

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 Mutisya¹, Anthony Waruru¹, Raphael Ondondo¹, Omoto Lennah¹, Susan Hrapcak², Deborah Carpenter², Jessica Gross², Stella Njuguna¹, Evelyn Ngugi¹, Abraham Katana¹, Lucy Ng'ang'a¹

1) US Centers for Disease Control and Prevention, Division of Global HIV & TB, Kenya; 2) US Centers for Disease Control and Prevention, Division of Global HIV & TB, USA

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:

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

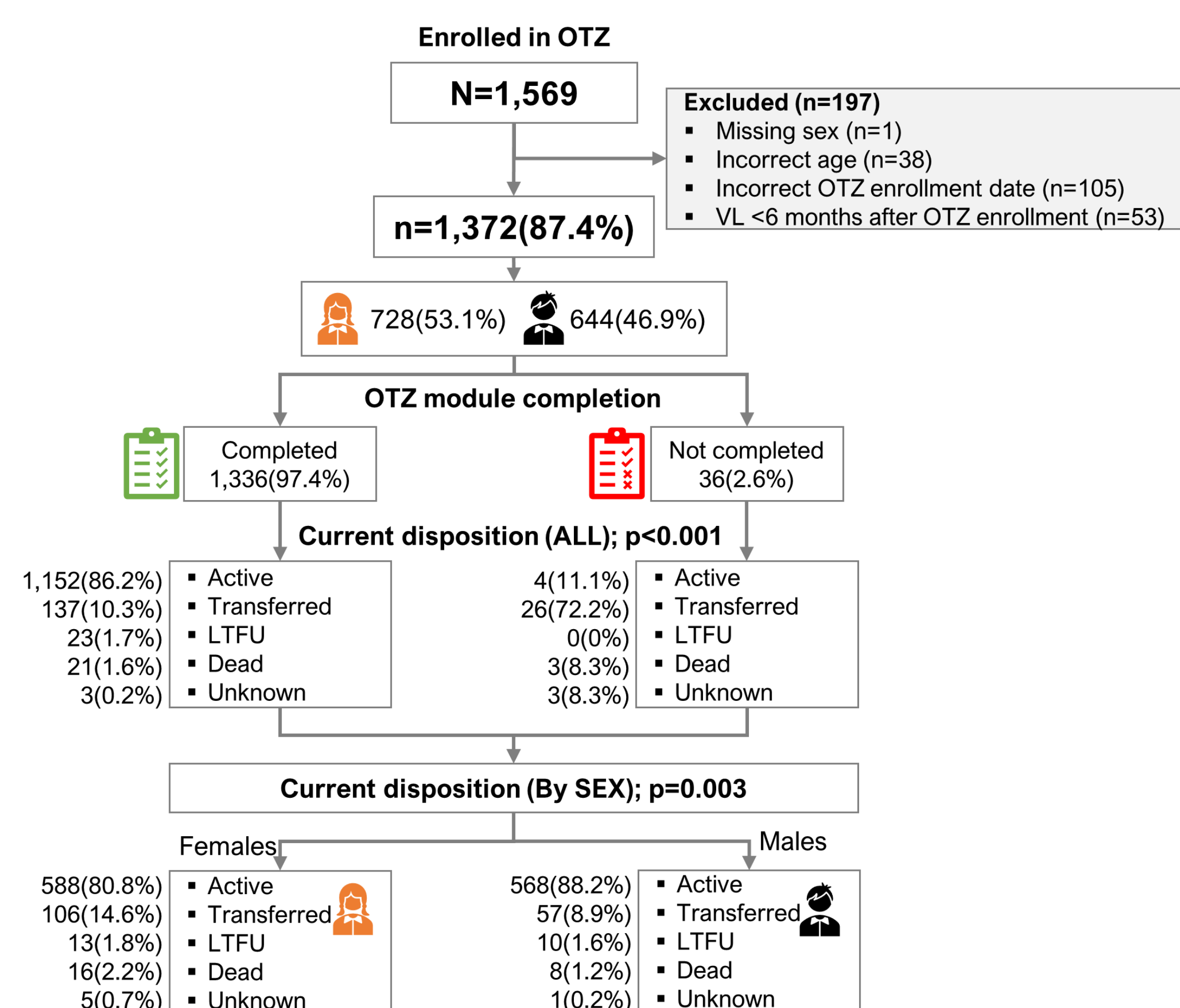
Methods

- 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.

Results

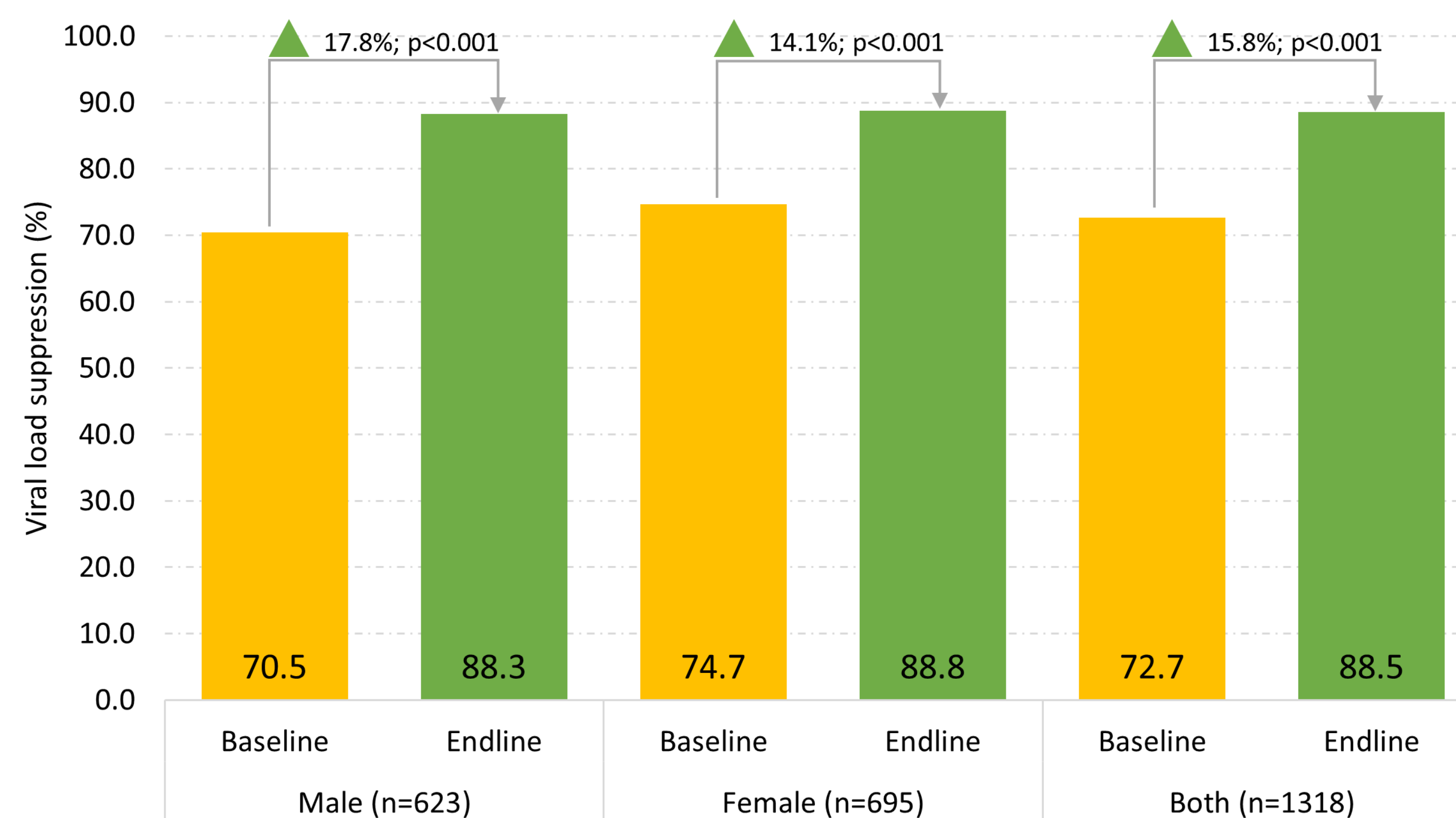
- OTZ modules completion was 1336 (97.4%)
- At the end-line, 1319/1372 (96%) were retained in care, while 24/1372 (1.7%) died, and 23/1372 (1.7%) were lost-to-follow-up.
- Retention in care was higher among males compared to females AYPLHIV, $p=0.003$ (Figure 1).

Figure 1 Characteristics of OTZ participants at enrolment into OTZ and disposition, Kenya, 2017-2021



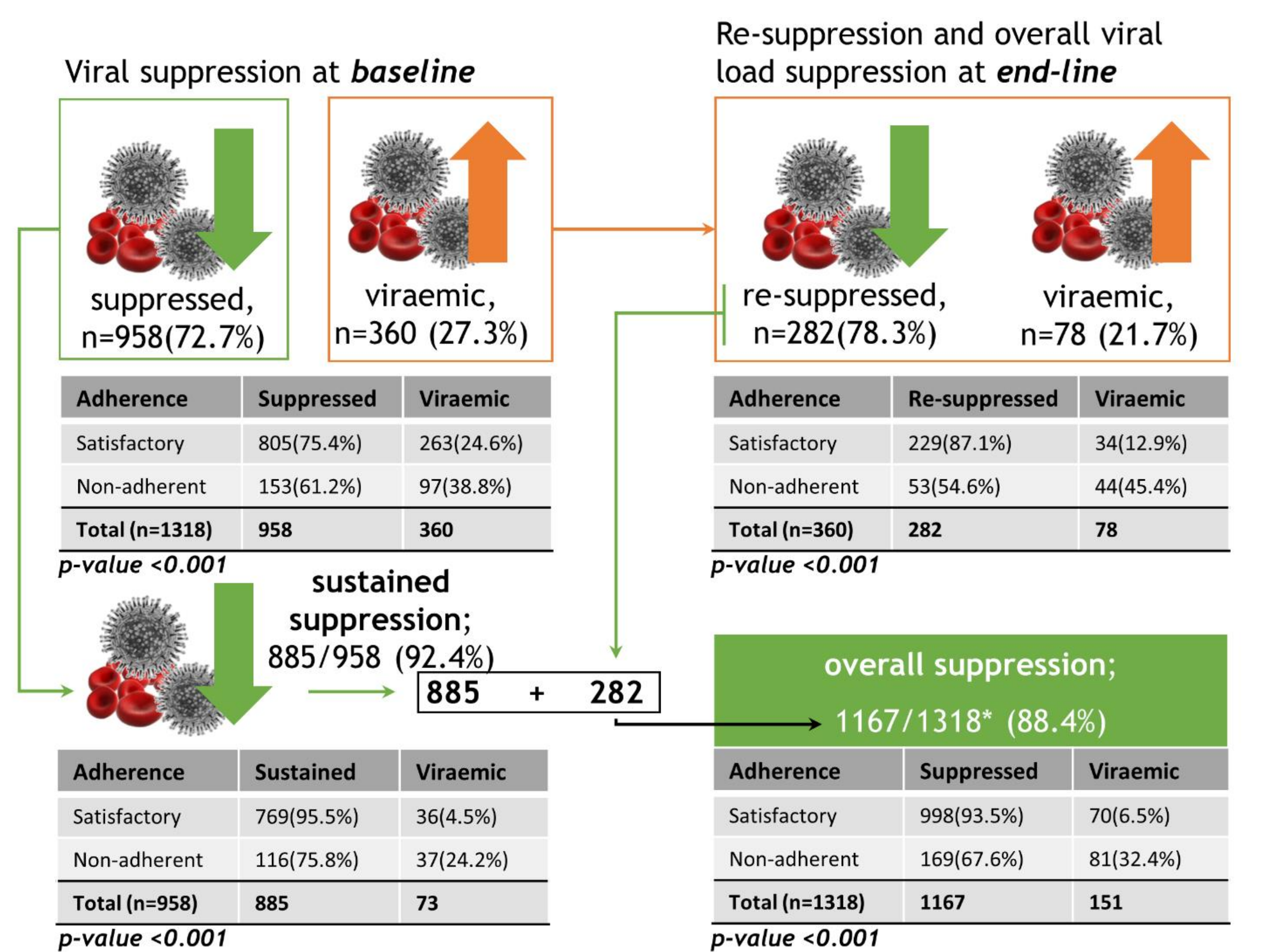
- Of the 1372 AYPLHIV with complete records, 53.1% were females (Figure 1).
- Viral suppression improved from a baseline of 72.7% to 88.5% ($p < 0.001$), (Figure 2).

Figure 2 Viral load suppression among OTZ members



- 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).

Figure 3 Viral load suppression and adherence



Conclusions

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