Background:
Expanded access to anti-retro-viral therapy (ART) has improved HIV outcomes in Nigeria, however, increasing rates of lost to follow-up (LTFU) is threatening the achievement of the UNAIDS treatment targets to treat 90% of HIV diagnosed patients and attain 90% viral suppression amongst those on treatment.

Therefore, this retrospective cross-sectional study is aimed at identifying correlates and predictors of loss to follow-up in ART commenced patients in a large HIV program in Nigeria.

Methods:
Records of all patients who started ART from 2004 to 2017 of 432 PEPFAR supported facilities across 10 States in Nigeria were used for this study. Uni-variate, bi-variate and multivariate analysis using frequencies, percentages, chi-square and logistic regression was conducted using STATA version 14 to determine occurrence, correlates and predictors of LTFU.

Results:
Among all 245,257 ever enrolled on ART patients within the review period, 150,191 (61.2%) remained on treatment while 75,064 (30.6%) were LTFU. Patients that are non-pregnant female (OR: 4.55, p<0.001), on ≥3-monthly ARV refills (OR: 1.32, p<0.001), with un-suppressed viral loads on ART (OR: 4.52, p<0.001), adult on 2nd line regimen (OR: 1.23, p<0.001), pediatric on 1st line regimen (OR: 1.70, p<0.001), 10-14 years (OR: 2.99, p<0.001) and ≥65 years (OR: 1622.84, p<0.001) were significantly more likely to be LTFU.

Conclusion:
Despite increasing access to ART, LTFU is still a challenge in the HIV program in Nigeria with gender, type of regimen, age, un-suppressed viral load, duration of ARV refill, and duration of ART amongst others as significant predictors of LTFU. Differentiated care is advocated to prevent LTFU and improve retention of people living with HIV (PLHIV) on treatment while further research to unravel the gender and social dimensions of LTFU is encouraged.

Key words: loss to follow-up (LTFU), anti-retro-viral therapy (ART), ARV regimen, ARV refill