The evidence and benefits of earlier first viral load

Lynne Wilkinson, IAS
The future of differentiated HIV services: Prioritize for impact
ICASA 2025

High losses to care in the 1st year on ART

Zheng A et al. *Journal of the International AIDS Society* 2025, **28**:e70026
http://onlinelibrary.wiley.com/doi/10.1002/jia2.70026/full | https://doi.org/10.1002/jia2.70026

REVIEW

Systematic review and meta-analysis of retention and disengagement after initiation on antiretroviral therapy in low- and middle-income countries after the introduction of Universal Test and Treat policies

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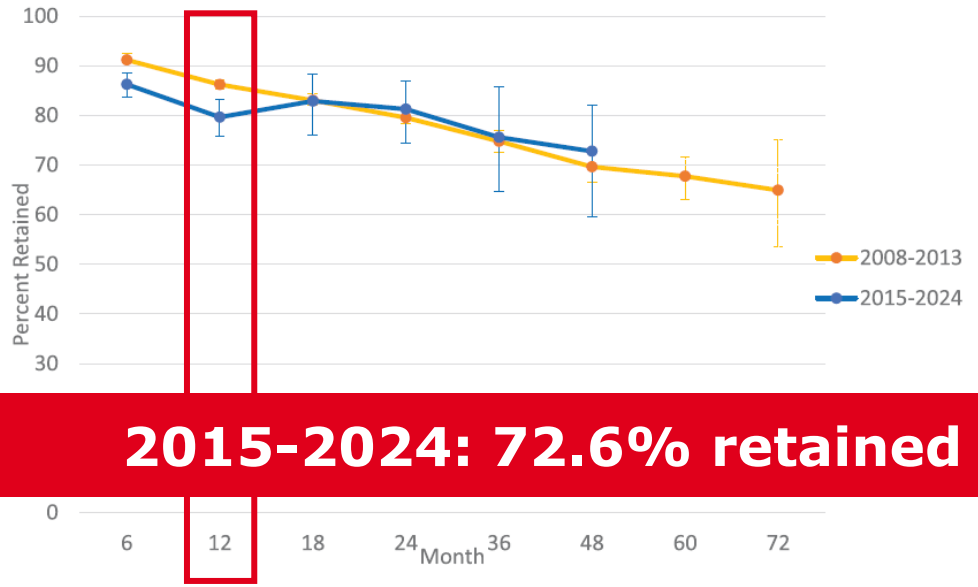
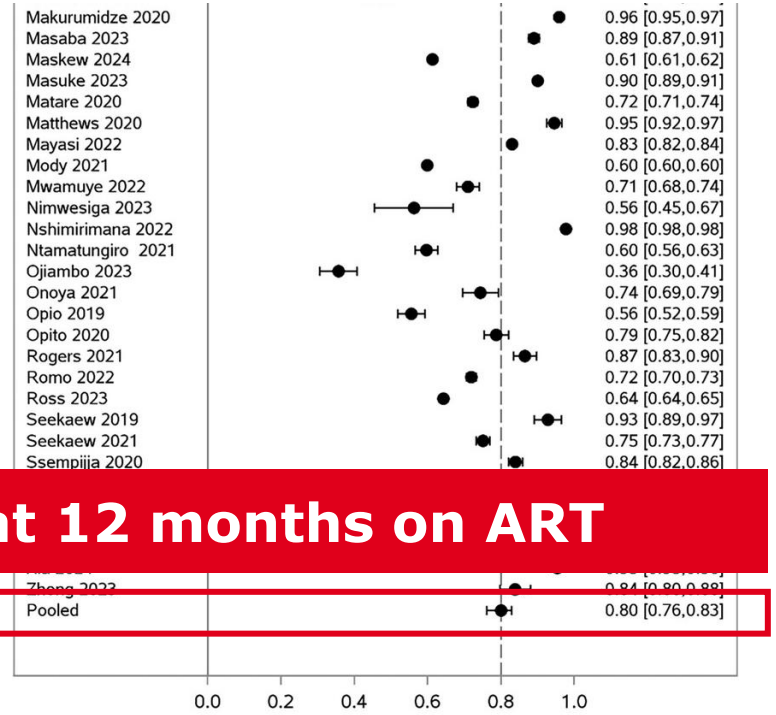
Percentage of participants retained at month:

Country	N	6	12
Africa[a]			
Botswana	1523		95.9
Burundi	29,829		97.7
Cameroon	423		
Central African Republic	5508		
Democratic Republic of Congo	11,281	89.0	83.0
Eswatini	769	40.1	47.1
Ethiopia	5026	76.9	73.5
Kenya	18,106	76.6	78.9
Malawi	2874	53.2	74.7
Mozambique	1247		75.1
Nigeria	94,562	63.9	59.8
Rwanda	1082	51.7	
Senegal	207		59.9
South Africa	100,676	72.1	67.4
Tanzania	9927		74.8
Uganda	34,516	68.5	63.9
Zambia	101,519	91.6	76.0
Zimbabwe	1523	76.7	60.1
Regional average	420,598	69.1	72.5





2015-2024: 72.6% retained at 12 months on ART

Zheng et al (2025) JIAS

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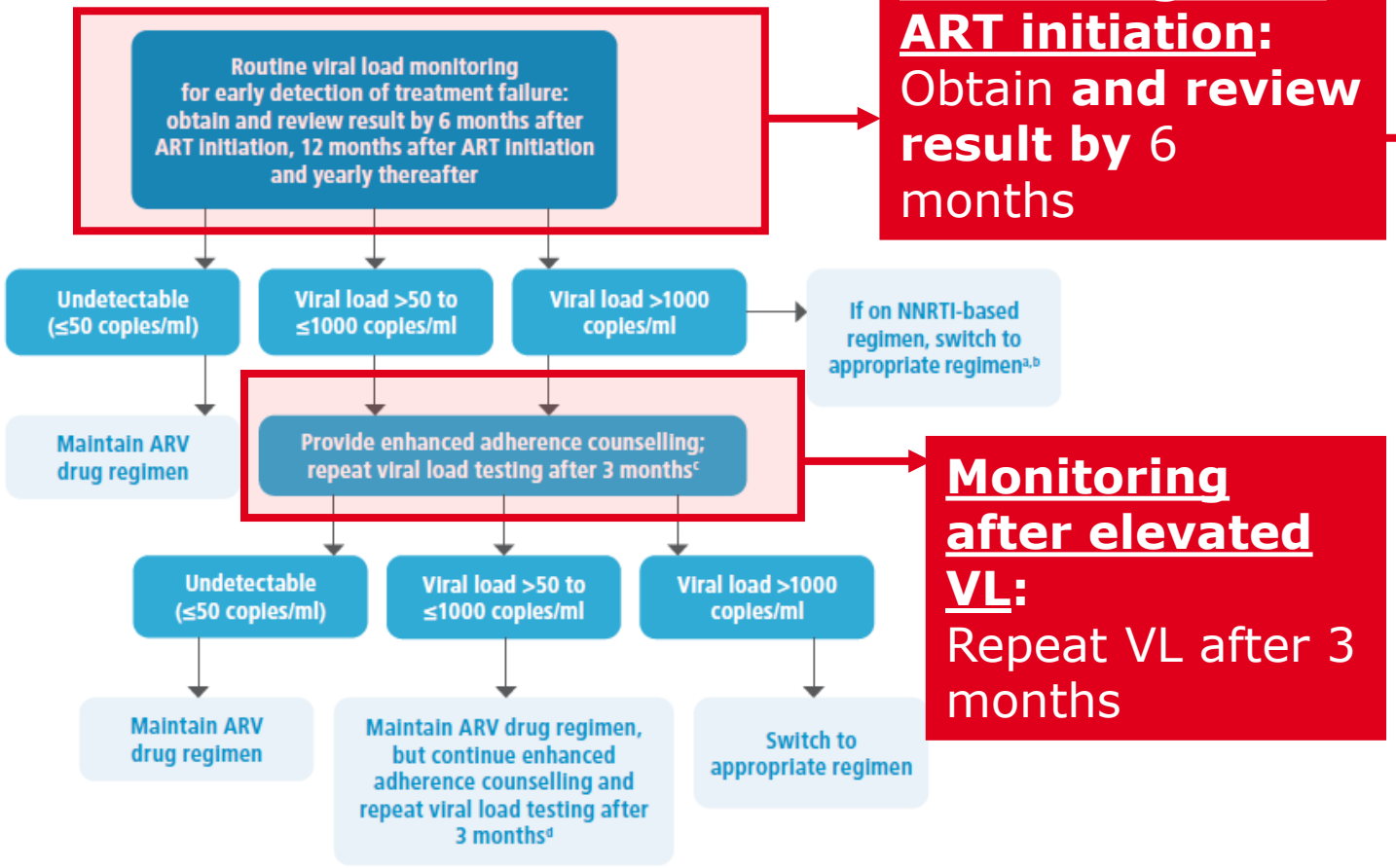
WHO 2021 guidance

Fig. 4.2 Treatment monitoring algorithm updated in 2021



<u>Monitoring after ART initiation</u>: Obtain **and review result by** 6 months

<u>Monitoring after elevated VL</u>: Repeat VL after 3 months

Box 7.1 Criteria for determining whether a person is established on ART

To support the implementation of these recommendations, WHO has developed criteria for determining whether a person has been successfully established on ART:

- receiving ART for at least six months;
- no current illness, which does not include well-controlled chronic health conditions;
- good understanding of lifelong adherence: adequate adherence counselling provided; and
- evidence of treatment success: at least one suppressed viral load result within the past six months (if viral load is not available: CD4 count >200 cells/mm³ (CD4 count >350 cells/mm³ for children 3-5 years old) or weight gain, absence of symptoms and concurrent infections).

→ Guidance supports enrolment into DSD models **6 months** after ART start

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DTG scale up since WHO guidance

CHAI estimates 95% DTG use among adults in

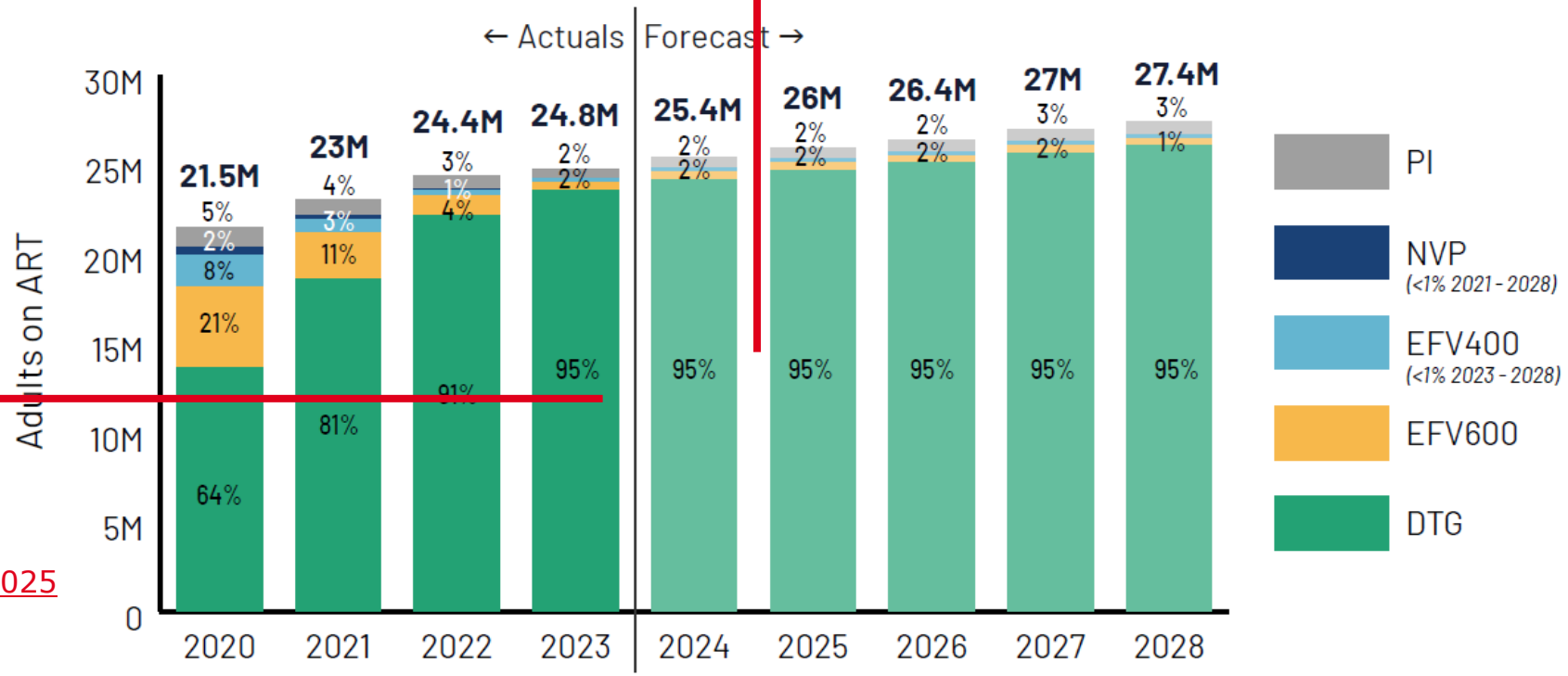
HIV MARKET IMPACT MEMO | April 2025

Adult Treatment

Commodity Supply Risks

95% of adults are on a DTG-based regimen in generic-accessible* LMICs, the majority on tenofovir/ lamivudine/dolutegravir (TDF/3TC/DTG) (TLD).

FIGURE 13: ADULT INSTI/NNRTI/PI USE IN GA LMICS[xxxix]



CHAI 2024 market access report and CHAI 2025 market impact report

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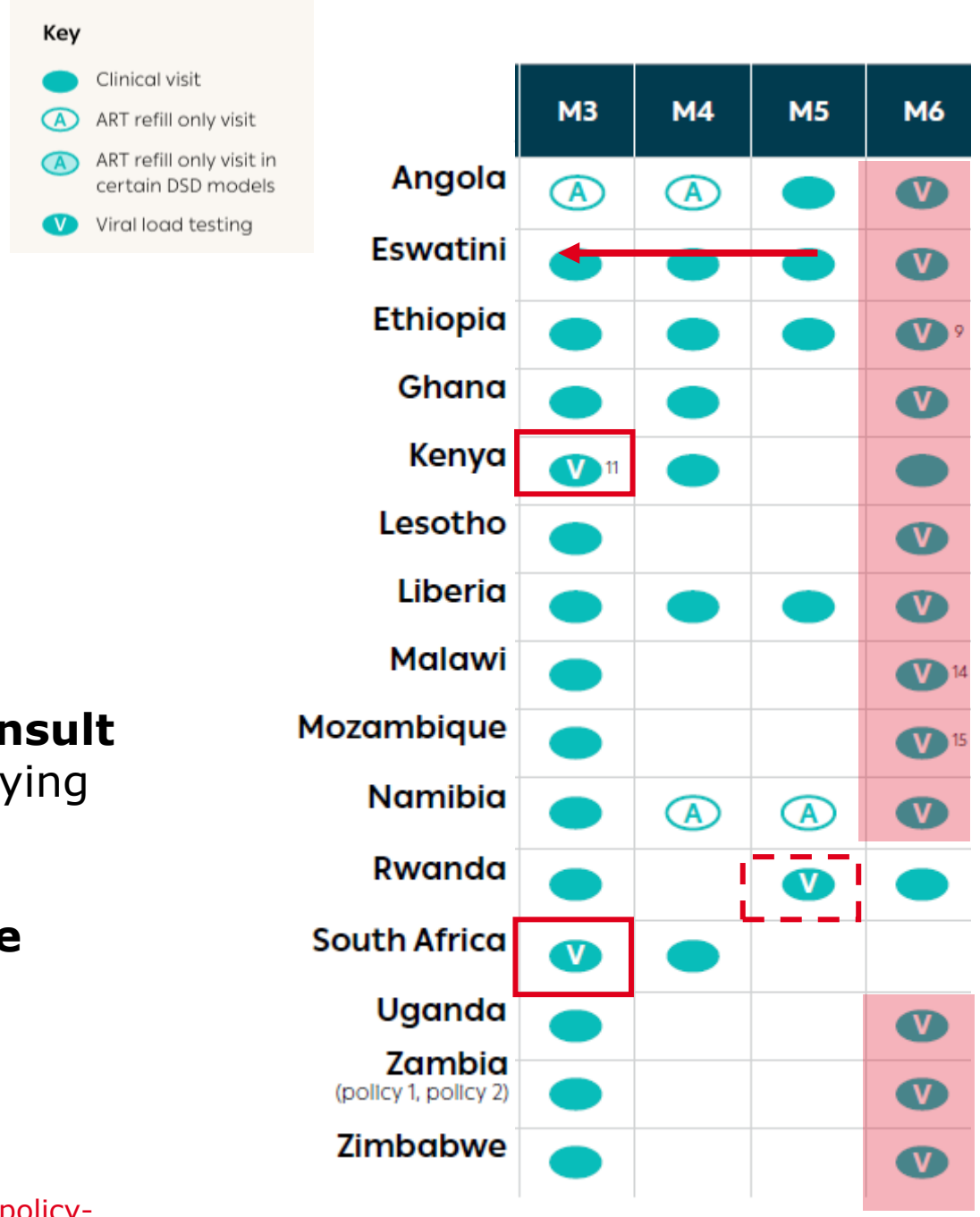
Current challenge: delayed first viral load results

- In most African countries, the **first VL is taken 6 months after starting ART**.
- **Results are typically available a the clinical consult thereafter i.e. 7–9 months post-initiation**, delaying the opportunity for early intervention.
- Without earlier adherence data, **programmes have limited ability to adapt services** during the first months on treatment.



https://www.differentiatedservicedelivery.org/news/check-out-these-new-dsd-policy-dashboards-on-the-first-year-visit-schedule-developed-by-ias-the-international-aids-society/

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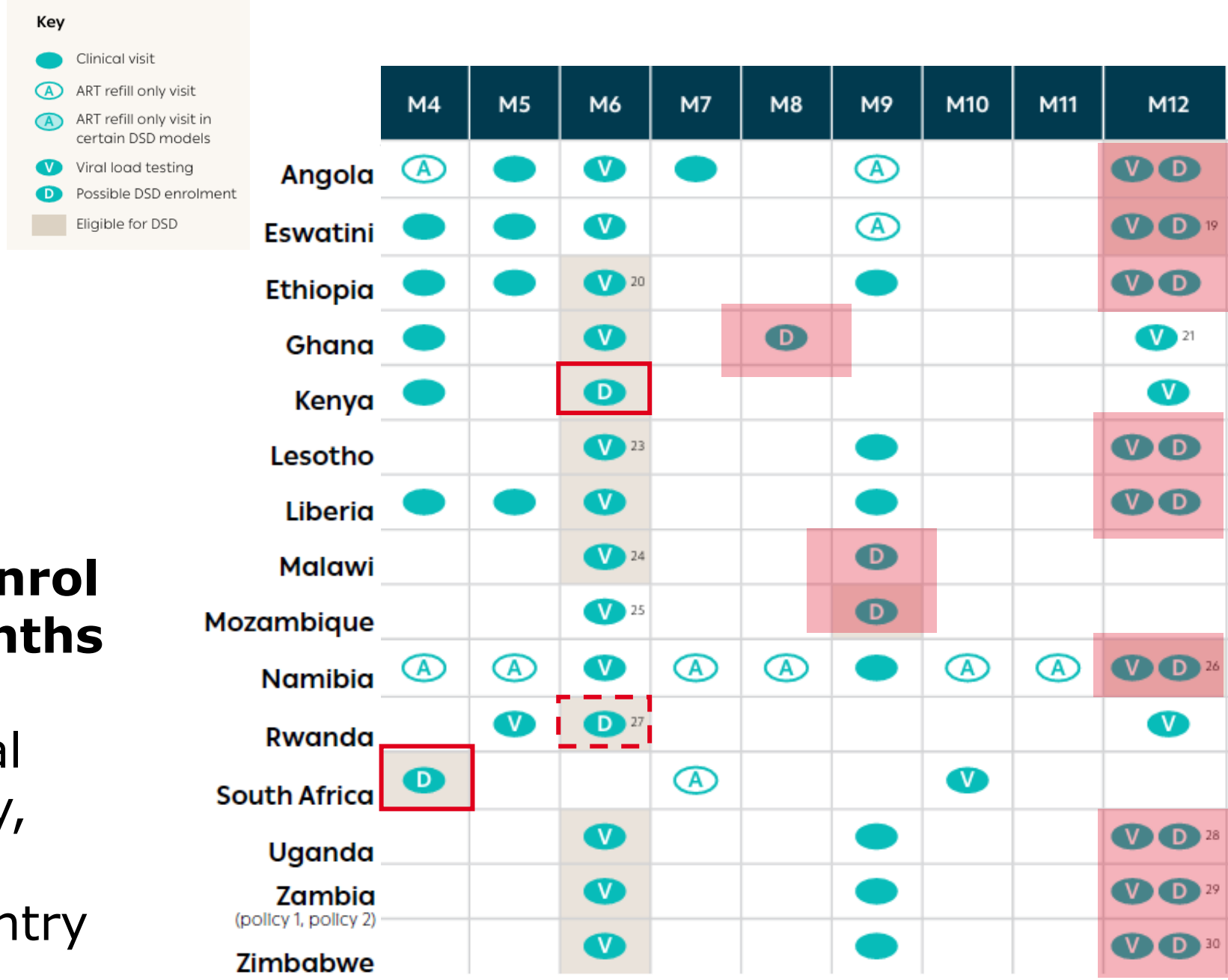
The result is delayed DSD enrolment

- **Most countries only enrol clients around 12 months after ART start**, due to delays in confirming viral suppression and stability, despite guidelines recommending earlier entry



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Evidence from two countries implementing earlier VL

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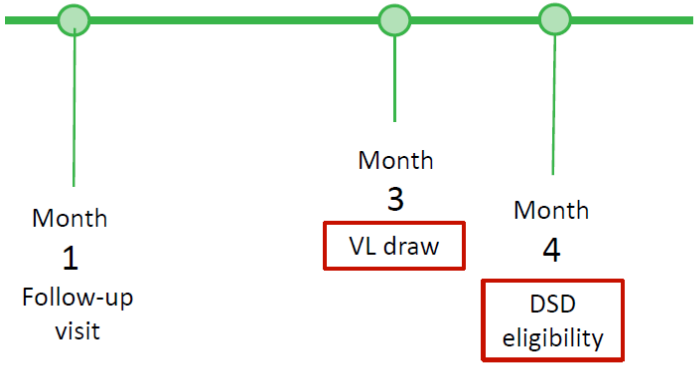
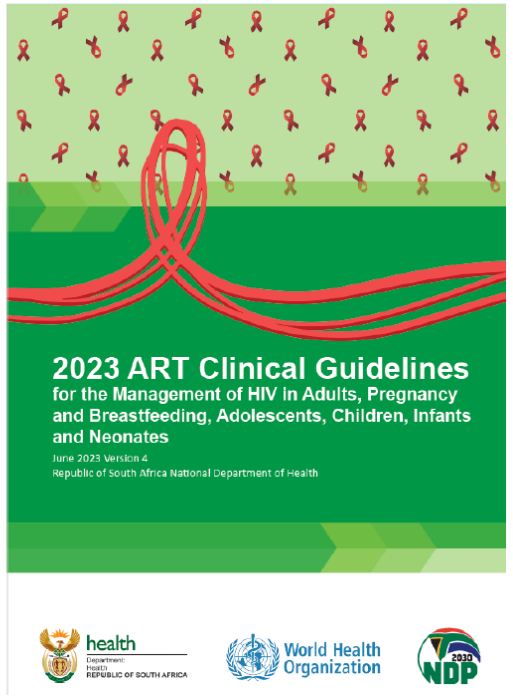
South Africa: April 2023 guideline change





Guidelines	First VL at 6 months on ART	First VL at 3 months on ART (2023)
Number of **clinic visits** in 1st year on ART for clinical review (including ART start visit)	8 (M0,M1,M2,M3,M4,M5,M6,M7)	5 (M0,M1,M3,M4,M10)
Number of **DSD model** visits in 1st year on ART	1 (Month 10)	1 (Month 7)
Minimum total visits in 1st year	9	6
Earliest targeted adherence support	Month 7	Month 4
Timing of 2nd VL if unsuppressed	Month 9	Month 6
Timing of 2nd VL if suppressed	Month 12	Month 10
Earliest DSD enrolment timing	Month 7	**Month 4**

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EP0897

Referral to differentiated antiretroviral therapy delivery at 6 months after initiation: a retrospective cohort study in KwaZulu-Natal, South Africa

Kwena Tlhaku[1,2], Johan van der Molen[1], Lara Lewis[1,3], Yukteshwar Sookrajh[4], Lungile Hobe[5], Thulani Ngwenya[6], Mlungisi Khanyile[1], Thokozani Khubone[4], Nigel Garrett[1,2,7], Jennifer A. Brown[1,8], Jienchi Dorward[1,8]

Before South Africa guideline change

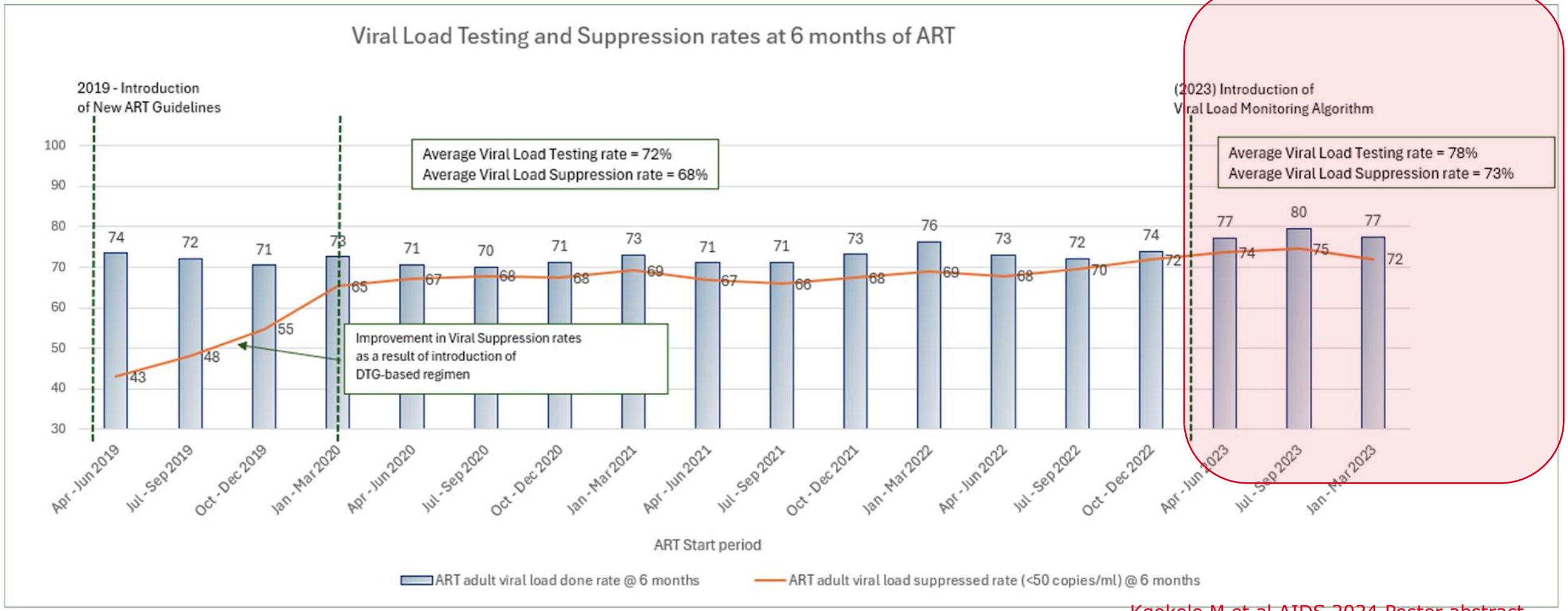
- First VL at 6 months on ART and DSD enrolment thereafter
- 125 clinics in Kwa-Zulu Natal
- Initiated ART Jan 20 – Dec 22

	DSD enrolment (n=21,106)		
	≤ 9 months from ART start (early DSD)	**>9 months from ART start**	
Total number (%)	1,995	19,111	
Lost to follow-up by 12 months on ART (>90 days/died)	43 (2.2%)	727 (3.8%)	RR 0.58; 95% CI 0.42-0.78 p < 0.05
12-month VL>50 copies/mL amongst those with VL completed	145/1,614 (9.0%)	1,595/15,020 (10.6%)	RR 0.87; 95% CI 0.74-1.03 p < 0.097

→ Improved retention at 12 months
→ Equivalent viraemia >50 copies/ml

Tlhaku et al IAS2025 poster abstract

National VL completion and suppression changes by quarter



Kgokolo M et al AIDS 2024 Poster abstract.

Earlier first viral load accelerates differentiated service delivery enrolment for people newly initiated on antiretroviral therapy

A retrospective analysis of 2023 HIV guideline implementation in South Africa

K. Rees[1,2], B. Mugisa[3], N. Davies[1], C. O'Connor[1], L.S Wilkinson[4,5]

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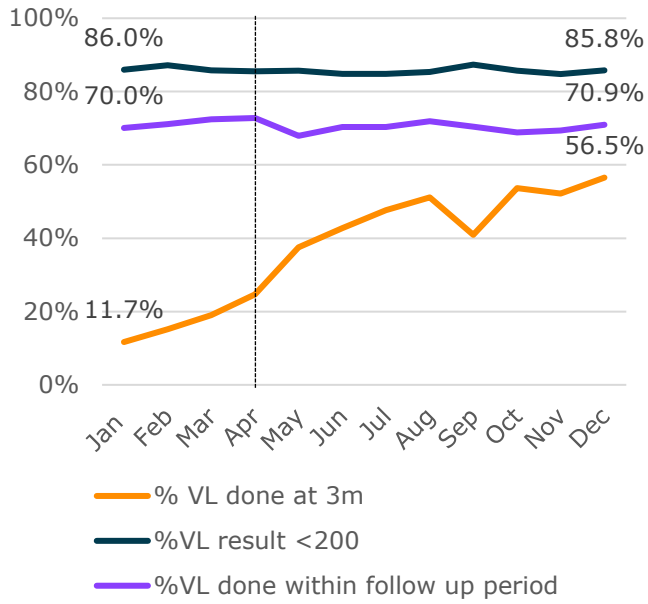
First VL completion, timing, suppression and DSD enrolment timing: **2017-2023 (4 districts)**

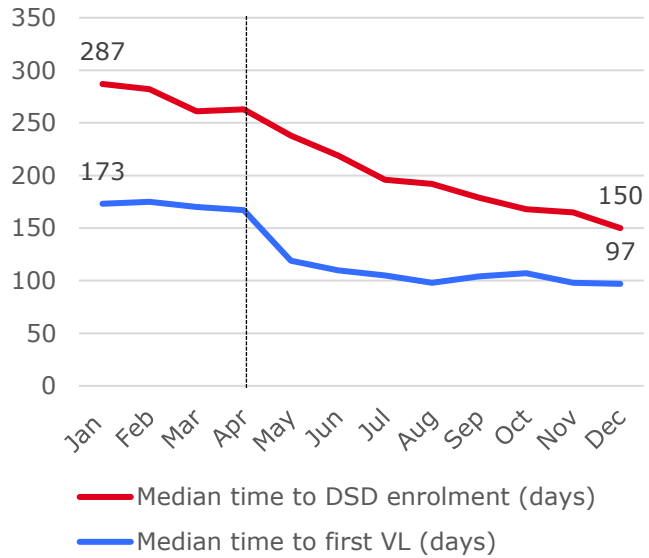
Category	2017	2018	2019	2020	2021	2022	2023
Total ART initiations	131 006	110 573	123 876	91 798	76 463	69 653	61 154
VL result not captured in follow-up period (%)*	65 592 (50.1%)	55 698 (50.4%)	62 851 (50.7%)	45 652 (49.7%)	35 690 (46.7%)	30 502 (43.8%)	20 277 **(33.2%)**
Median time to first VL (days, IQR)	177 (154-210)	177 (147-210)	178 (156-196)	178 (151-211)	176 (147-196)	176 (154-196)	**120** (87-179)
First VL result:							
<50 copies/mL (%)	35 758 (54.7%)	30 366 (55.3%)	35 160 (57.6%)	28 969 (62.8%)	26 592 (65.2%)	25 109 (64.1%)	26 544 **(64.9%)**
50-199 copies/mL (%)	14 432 (22.1%)	12 606 (23.0%)	12 481 (20.5%)	8 642 (18.7%)	7 465 (18.3%)	7 967 (20.3%)	8 509 **(20.8%)**
200-399 copies/mL(%)	4 403 (6.7%)	3 291 (6.0%)	3 588 (5.9%)	2 188 (4.7%)	1 730 (4.2%)	1 692 (4.3%)	1 674 (4.1%)
400-999 copies/mL(%)	3 433 (5.2%)	2 229 (4.1%)	2 516 (4.1%)	1 719 (3.7%)	1 368 (3.4%)	1 071 (2.6%)	1 036 (2.5%)
>1000 copies/mL(%)	7 388 (11.3%)	6 383 (11.6%)	7 280 (11.9%)	4 628 (10.0%)	3 618 (8.9%)	3 312 (8.5%)	3 114 (7.6%)
DSD enrolment (Restricted to suppressed first VL)							
Enrolled in DSD within 6 months of potential eligibility	3 633 (10.2%)	5 009 (16.5%)	9 620 (27.3%)	6263 (21.6%)	4 340 (16.3%)	6 147 (24.5%)	8 858 **(33.4%)**
Median time to DSD enrolment (days, IQR)	937 (680-1343)	771 (532-1150)	595 (426-973)	517 (370-847)	455 (350-729)	386 (252-504)	**219** (166-336)

First VL completion, timing, suppression and DSD enrolment timing: **Monthly trend 2023**

Panel A: VL completion, timing and suppression



Panel B: Median time to first VL and DSD enrolment (days)



→ VL coverage improved
→ Earlier VL completion
→ Suppression rates maintained
→ Higher and earlier DSD enrolment

Rees et al IAS2025 poster abstract (updated) & Rees et al IAS2025 oral abstract (updated)

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Key takeaways

Earlier first VL and DSD enrolment = savings for health system

- **Fewer visits and lower costs** for the client in first year on ART
- **Fewer total facility visits and clinician consultations**, reducing workload for the health system
- **Lower overall ART service delivery costs** without compromising quality

- **Earlier first VL testing and DSD enrolment** improve programme efficiency and may enhance **retention and adherence support** during the first year.

- **Equivalent viral suppression** achieved - with **no additional VL tests or costs** required.