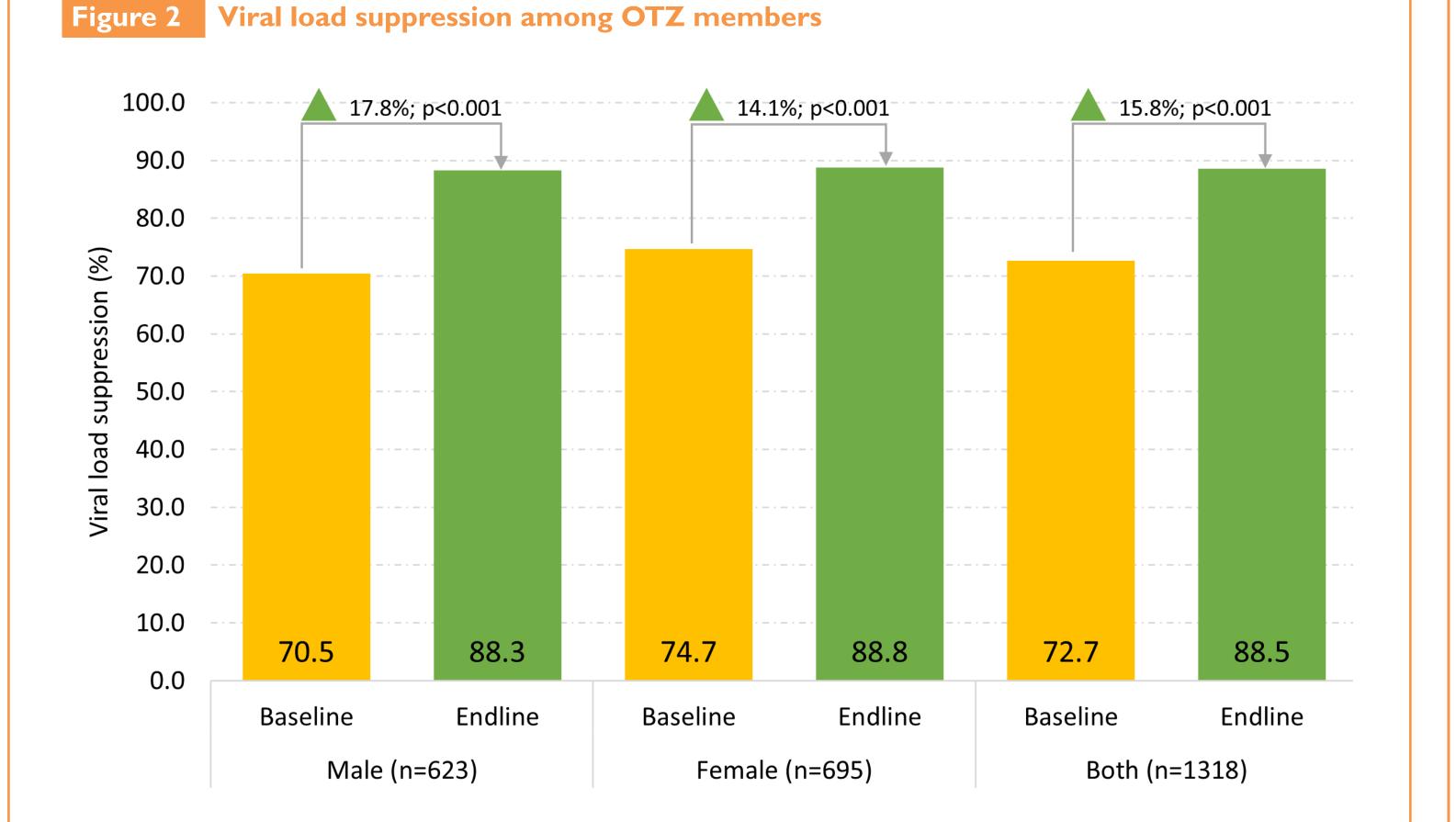
The processes of implementation of an asset-based approach and results in viral load suppression among adolescents and young persons in Kenya, 2017-2021 Immaculate Mutisya<sup>1</sup>, Anthony Waruru<sup>1</sup>, Raphael Ondondo<sup>1</sup>, Omoto Lennah<sup>1</sup>, Susan Hrapcak<sup>2</sup>, Deborah Carpenter<sup>2</sup>, Jessica Gross<sup>2,</sup> Stella Njuguna<sup>1</sup> Evelyn Ngugi<sup>1</sup>, Abraham Katana<sup>1</sup>, Lucy Ng'ang'a<sup>1</sup>

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# Background

- Consistent use of antiretroviral therapy (ART) enhances the suppression of HIV and slows down the progression of HIV infection to advanced AIDS disease outcomes.
- Kenya has achieved a modest ART coverage of about 60% among adolescents and young people living with HIV (AYPLHIV), and almost two-thirds of AYPLHIV are virally suppressed.
- However, ART coverage among AYPLHIV is below 50%, and slightly over half are virally suppressed. Enhanced approaches, such as asset models like operation triple zero (OTZ), that promote intrinsic desire to achieve good health outcomes among AYPLHIV, may yield better health outcomes. The goal of OTZ is to achieve zero missed appointments, zero missed medication, and to attain zero viral load Aim:

- Of the I372 AYPLHIV with complete records, 53.1% were females (Figure 1).
- Viral suppression improved from a baseline of 72.7% to 88.5% (p < 0.001), (Figure 2).



To describe and explore the outcomes of implementing the OTZ in Kenya at 20 early-adopter sites from 2017-2021.

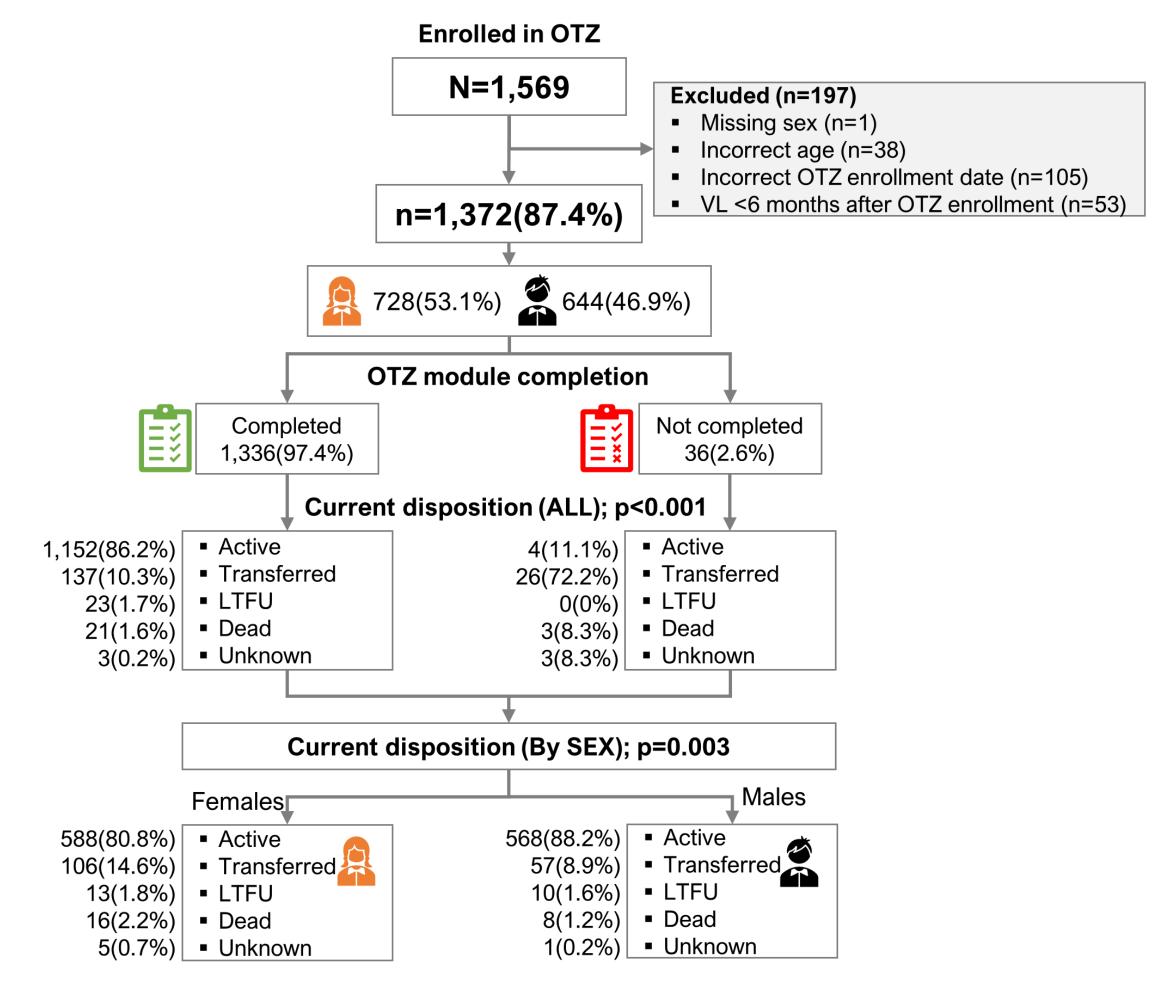
## Methods

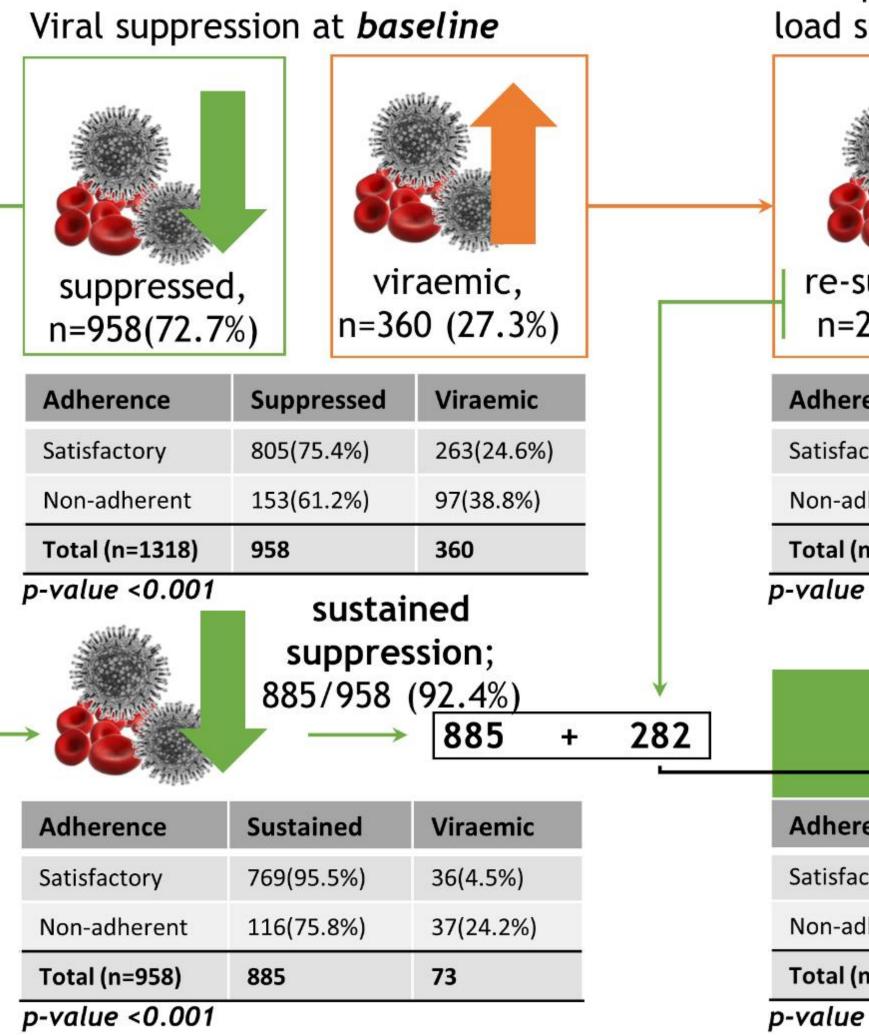
- OTZ package contains six modules that combine intrinsic and extrinsic assets.
- We tested for the independence of proportions for categorical variables using Pearson's Chi-square test. We compared characteristics at baseline (enrolment to the OTZ program) to the end-line (completion of OTZ) modules) using the McNemar Chi-square test and the Wilcoxon rank-sum to test for differences in medians.
- The majority, 72.7% of AYPLHIVs who were virally suppressed at baseline, had sustained viral suppression at the end line (92.4%), while those who were viraemic at baseline had a re-suppression rate of 78.3%.
- Most of the AYPLHIV with satisfactory adherence were suppressed or re-suppressed, (Figure 3).

## Results

- OTZ modules completion was 1336 (97.4%)
- At the end-line, I3I9/I372 (96%) were retained in care, while 24/1372 (1.7%) died, and 23/1372 (1.7%) were lost-tofollow-up.
- Retention in care was higher among males compared to females AYPLHIV, p=0.003 (Figure 1).

Characteristics of OTZ participants at enrolment into OTZ and disposition, Kenya, 2017-2021





# Re-suppression and overall viral load suppression at *end-line* re-suppressed, viraemic, n=282(78.3%) n=78 (21.7%)

Adherence	<b>Re-suppressed</b>	Viraemic
Satisfactory	229(87.1%)	34(12.9%)
Non-adherent	53(54.6%)	44(45.4%)
Total (n=360)	282	78

over	all suppress	ion;		
→ 1167/1318* (88.4%)				
Adherence	Suppressed	Viraemic		
Satisfactory	998(93.5%)	70(6.5%)		
Non-adherent	169(67.6%)	81(32.4%)		
Total (n=1318)	1167	151		

\*1318 are all AYLHIV who had a viral load test at baseline and end-line

## Conclusions

- Implementing the asset-based OTZ program resulted in improved HIV treatment outcomes among AYPLHIV:
  - a. Treatment adherence
  - b. Continuity of treatment
  - c. Viral load suppression
- Further analysis across all OTZ sites is needed to understand outcomes from national implementation.

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### DISCLAIMER

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