

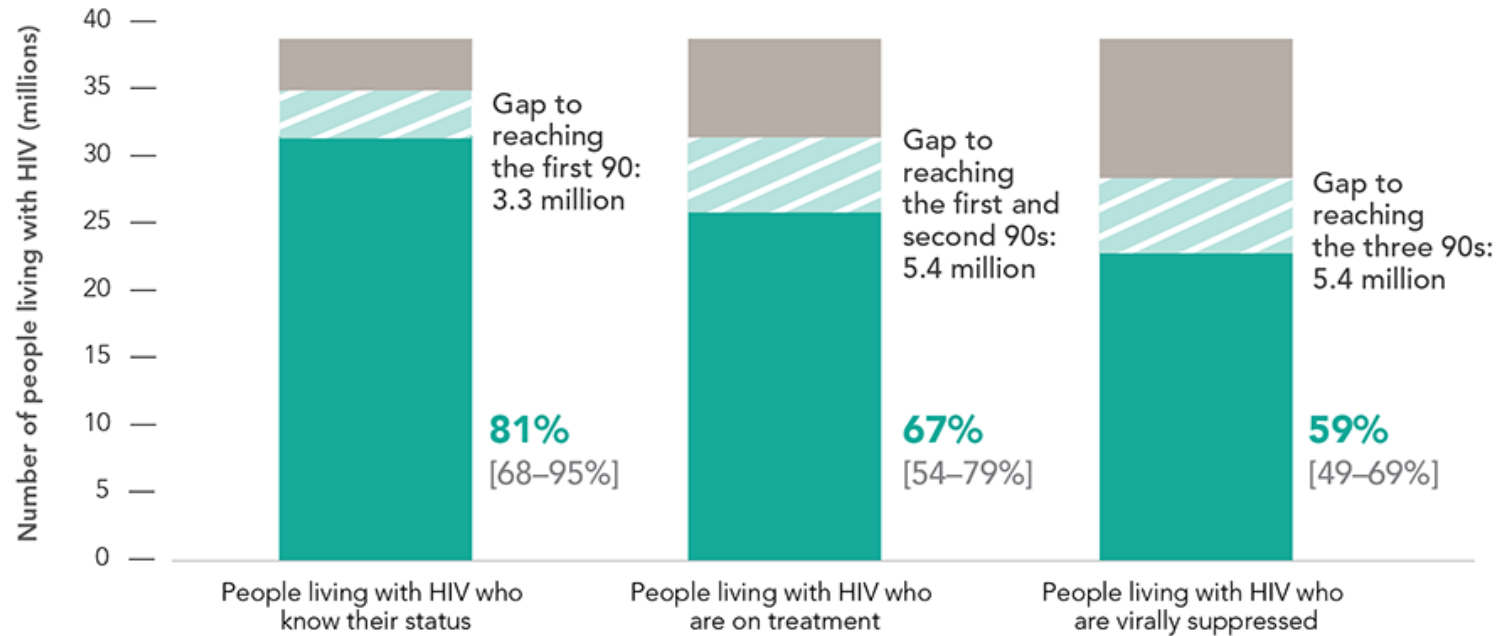
» **SESSION 2A: IS THERE A PROBLEM? DATA ON RE-ENGAGEMENT IN CARE**

Session 2A

2.1 Overview of the cyclical cascade

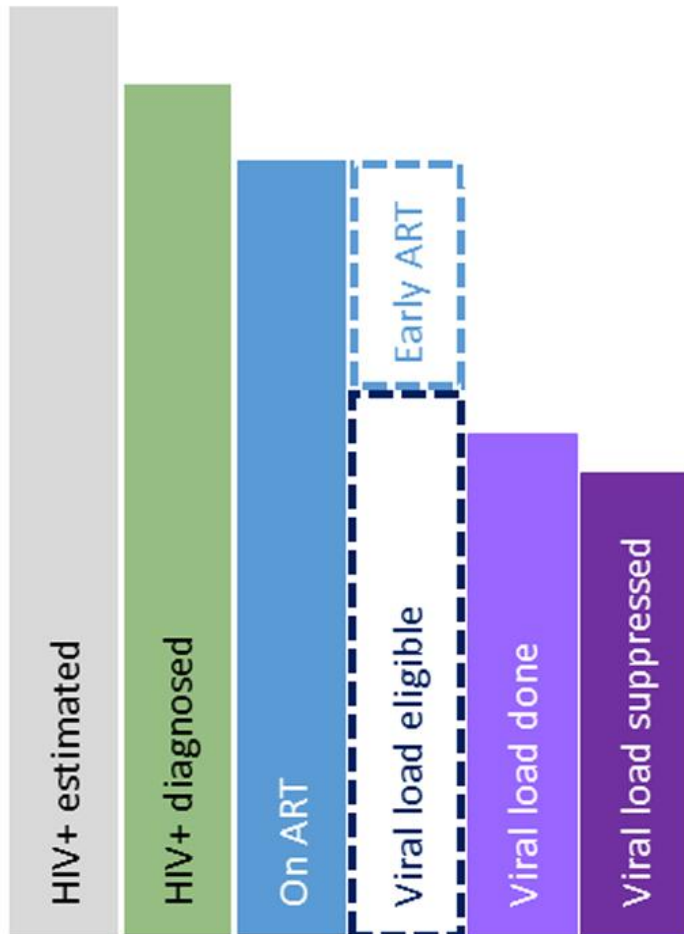
Traditional, linear cascade

HIV testing and treatment cascade, global, 2019



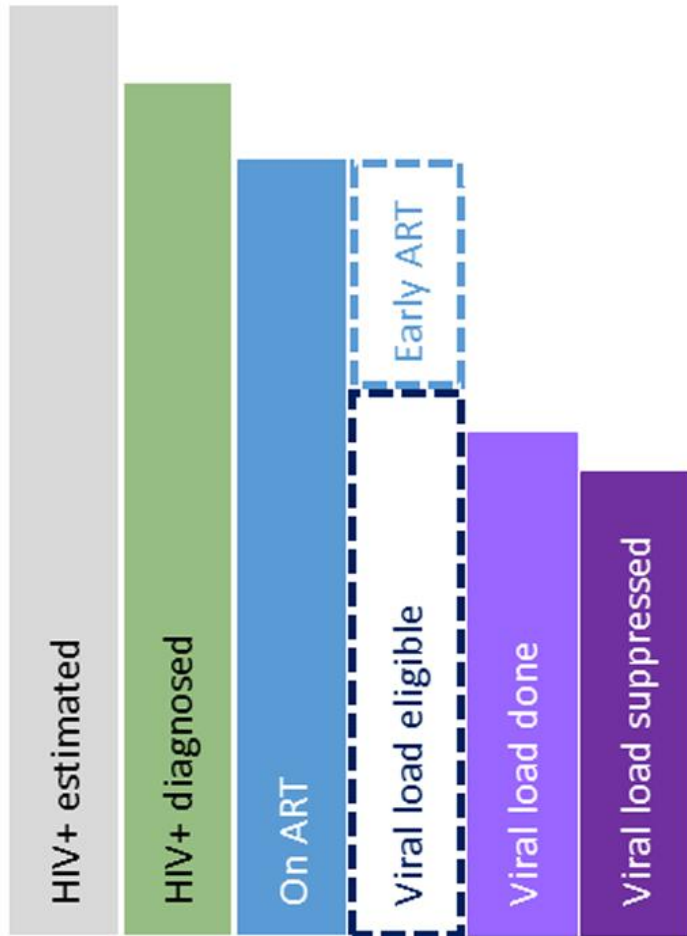
Source: UNAIDS special analysis, 2020.

Linear HIV treatment cascade



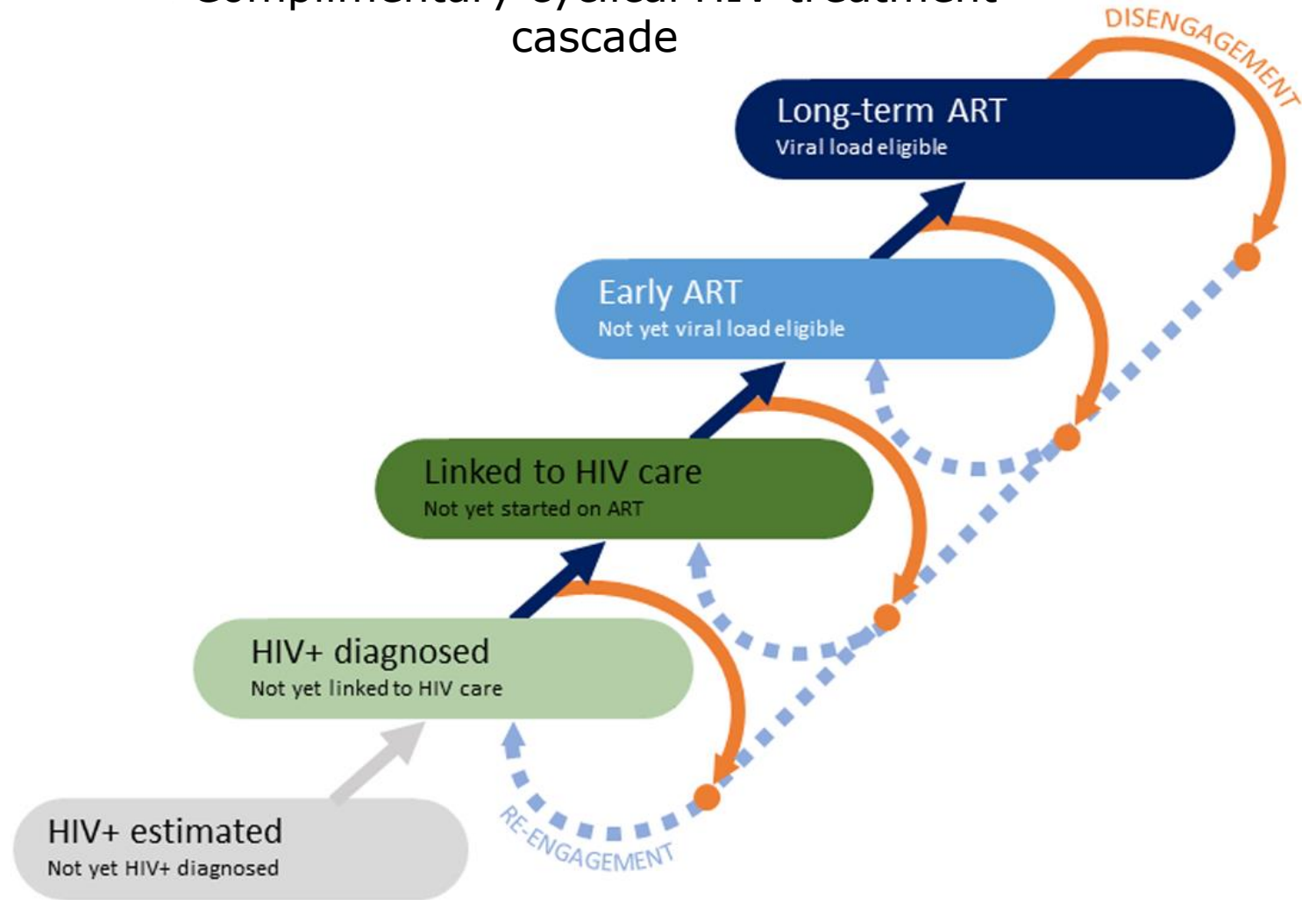
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Linear HIV treatment cascade

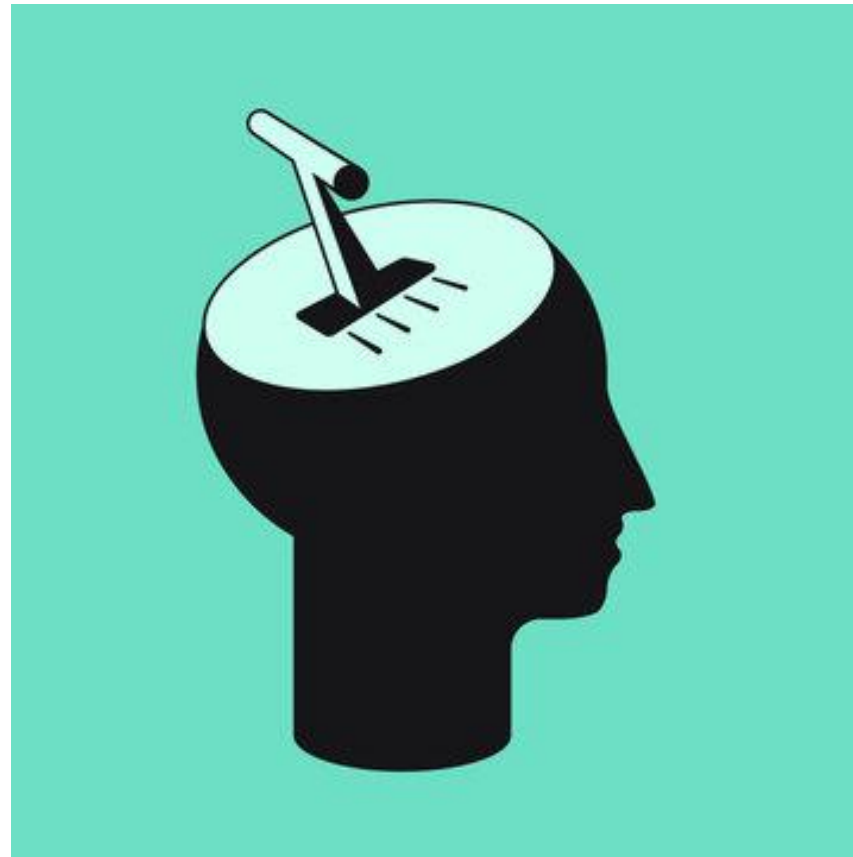


From:

Complimentary cyclical HIV treatment cascade



Where does that leave us?



Cyclical cascade data from the Western Cape, South Africa

PLOS MEDICINE

RESEARCH ARTICLE

The cyclical cascade of HIV care: Temporal care engagement trends within a population-wide cohort

Jonathan Euvrand^{1,2*}, Venessa Timmerman^{1,2}, Claire Marriott Keene³, Florence Phelanyane^{1,2}, Alexa Heekes^{1,2}, Brian D. Rice^{4,5}, Anna Grimsrud⁶, Peter Ehrenkrantz⁷, Andrew Boulle^{1,2}

1 School of Public Health, University of Cape Town, Cape Town, South Africa, **2** Department of Health, Provincial Government of the Western Cape, Cape Town, South Africa, **3** Centre for Tropical Medicine and Global Health, University of Oxford, Oxford, United Kingdom, **4** School of Medicine and Population Health, University of Sheffield, Sheffield, United Kingdom, **5** Faculty of Public Health and Policy, London School of Hygiene and Tropical Medicine, London, United Kingdom, **6** HIV Programmes and Advocacy, IAS—the International AIDS Society, Cape Town, South Africa, **7** Global Health, Bill & Melinda Gates Foundation, Seattle, Washington State, United States of America

* Jonathan.euvrand@uct.ac.za



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Data Availability Statement: The underlying data are routinely collected patient records that have been de-identified and pseudo-anonymised. Participants have not consented to these data being part of publicly accessible repositories. The Western Cape Department of Health and Wellness evaluates research proposals for all research in the public health sector in the province, subject to standard research ethics, government approval and data governance prescripts. This includes those that draw on routine datasets like the current study. For more information email phs_data@westerncape.gov.za

Abstract

Background

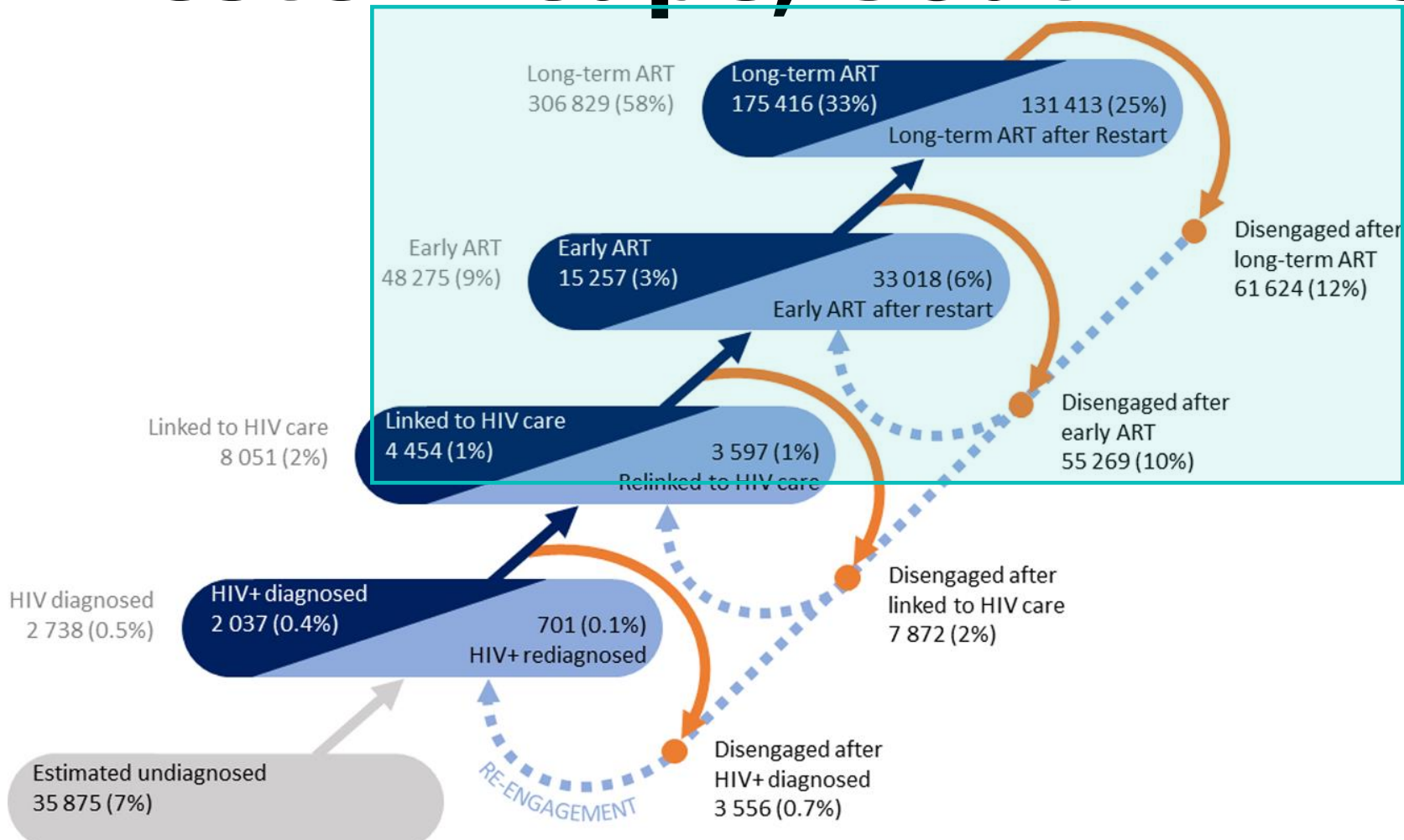
The traditional HIV treatment cascade aims to visualise the journey of each person living with HIV from diagnosis, through initiation on antiretroviral therapy (ART) to treatment success, represented by virological suppression. This representation has been a pivotal tool in highlighting and quantifying sequential gaps along the care continuum. There is longstanding recognition, however, that this may oversimplify the complexity of real-world engagement with HIV services in settings with mature high-burden HIV epidemics. A complementary “cyclical” cascade has been proposed to represent the processes of disengagement at different points on the care continuum, with multiple pathways to re-engagement, although the feasibility of implementing this at scale has been uncertain. This study aimed to populate, refine, and explore the utility of a cyclical representation of the HIV cascade, using routine data from a high-burden HIV setting.

Methods and findings

This observational cohort study leveraged person-level data on all people living with HIV in the Western Cape (WC), South Africa, who accessed public health services in the 2 years prior to 31 December 2023. Programme data from disease registers were complemented by data from pharmacy and laboratory systems. At study closure, 484 370 people were included, constituting 95% of those estimated to be living with HIV in the province, of whom 305 104 were on ART. Substantial disengagement from HIV care was evident at every point on the cascade. Early treatment emerged as a period of higher risk of disengagement, but it did not account for the majority of disengagement. Almost all those currently disengaged had prior experience of treatment. While re-engagement was also

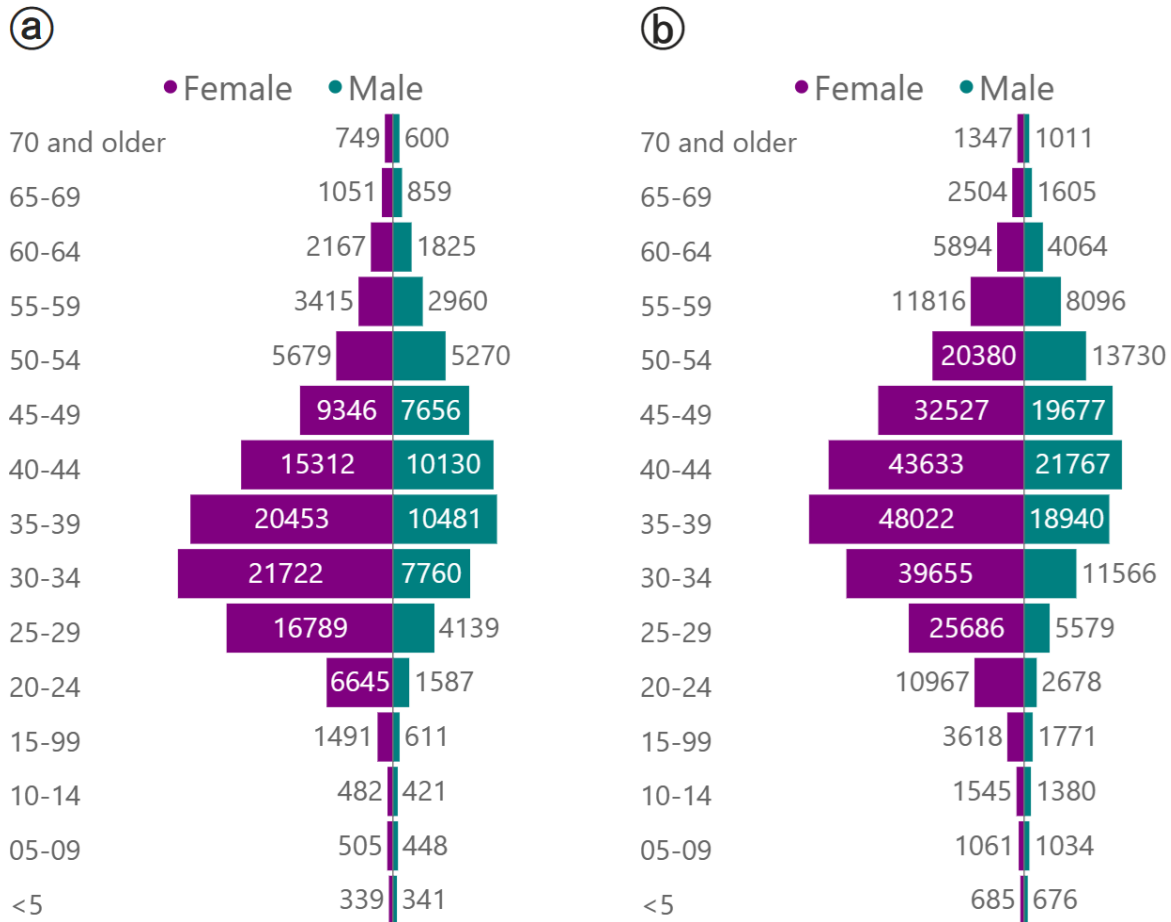
- Triangulation of data from multiple sources – three HIV register systems, digitalized lab data, pharmacy information systems, etc.
- Put data onto this cyclical cascade

Cyclical cascade data from the Western Cape, South Africa



- “Substantial disengagement from HIV care was evident at every point on the cascade.”
- “Early treatment emerged as a period of higher risk of disengagement, but it did not account for the majority of disengagement.”
- “Almost all those currently disengaged had prior experience of treatment.”

Comparing the age and sex distribution of (a) people engaged in care to (b) people disengaged from care.



- “Among males and females, the age profiles of those in care are broadly similar to those disengaged from care.”
- “there were no obvious stand-out differences in patient characteristics when comparing patients in different statuses. This suggests that an outsize impact of an intervention for patient retention or re-engagement which is targeted based on routinely available patient characteristics, is unlikely.”

Key takeaways from the authors:

- “disengagement occurred proportionally more in the Early ART period after starting or restarting ART, but absolutely more in the Long-term ART period.”
 - An intervention targeted at the Early ART period would target individuals at a time of relatively higher risk but miss the majority of those at high risk of disengagement
- “Substantial disengagement occurred at all points on the cascade”
 - no obvious stand-out differences in patient characteristics
- “In the context of a mature and generalized HIV epidemic, the focus may need to be on making interventions massively scalable and inclusive, rather than targeted”

When is disengagement occurring?

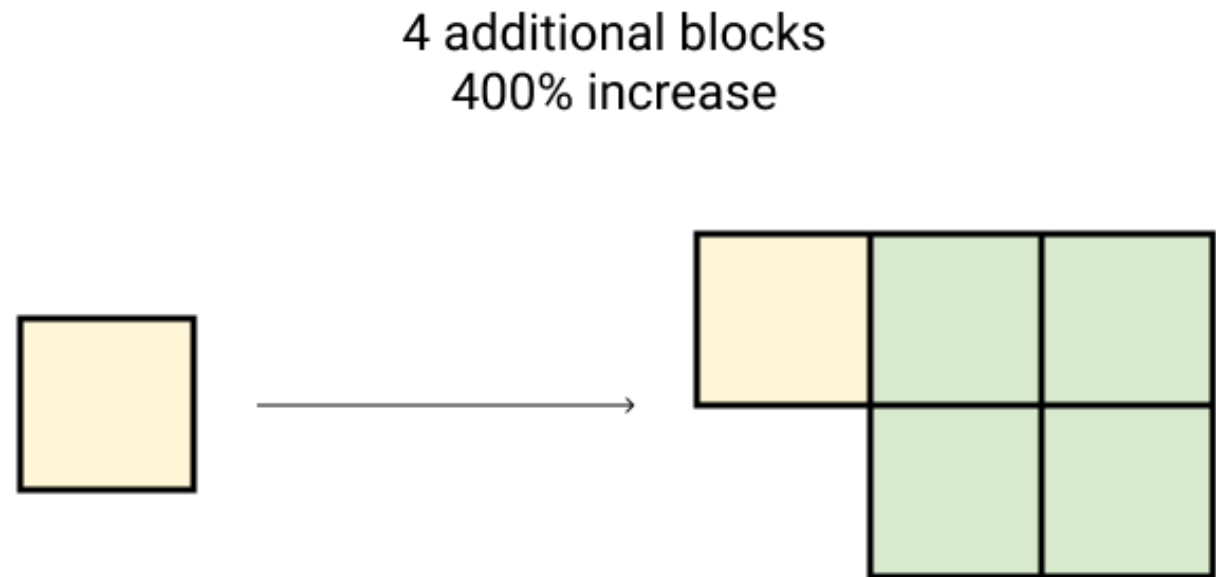
- A. Disengagement is occurring in the early ART period (first 6 months)
- B. Disengagement is occurring in the late ART period (after 6+ months on ART)
- C. Disengagement is occurring all the time

Let's look at the absolute and relative change

- **% Relative change** - By what **percentage** (larger or smaller) did the treatment cohort change from the original number?
- **# Absolute change** - What is the difference (**number**) between the original treatment cohort and the one now?

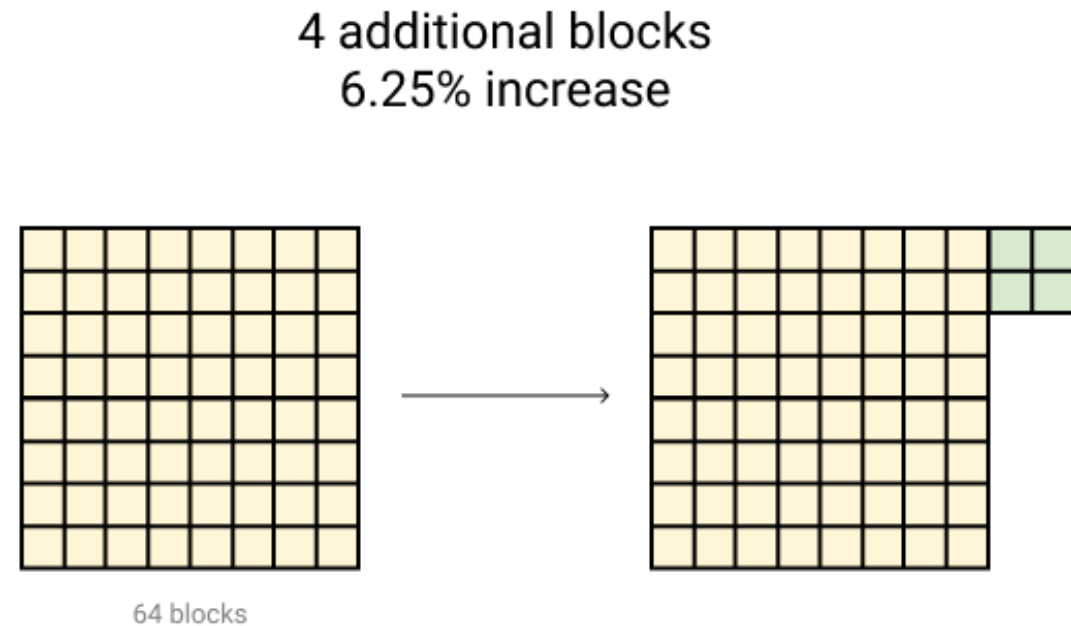
Relative changes on small numbers

- Can appear to be more significant than they are.
- This is because a small absolute change in the number can result in a large percentage change.

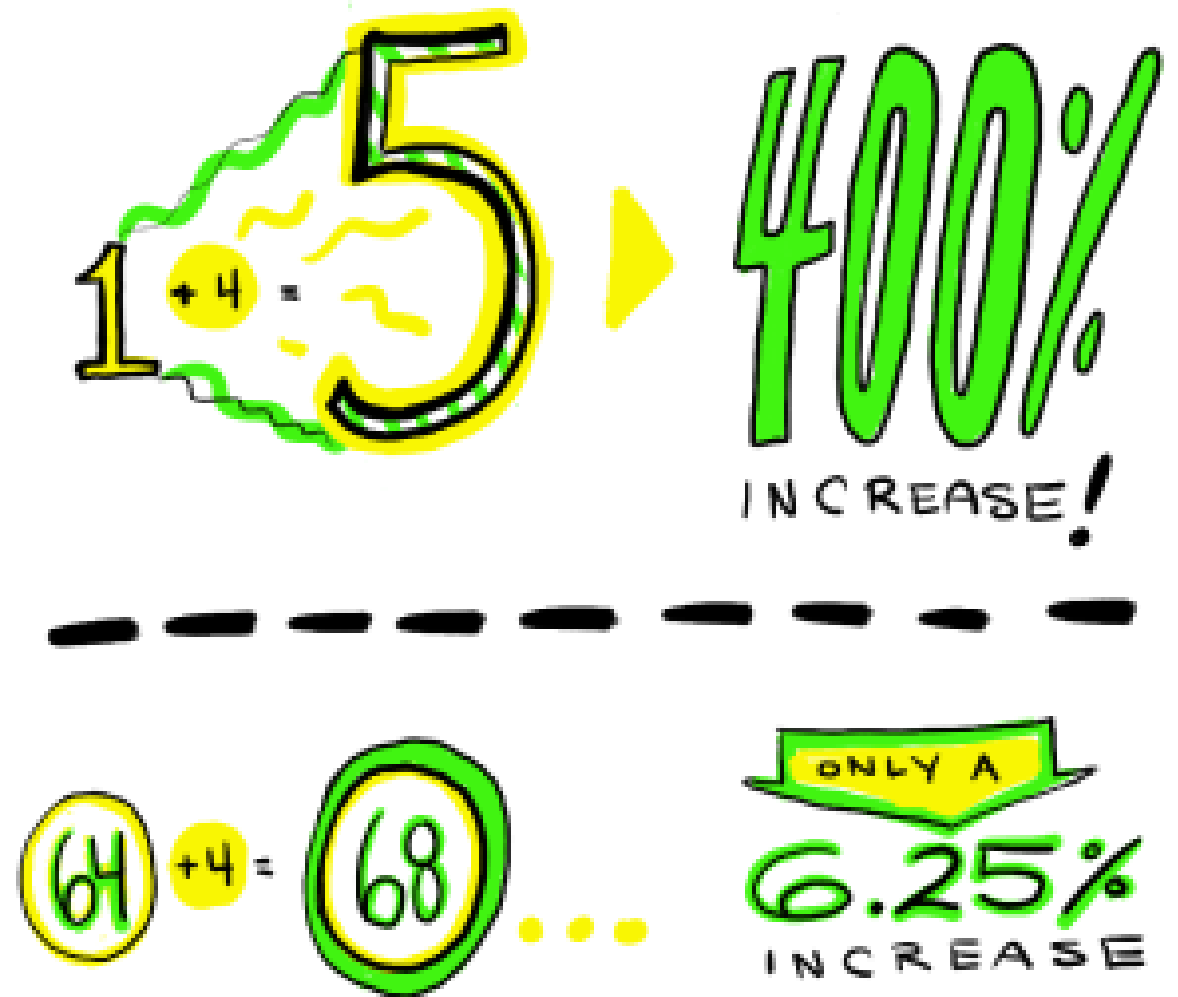


Relative changes on big numbers

- Can appear less significant.
- Even when the absolute change is large, if it is a change on a larger number the relative change can be small.



**In each scenario,
the absolute change
was the same (4
additional green
blocks) but the
relative change (in
this can increase),
was very different**



In the context of disengagement

- Early ART (smaller cohort) has high relative (%) disengagement
- Later ART (larger cohort) has lower relative (%) and larger absolute (#) disengagement

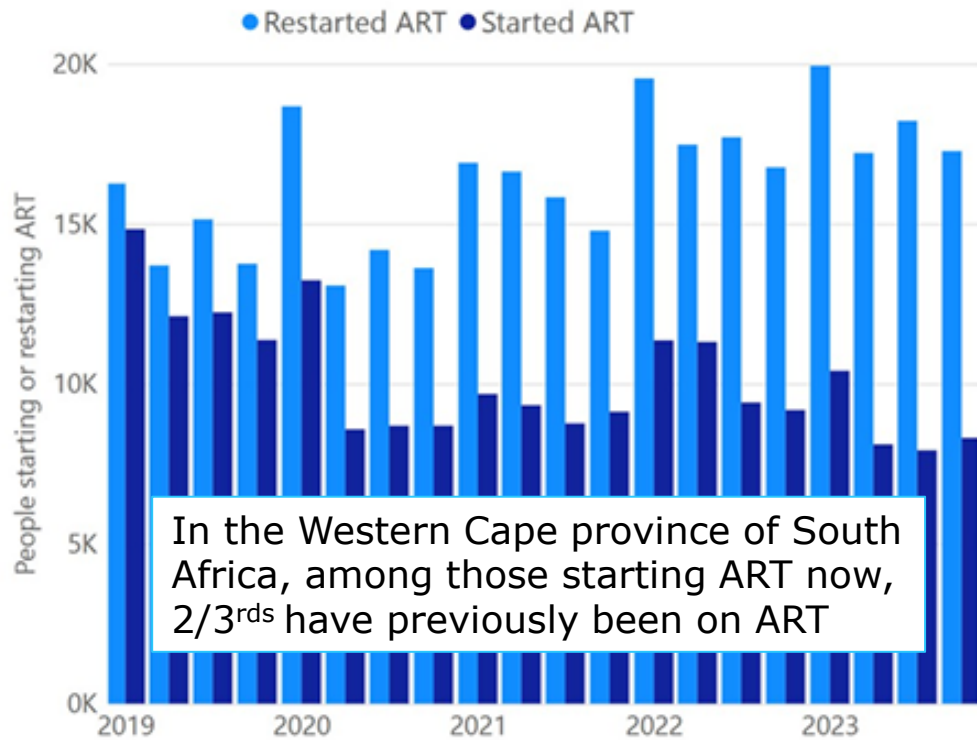
Need interventions that are scalable and inclusive

Ask for both numbers (#) and percentages (%)

Increasingly, those initiating ART are not treatment-naive

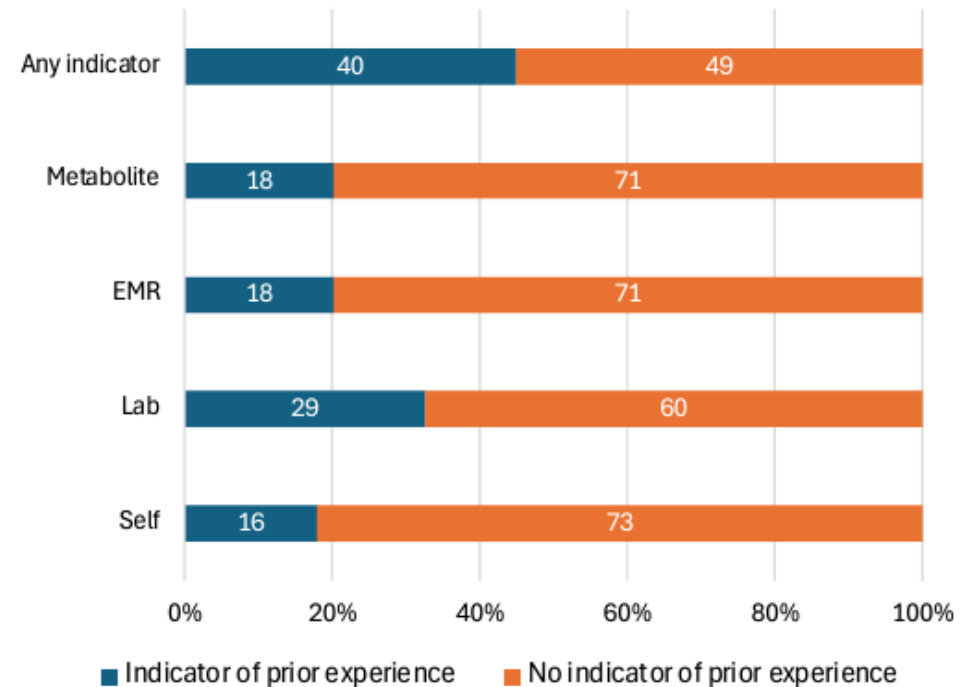
○ Western Cape:

(b) ART start and restarts



Sentinel sites across Mpumalanga, KZN, Gauteng:

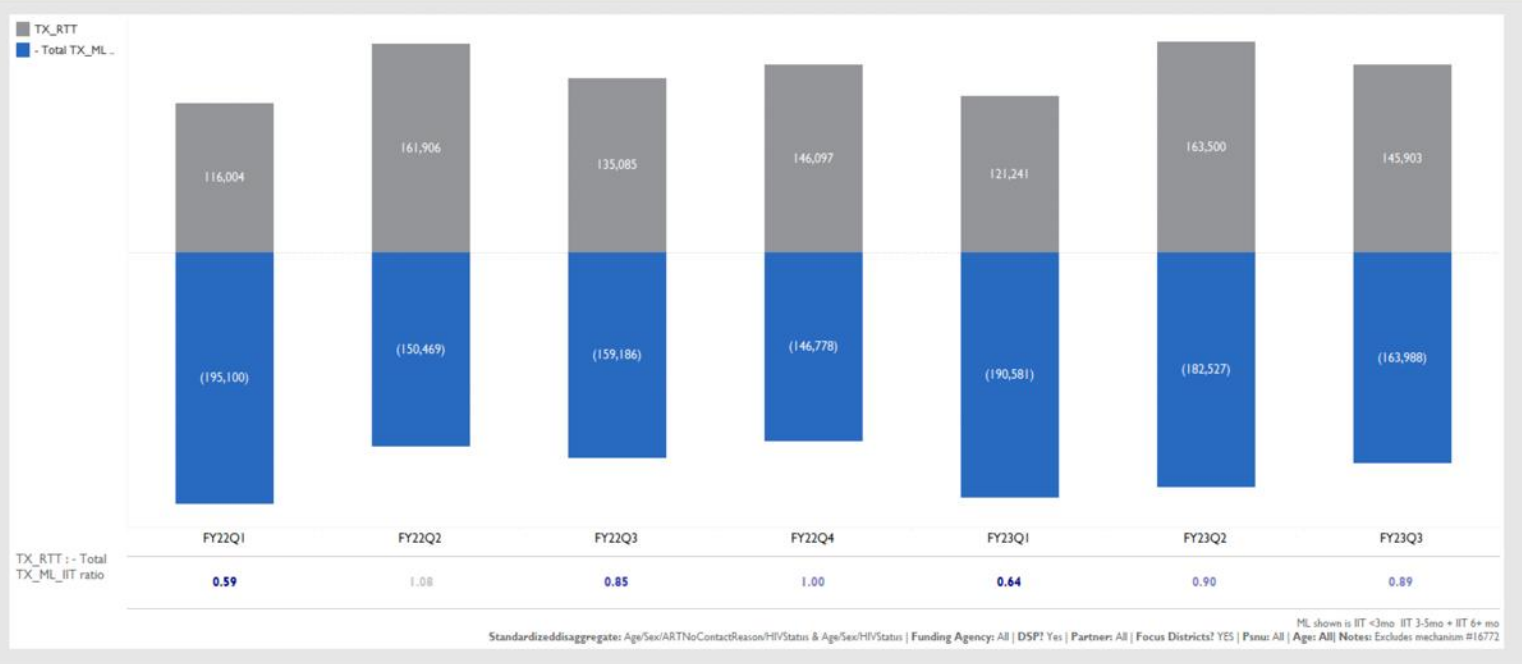
Figure 1. Proportions ART-naive vs. ART-experienced at initiation, by indicator of prior exposure (n=89)



Lots of returns & lots of “interruptions”

PEPFAR Data from South Africa

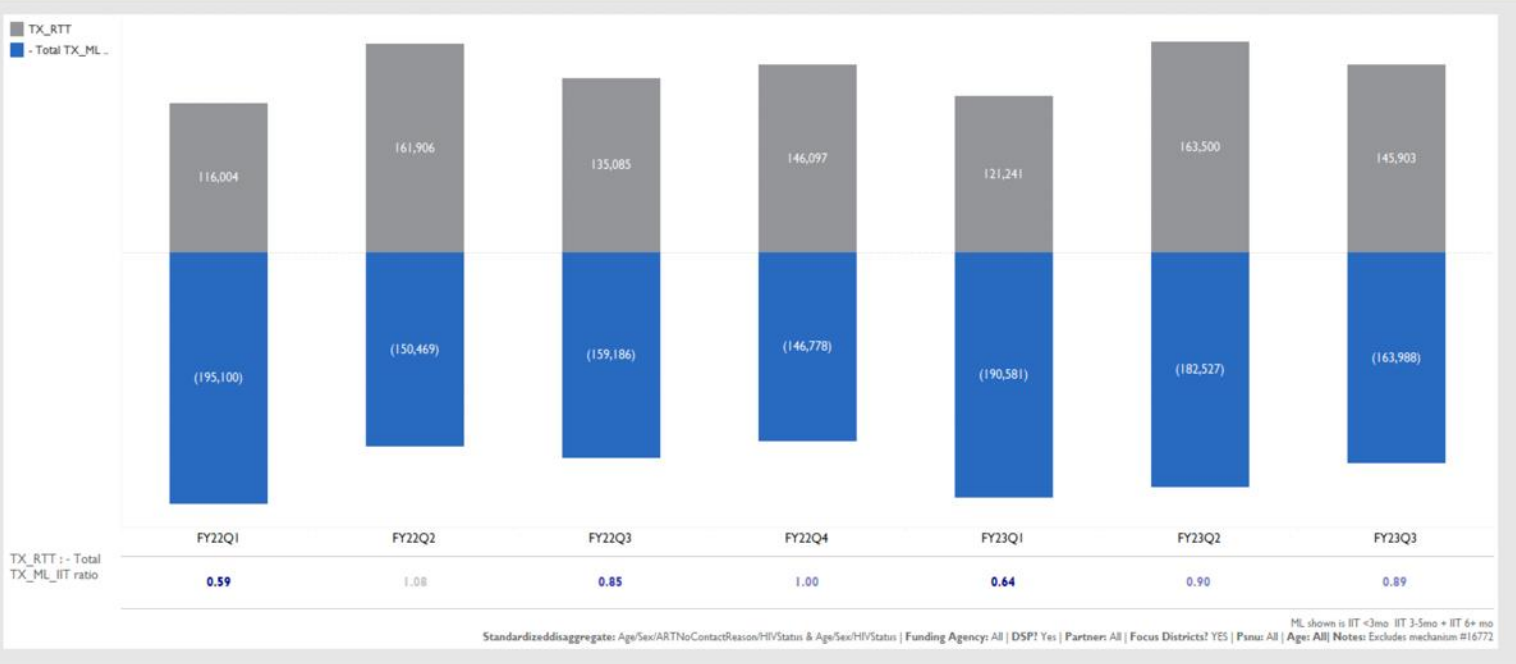
Despite Improvement In Return To Care (RTT), It Remains Insufficient For Growth



- **TX_RTT**: Number of ART patients with no clinical contact (or ARV drug pick-up) for greater than 28 days since their last expected contact who restarted ARVs within the reporting period
- **TX_ML**: Number of ART patients (who were on ART at the beginning of the quarterly reporting period) and then had no clinical contact since their last expected contact

In many places, those returning to care = those interrupting = no growth in the cohort

Despite Improvement In Return To Care (RTT), It Remains Insufficient For Growth



Return to care is especially important given the 1.8 Million people diagnosed and not on treatment

There are multiple ways to re-engage in services

Return to the
ART
programme
(late)

(Silent)
transfers to
new facility

Present for
HTS

Focus of the workshop

In closing

- Supporting re-engagement (and decreasing disengagement) is critical to achieving global HIV targets and reducing HIV transmission, morbidity and mortality
- Disengagement is happening among all population groups, and at all time points in the HIV treatment cascade
- Interventions to support re-engagement are needed – and will need to be scalable and inclusive to reach the diverse profile and needs of people who are re-engaging

**Churn butter,
not customers.**



»Extra slides

In data from Malawi, majority of those disengaged returned within the first 100 days

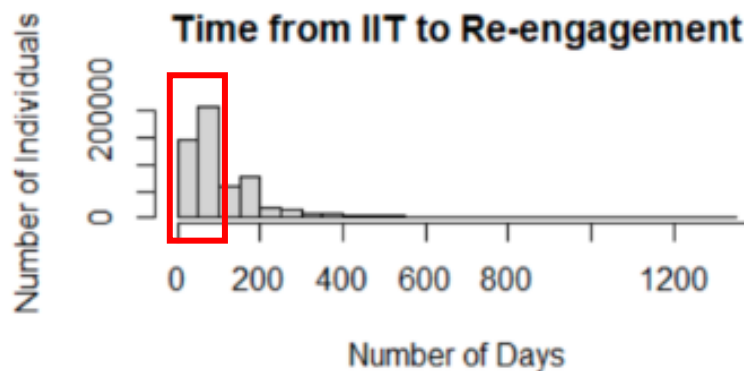
Objective: Understand frequency and duration of interruptions in treatment (IIT) in Malawi (≥ 28 days late for ART visit)

Design:

- Review of national data from Jan 2020-Sept 2023
 - N=1,145,215 ART clients reviewed

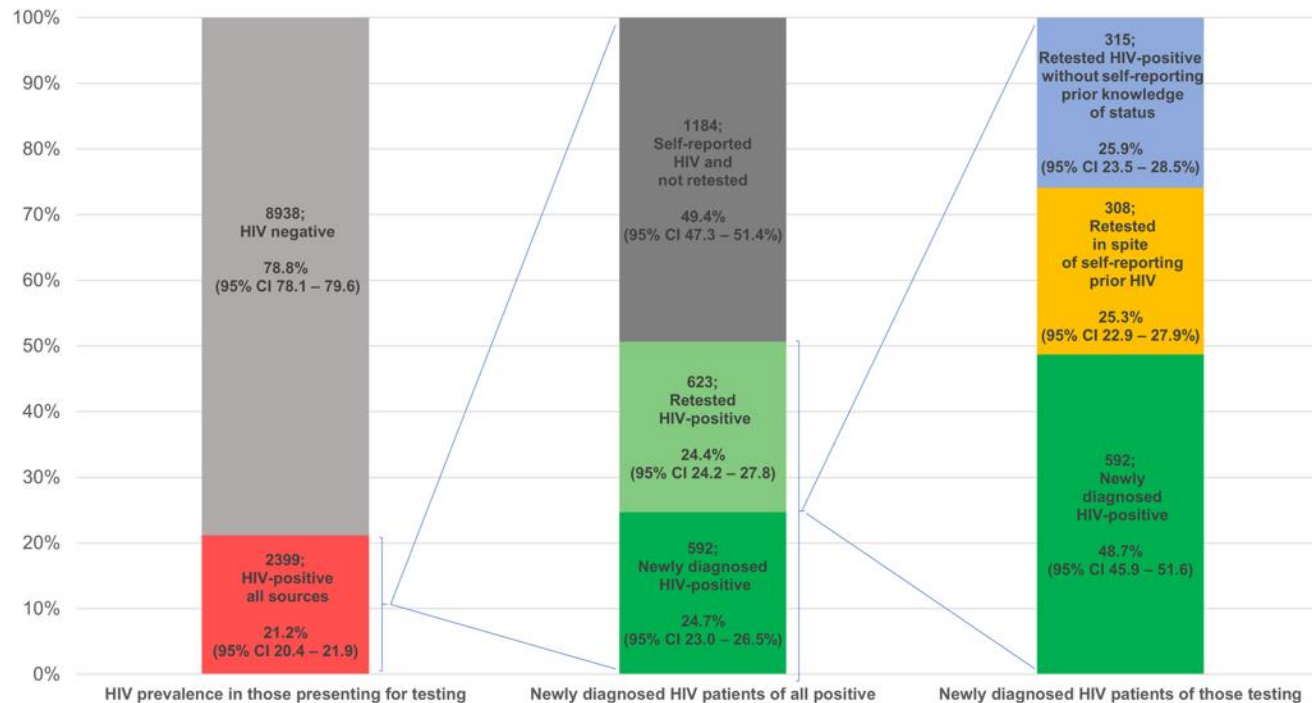
Findings

- 60% of ART clients experienced IIT
 - 81% re-engagement in care
 - Majority returned within 100 days
 - 82% re-engaged in care within 6 months



IIT Time Period	n (%)
> 28 days to ≤ 6 months	463,415 (82.4)
> 6 months to ≤ 1 year	72,452 (12.9)
> 1 year to ≤ 2 years	21,862 (3.9)
> 2 years	4,949 (0.9)

People who know their status test again

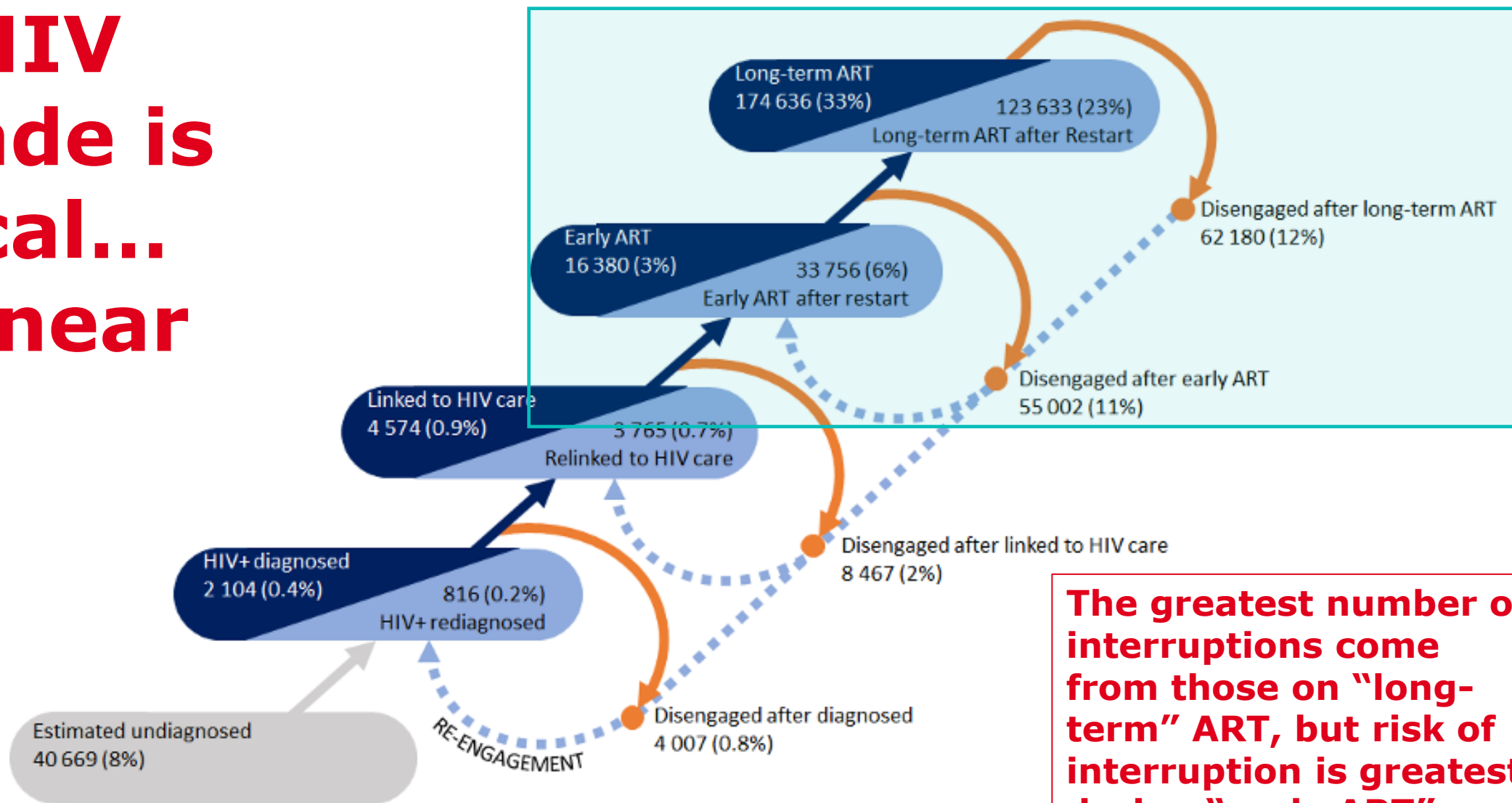


Of the 2,399 people identified as living with HIV (red):

- 623 (24.4) had previously tested positive (light green)
 - 315 (50.6%) tested without reporting previous knowledge of status (light blue)
 - 308 (49.4%) tested again in spite of self-reporting previous HIV (yellow)

WC HTS data

The HIV cascade is cyclical... not linear



The greatest number of interruptions come from those on "long-term" ART, but risk of interruption is greatest during "early ART"