Impact of COVID-19 Induced Program Adaptations on HIV Suppression in Three Countries

Poster # 1099

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BACKGROUND

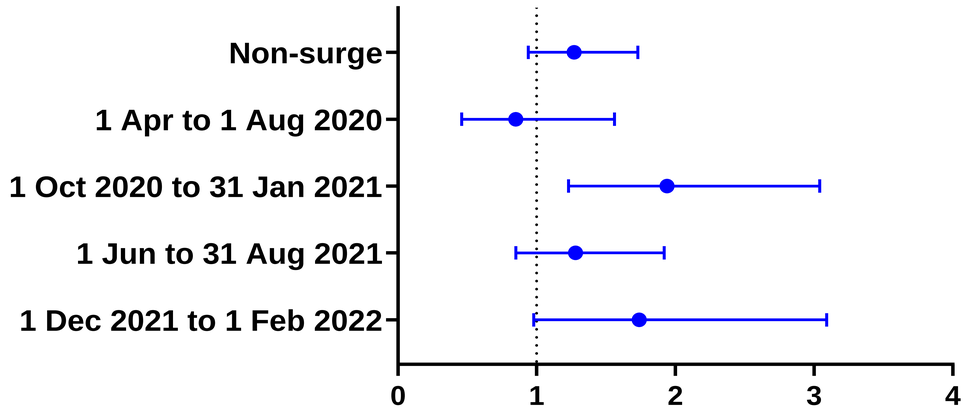
- The pandemic response measures have had significant global economic and health impacts with transient reductions in HIV clinic attendance and self-reported anti-retroviral therapy (ART) adherence reported in prior studies.
- Since viral suppression (VS) is an indication of ART adherence and effective service delivery, we assessed VS in the context of the COVID-19 pandemic in 3 African countries – Kenya, Nigeria, and Uganda.
- **Study objective:** Examine changes in VS during COVID-19 surge periods in the 3 countries in relation to the HIV program adaptations

METHODS AND SAMPLE

- Since 2013, the **African Cohort Study (AFRICOS)** has enrolled individuals 18 years or older with and without HIV, in an approximate 5:1 ratio, at 12 clinics across Tanzania Uganda, Kenya, and Nigeria.
- For people living with HIV (PLWH), ART history was extracted from medical records and viral load was assessed at each visit.
- We assessed **VS (< 1000 c/ml)** before and during the COVID-19 pandemic(categorized into 4 surges and a consolidated non-surge period; defined in Table 1) among PLWH. Tanzania was excluded due to inadequate COVID-19 data.
- Logistic regression with generalized estimating equations, clustered by participant, was used to estimate odds ratios (ORs) and 95% confidence intervals (CI) comparing VS before and during COVID-19. Models are adjusted for age, sex, and program.
- Of the 1741 study participants in the analysis, 368 are from Uganda, 1156 are from Kenya, and 217 are from Nigeria; 730 are males, 1011 are females, and 147 are under the age of 30.

PEPFAR programs sustained viral suppression during the pandemic by scaling up client-focused HIV service delivery models

Adjusted Odds Ratios of HIV Suppression during COVID-19 Pandemic, AFRICOS Sites, March 2020 to June 2022



	Adjusted Odds Ratio	95% Confidence Interval
Sex		
Male	Reference	
Female	**1.58**	**1.09-2.29**
Age at visit		
15-29	Reference	
30-39	1.91	0.99-3.67
40-49	**2.43**	**1.32-4.48**
50+	**2.72**	**1.47-5.03**
Study site		
Kayunga, Uganda	Reference	
South Rift Valley, Kenya	**0.46**	**0.26-0.79**
Kisumu West, Kenya	0.84	0.42-1.68
Lagos & Abuja, Nigeria	**0.32**	**0.17-0.60**

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- **For more information on AFRICOS: www.hivresearch.org/african-cohort-study-africos**

RESULTS

- PLWH were less likely to be virally suppressed during the first surge period (OR 0.85, CI 0.46-1.56), but VS significantly increased during the second surge period (OR 1.95, CI 1.23-3.04) compared to the pre-COVID period.
- Females are more likely to be virally suppressed than males (OR 1.58, CI 1.09-2.29)and PLWH ages 40-49 have higher VS (OR 2.43, CI 1.32-4.48) compared to PLWH under 30.
- PLWH at the AFRICOS sites in Kenya and Nigeria show lower VS than the Ugandan cohort (ORs 0.46, CI 0.26-0.79 and OR 0.32, CI0.17-0.60 respectively).

CONCLUSIONS

- The initial drop in VS may be attributed to reduced clinic access due to lockdowns.
- Many HIV programs supported by the President's Emergency Plan for AIDS Relief (PEPFAR) adapted their strategies to serve PLWH by scaling up community ART dispensing and multi-month dispensing (MMD) of ART for stable clients, which could have potentially led to increased VS during the other surge periods.
- These findings demonstrate sustained progress made by PEPFAR-supported programs against the HIV epidemic amidst the COVID-19 pandemic, and re-inforce the quick adaptability of PEPFAR programs during outbreaks, natural disasters, and pandemics, thereby ensuring uninterrupted access to ART.

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