

# ART interruption before antenatal care is associated with delivery viremia and postpartum disengagement among women in Gugulethu, South Africa

Bryan Leonard

*University of Cape Town, Cape Town, South Africa*

*26 September 2024*

*No Conflicts of interest to declare*

CIPHER  
Paediatric HIV  
Matters

 IAS



School of Public Health  
Departement Openbare Gesondheid  
Isikolo Sempilo Yoluntu

 UNIVERSITY OF CAPE TOWN  
IYUNIVESITHI YASEKAPA • UNIVERSITEIT VAN KAAPSTAD



**R E M I n D**

Routine data to improve mother and infant care

**W C E**

WORLD CONGRESS OF EPIDEMIOLOGY 2024



# Background and Purpose

- **Disengagement from antiretroviral therapy (ART) during/after pregnancy is common.**

With universal treatment, more women living with HIV (WLHIV) are conceiving on ART, but little is known about their ART history and related outcomes.

- **Aim:**

- Explore HIV care patterns before antenatal care.
- Investigate links between ART history, viral load suppression at delivery, and postpartum HIV care at 12 weeks.

# Setting: Gugulethu



# Methods

- **Study Overview:**  
We analysed data from a cohort of pregnant WLHIV attending antenatal care (ANC) in Gugulethu, South Africa.
- Data sources: Interviewer-administered questionnaire at enrolment.
- Medical record abstraction for engagement in care and viral load.
  
- **ART History Groups:**
  1. Newly started ART during pregnancy.
  2. ART-experienced, no interruptions.
  3. ART-experienced, 1+ interruptions (based on self-report).
  
- **Analysis:**  
Log-binomial models assessed associations between ART history and:
  - a) Viral non-suppression (VL > 50 copies/mL) at delivery.
  - b) Engagement in care at 12 weeks postpartum (no ART for  $\geq 30$  days).

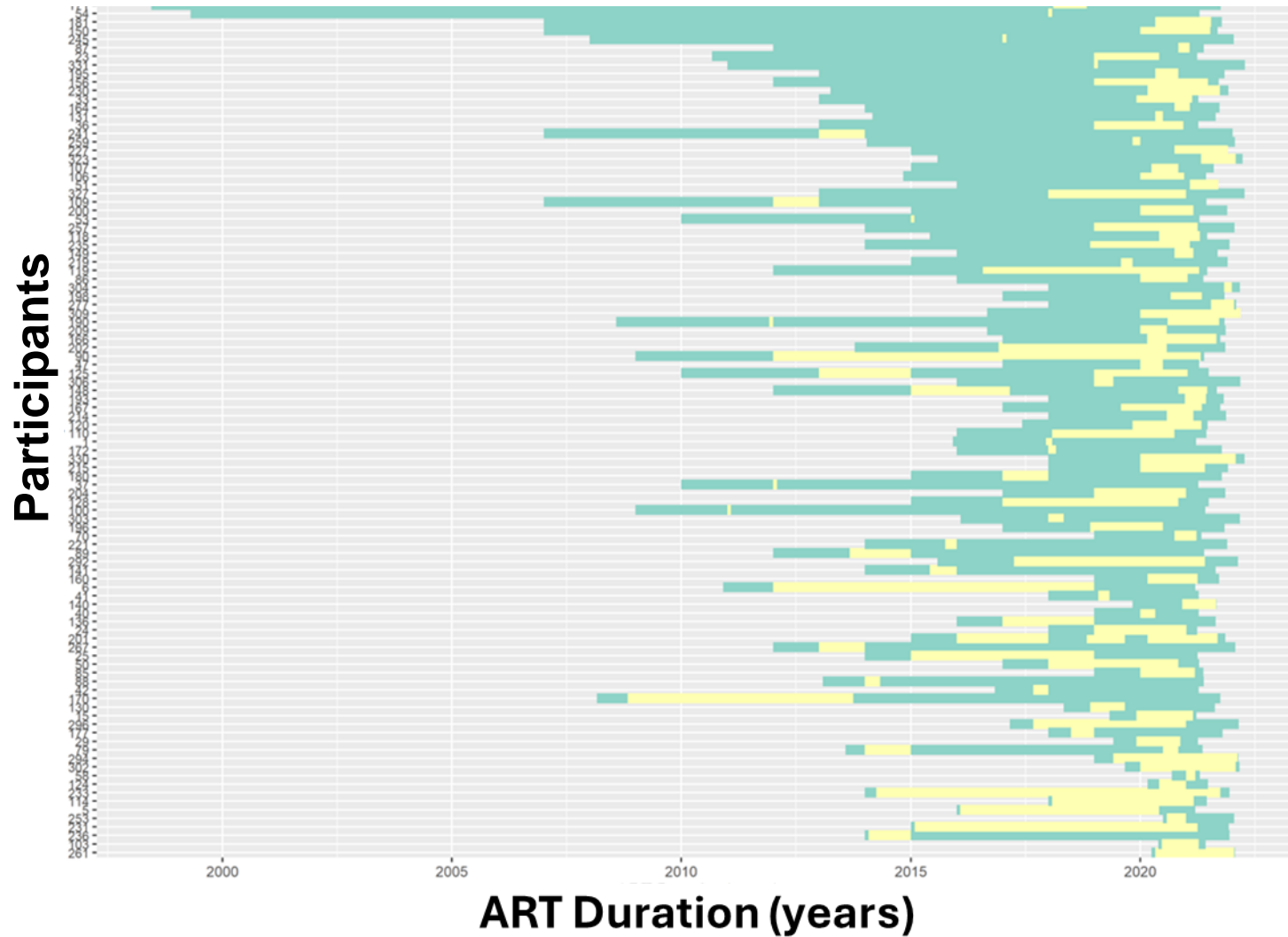


# Cohort Description

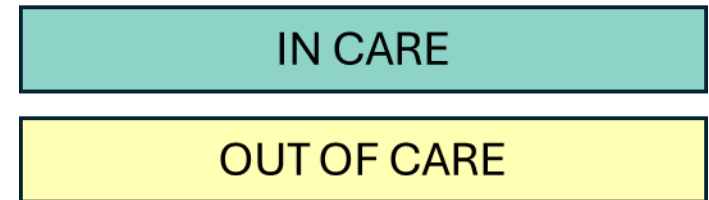
321 women were included in the analysis

- median age 32 years; 61% primigravid
- 15% newly starting ART in this pregnancy
- 52% ART-experienced with no prior ART interruption
- 33% ART-experienced with at least one interruption

# ART interruptions



*Figure 1: ART interruption timeline plot among WLHIV who reported interrupting ART before this pregnancy (n=105)*



# Reasons for stopping (A) and restarting (B) ART

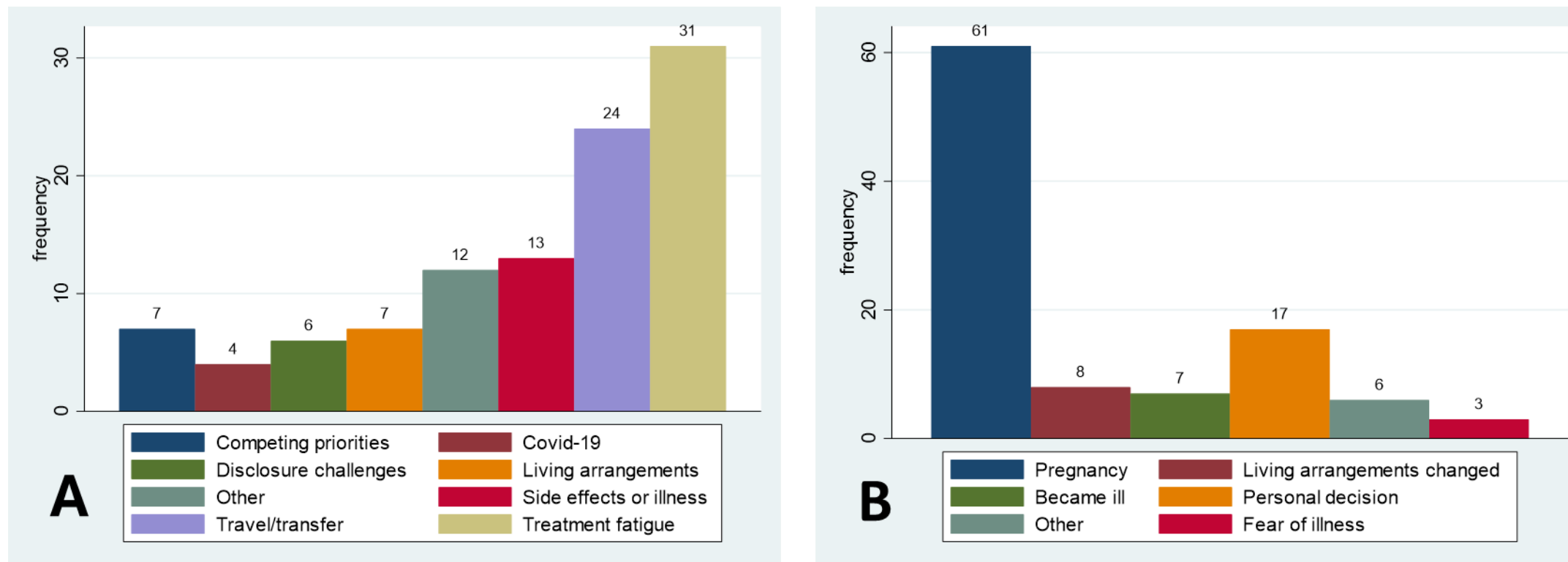


Figure 2: A) reasons for first stopping ART (n=104), B) reason for restarting ART (n=102)

# ART history, viremia at delivery and disengagement postpartum

- 16% of women had a VL >50 copies/mL at delivery.
- 19% of women disengaged from care at 12 weeks postpartum.
- **Table 1: Viral load >50 copies/ml at delivery (n=298), adjusted for age:**

Exposure	aRR	95% CI	P value
ART-exp wo/int	ref	ref	ref
Newly starting ART	1.78	0.91-3.79	0.048
ART-exp w/int	2.39	1.39-4.35	0.001

- **Table 2: Disengaged from care at 12 weeks postpartum (n=309), adjusted for age and rel. status**

Exposure	aRR	95% CI	P value
New ART	ref	ref	ref
ART-exp w/int	6.20	2.05-18.77	0.001
ART-exp wo/int	3.10	0.99-9.71	0.053



# Discussion and Conclusion

- **Key Findings:**

- Many WLHIV entering antenatal care have prior ART experience, with frequent treatment interruptions.
- Those with a history of interruptions face higher risks of repeated interruptions and viral suppression issues.
- Pregnancy is a key opportunity to overcome barriers and enhance engagement in HIV care.
- Further research is needed to understand these patterns and develop interventions for sustained postpartum care.

- **Limitations:**

- Recall bias and potential misclassification.

# Acknowledgements

- Acknowledgments: The authors thank all participating mothers, the Gugulethu research team and the Western Cape DoH for supporting the REMInD study.
- Co-authors: Tamsin Kate Phillips and Phepo Mogoba
- This research was funded by CIPHER/IAS. TKP is also supported by the FIC and NIMH through K43TW011943. The content is solely the responsibility of the authors and does not necessarily represent the official views of the NIH or other funding agencies.

