Persistent Challenges with Viral Suppression a Year After Return to Care: Evidence from South Africa

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Claire M Keene[1], Jonathan Euvrard[2], Tali Cassidy[3], Mike English[1], Jacob McKnight[1], Catherine Orrell[4], Ingrid Katz[5]

[1]Health Systems Collaborative, Nuffield Department of Medicine, University of Oxford, Oxford, United Kingdom. [2]Centre for Infectious Disease Epidemiology and Research, School of Public Health and Family Medicine, Faculty of Health Sciences, University of Cape Town, Cape Town, South Africa. [3]Department of Public Health Medicine, School of Public Health and Family Medicine, University of Cape Town, Cape Town, South Africa. [4]Department of Medicine, Faculty of Health Sciences, University of Cape Town, Cape Town, South Africa. [5]Department of Medicine, Brigham and Women's Hospital, Boston, United States of America

BACKGROUND

- Only 75% of people living with HIV (PLWH) in South Africa were on antiretroviral therapy (ART) and 69% of PLWH had a suppressed viral load (VL) in 2022.
- This undermines the ART program's potential to improve individual/ public health outcomes.
- Understanding which populations drive poor treatment success could focus efforts to improve outcomes.

METHODS

This retrospective study describes the incidence and impact of treatment interruptions using routine health data from the Western Cape Provincial Health Data Centre, South Africa.

The cohort included individuals:

- Aged ≥15 years
- Initiated ART under treat-all guidelines (≥01-Sep-2016)
- Sought care in Khayelitsha or Gugulethu (low-resource, high-HIV-burden settings)
- Had ≥1 year follow-up time

DEFINTION of treatment interruptions

Binary: retained in/out of care each month

>90 days between recorded and expected visit (based on previous ART refill) OR being lost to follow-up (LTFU, no visit within 180 days of database closure on 30-Sep-2022).

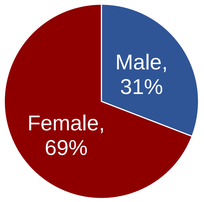
Interruption starts on the expected visit date (based on previous refill dispensed).

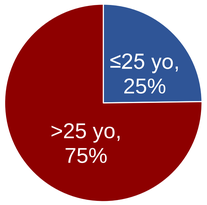
People who restart ART after a treatment interruption are **likely to disengage again**

Only **29% have a suppressed VL** a year after restarting ART

COHORT

N = 68888





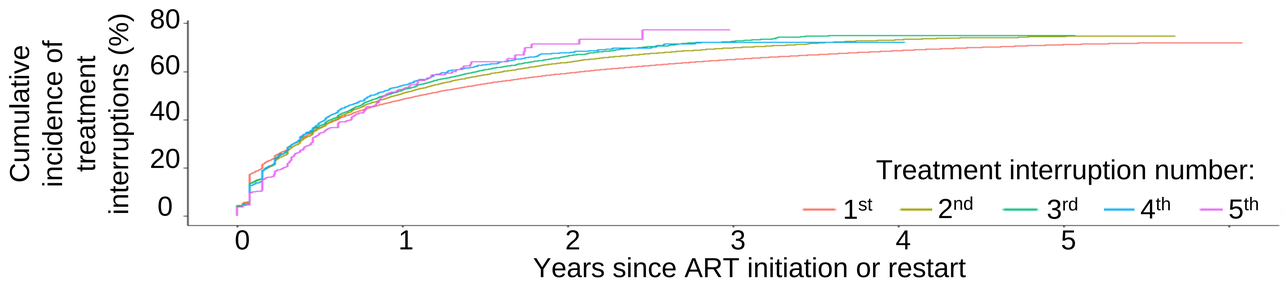
Median follow-up: 4 years (IQR 3-5)

DISENGAGMENT

Cumulative incidence of treatment interruptions *(by 5 years after initiation):* **71% (95% CI 71-72)**

Median number of interruptions: **1 (IQR 1-2)**

Median time to interruption after initiation/restart: **4 months (IQR 1-9)**



Cumulative incidence of treatment interruptions after ART initiation (1st interruption)/ restart (subsequent interruptions)

RE-ENGAGEMENT

Cumulative incidence of return *(by 5 years after initiation)*: **73% (95% CI 72-73)**

Median time out of care before return: **7 months (IQR 4-15)**

Interruption	≥1 year follow-up time to assess outcomes	Outcomes assessed 1 year after:	Retention at 1 year (n [%])	1 year VL completed (n [%])	Virologic suppression at 1 year (n [%])	
					≤50 cp/mL	≤1000 cp/mL
All interruptions	**29967 interruptions**	**Restart**	**20030 [67%]**	**17244 [58%]**	**8578 [29%]**	**15062 [50%]**
No interruption	23578 individuals	**Initiation**	22836 [97%]	22998 [98%]	17201 [73%]	18605 [79%]

CONCLUSIONS

- Treatment interruptions are common.
  Most will have an interruption within 5 years.
  Most have 1 interruption, within the first 6 months on ART.
- Time to interruption is similar after ART initiation or restart (regardless of treatment interruption number).
- Most people return to care within the first year after an interruption.
- However, outcomes after restart are worse a year after returning to care than a year after initiation.

People returning to care should be a priority population to develop differentiated service options, if we are to improve retention and VL suppression for the whole population on ART.

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CORRESPONDING AUTHOR

Dr Claire M Keene
NDM Centre for Global Health Research
University of Oxford
claire.keene@ndm.ox.ac.uk

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