MALAWI: DISTRICT HEALTH SYSTEM STRENGTHENING AND QUALITY IMPROVEMENT FOR SERVICE DELIVERY

TECHNICAL BRIEF
JANUARY 2018

TEEN CLUBS HELP RETAIN ADOLESCENTS IN HIV CARE AND TREATMENT

Photo by Cindy Shiner

Background

Malawi has a significant youth and adolescent population, with nearly two-thirds of the country's estimated 17.2 million people under the age of 24.[1] Youth and adolescents, aged 10-24, account for about 50% of new HIV infections in Malawi, with prevalence higher among 15-17 year olds. Five percent of young women and 1.1% of young men aged 15-24 are living with HIV in the country, compared to a regional prevalence of 3.4% and 1.6% in East and Southern Africa, respectively.[2,3]

Poor access to and uptake of HIV services contribute to the vulnerability of HIV-infected adolescents. Compared to adults, adolescents tend to be less adherent to antiretroviral therapy (ART) and have significantly lower rates of virological suppression.[4] Furthermore, adolescents living with HIV also appear more likely to engage in risky behaviors compared to children and adults. Young adults aged 15-24 are the highest-risk age group for loss to follow-up, increasing the risk of defaulting on treatment, and AIDS remains the leading cause of death among adolescents in Africa.[5]

This age group represents an important target population in efforts to prevent new HIV infections and end AIDS. In Malawi, about 15% of young women and 18% of young men aged 15-24 report having had a sexual encounter before the age of 15.[2] The median age for sexual debut for women and men aged 20-24 is 17 and 18 years old, respectively, further indicating the vulnerability of the youth population.[2] Yet, awareness of and knowledge about reproductive health and HIV transmission is low among Malawi's youths and adolescents.[2]

HIV-infected adolescents are more likely to face stress, including sickness and death of close family members, taking care of younger siblings or ill family members, and stigma and discrimination. Additionally, these adolescents and youth are more likely to miss school, mainly because of illness and

THE DISTRICT HEALTH SYSTEM STRENGTHENING AND QUALITY IMPROVEMENT FOR SERVICE DELIVERY (DHSS) PROJECT (2012-2018) supported the Government of Malawi in implementing the National Strategic Plan for HIV and AIDS in line with the Country Operational Plan and supported implementation of the Health Sector Strategic Plan through the project's work in seven districts of Malawi: Nkhata Bay, Likoma, Blantyre, Chiradzulu, Thyolo, Mwanza, and Neno.

Funded by the President's Emergency Plan for AIDS Relief (PEPFAR) through the US Centers for Disease Control and Prevention (CDC) and implemented by Management Sciences for Health (MSH), DHSS contributed to Malawi's goal to become a healthy and prosperous nation free from HIV and AIDS. The project focused on district strengthening and key populations, using targeted evaluation, and providing technical support to the Ministry of Health. The main objective of DHSS was to improve quality, access, and coverage of priority HIV-related health services at priority sites in the seven districts by: identifying 90% of people living with HIV (PLHIV); initiating and retaining on antiretroviral therapy (ART) 90% of PLHIV identified; and achieving 90% viral suppression for ART patients.

stigmatization from peers and school officials.[4]

To better meet the unique needs of adolescents living with HIV and thereby increase adherence to treatment and achieve viral suppression, the District Health System Strengthening and Quality Improvement for Service Delivery (DHSS) Project developed an approach based on the successful model of teen clubs introduced by the Baylor International Pediatric AIDS Initiative (BIPAI). The BIPAI Teen Club program, first piloted in 2013 in Uganda, is a globally recognized intervention model that, through a network of peer-support groups, empowers HIV-infected adolescents to build positive relationships, improve self-esteem, and ultimately improve clinical and mental health outcomes.[5] An evaluation study conducted by Baylor at Zomba Central Hospital in Malawi showed that teen club members were three times more likely to stay on ART compared to non-members.[6] This brief describes the DHSS Project's approach to implementing teen clubs and key results.

Interventions

Using the BIPAI Teen Club model in 2015, DHSS partnered with the Ministry of Health to implement teen club support for 24 facilities in five districts (Blantyre, Thyolo, Nkhata Bay, Likoma, and Mwanza). However, the data presented here are from the two southern districts of Thyolo and Blantyre, where 18 teen clubs were supported.

The model aims to provide dedicated support groups—teen clubs—for HIV-infected adolescents aged 10-19 years. The teen club mission is to provide a safe and nurturing environment for HIV-infected adolescents to build supportive relationships, increase their self-esteem, and develop and reinforce good habits. DHSS-supported health facilities typically organized teen club events on Saturdays, with membership limited to fully disclosed, HIV-infected adolescents. Groups were disaggregated by gender for sexual education in order to encourage comfort and privacy.

Participants share experiences, and receive counseling and clinical, spiritual, and psychosocial support, and are linked to other services, including comprehensive care and treatment. Family planning education includes safe reproductive health practices, the importance of abstinence, and distribution of condoms to older teen participants. Discussions are also held on disclosure of HIV status and the importance of adherence to medication and counseling. Teens can also participate in recreational activities, including indoor games, football, and netball, among others. Consultations, clinical care, and ART refills are provided throughout the day as part of scheduled programing.

DHSS supported training for teen club mentors in all 18 facilities. Between January 2015 and July 2017, DHSS supported monthly meetings of teens at all facilities with lunch allowances and refreshments. This enabled teens to stay longer at the clinic on a teen club day. Facility registers showed increased enrollment of teens and improved retention on treatment.

The teens are recorded in the registers by sex and age. Every month on teen club day, attendance of adolescents was checked. Those who had graduated, transferred out, stopped, defaulted, or died were recorded on patient ART master cards and in an electronic monitoring system. Viral load data was collected and maintained using teen club registers, facility ART registers, clinic ART master cards, and electronic medical records.

Retention of adolescents attending teen clubs was assessed based on primary outcomes. A cohort of adolescents from the 18 facilities was followed up from the time of enrollment into a teen club through July 2017. In accordance with national ART guidelines, all teens that were due for viral load monitoring had a sample taken. A viral load result of less than 1,000 copies/mL of blood indicates good adherence to ART and more than 1,000 copies/mL of blood indicates poor adherence.[7] Those with a viral load greater than 1,000 copies/mL had to undergo intensive adherence counseling for three months, and have a follow-up viral load sample taken at the end of that period. If not virally suppressed, they were subsequently transitioned to second-line ART.

Data recorded from January 2015 – July 2017 was collected and entered into KoboCollect. Simple frequency tabulations and descriptive analyses were calculated using Microsoft Excel comparing adherence and uptake over time.

Results

Between January 2015 and July 2017, 1,646 adolescents (aged 10-24) were enrolled in teen clubs at 18 supported facilities in Blantyre and Thyolo, 94% of whom were aged 10-19 years. In the 10-19 age group, 991 had a viral load test between January 2015 and July 2017, of which 83% were virally suppressed (Figure 1), compared to only 67% (827 of 1,241) of teens on ART at DHSS-supported health facilities in the same districts without teen clubs.

The majority of the study cohort was female (59%), with more females than males across all age categories (Figure 2). At the time of enrollment, more girls had enrolled in teen clubs than boys, a trend that follows throughout the retention cascade. This consistency of gender distribution suggests the effectiveness of the teen club model for both girls and boys and that the model is sufficiently meeting a need for specialized interventions for adolescent ART adherence.

Among males and females in the 18 project-supported facilities in Blantyre and Thyolo, viral load suppression was achieved by 79% of males and 85% of females, which is higher than in the general population where 63% of male and 71% of female teens achieve suppression (Figure 3). Retention on ART among teens (95% in males and 98% in females) is also higher in these facilities than in the general population (77% for adults and children after 12 months on ART). Female teens are more likely to enroll, achieve viral suppression, and graduate from treatment than their male counterparts. Females are also less likely to be switched to second-line therapy than their male counterparts and more likely to be able to join the adult ART clinic. The reason could be that females have more support from families or community structures, or that the teen club structure is more favorable to females than males. These factors require further investigation.

Among teens who participated in teen clubs in the same 18 facilities in Blantyre and Thyolo, suppression rates were much higher (Figure 4): 82% vs 66% in those aged 10-14 years and 84% vs 69% in those aged 15-19 years. However, in the 20-24 age group, only 78% of teens attending a teen club achieved viral suppression as opposed to 88% in the general pool of teens. The reason could be that the pool of teens aged 20-24 attending teen club is much smaller.

Lessons Learned

- Teen clubs improve adherence to ART among HIV-infected adolescents. Of the 1,700 adolescents included in the cohort across 18 health facilities, 91% were retained in care since January 2015, suggesting the teen club model contributes to increased adherence to ART.
- Teen clubs improve retention in care among HIV-infected adolescents. The retention rate achieved under the teen club study is higher than the national

Figure 1: Blantyre and Thyolo teen club viral load cascade (August 2017)

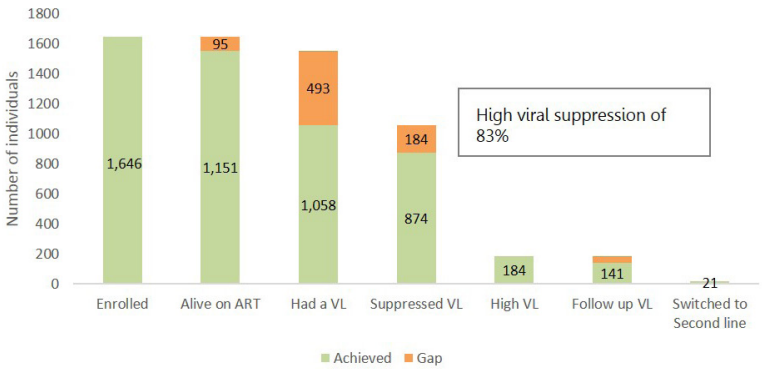


Figure 2: Teen club age and gender disaggregation (January 2015 – July) 2017

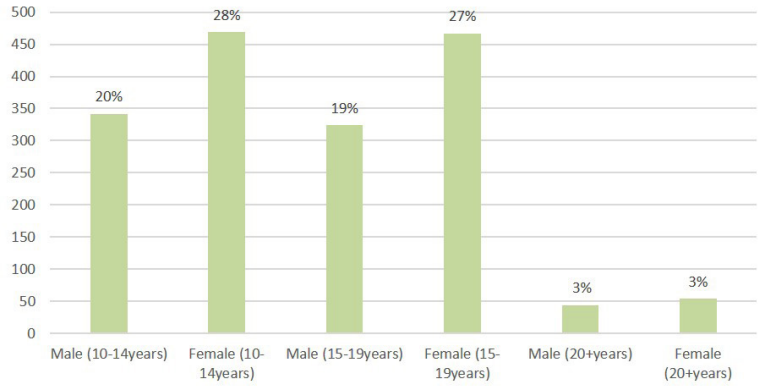


Figure 3: Blantyre and Thyolo teen outcomes and comparisons by sex (January 2015 – July 2017)

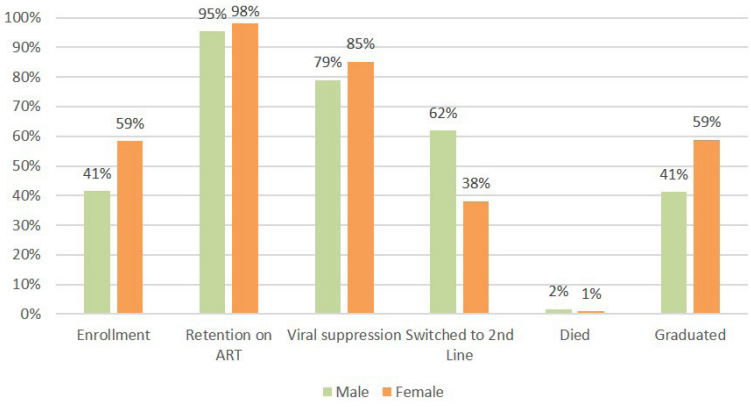
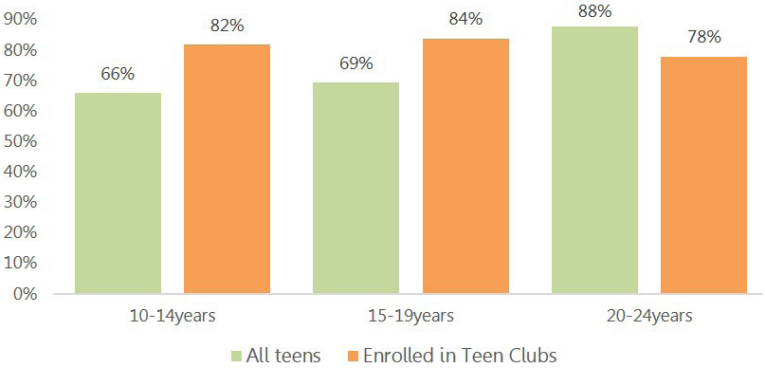


Figure 4: Teen club viral load results (January 2015 – July 2017)



ART program retention rate of 77% among adults and children 12 months after initiation of treatment.[7] Additionally, this result is above the World Health Organization target retention rate of 85%.

- Teen clubs contribute to achieving viral load suppression in HIV-infected adolescents. The positive outcome among adolescents is further seen on viral load monitoring, with 82% of adolescents in the cohort achieving viral suppression. These levels of viral load suppression amongst teen club participants are higher than reports from the national HIV program, which reports 66% of adolescents with viral suppression.[7]
- Teen club membership growth suggests that HIV-infected adolescents welcome the model and that what it offers meets a need they have.

Conclusions

The DHSS experience with the Baylor Teen Club model demonstrates that it appeals to adolescents living with HIV and leads to high retention rates. This is particularly relevant in Malawi, where data indicates youth and adolescents are lagging in terms of those accessing HIV testing services and treatment.

The results of the teen club program evaluation in Thyolo and Blantyre districts show that teen clubs are meeting a need due to the high number of adolescents participating in the program and good adherence to treatment and viral load suppression being increasingly achieved over time. Through teen clubs, it is possible to achieve a better yield of identifying new HIV-infected adolescents. Additionally, the teen club model provides a forum to address other issues affecting HIV-infected adolescents, such as sexual and reproductive health, nutrition, and other psychosocial needs.

Limitations

- Teen club data was collected over a period of 18 months. The collection was cross-sectional and the outcomes were not time-bound.
- No patient-level data elements were collected to determine statistical strength of some of the observations.
- The viral load comparison data was available only for 2017 and included those in the teen club who had a viral load test that year. This comparison data did not clearly disaggregate data for teens NOT enrolled in teen club from the total cohort of teens, and therefore DHSS could not conduct a statistical analysis of associations between the outcomes and exposure to teen clubs.
- As the data used for analysis was secondary and collected for the purposes of routine program monitoring for quality improvement, it could not appropriately answer some of the observations, such as the differences in gender with regards to retention and viral suppression. These matters require further research.

This summary brief was prepared by Happy Mpawa, Irvine Mchacha, Chisomo Ngwalo, Ruth Betha, Sarah Birse, and Elke Konings.

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