

FREQUENCY OF HEALTHCARE SYSTEM INTERACTIONS IN DIFFERENTIATED SERVICE DELIVERY MODELS FOR HIV TREATMENT

Evidence from a literature review of differentiated models of service delivery for HIV treatment in sub-Saharan Africa 2016-2019

Background

- ❖ In sub-Saharan Africa, many countries are scaling up new service delivery approaches, or differentiated service delivery (DSD) models, for the treatment of HIV. One goal of these models is to lessen the burden of HIV treatment on patients and providers by reducing the number of times each year that patients must interact with the healthcare system for clinical consultations, monitoring, medication pickups, or any other services.
- ❖ Prior to the advent of DSD models, stable antiretroviral therapy (ART) patients typically visited a healthcare facility at least 4 times per year for routine monitoring and picked up medication refills every 1-3 months. New guidelines in many countries recommend 2 monitoring visits per year and 3- or 6-month dispensing to minimize medication pickups.
- ❖ In this brief we review recent evidence on the extent to which current DSD models are reducing healthcare system interactions for stable patients.

Sources

- ❖ From systematic reviews we conducted of the published literature, international conference abstracts, and gray (unpublished) evidence on DSD models for HIV treatment in sub-Saharan Africa between Jan 1, 2016 and Sept 12, 2019¹⁻², we extracted details of healthcare system interactions for each model, of which we found 105 in total. Results in the table on the next page provide an overview of interaction frequency in DSD models in sub-Saharan Africa.

Findings

- ❖ Of the 61% (64/105) of models for which frequency of interactions was reported, roughly a quarter required 4, 5-7, or 8-12 interactions per year.
- ❖ Only 10% (10/105) of the models required 3 or fewer interactions per year.
- ❖ Fully a third of the models that reported interaction frequency (i.e., excluding those that are unknown) required 8 or more interactions per year.
- ❖ On average, facility-based individual models (FBIMs) required fewest interactions per year, and client-led groups required most. For FBIM models, this likely reflects the advent of six-month dispensing, which does not yet appear in the literature for other categories.
- ❖ Most sources did not distinguish between clinic/facility visits and off-site/DSD interactions, making it impossible to stratify by this important characteristic. Similarly, we could not distinguish in the literature between clinic visits made for monitoring and/or consultation and visits made solely for medication pickup.
- ❖ More care in describing models of service delivery, including numbers and types of healthcare system interactions expected, would strengthen the evidence base.



Table. DSD model interactions with healthcare system per year

Number of interactions expected per year (n, %)	Facility based individual (FBIM) (N=31)	Out of facility individual (OFBIM) (N=27)	Client led group (CLG) (N=16)	Healthcare worker led group (HCWLG) (N=31)	Total (N=105)
≤3 per year	4 (13%)	1 (4%)	1 (6%)	4 (13%)	10 (10%)
4 per year	10 (32%)	3 (11%)	0 (0%)	3 (10%)	16 (15%)
5-7 per year	1 (3%)	8 (30%)	1 (6%)	6 (19%)	16 (15%)
8-12 per year	1 (3%)	2 (7%)	5 (31%)	7 (23%)	15 (14%)
>12 per year	0 (0%)	4 (15%)	3 (19%)	0 (0%)	7 (7%)
Not reported	15 (48%)	9 (33%)	6 (38%)	11 (35%)	41 (39%)
Average for category*	4.0	7.7	10.0	6.3	6.7

*Based on the mid-point number of interactions for each row; assumed 2 interactions per year for those marked ≤3 per year and 14 per year for those marked >12 per year.

Conclusions

Most DSD models reported in the literature between 2016 and 2019 continued to require more than four health system interactions per year, and many required eight or more. Available evidence suggests that efforts to lessen the burden of ART on patients and providers by minimizing the expected number of clinic visits and external interactions have not yet had a major impact on service delivery. Interaction frequency may decline as six-month dispensing becomes more common in some sub-Saharan countries, but it will require deliberate re-design of DSD models to achieve this goal.

References

- 1 Long L, Kuchukhidze S, Pascoe S, et al. [Differentiated service delivery models for antiretroviral treatment of HIV in sub-Saharan Africa: a rapid systematic review](#). AMBIT Project Report 04. Boston: Boston University and HE²RO, 2020.
- 2 Kuchukhidze S, Long LC, Pascoe S, Huber AN, Nichols BE, Fox MP, Rosen S. [Differentiated models of service delivery \(DSD\) for antiretroviral treatment of HIV in sub-Saharan Africa: A review of the gray literature as of June 2019](#). AMBIT Project Report Number 03. Boston: Boston University and HE²RO, 2019

