

Comparing the impact of six month antiretroviral therapy dispensing to three to five month dispensing on viral load suppression in Kenya and Nigeria.

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BACKGROUND

- Multi-month dispensing (MMD) of antiretroviral therapy (ART) decreases logistical burdens on HIV clinics and patients
- MMD has been especially important during the COVID-19 pandemic as part of enhanced Infection Prevention and Control, but is also critically important for managing workload and making the programs more sustainable
- While 3 to 5 month dispensing (3-5 MD) has been scaled up in many settings, programs are apprehensive about scaling up 6-month dispensing (6 MD), given concerns about loss of medicines and compromised adherence, particularly among adolescents and young adults
- Some programs have scaled up 6 MD in response to the COVID-19 pandemic, but the impact on viral suppression (VS) has not been well-documented in programmatic settings

METHODS

- The African Cohort Study (AFRICOS) is an international observational study of people living with HIV (PLHIV) receiving HIV care; participants in AFRICOS undergo viral load (VL) quantification and extensive interviewing semiannually
- Most countries required VS for patients to receive MMD, so analyses were restricted to a comparison of 3-5 MD vs 6 MD
- Participants were included in this analysis if they had complete data, were on ART for at least 6 months, had documentation of MMD (self-reported) and at least two follow-up visits after initiating MMD; VLs from that second or subsequent visit were used for analysis
- Given limited numbers of patients who met inclusion criteria on 6 MD in Uganda and Tanzania, we restricted multivariate analysis to Kenya and Nigeria, using logistic regression with generalized estimating equations to estimate adjusted odds ratios (aOR) and 95% confidence intervals (95% CI) comparing VS <50 copies/mL among those who received 6 MD to those given 3-5 MD of ART
- Analyses were adjusted for age, education, employment, distance to clinic, duration on ART, ART regimen (TLD vs other) and self-reported ART adherence (≥ 1 missed dose in past 30 days)

RESULTS

Figure 1. Relative Proportions of 3-5 MD vs 6 MD in the Analytic Population across the Four AFRICOS Countries

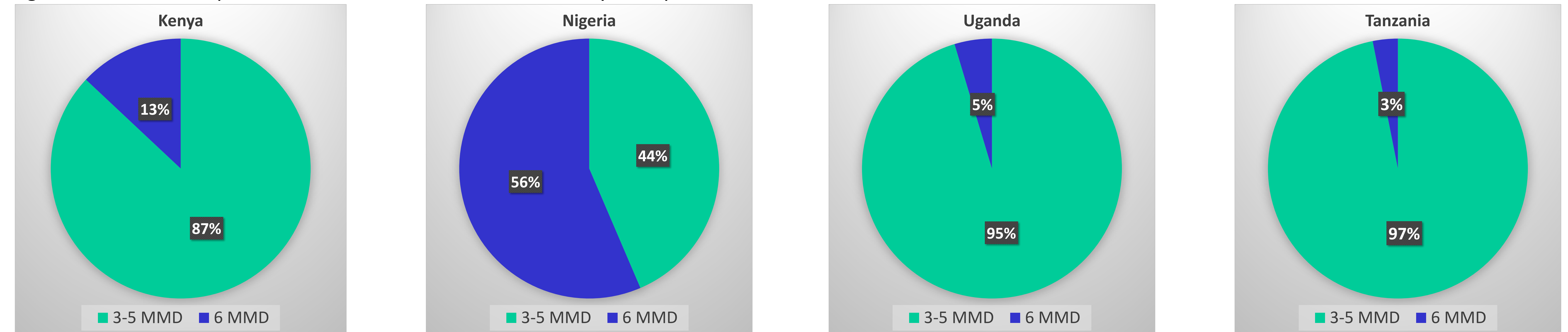


Table 1. Unadjusted and Adjusted Odds Ratios of Viral Load Suppression (<50 copies/mL) for 6 MD, compared to 3-5 MD in Nigeria and Kenya

Study site and MMD Regimen	Unadjusted Odds Ratio	95% CI	Adjusted Odds Ratio	95% CI
Kenya (715 participants total)				
3-5 MD (622 participants)	Ref		-	
6 MD (93 participants)	1.19	0.64-2.19	1.01	0.52-1.94
Nigeria (225 participants total)				
3-5 MD (98 participants)	Ref		-	
6 MD (127 participants)	2.70	1.64-4.43	2.45	1.45-4.13

• In Kenya, there were 715 participants who met criteria for inclusion, 93 (13%) of whom were on 6 MD; in Nigeria 225 participants, 127 (56%) of whom were on 6 MD; in Uganda 215 participants, 10 (5%) on 6 MD; and in Tanzania 257 participants, 8 (3%) on 6MD

• In unadjusted analyses, there were no significant differences in VLS by MMD among PLWH <20 years in Nigeria (n=44; OR: 2.31 [95% CI: 0.72-7.44]) or Kenya (n=77; OR: 0.87 [95% CI: 0.21-3.69])

CONCLUSIONS

- Overall, these data are reassuring that 6 MD does not compromise, and in some settings may enhance, VLS**
 - The positive association between 6 MD and VLS in Nigeria, as compared to 3-5 MD, should prompt more aggressive scale-up of 6 MD in that country
 - The lack of a negative association between 6 MD and VLS in Kenya is reassuring for the expansion of 6 MD, given other benefits, but warrants further investigation
- Updated data from more specific geographic and demographic sub-populations (e.g., children, key populations, people who use drugs, migrant populations, etc) will be helpful to inform programming as 6 MD is scaled**

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