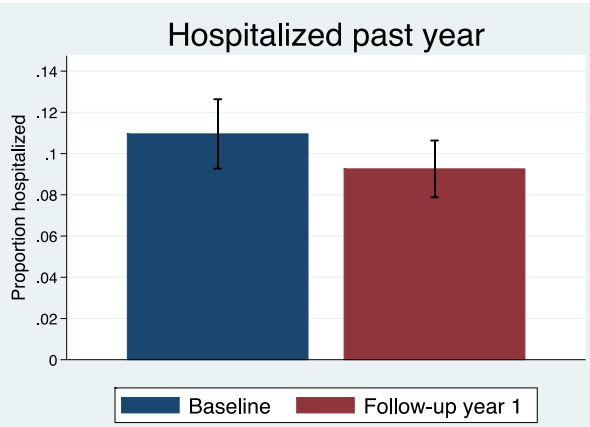
Average change in visits per day/site

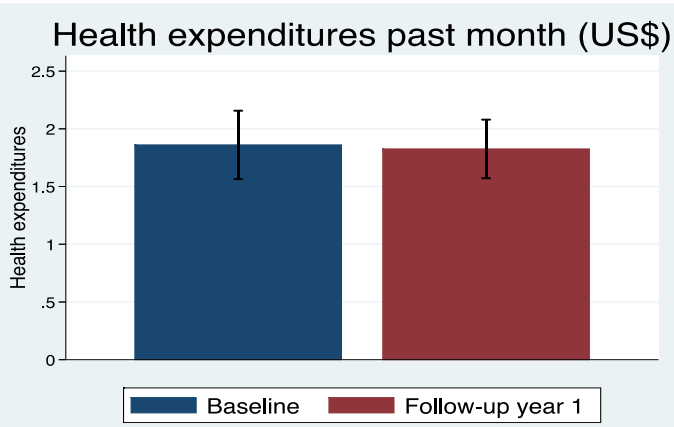
McCarthy, et al, 2017 PLOS One

Streamlined Care Model: Kenya and Uganda

Interventions:

- nurse-driven triage
- 3-month ART refills
- consolidation of services at visit

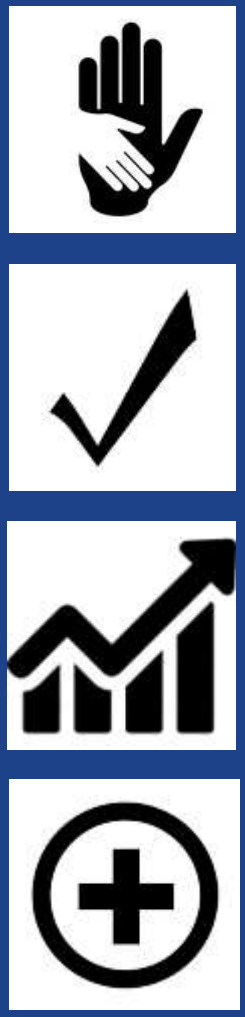




~25% decline in hours lost from work	30% reduction in hospitalizations	47% reduction in healthcare expenditures

Thirumurthy et. al. AIDS 2016, Durban South Africa

Outline of Presentation



- Progress towards HIV epidemic control
- The challenges ahead
- Differentiated service delivery to the rescue?
- The way forward and Conclusions

Optimal Care to Achieve Impact

"The What"

- Effective, safe, tolerable, convenient and affordable ART options
- Effective, safe, tolerable, convenient and affordable drugs for prevention and management of OIs and other complications
- Effective and feasible supportive interventions to engage, retain and support recipients of care
- Health systems with skilled HCW, effective procurement, laboratory and monitoring and evaluation systems

+

"The How"

Service Frequency

- Monthly
- Bimonthly
- Every 6 months
- Every 12 months

Service Intensity

- ART initiation and refills
- OI prevention and treatment
- Clinical monitoring
- Laboratory monitoring
- Psychosocial support

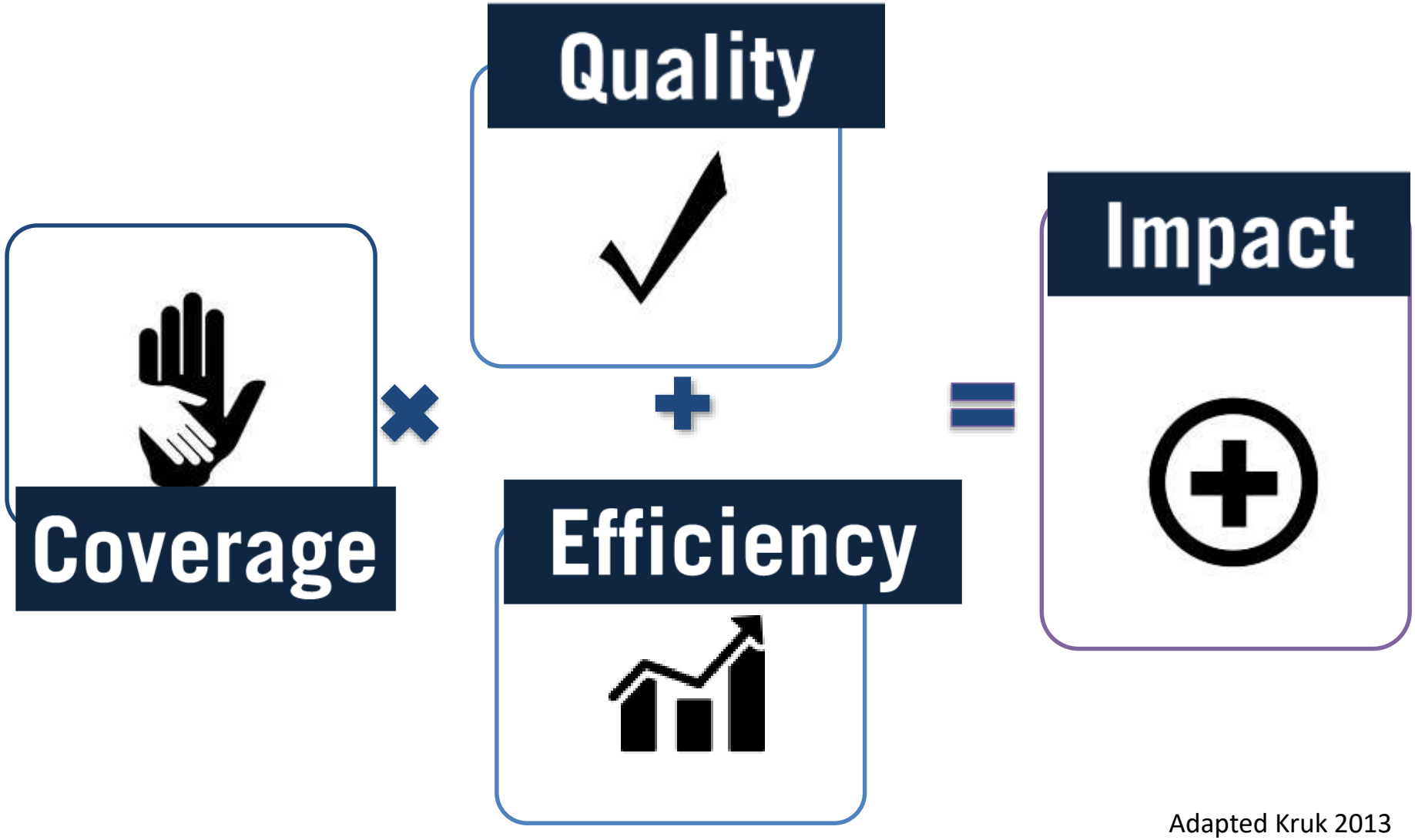
Service Location

- Hospital (inpatient or outpatient)
- HIV clinic
- Primary care clinic
- Community
- Home

Service Provider

- Physician
- Nurse
- Pharmacist
- Peer
- Clinical Officer
- CHW
- Laboratorian
- Family

Coverage, Quality and Efficiency are Needed to Achieve Impact



Adapted Kruk 2013

Conclusions-1

- Much has been accomplished in confronting the HIV epidemic
  - but much remains to be done
- Differentiated service delivery offers the promise for achieving coverage, quality, efficiency
  - and consequently achieving impact and epidemic control across populations
- All care models, including DSD models, must be responsive to the **perceptions and expectations of recipients of care**

Conclusions-2

- Key research questions remain:
  - What is the optimal design for DSD models for various subpopulations?
  - Can streamlined DSD monitoring & evaluation systems be established?
  - What is the impact of DSD models:
    - effectiveness and quality of services for recipients of care?
    - Efficiency and responsiveness of the health system?
  - What are the costs associated with DSD models and what is their cost-effectiveness?
  - How can successful DSD pilot programs be scaled up?

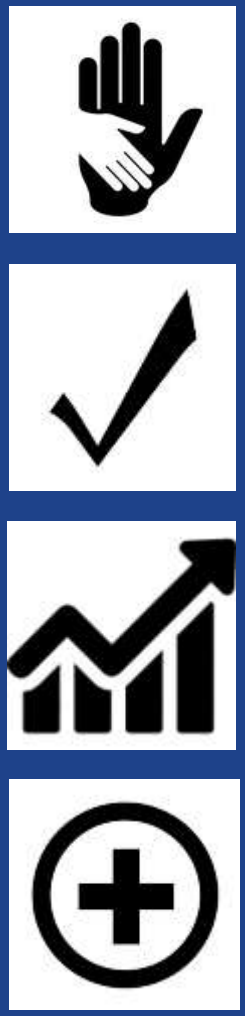
Conclusions-3

- Can we retain the principles of the public health approach while shaping programs that respond to the unique needs of PLHIV?

IMPACT

The time is right to embrace
precision public health

Acknowledgements



- Colleagues at ICAP and around the world
- Communities of people living with HIV
- CDC, USAID, HRSA, NIH, B&MGF
- PEPFAR

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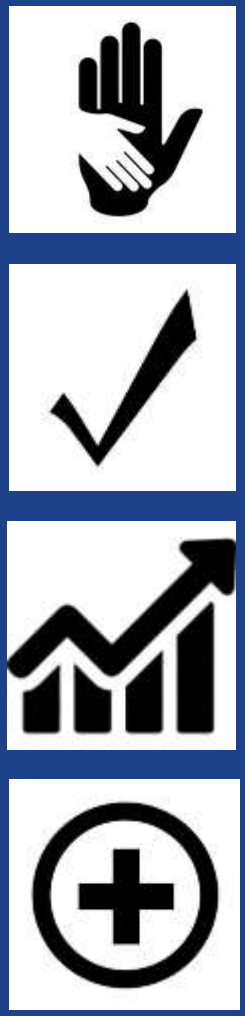

Thank You

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