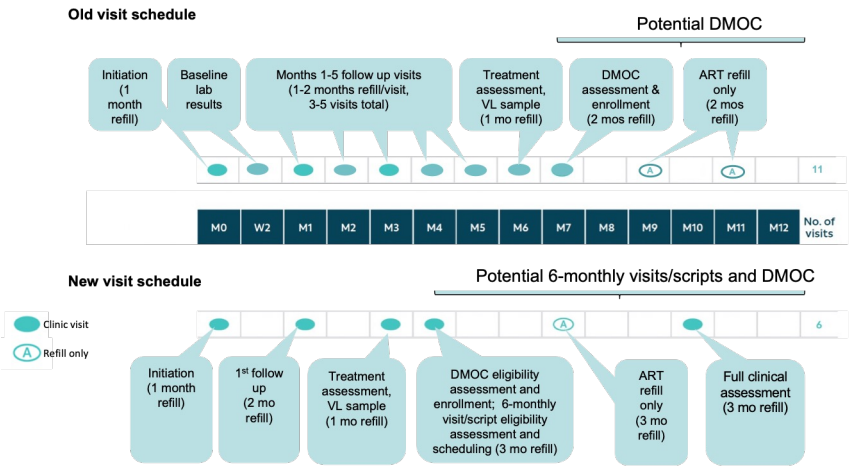
Changes in timing of viral load tests, visit intervals, and prescription duration following adoption of South Africa's 2023 HIV Treatment Guidelines

RETAIN6

BACKGROUND

- South Africa's revised 2023 HIV treatment guidelines introduced several important changes aimed at improving early ART outcomes while reducing the care burden on both facilities and clients.
- Key revisions affecting the early treatment period (the first six months in care) included:
  - Moving the first viral load (VL) test from 6 months to 3 months after ART initiation (early viral load test)
  - Allowing clients who are virally suppressed at 3 months to be enrolled in a less-intensive differentiated model of care (DMOC), scheduled for 6-monthly clinic visits, and receive 6-month scripts at 4 months after initiation, instead of at 7 months.
  - Reducing the recommended number of clinic visits in the first year by nearly half, from 11 to 6 (Figure 1).
- Using routinely collected medical record data, we assess uptake of these early-treatment modifications across three provinces.

Figure 1. Comparison of old and new treatment schedules



Sources: Adapted from IAS 2023 "First year visit schedule" dashboard and South Africa National Adherence Guideline SOPs, 2020 and 2023

METHODS

- We analysed TIER.NET data from 18 public-sector facilities: 6 in King Cetshwayo District (KwaZulu-Natal Prov), 6 in Ehlanzeni District (Mpumalanga Prov), and 6 in West Rand District (Gauteng Prov).
- Included non-pregnant adults (≥18 years) initiating or re-initiating ART between January 2018 and June 2025.
- For those retained ≥ 6 months, we estimated:
  - Average number of clinic visits/year before and after guideline implementation (2018-2024).
  - Proportions of ART initiators eligible under guideline criteria who (2022-2025):
    i. Received early VL testing (2-4 months after treatment initiation)
    ii. Were virally suppressed following early VL testing
    iii. Were offered 6-monthly clinic visits and 6-months scripts at 4 months after treatment initiation, with 3-month refills.
- Scheduling of 6-monthly clinic visits/6-month scripts was used as a proxy for DMOC enrolment, as the DMOC enrolment field in TIER.Net was not well completed.
- Viral suppression was categorised as suppressed (≤50 copies/mL), low-grade viremia (50-1,000 copies/mL), or unsuppressed (≥1,000 copies/mL).

RESULTS

- Of 53,945 clients, 53% (N=28,476) remained continuously in care (no interruptions >28 days) during the first six months and formed the analytic cohort.
  - Of the rest, 7.5% cycled in and out of care at the site; 32.3% disengaged from care at the site; 6.7% transferred to another facility; and 0.8% died.
- Among the analytic sample, the median number of clinic visits per year during the first year on ART fell from 10 to 6 in Ehlanzeni District, 12 to 6 in King Cetshwayo District, and 9 to 7 in West Rand District (Table 1).
- Visit frequency began declining in 2020, potentially due to COVID-19 restrictions and 2020 ART guideline changes, then fell further in 2024 following new guideline implementation.

Table 1. Median (IQR) number of clinic visits in first year on ART, by district and year of initiation, 2018-2024

District	2018	2019	2020	2021	2022	2023	2024
Ehlanzeni	10 (8-12)	9 (7-11)	7 (6-9)	8 (6-9)	7 (6-9)	7 (6-8)	6 (5-7)
King Cetshwayo	12 (11-13)	11 (9-12)	8 (7-9)	8 (7-9)	8 (7-10)	7 (6-8)	6 (5-7)
West Rand	9 (8-11)	9 (7-10)	8 (6-9)	8 (7-9)	8 (7-9)	8 (7-9)	7 (6-9)

Figures 2-4: Proportion of ART clients with specified outcomes, 2022-2025

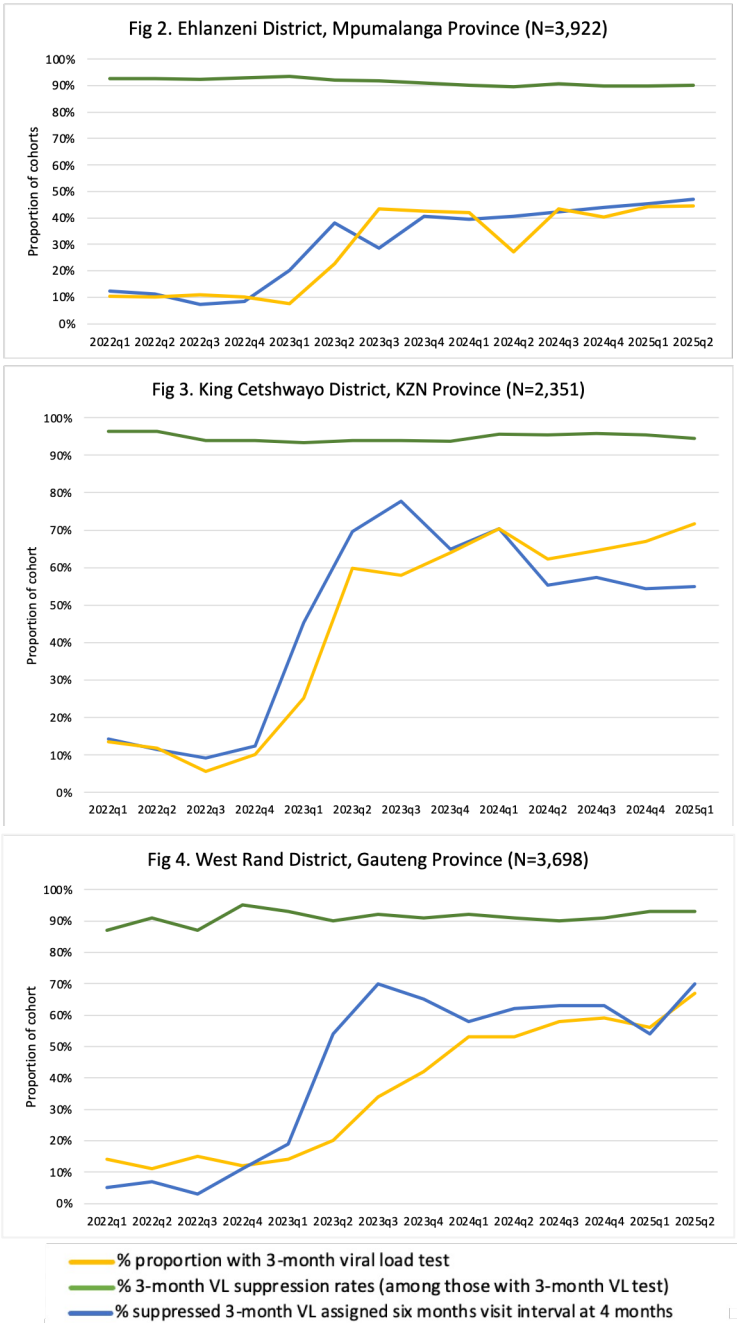
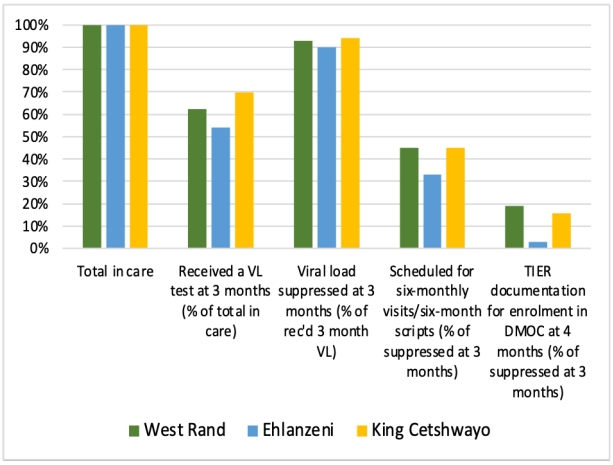


Figure 5: Early VL test and DMOC enrolment cascades



- After rollout of the 2023 South African ART guidelines, uptake of 3-month viral load (VL) testing (yellow line) increased markedly but unevenly across all districts (Figures 2-4). From 2022-2025, 3-month coverage increased from:
  - 10% to 45% in Mpumalanga
  - 14% to 72% in KwaZulu-Natal
  - 14% to 77% in Gauteng.
- Despite reduced visit frequency, 3-month viral suppression (green line) for those who did have tests at this timepoint was consistently high, exceeding 90% in most districts.
- Scheduling of 6-monthly clinic visits/6-month scripts for clients with suppressed viral loads at 3 months (blue line) varied by province:
  - 47% in Mpumalanga in mid 2025
  - 55% in KwaZulu-Natal in early 2025
  - 70% in Gauteng in mid 2025.
- As shown in Figure 5, substantially more clients were scheduled for 6 monthly clinic visits and received 6-month scripts at their visit 4 months after initiation than were documented as enrolled in DMOC models in TIER.Net, making the visit schedule/script duration a more reliable indicator of DMOC enrolment.

CONCLUSIONS

- Frequency of clinic visits in the first year on ART declined steadily between 2018 and 2024; the 2023 guidelines contributed to but were not solely responsible for this trend.
- The 2023 guideline rollout markedly increased 3-month VL testing and accelerated 6-monthly clinic visits/6-month scripting.
- Coverage gaps persisted, however, with many clients not receiving early viral load tests and 30-50% with suppressed viral loads not offered six-monthly visits or six-month scripts.
- Viral suppression at three months after treatment initiation was consistently high.
- Better capture of DMOC enrolment data is important for assessing guideline implementation and monitoring the impact of differentiated service delivery.

Cite as: Kachingwe E, Benade M, Scott N, Morgan A, Ntjikelane V, Sande L, Maskew M, Mutanda N, Wilkinson L, Manganye M, Malala L, Huber A, Rosen S. Changes in timing of viral load tests, visit intervals, and prescription duration following adoption of South Africa's 2023 HIV Treatment Guidelines. Retain6 policy brief, April 6, 2026.