

Enhancing Adolescent HIV Care: Implementation and Evaluation of Teen Models-of-Care for Adolescents living with HIV in Uganda and Malawi

David Masson¹, Sarala Nicholas², Elisabeth Szumilin¹, Suna Balkan¹

¹ Médecins Sans Frontières, Paris, France, ² Epicentre, Paris, France

Context



Adolescents aged 10–19 years living with HIV are a vulnerable group, with around 1.8 million affected globally, predominantly in sub-Saharan Africa. They face various challenges including parental loss, stigma, education difficulties, and health concerns affecting treatment adherence and outcomes. Youth-friendly services are recommended but often lacking, leading to poor transitions from pediatric to adult care.

In late 2017, MSF OCP initiated programs in Malawi and Uganda, drawing on a youth-friendly care model. In Uganda, they established an adolescent-focused project in Arua City, emphasizing peer support and education. In Malawi, interventions were implemented in a high-burden district through decentralized teen clubs and intensive clinics, tailored to stable and unstable adolescents based on viral load and health status.

The study aims to inform future interventions and shape policies for adolescents living with HIV by

- documenting the implementation process of the models-of-care and
- assessing their effectiveness in improving treatment outcomes for adolescents with HIV.

Implementation

MAIN GOAL: To empower teens and adapt the delivery of care to local contexts through

- enhancing medical care and
- reducing adherence issues.

MODEL-OF-CARE: The intervention was a designated ART clinic day(s) delivering a comprehensive set of care protocols encompassing social as well as clinical needs including:

- Friendly spaces for socialization, building friendships, increasing trust.
- Clinical consultations and ART rapid refill for those deemed stable.
- 6-monthly virological follow-up
- Drug resistance testing when needed.
- Adherence detection and adherence support provided by peers / counsellors when needed.
- Educational sessions repeated when needed
- Continuous disclosure process led by the health team
- Psychosocial evaluation and mental health care, as well as social support
- Sexual and reproductive health and rights and family planning access.



These models of care started in the last quarter of 2017, and components were progressively introduced in a continual cycle of planning, implementation, review, and new propositions.

Further details are available here:



Report



Video



Conclusion

These two pilot projects had good results when compared to global standards.

- High retention rate and vastly elevated VL coverage possibly due to quality of care for adolescents
- Increase in virologic success likely due to multiple factors and improvement cannot be linked to specific activity due to lack of control group and simultaneous implementation of different activities.

Implementing adolescent-friendly services and adapting these models to the resources available locally, could contribute to extending the effectiveness of dolutegravir (DTG) recently introduced to adolescents in many contexts globally.

Lessons Learned

- Scheduling:** Schedule adolescent appointments on days when school is out to minimize disruptions.
- Organization:** Group sessions by age, separating younger and older adolescents, and disclose full HIV information before including the young teen (11 – 12-year-old) in group activities.
- Disclosure:** Make disclosing HIV status a continuous process, not just a one-time event.
- Communication:** Maintain close collaboration between clinicians and counselors to address teens' evolving concerns.
- SRHR:** Include Sexual and Reproductive Health and Rights (SRHR) in care packages, training health workers and peers to address adolescent-specific concerns
- Adolescent Peers:** Recognize the importance of peers in conveying messages and sharing experiences, but ensure they are not solely responsible for managing cases.
- Viral Load Testing** Conduct viral load tests every six months for adolescents, preferably with Point-of-Care (POC) testing for rapid results, especially in rural areas.
- Teams:** Utilize a multidisciplinary team including clinicians, counselors, psychologists, social workers, and peers to address complex adolescent situations.

Evaluation

METHOD: Programmatic data extracted from electronic medical records (EMR) were utilized to analyze temporal trends. In Arua (Uganda), trends were evaluated over four reporting quarters from 2016 to 2019, with limited pre-implementation comparisons. In Chiradzulu (Malawi), interrupted time series (ITS) analysis using segmented regression was conducted, comparing quarterly data over a 4-year pre-implementation period (2014-2017) and a two-year implementation period (2018-2019). Data from 2020 was excluded due to COVID-19 pandemic disruptions.

RESULTS: The table presents the changes observed in treatment outcomes over the observation period at each location. Different periods were employed to accommodate the availability of data for analysis.

Over a comparative period (2016 to 2019):

- The number of clients seen per quarter remained constant in Arua and rose by 1.5 times in Chiradzulu.
- The proportion still-in-care remained high across both projects.
- In Chiradzulu, VL coverage and the proportion with VL suppression and VL re-suppression increased substantially. In Arua, these indicators changed less drastically as rates were already high at the start of the observation period.

At the end of 2019 (before COVID-19 lockdowns) it was observed that:

- Over 90% of adolescents were still in care in both projects.
- VL coverage was above 80%.
- VL suppression was 76% in Arua and 83% in Chiradzulu.
- VL re-suppression was 76% in Arua and Chiradzulu.

	Arua, Uganda		Chiradzulu, Malawi		
	Treatment trends tracked across five reporting quarters		Treatment trends tracked across 24 reporting quarters		
	2016-Q1	2019-Q3	2014-Q1	2016-Q1	2019-Q4
Seen ¹	376	371	1,045	1,390	2,070
Still in care ²	87%	91%	93%	92%	93%
Viral Load (VL) Coverage ³	75%	82%	6%	38%	91%
VL suppressed ⁴	77%	76%	49%	51%	83%
VL re-suppressed ⁵	41%	76%	16%	16%	76%

1. The number of adolescents with either a recorded visit or lab test in the reporting quarter.

2. The proportion of "Seen" adolescents with a repeat visit 9 to 15 months after first visit in the reporting quarter.

3. The proportion of "Seen" adolescents with a VL test in the 12 months prior to first visit in the reporting quarter.

4. The proportion of "Seen" adolescents with VL <1,000 copies/ml among those with a VL test in the reporting quarter.

5. The proportion of "Seen" adolescents with VL <1,000 copies/ml at the repeat VL test among those with a high VL >1,000 copies/ml in the reporting quarter.



All Photographs copyright of Francesco Segoni.