Treatment Interruption Patterns Among Young People in USAID-Supported PEPFAR Programs

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BACKGROUND

- Continuity of antiretroviral treatment (ART) for people living with HIV (PLHIV) is paramount in order to achieve the UNAIDS 95-95-95 targets and reach epidemic control.
- Interruptions in ART can cause viral load to rebound in as little as two weeks in PLHIV that were previously suppressed on ART [1], risking progression to advanced HIV disease, onward HIV transmission, and death.
- In 2022, AIDS contributed to an estimated 84,000, 27,000, and 42,000 deaths worldwide, respectively, among children (0-14 years), adolescents (10-19 years) and young people (15-24 years) [2].
- **To better characterize continuity of treatment among children, adolescents, and young adults in USAID-supported PEPFAR countries, treatment interruption patterns were analyzed.**

METHODS

- Routinely collected programmatic data from 42 USAID-supported PEPFAR country programs that had treatment interruption data were analyzed for four consecutive quarters (Q) from U.S. fiscal year (FY) FY2022 Q3 through FY2023 Q2 (April 2022 - March 2023, *Figure 1*).
- Trends were compared for the percent and volume of interruptions in treatment (IIT; overall, <3 months on treatment, 3-5 months on treatment, and 6+ months on treatment) among children (0-9 years), adolescents (10-19 years), and young adults (20-29 years). *Interruption in treatment is defined as no clinical contact for 28 days after the last expected clinical appointment or medication pick-up date. % IIT calculated as defined by the PEPFAR FY2024 Monitoring, Evaluation, and Reporting (MER) Indicator Reference Guide v. 2.7 (Figure 2).*
- Analysis was conducted in Microsoft Excel *(data source from PEPFAR MER Structured Data Sets, FY2022-23).*

High rates of interruptions in treatment (IIT), among individuals on treatment <3 months and 3-5 months, highlights the need to **understand the contributors to IIT and to design targeted interventions and provide support for new initiators** to ensure continuity of treatment.

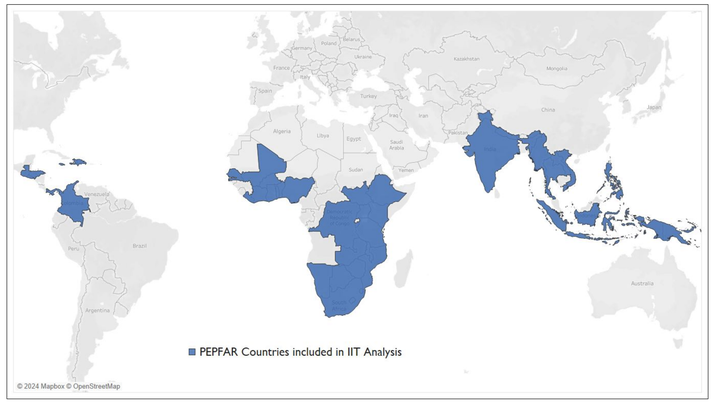


Figure 1. Map of USAID/PEPFAR countries included in the IIT analysis

% IIT, overall =	TX_ML[1] (IIT disaggregates) / TX_CURR[2] (1 qtr previous) + TX_NEW[3] (current qtr)
% IIT, <3 months =	TX_ML (IIT u3mo) / (TX_NEW_current * 25%) + (TX_NEW_1 qtr prior * 50%)
% IIT, 3-5 months =	TX_ML (IIT 3-5mo) / Mean TX_NEW in last qtr and 2 qtr ago
% IIT, 6+ months =	TX_ML (IIT 6+mo) / TX_CURR_2qtr_prev

Figure 2. % IIT PEPFAR MER formulas

RESULTS

- Comparing FY22Q3 to FY23Q2, the overall % IIT as well as volume of IIT decreased for all age groups: children (2.6% vs 2.5%; 3,613 vs 3,303), adolescents (2.7% vs 2.6%; 8,141 vs 7,853), and young adults (3.4% vs 3.3%; 37,761 vs 37,435); however, a peak in % IIT was observed for all ages in FY23Q1 (3.1%, 3.1% and 4.0%, respectively, *Figure 3).*
- Though overall % IIT is highest for young adults in all quarters, in FY22Q4 through FY23Q2 the highest rates of % IIT occurred in adolescents who have been on treatment for <3 months (12.1%, 14.9% and 11.9%) followed by adolescents who have been on treatment for 3-5 months (11.2%, 12.7% and 8.0%).
- % IIT among those who have been on treatment for 6+ months is greatest for young adults across all four quarters.
- For all age groups between FY22Q4 and FY23Q2, the volume of IIT is largest at 6+ months; however, compared to overall % IIT, higher rates of % IIT are observed within the first 3 months on treatment (ranging from 2.8 - 5.3 times higher) followed by 3-5 months (ranging from 2.2 - 5.0 times higher).

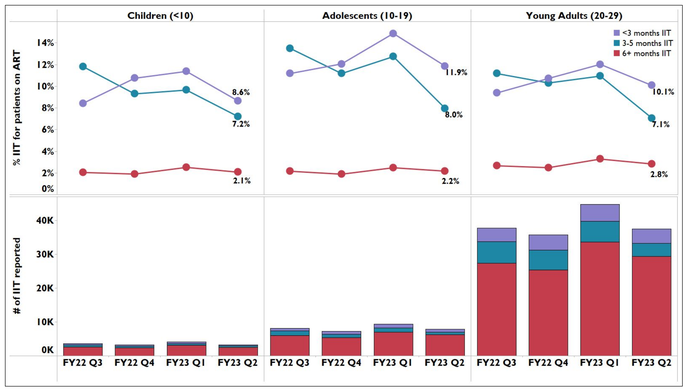


Figure 3. USAID/PEPFAR IIT trends by age, FY22Q3-FY23Q2 (April 2022 - March 2023)

LIMITATIONS

- USAID/PEPFAR data are not nationally representative as the program's geographic footprint is limited.
- The data do not represent cohort data.

CONCLUSIONS

- Rates of treatment interruptions among children, adolescents, and young adults in USAID-supported PEPFAR programs range between 2.4% - 4.0% between April 2022 and March 2023.
- Seasonal variations for treatment interruptions may exist, as evidenced by the increased rates of IIT across all age groups in FY23Q1 (Oct - Dec 2022).

PEPFAR MER Indicators:
[1]TX_ML: Number of ART patients (who were on ART at the beginning of the quarterly reporting period) and then had no clinical contact since their last expected contact
[2]TX_CURR: Number of adults and children currently receiving ART
[3]TX_NEW: Number of adults and children newly enrolled on ART

References:
[1] Rothenberger MK, et al., PNAS, 2015
[2] UNAIDS global HIV estimates, 2023

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