Advancing the 3rd “95”: Evidence From DSD and Multi-month Dispensing Models in Kampala, Uganda

1100

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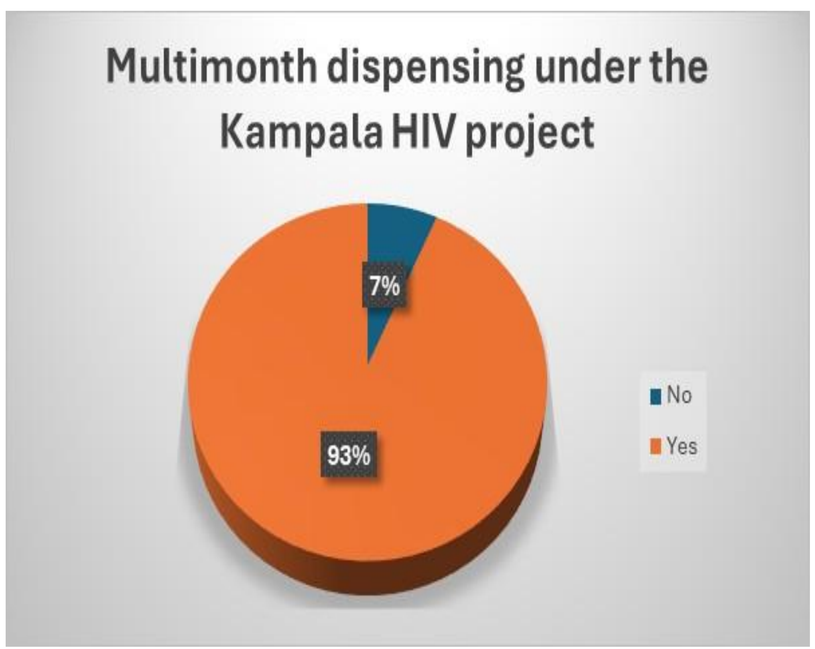
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BACKGROUND

Differentiated service delivery models (DSDM) for antiretroviral therapy (ART), including multi-month dispensing (MMD), have been scaled up to improve treatment outcomes and reduce the burden on HIV care programs. However, evidence on their association with virological suppression (3rd 95) within Ugandan programmatic settings remains limited. We examined associations between DSDM/MMD models and virological suppression among people living with HIV (PLHIV) in Kampala, Uganda.

METHODS

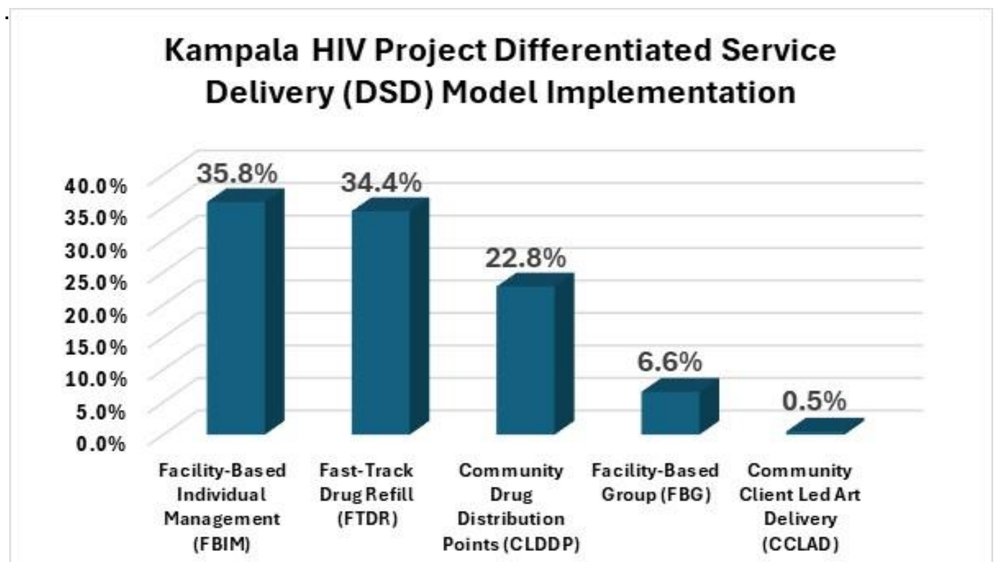
We conducted a retrospective review and analysis of routinely collected data from October 2023 to June 2025 among PLHIV aged ≥18 years receiving ART in six selected private and high-volume public HIV clinics implementing DSDM and MMD interventions in Kampala. Socio-demographic and clinical characteristics data were abstracted from medical records and supplemented with routine program reports. The primary outcome was virological non-suppression (VNS), defined as HIV RNA ≥200 copies/mL. We used multivariable logistic regression to identify factors associated with VNS.



In 15,644 adults on ART across 6 Kampala clinics, virological non-suppression was 7%, indicating progress toward the UNAIDS 3rd “95”. DSDM and multi-month dispensing were associated with lower non-suppression, but men and clients without partner support remained at higher risk

RESULTS

Of 15,644 PLHIV receiving care, 12,461 (80%) were in public clinics. Mean age was 39 years (SD ±10.7), and the majority (69%) were female. Overall, VNS was 7% (n=1,043). In age-adjusted analysis, VNS was less likely among PLHIV enrolled in DSDMs (adjusted odds ratios **[aOR]=0.32, 95% CI: 0.27–0.38)** and those receiving MMD refills **(aOR=0.15, 95% CI: 0.13–0.17).** Similarly, longer duration on ART **(aOR=0.91, 95% CI: 0.89–0.92)** and absence of tuberculosis symptoms (aOR=0.42, 95% CI: 0.30–0.58) were associated with lower odds of virological non-suppression. However, male sex **(aOR = 1.56, 95% CI: 1.34–1.82),** never married or single **(aOR = 1.45, 95% CI: 1.10–1.93),** divorced/separated **(aOR = 1.53, 95% CI: 1.11–2.10),** and unknown marital status (aOR = **1.63, 95% CI: 1.31–2.03**) were significantly more likely to experience VNS.



PLAIN LANGUAGE SUMMARY: Most people in the program (93%) had the virus suppressed. Offering stable clients DSD models and multi-month refills may help maintain viral control, but men and people without partner support may need additional follow-up to reach full viral control.

CONCLUSIONS

Low virological non-suppression (7%) suggests strong program performance in Kampala. Sustaining and optimizing DSDM and MMD while targeting men and socially vulnerable clients may help close the remaining gaps and maintain progress toward the UNAIDS 95-95-95 targets.

ADDITIONAL KEY INFORMATION

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Multi-month dispensing (MMD) at a ROM supported facility