



Do differentiated service delivery models work for second-line therapy? Outcomes for South African second line ART clients enrolled in DSD models compared to conventional care

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Background

- South Africa's National Adherence Guidelines allow for clients receiving second-line ART to enrol in differentiated service delivery (DSD) models for HIV treatment.
- The DSD models available are:
 - Adherence club
 - External pick-up point, and
 - Facility pick-up point models
- We analyzed routine data to determine whether retention in care and viral suppression are similar for clients receiving second-line who are enrolled in DSD models compared to those receiving second-line who were eligible for, but not enrolled in, DSD models.



Methods

- Retrospective cohort of all second-line clients who were alive and in care on 01 February 2019
- Defined using electronic medical record data (TIER.Net)
- Included 18 facilities from 3 districts in South Africa
 - Ehlanzeni in Mpumalanga Province
 - Ekurhuleni and West Rand in Gauteng Province
- Reported cohort characteristics
- Estimated unadjusted risk ratio for retention and viral suppression





Eligibility and outcome definitions

- **Compared:** Clients who were eligible and enrolled in a DSD model to those who were eligible but NOT enrolled in a DSD model
 - Clients were considered eligible for DSD if they met guideline eligibility criteria at the cohort start date
 - Adult ≥ 18 years
 - On the same treatment regimen for ≥ 12 months
 - Most recent 2 consecutive viral loads suppressed
 - Clients were considered enrolled in DSD if their record contained an indicator of DSD enrollment at cohort start date in TIER.Net
- Outcomes were defined based upon visit records in TIER.Net
 - 12-month retention based upon visit data
 - Viral suppression (<400 copies/ml³) at 3-18 months after cohort start.



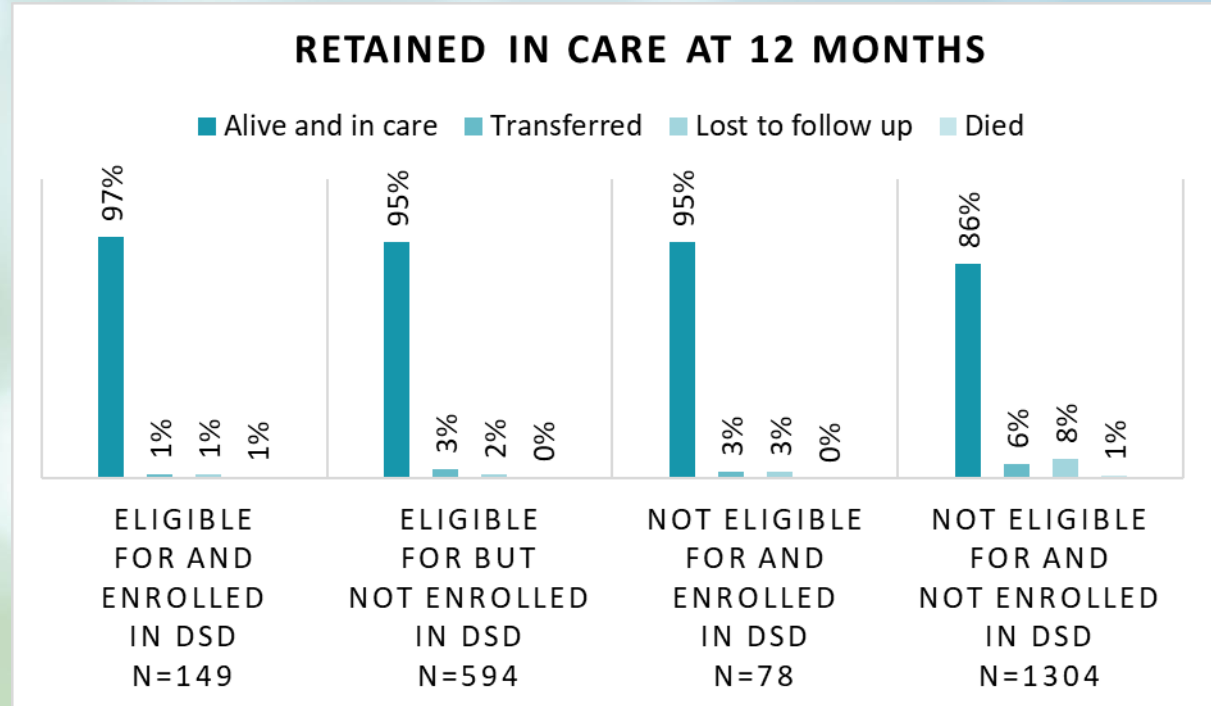
Enrollment and patient characteristics

- 2,125 clients were receiving second-line therapy at the cohort start date
- 64% were female, median age was 34 years, and 82% had initiated ART ≥ 5 years before cohort start date.
- 149 (7%) were both eligible for and enrolled in DSD models
- 594 (28%) were eligible for but not enrolled in DSD models



Retention outcomes

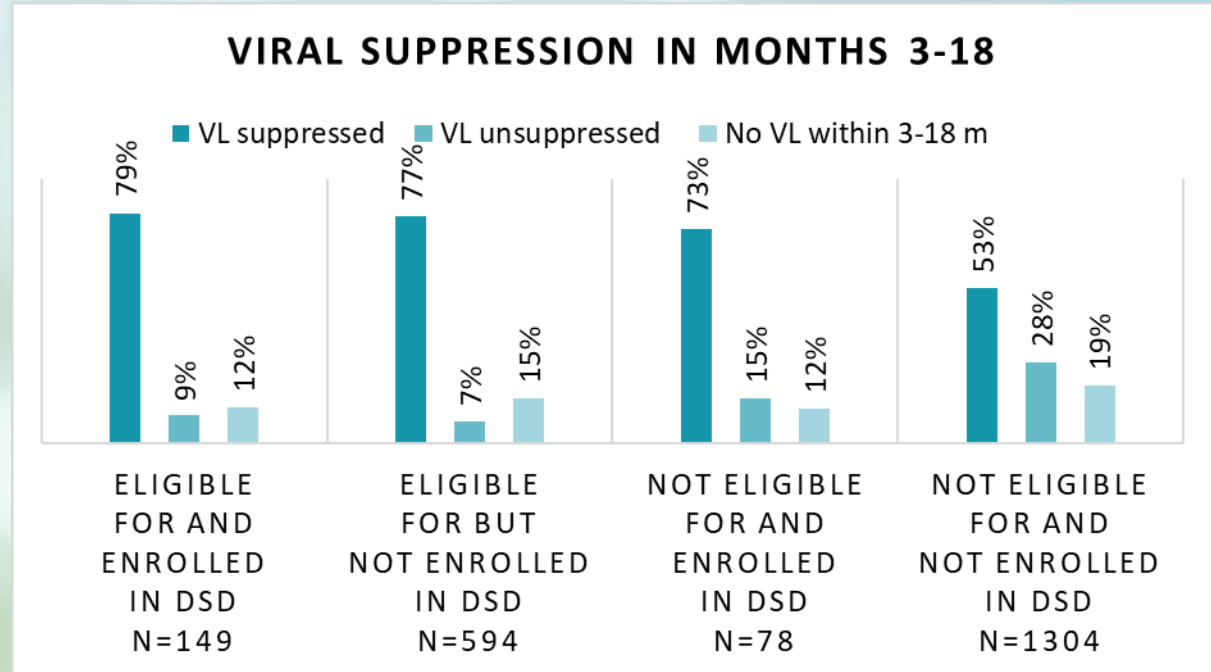
- 12-month retention was 97% for those eligible for and enrolled in DSD and 95% for those eligible for but not enrolled in DSD
- Unadjusted retention risk ratio [95% CI] 1.02 [0.99-1.06])





Viral suppression outcomes

- Viral suppression in months 3-18 was 79% for those eligible for and enrolled in DSD and 77% for those eligible for but not enrolled in DSD
- Unadjusted risk ratio [95% CI] 1.01 [0.92-1.11])





Conclusions

- For clients on second-line ART in South Africa, retention and viral suppression were similar for those enrolled in DSD models compared to those eligible but not enrolled.
- Limitations:
 - TIER.Net data on DSD model enrolment incomplete; accuracy uncertain
 - Data is from 18 sites across three districts in South Africa
 - Selection bias is very likely—providers or patients’ expectations about future adherence almost certainly influenced early entry into DSD models.
- Despite the limitations, DSD models can work for some eligible second-line patients suggesting that countries not currently offering this group DSD model enrolment should consider doing so.



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