# Optimization of Treatment Outcomes Among Adolescents Living with HIV in parts of Lagos State Nigeria: Case Study of USAID Supported ICHSSA-2 Project

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### Background

In Nigeria, the total number of AIDS-related deaths among children and adolescents was 16,200 in 2020. The Integrated Child Health and Social Services Award 2 (ICHSSA 2) project supports Operation Triple Zero (OTZ) clubs in 13 health facilities in Lagos State with support from PEPFAR through United States Agency for International Development (USAID). The initiative aimed at ensuring zero missed appointments, zero missed drug and zero viral load among adolescents living with HIV (ALHIV). Through OTZ, the adolescents are empowered to take charge of their health, receive support from peers and case managers, to optimize treatment outcomes and prevent new infections. The study examined the outcome of participation in OTZ across selected facilities in Lagos State, Nigeria.

#### Results

The mean age of participants was 16 ±2.5 years comprising 55% females and 45% males. The baseline data showed that 80.2% (Female-81.5%; Male- 78.5%) of participants had suppressed viral load. The viral load suppression performance increased to 95.4% (Female-95.4%; Male- 95.3%). Overall, there was 15.2% increase in the viral load suppression with 16.8% and 13.9% among male and female participants respectively. Further analysis showed an increase in proportion of those with undetectable viral load (<20 copies/ml) from 40% at baseline to 70% at the end of this study.

Key Words: Adolescents, ALHIV, HIV, OTZ, Viral load



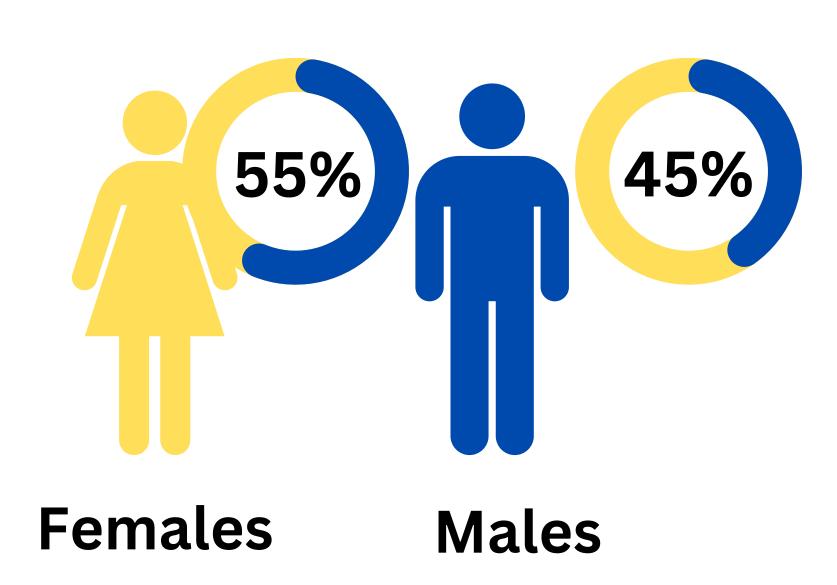




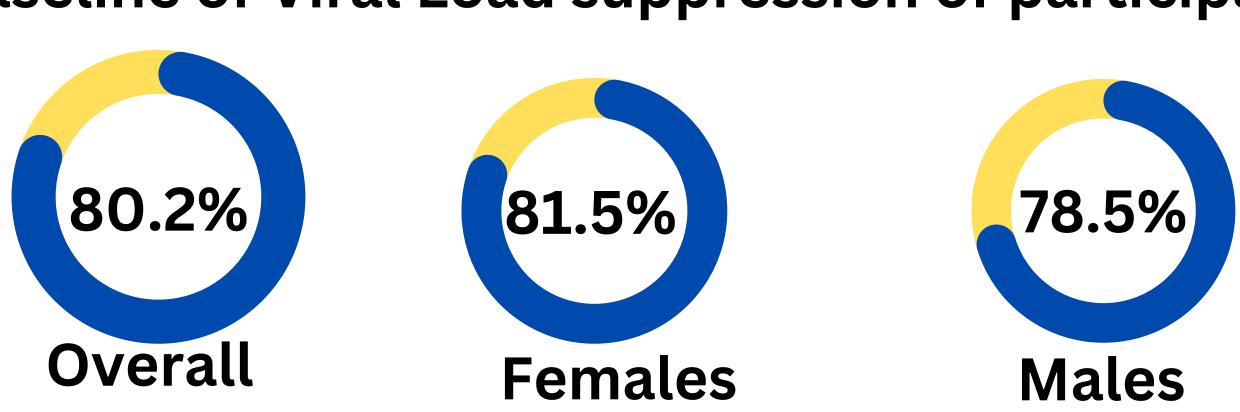
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#### Methods

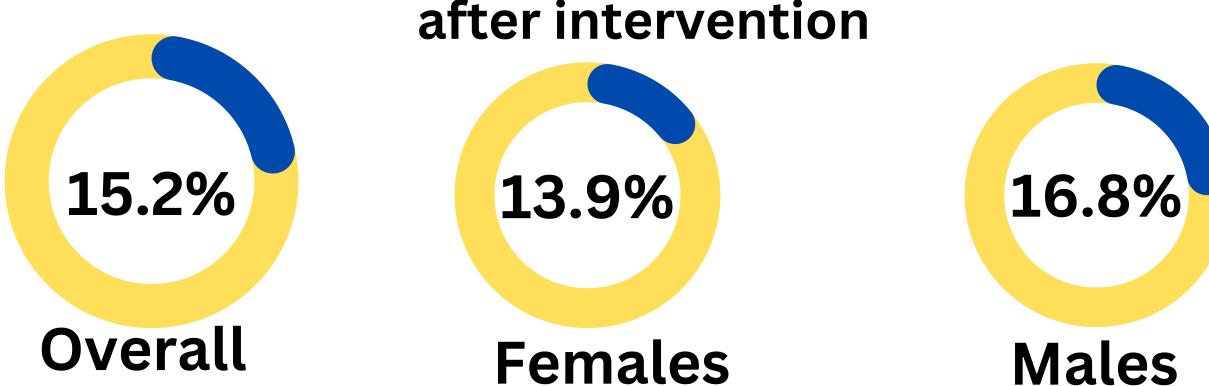
We conducted a retrospective cohort study from October 2021 to September 2023 using data from the OTZ club register and electronic medical records from the health facilities. The study analyzed data from 237 ALHIV between the ages of 11 and 20 years enrolled into OTZ clubs between 12 to 24 months. The viral load of the participants was recorded at enrolment into OTZ and after 12 and 24 months. Chi-square statistics was used to compare proportional difference in viral load change using STATA version 14 at p<0.05.



#### Baseline of Viral Load suppression of participants



# Percentage increase in Viral Load suppression of participants after intervention



## Conclusions

The study revealed that OTZ has proven effective in improving retention and viral load suppression among ALHIV. Government and Implementing Partners might consider prioritizing and sustaining the implementation of OTZ clubs. Scaling up OTZ could contribute immensely towards overall improvement in viral suppression among adolescents.