

BACKGROUND / INTRODUCTION

The first year of antiretroviral therapy (ART) typically involves frequent health facility visits and high rates of disengagement. With the adoption of dolutegravir-based regimens, the World Health Organization (WHO) recommends reviewing the first viral load result by month six after treatment initiation and has shortened the “time on ART” eligibility criteria for less-intensive differentiated service delivery (DSD) to six months.

We conducted a comprehensive review of current national HIV policies in eastern, southern, central and western Africa to assess visit burden during the first year of ART and the effect of visit frequency and viral load timing on eligibility for less-intensive DSD models.

METHODS

The policy review analyzed HIV clinical and DSD guidance from 15 countries. Data extraction included:

- the visit schedule for clinically stable individuals, including clinical review, ART-only refill visits, where in routine care or DSD models);
- visits incorporating routine viral load testing; and
- the earliest visit at which individuals could be enrolled in less-intensive DSD model, based on “time on ART” and viral load suppression eligibility criteria. In cases where explicit timing for DSD assessment was not provided, we assumed the assessment occurred after the availability of the viral load test result.

RESULTS

Among the 15 countries reviewed, eight required 6-7 visits on the first year of ART, three required 8-9 visits and four required 10-13 visits (Figure 1). In 12 countries, the first viral load is recommended at month six.

In nine countries, access to less-intensive DSD models is only feasible from month 12, assuming a second viral load assessment is not required. However, Kenya, Rwanda and South Africa - with earlier first viral load assessments - allow access to less-intensive DSD models as early as month four (South Africa) or month six (Kenya, Rwanda).

CONCLUSIONS

Despite challenges with treatment retention and the widespread scale-up of dolutegravir-based regimens, most high HIV burden countries continue to delay the first viral load assessment and require frequent clinical visits during the first year of ART. Delaying the first viral load assessment impedes timely interventions to support adherence and unnecessarily delays access to less-intensive DSD models, which offer longer ART refills, extended intervals between clinical reviews, and more convenient refill collection options.

Given the high rates of early disengagement and WHO’s recommendations for earlier viral load testing and faster access to less-intensive DSD models, countries should consider scheduling the first viral load assessment earlier. This adjustment could significantly reduce the visit burden during the initial year of ART.

Figure 1: ART care visit schedules in the first year of treatment according to national policies

	M0	W2	M1	M2	M3	M4	M5	M6	M7	M8	M9	M10	M11	M12	No. of visits
Angola	●	●	●	Ⓐ	Ⓐ	Ⓐ	●	●	●	●	Ⓐ	●	●	●	11
Eswatini	●	●	●	●	●	●	●	●	●	●	Ⓐ	●	●	●	10
Ethiopia	●	●	●	●	●	●	●	●	●	●	●	●	●	●	10
Ghana	●	●	●	●	●	●	●	●	●	●	●	●	●	●	9
Kenya	●	●	●	●	●	●	●	●	●	●	●	●	●	●	8
Lesotho	●	●	●	●	●	●	●	●	●	●	●	●	●	●	7
Liberia	●	●	●	●	●	●	●	●	●	●	●	●	●	●	9
Malawi	●	●	●	●	●	●	●	●	●	●	●	●	●	●	6
Mozambique	●	●	●	●	●	●	●	●	●	●	●	●	●	●	6
Namibia	●	●	●	●	●	●	●	●	●	●	●	●	●	●	13
Rwanda	●	●	●	●	●	●	●	●	●	●	●	●	●	●	7
South Africa	●	●	●	●	●	●	●	●	●	●	●	●	●	●	6
Uganda	●	●	●	●	●	●	●	●	●	●	●	●	●	●	7
Zambia	●	●	●	●	●	●	●	●	●	●	●	●	●	●	7
Zimbabwe	●	●	●	●	●	●	●	●	●	●	●	●	●	●	6

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Key

- Clinical visit
- Ⓐ ART refill only visit
- Ⓐ ART refill only visit in certain DSD models
- Viral load testing
- Ⓓ Possible DSD enrolment
- DSD eligibility criteria - time on ART required

M0 – month zero, initiation visit

W2 – week two

Angola:
¹Clinical visit takes place on day 15 after treatment initiation; additional adherence counselling sessions are indicated in the visit schedule table and assumed to include ART refill collection.
²DSD eligibility is from month 12. DSD could be offered at month 12 if there is reliance on the month six VL result. However, if a month 12 VL result is required, then the DSD offer and enrolment is likely to take place at the following visit.

Malawi:
¹VL is taken at month six and then annually.
²Routinely, the next VL sample is collected when 11 months or more have elapsed since the last VL sample was collected.
³DSD eligibility is from month six. However, the VL result would be available only at the following visit.

Zimbabwe:
¹DSD eligibility is from month six. However, the VL result would be available only at the following visit. If DSD is offered at month 9, the client will miss the VL visit for month 12. The DSD offer and enrolment is likely at month 12 or the following visit.

Eswatini:
¹During the first six months on treatment, clients should be reviewed monthly.
²Antiretroviral therapy (ART) refills should follow the clinical review schedule.
³DSD eligibility is from month 12. DSD could be offered at month 12 relying on the month six VL result. 3MMD is permitted from month 6 relying on the month 3 VL.

Mozambique:
¹VL is taken at month six and then annually.
²DSD eligibility is from month six and is available for review.

Namibia:
¹Guidelines set out the clinical visit schedule as reflected. The first consultation after ART initiation takes place during week six. Clients are eligible for multi-month dispensing (MMD) of ART from month 12 onwards if they are considered stable.
²DSD eligibility is from month 12. DSD could be offered at month 12 if there is reliance on VL results from month six. However, if a month 12 VL result is required, then the DSD offer and enrolment is likely to take place at the following visit.

Ethiopia:
¹Guidelines is unclear as the narrative text mentions reviewing VL results at month six, but the visit schedule lists the appointment to take VL at month six. This dashboard reflects the visit schedule.
²DSD eligibility is from month six. However, the VL result would be available only at the following visit. If DSD is offered at month nine, the client will miss the VL visit at month 12. The DSD offer and enrolment is likely to take place at month 12 or the following visit.

Ghana:
¹Guidelines state that VL is taken at months six and 12 and then annually.
²DSD eligibility is from month six. However, the VL result would be available only at the following visit. MMD flexibility allows for a 4-month ART refill until the month 12 clinical review and VL.

Rwanda:
¹6MMD is only possible in the facility-based individual DSD model.
²VL is taken at month six, month 12 and annually. However, VL should be taken at month five for DSD enrolment at month six.
³DSD eligibility and offer takes place at month six provided VL is taken at month five.

Kenya:
¹Clients who are adherent and virally suppressed at month three may not need subsequent monthly appointments until month six. It is likely that a month four visit is required to ascertain viral load (VL) suppression.
²For age ≥25 years, VL is taken at month three, month 12 and then annually. For age 0-24 years, VL is taken at month three and then every six months.
³DSD eligibility is at month six, and DSD can be offered based on the VL result from the month three VL visit.

South Africa:
¹The second VL is taken at months 10-12, aligned with the clinical review date.

Lesotho:
¹Guidelines set out a clinical review visit schedule of every six to 12 months for adults after six months on ART.
²VL is taken at month six and the result will likely be reviewed at a follow-up visit three months later with a further return visit at month 12 for the second VL test.
³DSD eligibility is from month six. However, the VL result would be available only at the following visit. If DSD is offered at month nine, the client will miss the VL visit for month 12. The DSD offer and enrolment is likely to take place at month 12 or the following visit.

Uganda:
¹DSD eligibility is from month six. However, the VL result would be available only at the following visit. If DSD is offered at month nine, the client will miss the VL visit for month 12. The DSD offer and enrolment is likely at month 12 or the following visit.

Liberia:
¹Clients initiating first-line ART have to be reviewed clinically after two weeks if they have been given a starter pack for one month; otherwise, after one month. From month six on treatment, stable, virally suppressed and adherent clients can be given up to 3 or 6 monthly appointments. VL suppression will be known only at the visit after month six, requiring clients to return at month seven or month nine for a review of results.
²Guidelines state that VL is taken at month six and then annually.

Zambia:
¹VL is taken at month six with the DSD offer at the next visit. The next visit is either at month seven or month nine (maximum 3MMD unless transferred to appropriate DSD models).
²DSD eligibility is from month six. DSD assessment takes place at visit after month six when VL is taken. If DSD is offered at month seven or nine, the client will miss the VL visit for month 12. The DSD offer and enrolment is likely at month 12 or the following visit.