

Leakages in the Viral Load Monitoring cascade: An evaluation of the HIV Antiretroviral Therapy Program focusing on Viral Load Monitoring Sanyati District, Zimbabwe, 2023

Tendai Munetsi¹, Daniel Chirundu², Hamufare Mugauri³, Addmore Chadambuka⁴, Tsitsi Juru⁴, Gerald Shambira¹, Notion Gombe⁴, Mufuta Tshimanga^{1&4}

¹University of Zimbabwe Faculty of Medicine and Health Sciences, Global Public Health and Family Medicine Department

²Kadoma City Health and Environmental Services Department, Kadoma, Zimbabwe

³AIDS and TB Unit, Ministry of Health and Child Care, Head Office, Harare, Zimbabwe

⁴African Field Epidemiology Network, Harare, Zimbabwe

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Background

- Viral load (VL) is recommended as the preferred monitoring approach to diagnose and confirm treatment failure

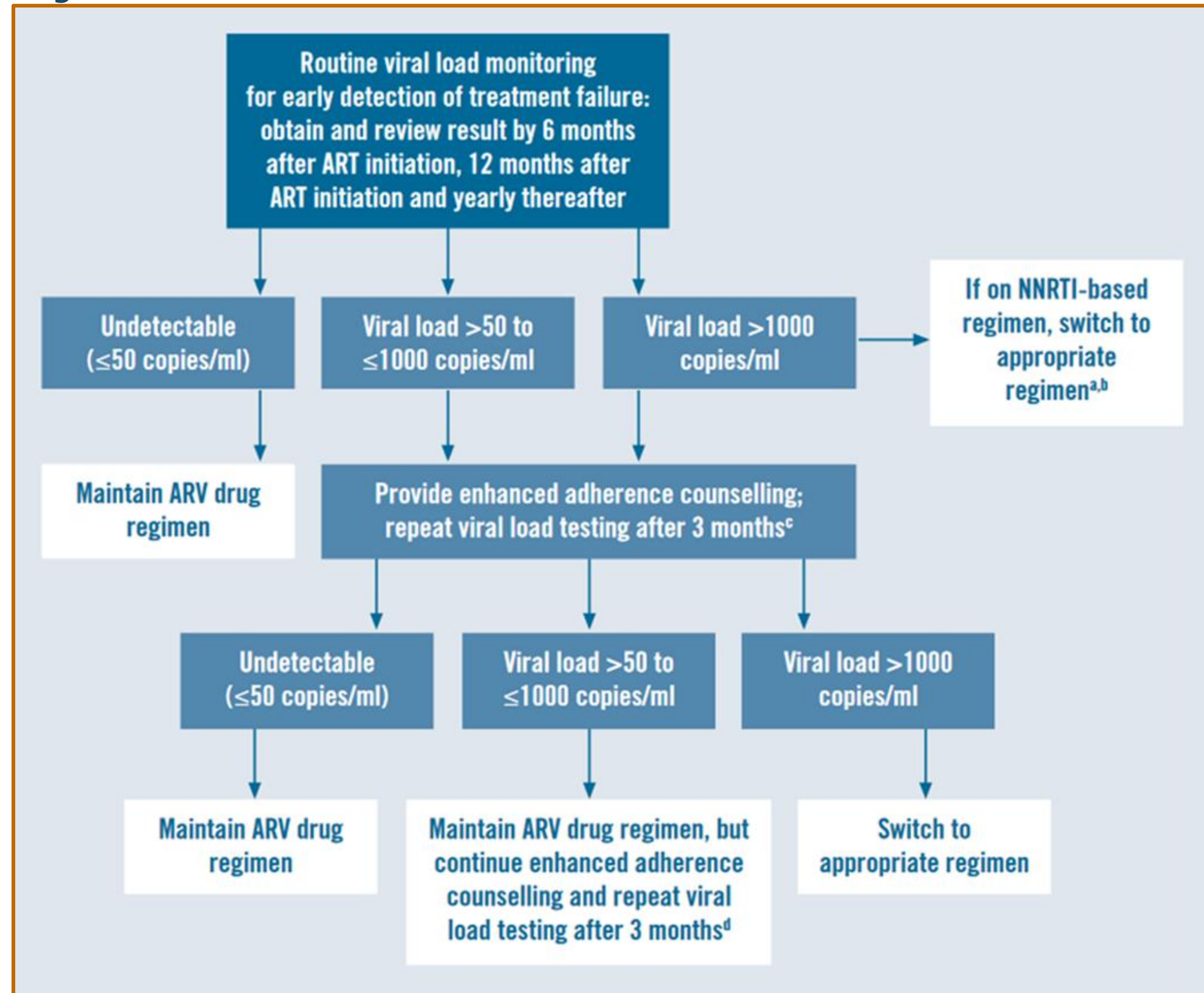


Figure 1: WHO Viral Load monitoring algorithm

- In Sanyati District the proportion of PLHIV with a high VL who had Enhanced Adherence Counselling (EAC) decreased from 54% in 2021 to 30% in 2022
- The target recommended by WHO for EAC is 100%
- We evaluated the HIV program focusing on VL monitoring to determine reasons for not achieving targets on enhanced adherence counselling

Methods

Study Design: Process outcome evaluation based on the logic framework

Study Setting: Sanyati District, Mashonaland West Province, Zimbabwe

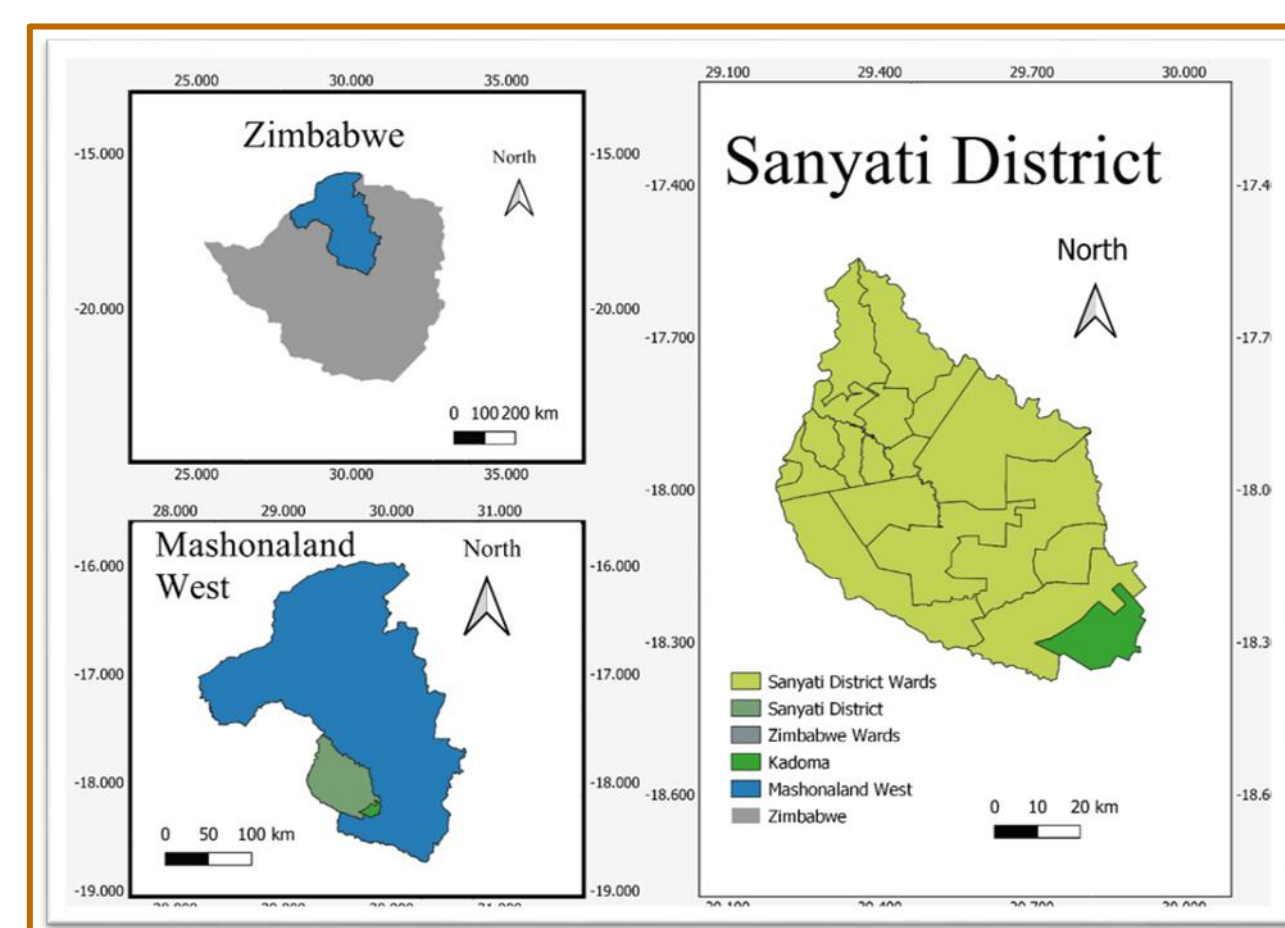


Figure 2: Study setting

Data Collection: Interviewer administered questionnaires to collect data on knowledge of health workers



Data Collection: Checklist and records review to collect data on inputs, processes, outputs and outcomes



Data Analysis: Frequencies, proportions and medians on the inputs, processes, outputs, outcomes and health worker knowledge

Results

Table 1: Inputs for the VL monitoring program Sanyati District 2023

Variable	Received/ Available	Target	Comment
VL testing machine (conventional platform)	1	1	Adequate
VL testing machines (POC)	2	5	Inadequate
VL testing algorithms (new)	3	19	Inadequate
VL information education & communication materials	0	19	Inadequate
Motorbikes	5	5	Adequate
EAC job aids	10	19	Inadequate
Human resources (Primary Counsellors)	8	19	Inadequate

Table 2: Processes for the VL monitoring program Sanyati District 2023

Variable	Received/ Available	Target	Percentage Outcome	Comment
Trainings done	2	2	100	Achieved
Support and supervisions	4	4	100	Achieved
Viral load specimens transported	23 298	23 298	100	Achieved
Viral load results followed up	3944	4 284	92	Not achieved
Follow up of patients with high VL	1208	1659	73	Not achieved
EAC sessions done	1185	4977	24	Not achieved

Clients with Viral Load > 1000	1659
Clients enrolled on EAC	497
Clients who completed EAC & Second VL test	344
Clients with results for Second VL test	330
Clients with Viral Load > 1000 on Second test	54
Clients switched to Second Line	21

Figure 3: Cascade for the Viral Load monitoring program Sanyati District 2023

Table 3: Health worker knowledge on VL monitoring program Sanyati District 2023

Attribute	Frequency (%)
Knew how many EAC sessions are recommended before second VL test	65 (98.5)
Knew blood collection tube used for VL testing	64 (97.0)
Knew when patient is due for VL after ART initiation	54 (81.8)
Knew how to interpret VL result	51 (77.3)
Knew benefits for keeping VL suppressed	42 (63.6)
Knew reasons for rejection of specimen for VL testing	39 (59.1)
Knew when results should be expected	20 (30.3)
Knew steps taken when VL >1000	18 (27.3)

Conclusions, Recommendations & Public Health Actions

- The VL monitoring program in Sanyati District had leakages at every step of the cascade. The highest leakages were on enrolling for EAC, completing EAC sessions and switching clients to second line. Health workers lacked knowledge on steps taken when VL is high.
- We recommended roll out of new ART guidelines and viral load monitoring algorithms, use of job aids in EAC and refresher training on the viral load monitoring program.
- As part of public health actions 26 out 40 health workers were oriented on the new ART guidelines and we distributed viral load monitoring algorithms to all 26 health facilities in Sanyati district.