THE ELIZABETH GLASER PEDIATRIC AIDS FOUNDATION: BREAD OF LIFE CASE STUDY

OVERVIEW

The Elizabeth Glaser Pediatric AIDS Foundation (EGPAF) implemented the ViiV-funded Nakinae Akiyar 2.0 project in Turkana County Kenya. The overall goals of this project were to increase coverage of HIV testing and counseling (HTC), improve viral suppression, and increase retention of mother-infant pairs and their families in care. To achieve these goals, we implemented appropriately designed, community-driven interventions that effectively engaged persons living with HIV (PLHIV) and existing community health structures. These interventions addressed challenges in access to HIV services and retention in care faced by PHLIV in Turkana, who are traditionally nomadic and under-served by the health system. The project complemented clinical services with social support and economic investment, empowering PLHIV to increased demand, access, and utilization of HIV services.

This case study outlines one activity implemented within the project, which resulted in achievements of viral suppression and holistic care access among HIV-positive women, HIV-exposed infants (HEI), and children living with HIV among nomadic populations in Turkana County. Bread of Life was implemented from September 2017 to September 2019. This activity entails recruitment of existing peer guidance counselors mobilized to participate in a livelihood project: a bakery affiliated with the Lowareng'ak health facility that both employs women living with HIV and provides much needed food to the population of Turkana. This case study illustrates some of the activities, lessons learned, and recommendations for future expansion.

CONCEPT

Bread of Life was an EGPAF-led, community-based social protection approach for securing the necessities of life for HEI, their caregivers, for PLHIV, and their families enrolled in PMTCT, HIV care and treatment services at Lowareng'ak health facility in Turkana County. EGPAF believes in integrated, supportive care that addresses the needs of an entire community: Bread of Life ensured the fulfillment of clients' non-clinical needs (nutrition and income) within clinical settings, ultimately influencing their treatment outcomes including appointment keeping, adherence to treatment, and reduction of new infections to HIV exposed infants. Bread of Life collaborated with 58 PMTCT mothers who were vulnerable to food insecurity and had a high viral load in the following ways.

- **HIV treatment literacy**: Participatory educational initiatives were used to empower caregivers to understand HIV treatment, appreciate their roles in supporting their children, overcome stigma, and learn life skills like such as entrepreneurship.
- **Women's empowerment**: Women's empowerment was cultivated through education and training capacity building, awareness activities, facilitation of self-help groups, and access to government schemes and other funders to help them to start a small business.
- **Skill development**: Training in baking and basic business skills including sales management to increase the variety of their outputs. This also increased their employability.

TURKANA CONTEXT

Turkana is the largest county in an arid/semi-arid region in Kenya. Its residents are primarily nomadic. While the Turkana county government is responsible for providing public services, non-government organizations (NGOs) collaborate with the county government to assist in service delivery and disease surveillance in the health sector. County officials will often plan activities, while NGOs provide technical assistance, monetary, and logistical support. In 2018, there were 13 hospitals, 19 health centers, 194 dispensaries (40% of which offer HIV services), and 136 functional community health units (CHUs) in Turkana. The average distance to the nearest facility was 35 km. While this shows significant improvement of infrastructure and human resources for health in Turkana over the years, health facilities can only do so much. Health indicators are well below the national average: maternal mortality rate is 1,594 per 100,000 births, compared to 362 nationally; the neonatal mortality rate is 80 per 1,000 births, compared to 22 nationally; and the under-five mortality rate is 74 per 1,000 births, compared to 52 nationally.[1]

HIV prevalence among women is higher (5.7%) than that among men (3.4%) and mother-to-child transmission (MTCT) in the county was 3.4% as of December 2017. Major contributing factors to the increase in new HIV infections, especially among women and children, include poverty, food insecurity, low HIV literacy, stigma, limited access to health services, the nomadic lifestyle of inhabitants, the patriarchal nature of the community, polygamy and widow inheritance, and deep cultural beliefs in traditional medicine.

HIV infection and HIV-related caregiver burdens result in debilitation of the most productive household members, as well as decreased household and individual economic activity, ultimately worsening household food security. Food insecurity in turn leads to increased risk of HIV transmission, poor treatment outcomes, and more rapid HIV disease progression. Food insecurity among PLHIV has been associated with decreased antiretroviral therapy (ART) adherence, declines in physical health status, decreased viral suppression, worsened immunologic status,

[1] Kenya County HIV profile 2018

increased incidence of illnesses, and increased mortality. Food insecurity also increases the likelihood of risky treatment practices (inability to take one's medicine on an empty stomach), exacerbating the horizontal spread of HIV and increasing the likelihood of vertical transmission through risky infant feeding practices.

Food security among clients also helps in managing drug side effects, minimizing the impact of illness in families, and reducing the pressure to engage in activities that increase the risk of HIV infection. Studies in both developing and developed countries have shown that food security is associated with improved ART adherence and retention. When households have enough food, PLHIV are better able to take ART treatment on time and adhere to clinic appointments, as they are not focused on activities such as traveling long distances to look for food.

INTERVENTION

Lowareng'ak Health Centre is one of 23 health facilities that were supported by EGPAF in Turkana County to provide PMTCT and HIV care and treatment services to 183 clients as of September 2019. In 2017, this health facility reported challenges such as poor appointment keeping among patients, high defaulter rates, and low levels of viral suppression across all patient populations, especially among children. Poor viral load suppression implies continued transmission and an increase in new HIV infections within the local community. Together with the health facility team and PMTCT clients, EGPAF developed a patient-led differentiated service delivery approach that empowers patients to address barriers to service, such as stigma, limited access to food, long distances to health facilities, and illiteracy.

Psychosocial support groups already in existence at the health facility were the starting place for this project. Peer mentors and facilitators of these groups were recruited and trained on managing this project. They received training on baking bread and learned entrepreneurship skills to manage the income they earned from selling bread. The training also included a savings and lending component, popularly known as "table banking" in the local context. The table banking raised savings, which acted as capital for loaning to the male partners and other clients who diversified into individual projects. This in turn created a sustainable form of employment for families, and thus increased access to food, shelter, and education for their children. It also increased access to HIV testing, linkage, and retention in care.

RESULTS

RETENTION IN CARE

Figure 1 shows an increasing trend of clients who were identified through HIV testing services (HTS), enrolled in HIV care and were retained in care as active clients. The number of clients on treatment at Lowareng'ak Dispensary increased from 113 to 183 for the period Sept 2017 to Sept

2019. This increase implied that clients were able to keep their clinic appointments, and reduced the efforts for tracing them back to care due to the enabling environment at the health facility and the strong network established among the PLHIV.

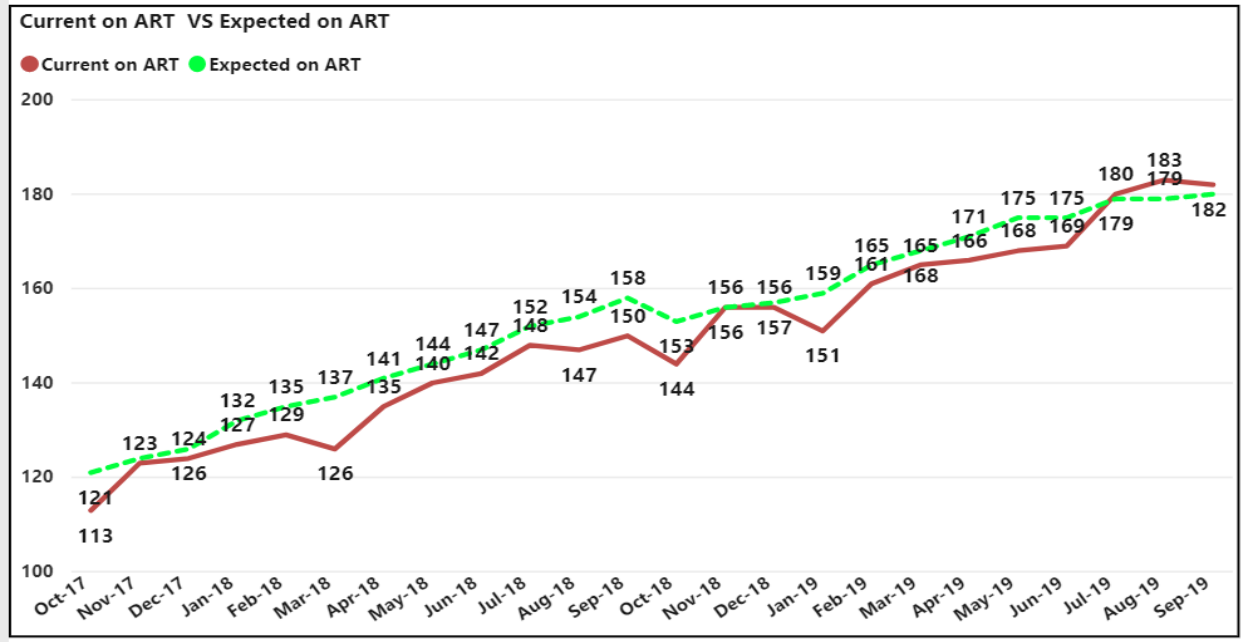

FIGURE 1: ACTIVE CLIENTS VS. EXPECTED OCT 2017 TO SEP 2019

NUTRITION STATUS

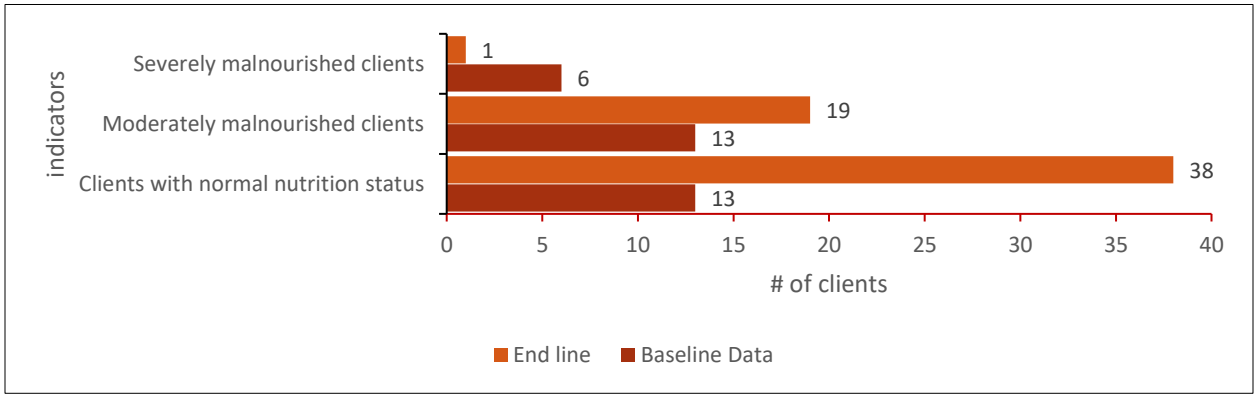

FIGURE 2: NUTRITION STATUS OF PLHIV (SEPT 2017 - SEPT 2019)

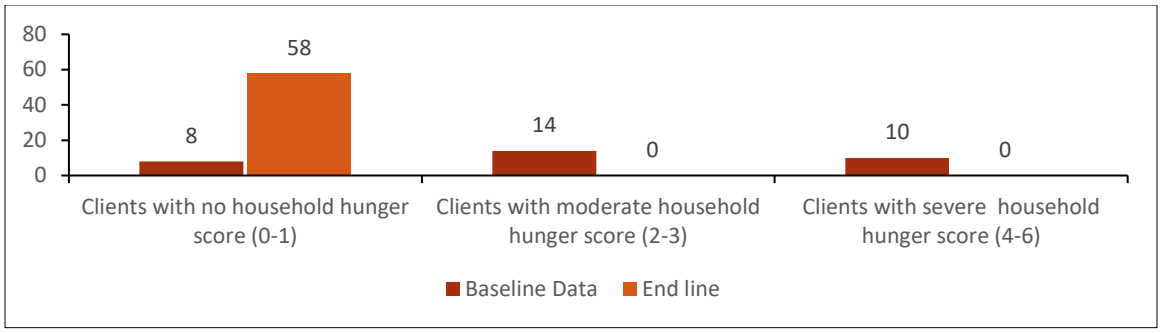

FIGURE 3: HOUSEHOLD HUNGER SCORE (SEPT 2017 - SEPT 2019)

Figures 2 and 3 illustrate a positive change in household food security and patient-level nutritional status. The data showed that following active participation in the Bread of Life intervention, the 58 PMTCT clients' nutrition status improved from severely malnourished to mostly normal nutrition status and moderately normal status. Fifty-eight households acquired sustainable food security and were able to have at least one meal per day. The income made from selling bread enabled the PMTCT clients to meet their household's basic food requirements.

EARLY INFANT DIAGNOSIS (EID) OUTCOMES AT 24 MONTHS

TABLE 1: EID OUTCOMES AT 24 MONTHS

Year	No. of samples (all HEIs)	Uptake of EID among infants linked to bread of life	Positive results for all HEIs	HEI positive results (HEIs whose mothers have been linked to Bread of Life)
2015	10	0	1	0
2016	6	0	1	0
2017	10	6	0	0
2018	16	14	1	0
2019	11	8	2	0
Total	**53**	**28**	**5**	**0**

Table 1 shows uptake of EID testing and longitudinal follow-up for the duration of the Bread of Life project. Twenty-eight of 53 (52%) caregivers actively participated in the activities, which included treatment literacy, women empowerment, and livelihood skills building. Their participation resulted in complete follow-up, and no new infections were recorded among the 28 infants at cessation of breast-feeding. It is worth noting that the uptake of EID improved over time, suggesting improvement in health seeking behaviour. Furthermore, viral suppression improved among the 58 caregivers who are clients at Lowareng'ak health facility from 56% to 91.2%. However, five new infections emerged during this period from caregivers who did not participate in the livelihood intervention.

LIVELIHOOD SCALE UP

Because of the promising outcomes from the pilot phase in Lowareng'ak, the approach has been scaled up to eight other high-volume health facilities, reaching 314 PLHIV as of February 2020, up from 234 at baseline. Table 2 shows results from the scale up of the intervention. The entire livelihood project noted a significant improvement in nutrition status, retention in care, and viral suppression.

TABLE 2: SUMMARY RESULTS OF SCALE UP

Health Facility	Livelihood Activity	Month/Year Livelihood initiated	Partners we Working with	Group Linked	Number of clients linked at baseline	Baseline Suppression before intervention	Current Number of Beneficiaries	Current Suppression
Lowareng'ak	Bakery	November 2017	DOL	Adults	32	56%	58	91.2%
LCRH	Detergent Making	October 2019		PMTCT	15	70%	15	86%
	Greenhouse farming	February 2019	RMF	CCC Female	15	55%	15	60%
KMH	Detergent Making	October 2018	WRI	CCC adults	25	69%	59	85.5%
	Zai Pit Farming	January 2019		MAC	13	67%	17	80.6%
Lokitaung	Goat Keeping	November 2018		MAC	15	71%	24	79%
	Detergent Making	October 2019		PMTCT	15	67%	16	-
LCRH	Fish Selling	December 2019-Yet to be streamlined and initiated		MAC	47	83%	47	-
AIC Lokichoggio	Zai Pit Farming	August 2019		CCC	30	73%	31	76.7%
Kataboi	VSLA/Bakery	July 2019		CCC	13	72%	16	90.8%
Lopiding Sub-County Hospital	Zai Pit Farming	February 2019	Ministry of Agriculture	MAC	14	42.8%	16	
Total client linked					**313**			

LESSONS LEARNED

- Children will always achieve optimal HIV treatment outcomes when barriers to treatment for adults are removed, such as lack of food, non-disclosure, and stigma using a community-focused, family-centred approach to livelihoods, and social protection.
- Continuous capacity building for health workers on integration of livelihood interventions influenced uptake and sustaining of viral suppression among patients.
- Livelihood interventions are an entry point to peer-led adherence and psychosocial support and vice versa. Through the group meetings, PLHIV are able to provide psychosocial support and take differentiated approaches to HIV services.
- Communities will work to provide solution to their challenges when consulted.

LIMITATIONS

- **Slow uptake of the livelihood and social protection interventions** was experienced in the early stages due to high stigma within the community. Stigma was due to low literacy and strong cultural norms and beliefs. Furthermore, the Turkana community is generally a patriarchal and conservative society in which men are the key decision makers and determine most household- and community-level decisions regarding health and livelihood. As a result, the PMTCT mothers relied on the approval of their male partners to make the decision to engage actively in the livelihood activities.
- **The HIV activities in Kenya lean heavily towards biomedical interventions**, which categorizes livelihoods and social protection in HIV care and treatment settings as a non-core component. This has resulted in limited focus on patient-centered social protection interventions in terms of funding and technical response. It has also influenced health workers' attitudes towards integration of these interventions in HIV care in Kenya. The national HIV care and treatment guidelines appreciate the significance of community-facility linkage in addressing social protection and livelihoods as key interventions in overcoming barriers to elimination of mother-to-child transmission, but does not allocate resources for deliberate implementation of such interventions.
- **Low literacy levels within Turkana County** resulted in a slow uptake of treatment literacy and entrepreneurship skills training, which prolonged the duration of training and business transactions record keeping. This sometimes led to a lack of trust among the beneficiaries.

RECOMMENDATIONS

Following results from the implementation of the Bread of Life project, EGPAF recommends the integration of a social protection package in PMTCT, especially for nomadic populations to ensure that treatment outcomes for children and infants are fully optimized.

ACKNOWLEDGEMENT

The documentation of this case study has been made possible with financial support from CCACBA's –2019 Reaching All Children Innovation challenge. The 'Bread of Life' innovation was implemented with financial support from ViiV Healthcare's Positive Action for Children Fund through EGPAF's *Nakinae Akiyar* project.