

Aligning HIV treatment and hypertension clinic visits and dispensing as a first step toward service delivery integration in SA

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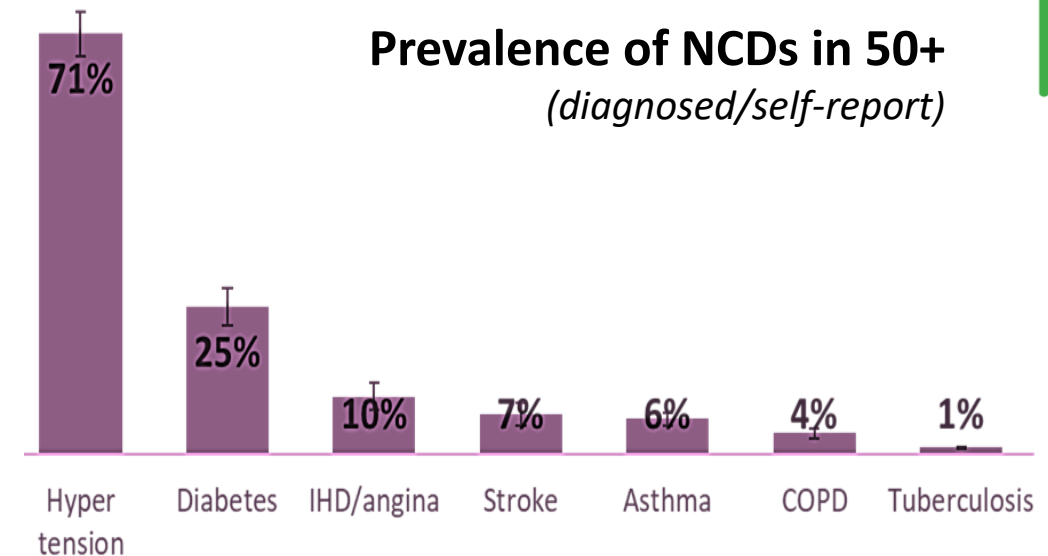
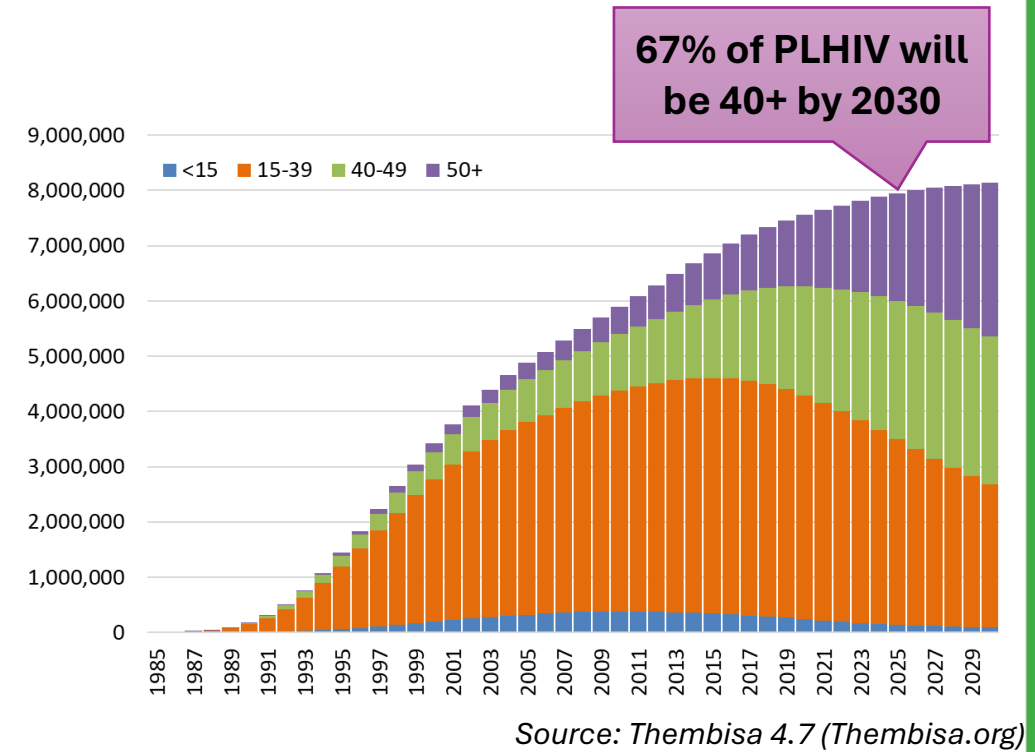
HE²RO, South Africa

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The authors declare no competing interests

Background

- South Africa has 7.8 million people living with HIV, and 5.5 million on ART.
- Over 15% of adults on ART have been diagnosed with hypertension (HTN) and this comorbidity burden will increase with improved long term HIV control and aging PLHIV population.
- Global and national guidelines emphasize integrating HIV and chronic disease management.
- To assess alignment between ART and HTN medication during facility based visits and dispensing intervals as an indicator of integration progress.



DSD for ART clients in South Africa

SA ART clients eligible for low-intensity differentiated service delivery (DSD) models if:

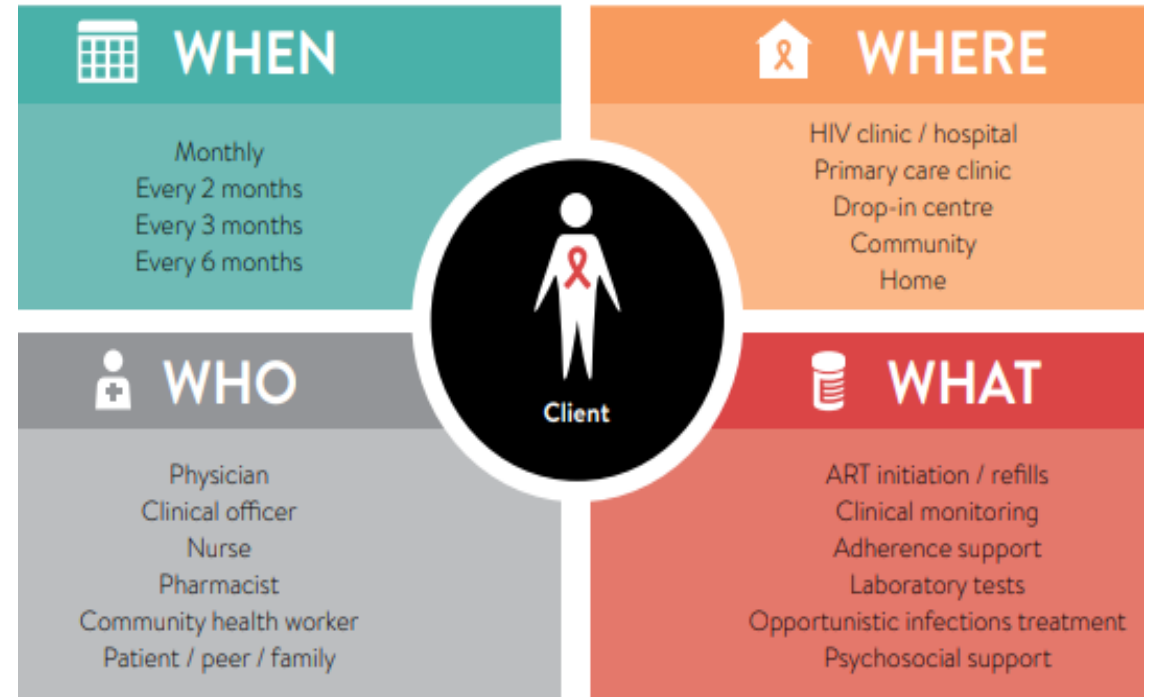
- Documented viral load suppression (<50 copies/mL)
- Sufficient experience on treatment (min 6 months)

Three main DSD models:

- Facility-based medication pickup points (Fac-PuP)
- Community-based/external medication pickup points (Ex-PuP)
- Adherence clubs (less common)

Clients remain in conventional care if:

- Not eligible for DSD
- Do not wish to enroll
- Not offered enrollment due to facility/provider limitations



- DSD models include medication provision for HIV, HTN and other chronic conditions.
- 2-3 months dispensing and 6 monthly clinic

Methods



Study design

- Cross-sectional client survey (Sep 2022-Apr 2023)
- Linked to paper and electronic medical record review (*12-month observation period from the most recent visit*)



Study Population

- Adult ART clients (>18 years)
- ≥ 6 months of experience on ART
- ≥ 1 medication collection visit under the model of care



Location

- **18 primary clinics** in 3 provinces in South Africa (*Gauteng, Mpumalanga and KwaZulu Natal*)



Data Collection

Clinic and off-site medication collection visits from:

- Paper patient files
- Central Chronic Medicines Dispensing Distribution (CCMDD) paper scripts and electronic SyNCH records

Study Objectives and Outcome definitions

Objective 1



Proportion of aligned clinic visits

- Analysed facility-based medication dispensing visits
- Considered HTN diagnosis date
- Counted total visits vs. Aligned ART/HTN visits

Objective 2



Aligned medication dispensing duration

- Assess visits with both ART and HTN meds dispensed
- Use documented dispensing information

Objective 3

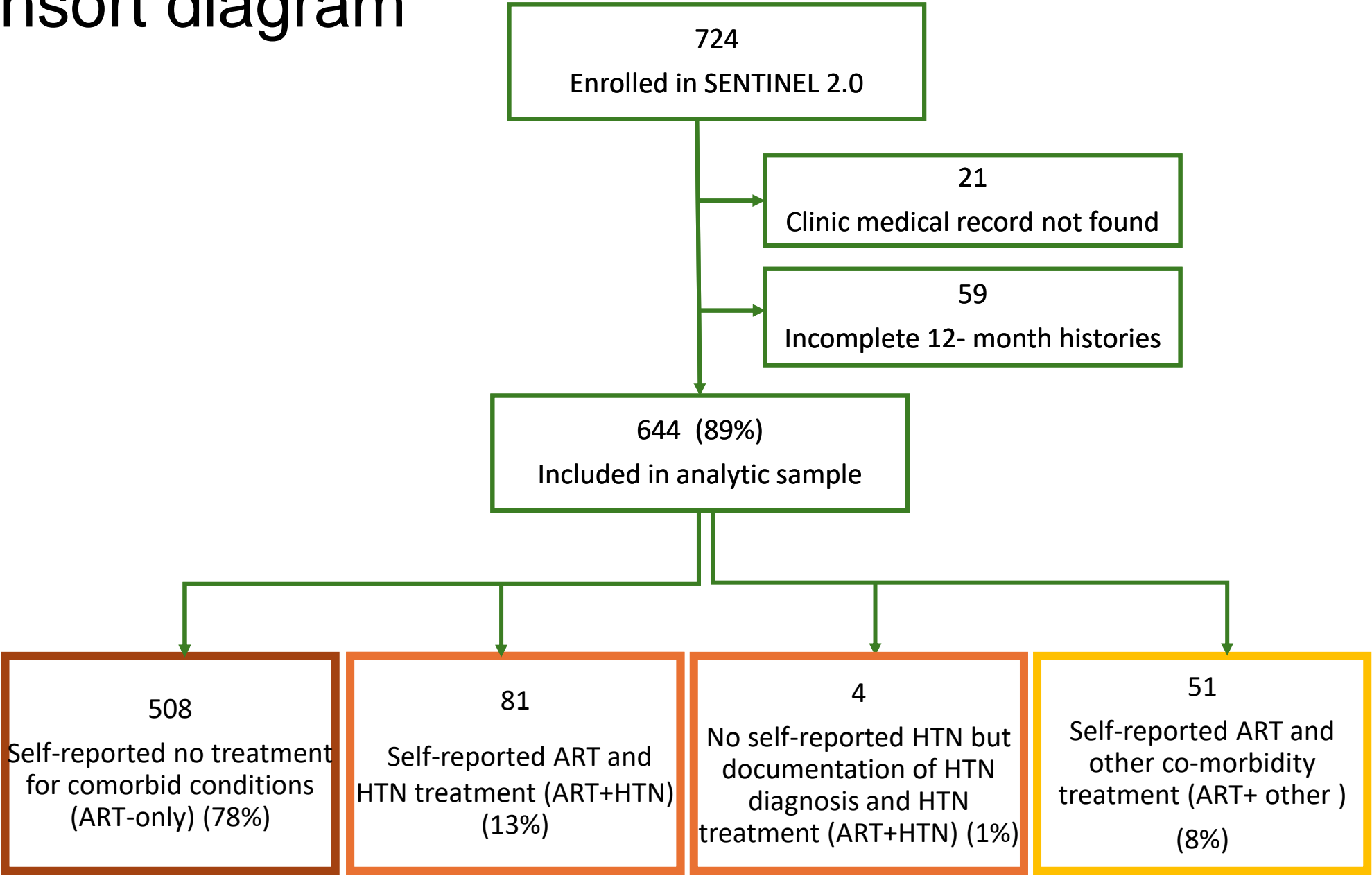


Factors affecting healthcare interaction

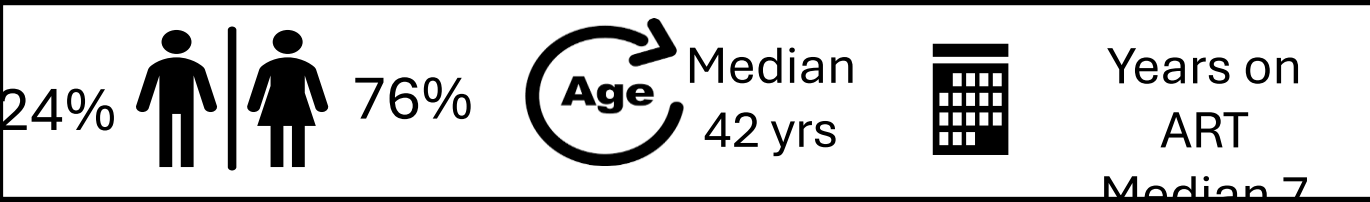
- Include all facility clinical visits and collections, external medication collections
- Create binary variable based on median visits
- Use binomial regression for analysis



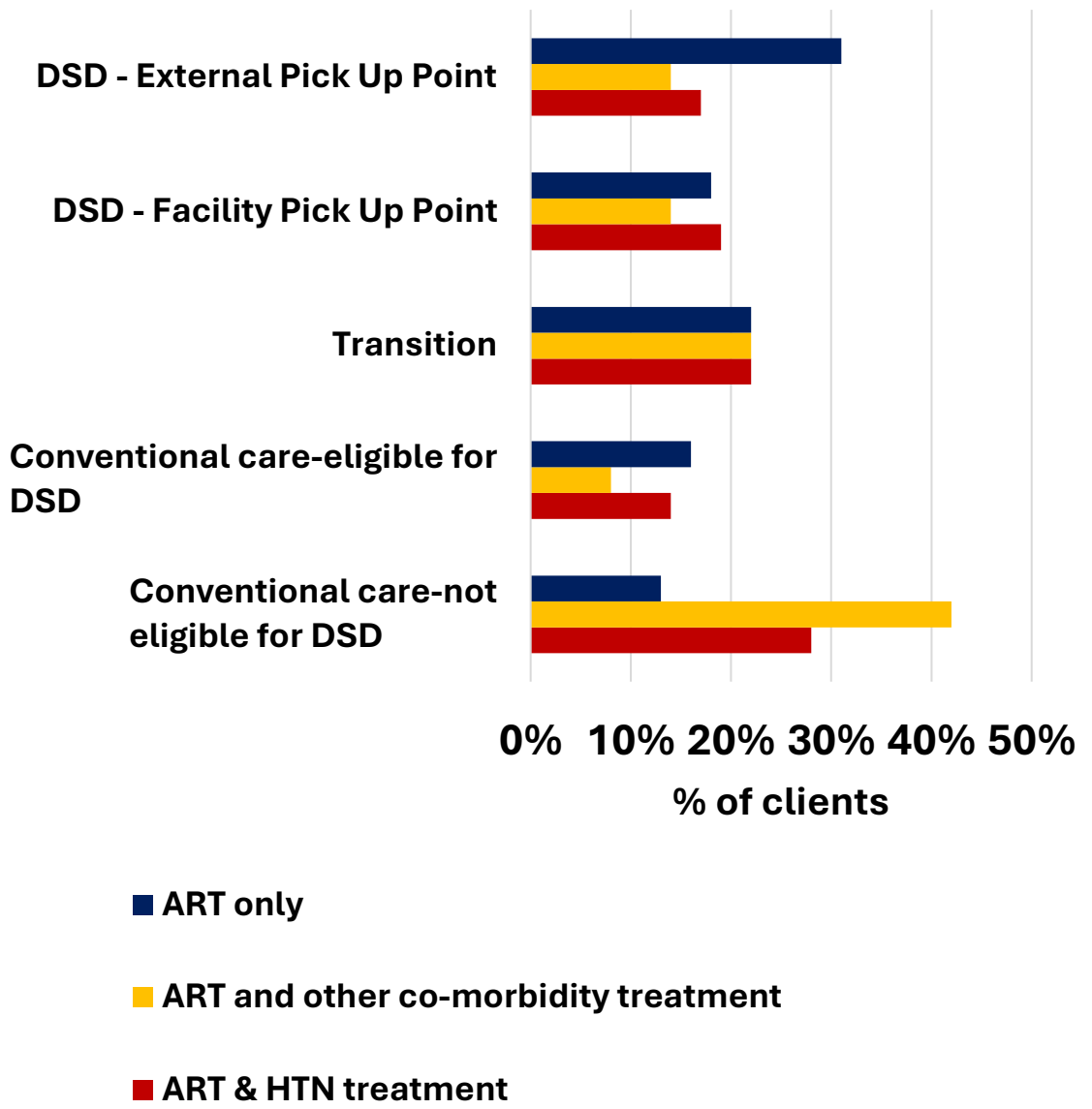
Consort diagram



Client characteristics



- HTN was most common comorbidity, with 81 clients (13% of the overall cohort) self-reporting HTN treatment.
 - Of these, 16 also reported receiving treatment for another condition in addition to HIV and HTN**
- 94% reported always combining ART and HTN visits
- 95% reported always picking up ART and HTN medications together

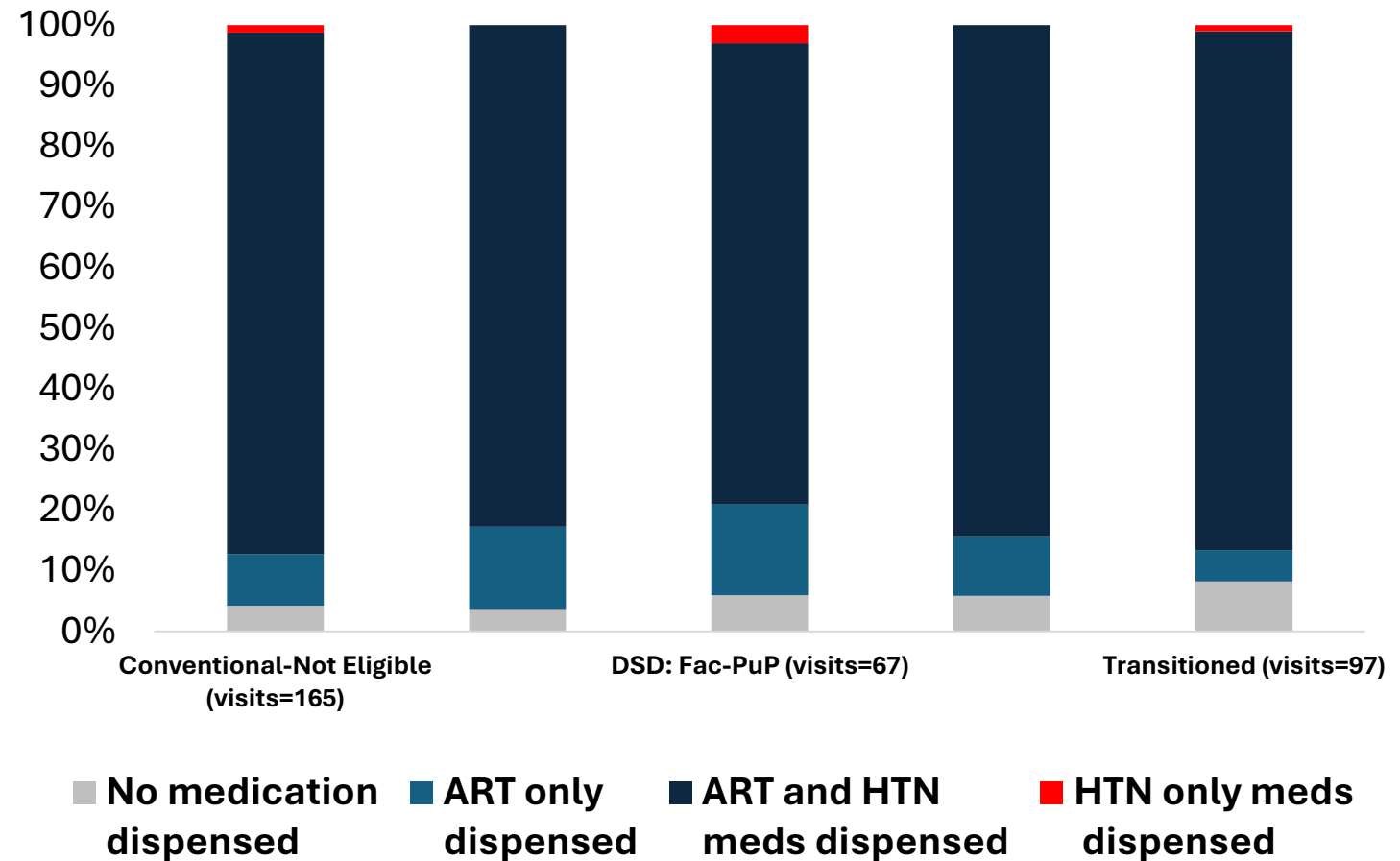


83% of facility visits dispensed both ART and HTN during a single visit

- Across all model of care categories, the majority of facility visits for clients receiving both ART and HTN medication were aligned

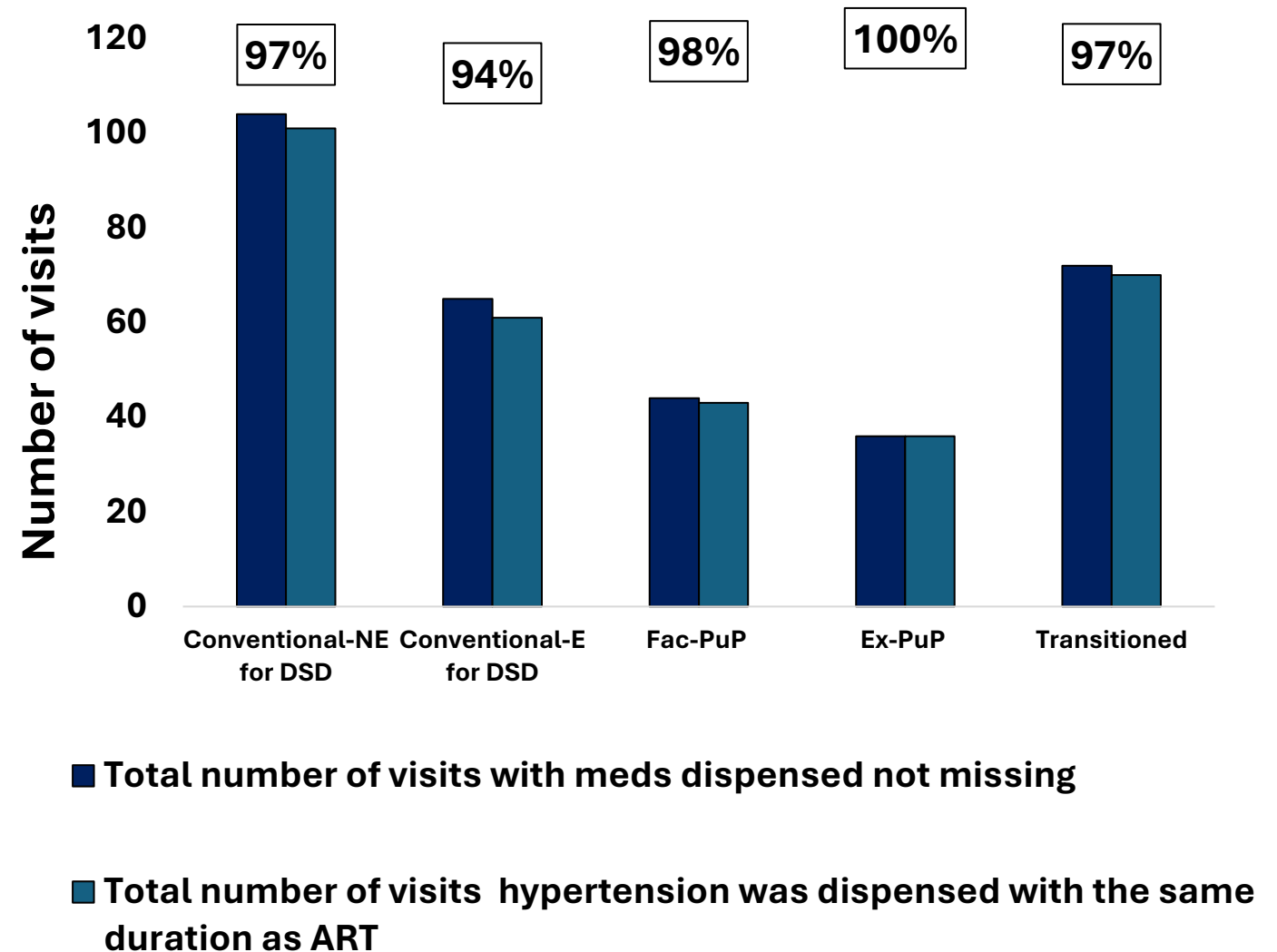
86% for conventional not eligible
82% for conventional- eligible
70% for Fac-PuP
84% for Ex-PuP
86% for transitioned

ART and Hypertension medication dispensing visits
N=85 individuals; N=477 visits



High alignment of medication dispensing duration

- Duration of dispensing for ART & HTN medications was aligned in 97% client visits across models of care
- Challenges of HTN medication dispensed without indication of months dispensed



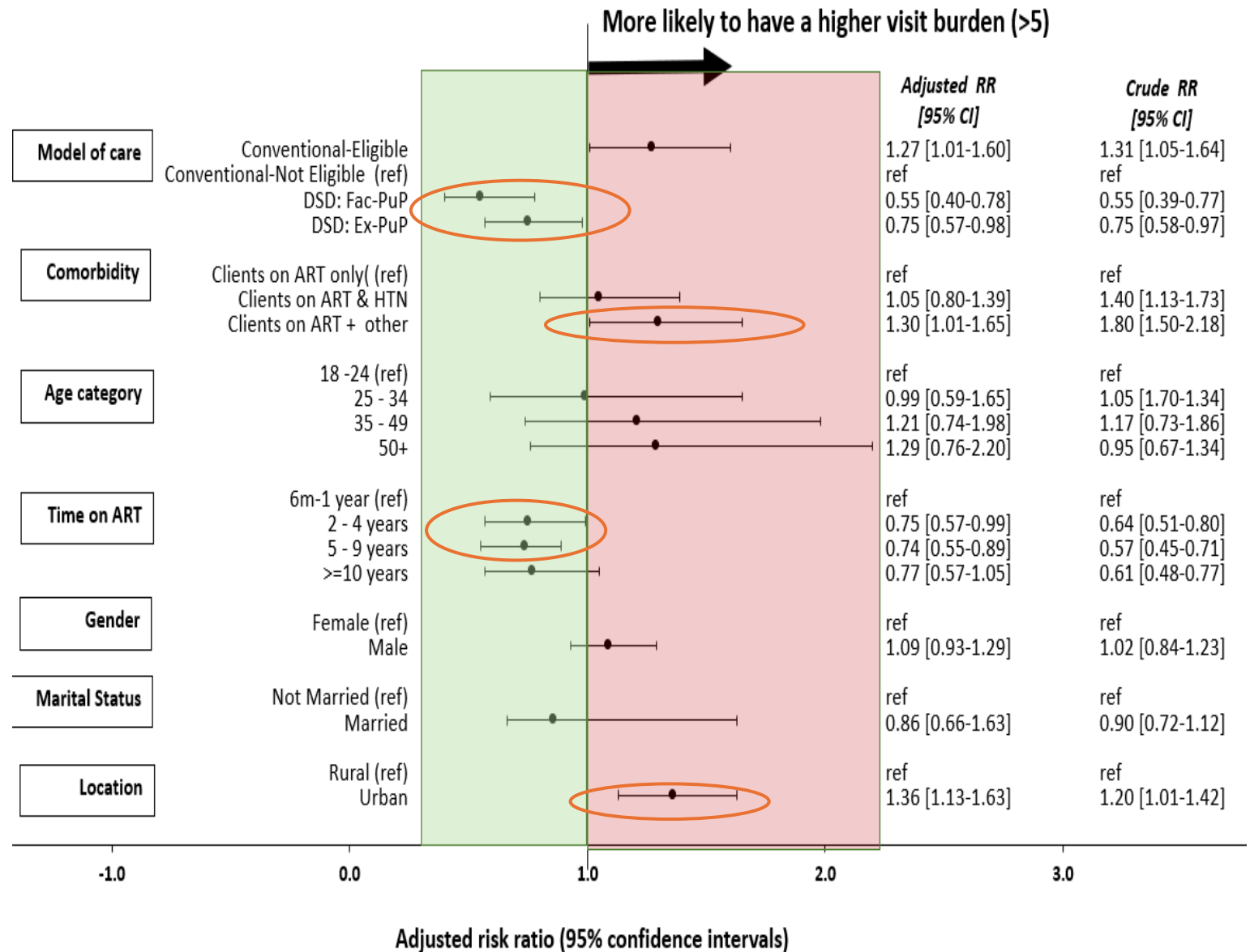
No significant difference in visit burden between ART-only and ART & HTN Groups

Lower visit burden:

- Facility and External pick up point DSD models
- Clients with more years on ART

Higher visit burden:

- Clients on ART with other comorbidities
- Clients in urban areas



Conclusions

- Alignment of treatment visits and dispensing for stable patients with co-morbidities is achievable
- Reducing visit burden is crucial for preventing disengagement from care.
- South Africa's high level of visit alignment and dispensing duration demonstrates significant progress towards integrated service delivery.

Recommendations

- Invest in robust medical record systems that can accurately track and manage information for multiple chronic conditions simultaneously
- Support the early enrolment of eligible clients into DSD models to reduce visit burden.
- Conduct further research into the complete integration of service delivery components (screening, diagnosis, treatment, and monitoring) for PLHIV and HTN

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