

What are the 12-month retention and viral suppression outcomes for South African ART clients enrolled in DSD models compared to conventional care?

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For clients eligible for DSD model enrolment, those enrolled show a minor improvement in retention in care and equivalent viral suppression over one year of follow-up compared to conventional care.

BACKGROUND

- South Africa has implemented several differentiated service delivery (DSD) models for HIV treatment.
- Few comparisons of treatment outcomes between DSD models and conventional care are available.
- We analyzed routine data to determine one-year rates of retention and viral suppression of clients enrolled in DSD models.

METHODS

- Utilized individual data from South Africa's electronic patient record (TIER.Net) for 18 clinics across 3 districts in 2 provinces.
- Followed clients alive and in care on 01/02/2019 and estimated two outcomes:
 - Retained at 12 months after follow up start date
 - Virally suppressed (<400 copies/ml) ≥3-18 months after follow up start date
- Classified clients as eligible for DSD if they were ≥18 years old, on ART ≥12 months, two suppressed viral load (VL) measurements, per national guidelines in 2019.

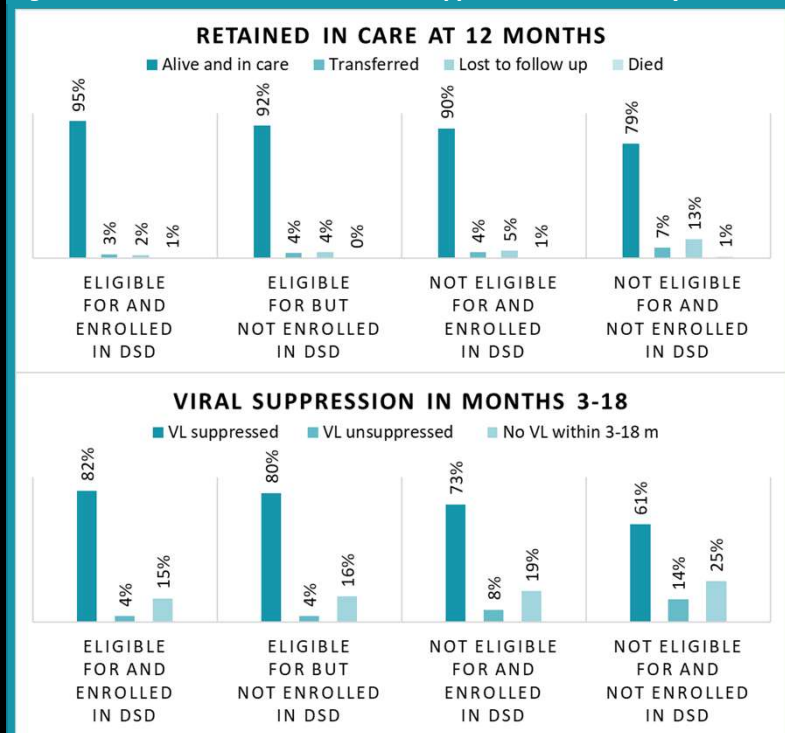
Table 1. Characteristics of study participants

Characteristic	Eligible for and enrolled in DSD		Eligible for but not enrolled in DSD		Not eligible for and enrolled in DSD		Not eligible for and not enrolled in DSD		Total N=51,987
	n	%	n	%	n	%	n	%	
Age									
15-19	10	1%	79	1%	8	1%	601	3%	698
20-24	118	1%	546	3%	33	3%	1,230	6%	1,927
25-49	6,753	75%	16,171	75%	989	75%	15,096	75%	39,009
50+	2,098	23%	4,818	22%	288	22%	3,149	16%	10,353
Gender									
Female	6,419	71%	15,149	70%	935	71%	13,134	65%	35,637
Male	2,560	29%	6,465	30%	383	29%	6,942	35%	16,350
Time on ART at cohort start									
0-6 months	0	0%	0	0%	1	1%	923	5%	924
6-12 months	0	0%	0	0%	1	1%	821	4%	822
1-2 years	17	1%	267	1%	16	1%	2,879	14%	3,179
2-5 years	2,057	23%	7,804	36%	386	30%	8,563	43%	18,810
5 years +	6,905	77%	13,543	63%	892	69%	6,857	34%	28,197
Last viral load result									
<400 c/mL	8,979	100%	21,614	100%	1,022	78%	10,337	51%	41,954
400-1000 c/mL	0	0%	0	0%	122	9%	1,189	6%	1,309
1000+ c/mL	0	0%	0	0%	81	6%	2,844	14%	2,925
No VL on record	0	0%	0	0%	93	7%	5,706	28%	5,799

RESULTS

- Of 51,987 clients alive in care at the cohort start date, 69% were female, the median age was 34 years and 54% had initiated ART ≥5 years before cohort start date (Table 1).
- Among 8,979 clients **eligible for and enrolled in DSD** and 21,614 ART clients **eligible but not enrolled in DSD**, **retention was 95% and 92%**, respectively (risk ratio [95% confidence interval] 1.03[1.03-1.04]) (Figure 1).
- **Viral suppression for those with a VL measure was 96% for both groups** (n=7330/7663 for DSD eligible and enrolled and n=17,332/18,146 for eligible but not enrolled).
- Of the 30,593 clients eligible for a DSD model, only n=8,979 (29%) were enrolled.

Figure 1. 12-month retention and viral suppression outcomes by DSD



CONCLUSIONS

- DSD model enrolment conferred a minor benefit to retention and equivalent viral suppression over one year of follow-up compared to conventional care for clients eligible for DSD enrolment.