Operation Triple Zero: Empowering Adolescents and Young People Living with HIV to Take Control of Their Health

COUNTRY: Kenya

In Kenya, adolescents and young people living with HIV (AYPLHIV) account for approximately 20% (303,700) of all people living with HIV (Spectrum Estimates, 2015; Kenya HIV Estimates 2015 Report). AYPLHIV (aged 10-24 years) face especially complex challenges dealing with a chronic illness amidst the physical, emotional and psychological developmental changes of transitioning from childhood to adulthood. The Operation Triple Zero (OTZ) initiative engages AYPLHIV as active stakeholders and partners in their health by promoting a responsive service delivery model.

WHAT WAS THE PROBLEM?

In Kenya, adolescents and young people living with HIV (AYPLHIV) account for approximately 20% (303,700) of all people living with HIV (Spectrum Estimates, 2015; Kenya HIV Estimates 2015 Report). AYPLHIV (aged 10-24 years) face especially complex challenges dealing with a chronic illness amidst the physical, emotional and psychological developmental changes of transitioning from childhood to adulthood. The HIV epidemic among adolescents and young people (AYP) is characterized by relatively high HIV incidence and suboptimal treatment outcomes, including a relatively high loss to follow up, low adherence to treatment, and low viral suppression. Despite the availability of the strategic frameworks for AYPLHIV in Kenya, national guidelines for an adolescent package of care (APOCH), and use of antiretroviral drugs (ARVs) for treating and preventing HIV infection in Kenya, viral suppression for AYPLHIV has been low at <70% compared to adults at >80% (https://viralload.nascop.org).

WHAT IS THE SOLUTION?

The Operation Triple Zero (OTZ) initiative is an asset-based program that aims to nurture the potential within AYPLHIV to be part of the solution to their own health. Asset-based programs ask the question “What makes us healthy?” (Simon, 2015). Such an approach promotes good health and well-being, protects against poor health, and enhances communities’ and networks’ abilities to work together towards a common goal for sustained health (Michigan, 1998-1999; Simon, 2015). OTZ engages AYPLHIV as active stakeholders and partners in their health by promoting a responsive service delivery model.
AYPLHIV joining OTZ clubs are offered a comprehensive HIV treatment literacy package, and empowered to be self-health managers. Further, they commit to a simple treatment goal of achieving “three zeroes”: zero missed appointments, zero missed drugs/medications, and zero viral load (VL). The program also promotes other “zeroes”, including zero stigma, zero deaths, zero sex for those abstaining, zero unprotected sex for the sexually active, and zero mother-to-child HIV transmission for pregnant and breastfeeding AYPLHIV, among other zeroes. OTZ empowers participants to take charge of their health, take control of their decisions, receive support from fellow peers, and identify with peers who are doing well.

The OTZ initiative weaves together AYP emotional and cognitive behaviors with developmental assets to promote positive health behaviors resulting in good health outcomes. OTZ utilizes positive peer interactions to foster change. Those who achieve three zeroes are dubbed heroes, making it a ‘cool’ thing. Heroes speak up and encourage other OTZ members to become heroes, too. This model has been scaled up in Kenya, where AYPLHIV of different ages, cultures, and education levels have adopted and owned the initiative, spreading it across peers. From 2016 to March 2018, the initiative expanded nationally, reaching 27 high HIV burden counties and over 11,000 AYPLHIV.

WHAT WAS THE IMPACT?

Preliminary data from the OTZ Initiative (Figure 1) show that the majority of AYPLHIV who participate in OTZ attend their scheduled clinic appointments. Stable OTZ members receive multi-month prescriptions, and, while enrolled in OTZ, not all attend clinics on a monthly basis.
Self-reported adherence has improved significantly across programs increasing from 88% in October 2017 to 96% in February 2018 (Figure 2).
Notably, program data shows an improvement in overall viral suppression over time. In Siaya County, 86% of adolescents (aged 10-19) who were current on ART had enrolled in OTZ by June 2018. From July 2017 to June 2018, viral suppression increased from 65% to 80% among 10-14 year olds and from 66% to 84% among 15-19 year olds (Figure 3).

Figure 3. Overall Viral Suppression among Adolescents in Siaya County (OTZ activities initiated in June 2017).

Preliminary data for clients aged 10–24 years from six PEPFAR/CDC supported implementing partners (IPs) show a substantial improvement in viral suppression. Of 2742 AYPLHIV, viral suppression increased from 71% (range 67% - 82%) to 82% (range 71% – 96%) after 6 months of enrolment into OTZ.
The initiative increases population-level viral suppression, resulting in healthy adolescents and a healthier community. Virally suppressed AYPLHIV are more productive and well positioned to promote behavioral change among their peers. Additionally, virally suppressed AYPLHIV are less likely to be sick, reducing both missed school hours or work hours lost, and the costs associated with hospitalizations or medications. Pregnant AYPLHIV with an undetectable VL are less likely to transmit HIV to their child.

HOW DOES IT WORK?

OVERALL PROGRAM DESCRIPTION
The OTZ package contains three modules: health care worker (HCW), caregiver, and adolescent. The OTZ initiative trains HCWs to provide asset-based programming, and enhances the skills and capacity of caregivers to empower AYPLHIV to be self-health managers. Asset-based programming sees adolescents as part of the solution, identifying their strengths and developing their potential. OTZ empowers AYPLHIV to take ownership of their own health, participate in decision-making processes and have a positive outlook on the future.

INDIVIDUAL LEVEL
The target population is AYPLHIV aged 10-24 years old. The intervention is tailored to nurture both intrinsic and extrinsic developmental assets to promote positive behaviors.
resulting in better health outcomes. Intrinsic assets among AYPLHIV are enhanced through providing comprehensive treatment literacy and goal setting, promoting resilience, and enabling positive peer interactions, independence and connectedness. Comprehensive HIV treatment literacy training ensures in-depth understanding of body changes as a result of HIV infection, HIV prevention, and ARVs. The training also clarifies desired antiretroviral treatment goals, including improved quality of life, as per national guidelines. Extrinsic assets are nurtured by providing knowledge and skills to HCWs and caregivers to support AYPLHIV. The combination of both intrinsic and extrinsic assets ultimately results in empowered, confident AYPLHIV who are self-health managers.

AYPLHIV were engaged in designing numerous aspects of the OTZ initiative, including defining the mandate of OTZ clubs; designing the OTZ logo, motto and pledge; translating the OTZ pledge and motto into local languages; developing content for OTZ modules; and participating in OTZ talent shows and activities. At the facility-level, AYPLHIV identified as OTZ graduates (referred to as “champions”) enroll new members, provide psychosocial support to newly identified HIV-positive AYP, provide support to AYPLHIV with high viral loads (VL >1000c/ml) through pairing, coordinate OTZ clubs, and oversee various OTZ activities, including social media.

SERVICE DELIVERY LEVEL
The OTZ initiative is based on the current Kenya national guidelines of promoting HIV treatment adherence through meaningful engagement of PLHIV. Its goal is to achieve zero missed appointments, zero missed drug or medication doses, and zero viral load. AYPLHIV receiving HIV treatment at comprehensive care clinics are encouraged to voluntarily join an OTZ club, irrespective of viral load levels. HCWs or adolescent peers who enroll AYPLHIV support those newly enrolled to develop an individual treatment plan with an ultimate goal of achieving the three zeroes.

OTZ clubs are composed of an OTZ leader and OTZ members. AYPLHIV enrolled into OTZ receive comprehensive HIV treatment literacy training to ensure in-depth understanding of ARVs and desired treatment goals, as per national guidelines. The members are supported to develop an individualized treatment plan with clear HIV treatment goals. In addition to the standard adolescent support groups, OTZ members are trained on self-health management, effective participation, positive thinking about the future, and the transition into adult care.

Members connect with one another through meetings and social media groups that facilitate motivational messaging to uplift and sustain the goals of OTZ. The WhatsApp smartphone application serves as a main mechanism for mutual support among members. During meetings, OTZ members highlight their talents, and share motivational messages through song, dance, poetry and plays. Clubs recognize OTZ members who achieve viral suppression to motivate them and others to maintain suppression, and
support their transition to reduced clinic appointments. Program promotional items, such as program-branded t-shirts and bracelets, are used as incentives.

Pregnant and breastfeeding girls and young women are enrolled in “OTZ-Plus” clubs to support their prevention of mother-to-child HIV transmission (PMTCT) care with the additional goal of zero HIV-positive infants. In addition to standard OTZ activities, these groups provide additional education and support for infant and young child feeding, and administration of infant prophylaxis.

HEALTH SYSTEMS LEVEL
The OTZ initiative builds on the existing Kenya APOC. APOC ensures that HCWs are trained on communication and counseling adolescents, adolescent mental health, sexual and reproductive health for adolescents, psychosocial support for adolescents living with HIV, including disclosure counseling and transition of AYPLHIV from pediatric to adult health services. OTZ orientation is integrated into the APOC.

The OTZ initiative promotes engagement of AYPLHIV as active co-producers of their health, as opposed to traditional approaches where they are viewed as passive consumers of health solutions. Partners sensitize site-level staff on OTZ, and HCWs receive a 1-day refresher training on APOC and a ½-day training on OTZ. Peer leads, or “champions”, are recruited from graduates of the OTZ program for 10-19 year olds. Champions are sensitized during a ½-day OTZ training on how to provide support and guidance to AYPLHIV.

Health workers in facilities with already existing support groups received orientation on OTZ and adopted the initiative. At all facilities, partners worked with staff to implement flexible hours to accommodate access to services for the school-going AYPLHIV. This included after office hours, weekend clinics and holiday-specific activities.

LOCAL ENVIRONMENT
The OTZ initiative supports AYPLHIV and civil society in HIV programming. In the PEPFAR Regional Planning Meeting for the Fiscal Year 2019 Country Operational Plans, one of the key recommendations from civil society representatives was the nationwide scale up of OTZ, indicating their buy-in and continued engagement.

NATIONAL ENVIRONMENT
The OTZ initiative builds on the existing APOC without additional policy changes to date. However, PEPFAR will be supporting the national program to review and revise APOC and caregiver literacy trainings. We envision incorporating asset-based programming into these activities.
SCALABILITY
OTZ has been rapidly scaled up, moving from one facility with 70 OTZ members in 2016 to over 400 facilities with over 40,000 members by March 2018. The main proponents of OTZ have been PEPFAR, civil society and the Kenyan government.

OTZ is a facility-based initiative driven by partners in collaboration with county and facility leads. To bring the initiative to scale, partners engage with counties, identify facilities ready to implement, and carry out individualized or joint sensitization meetings.

At facility level, sites are sensitized and begin enrollment of AYPLHIV into OTZ. Both group and individual enrollment is encouraged. The overall goal at the facility level is to enroll all, or nearly all, AYPLHIV into OTZ.

MANAGEMENT & OVERSIGHT
PEPFAR Team Involvement: Routine data review by the PEPFAR team indicated that viral suppression for AYPLHIV was suboptimal compared to adults. This necessitated review of available facility and partner level innovations with good reported viral suppression rates for these population. OTZ was identified as an innovation that, if scaled up, could contribute towards overall improvement in viral suppression.

The PEPFAR team has been involved in the conceptualization, adoption and enhancement of the available training materials from the national program to meet the asset-based approach. PEPFAR funded partners, with support from the PEPFAR team, worked with the country government to have a scale up plan for OTZ.

The PEPFAR Team provides technical support and supervision, and reviews progress towards achievement of program goals with implementing partners.

Implementing Partner: The OTZ initiative was scaled up from one site in 2016 to 400 PEPFAR/CDC supported sites by March 2018 after results showed increased viral suppression rates for sites that were implementing OTZ. The strategy was discussed in country at the interagency level as a promising initiative to improve viral suppression among AYP. The team recommended the initiative be supported for scale up in consultation with Ministry of Health (MoH).

Partners identified sites that had the highest number of AYP current on antiretroviral treatment. HCWs from these sites were trained on the Kenya APOC. The training includes a half-day sensitization on the OTZ initiative, the need to actively involve the AYPLHIV in management of their own health, and reporting requirements. All the sites selected had adolescent support groups. Peers who were also virally suppressed were identified, trained and engaged as ‘champions’. A baseline analysis was done to determine proportion of AYPLHIV who were virally suppressed. Caregivers were identified, and received a specific caregiver training using a standardized national
training curriculum. APOC guidelines lack details on empowering AYPLHIV to be in charge of their own health. PEPFAR is currently in the process of consultation with MoH to support revision of APOC guidelines to address this gap.

Partners submit monthly reports using an interim reporting tool while awaiting finalization of standard reporting tools by MoH. Scale up to additional sites is based on a national scale up plan.

**Implementing Mechanism Management:** Prior to introducing the OTZ initiative, PEPFAR IPs were already implementing the Kenya APOC. OTZ complements these existing activities, bringing an enhanced model of asset programming. IP work plans were modified to include OTZ activities and focus on outcomes that included retention on ART and viral suppression.

**Monitoring:**

Monitoring and Evaluation (M&E) of OTZ: The team developed a logic model to guide implementation and performance measurement of OTZ goals (Figure 5). To track processes and outcomes of OTZ, an M&E plan was developed. Indicators were designed to track completion of processes, and measurement of inputs and outputs, along with short-term, intermediate and long term outcomes. Documentation of implementation of activities, processes and outcomes was done in an M&E template and reviewed regularly to inform progress.

![Diagram](image)

**Inputs**
- Train HCW
- Train AYPLHIV
- Train caregivers
- Start WhatsApp group for motivation
- Asset mapping and mobilization

**Short term outcomes**
- Increase the number of AYPLHIV enrolled in OTZ
- Increase number of HCW trained
- Increase number of AYPLHIV who receive motivational messages

**Intermediate outcomes**
- Improve adherence to appointments
- Improve adherence to antiretroviral treatment
- Implement asset based approach
- Improve AYPLHIV participation
- Improve case management of AYPLHIV failing treatment

**Long term outcomes**
- Increase proportion of virally suppressed AYPLHIV by 20%
- Increase retention on ART among AYPLHIV to > 90%
- Reduce mortality among AYPLHIV by 25%

Figure 5. Operation Triple Zero Logic Model.
Quantitative Measures of OTZ Implementation: The team identified quantitative measures of OTZ implementation, including four process indicators and three outcome measures of OTZ implementation (Table 1).

<table>
<thead>
<tr>
<th>Process indicators</th>
<th>Objective</th>
<th>Measures</th>
<th>Target</th>
<th>Timeline</th>
</tr>
</thead>
<tbody>
<tr>
<td>To increase the proportion of HCWs trained on APOC from 25% to 50% in 12 months</td>
<td>The proportion of HCWs trained on APOC services</td>
<td>50%</td>
<td>12 months</td>
<td></td>
</tr>
<tr>
<td>To increase the proportion of AYPLHIV enrolled in OTZ trained on treatment literacy and self-health management from 0% to 10% in 12 months</td>
<td>The proportion of AYPLHIV trained on treatment literacy and self-health management</td>
<td>10%</td>
<td>12 months</td>
<td></td>
</tr>
<tr>
<td>To increase the proportion of caregivers of OTZ AYPLHIV trained from 0% to 10% in 12 months</td>
<td>The proportion of AYPLHIV caregivers trained</td>
<td>10%</td>
<td>12 months</td>
<td></td>
</tr>
<tr>
<td>To implement motivational messaging for AYPLHIV in OTZ through WhatsApp group from 0% to 10% in 12 months</td>
<td>The proportion of AYPLHIV participating in WhatsApp motivational messaging</td>
<td>10%</td>
<td>12 months</td>
<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Outcome Indicators</th>
<th>Objective</th>
<th>Measures</th>
<th>Target</th>
<th>Timeline</th>
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</thead>
<tbody>
<tr>
<td>To increase overall viral suppression among OTZ members from baseline of 40% to 70% in 12 months</td>
<td>The proportion of OTZ members who are virally suppressed</td>
<td>70%</td>
<td>12 months</td>
<td></td>
</tr>
<tr>
<td>To increase re-suppression rate of OTZ members with an initial VL &gt;1000 copies/ml from 10% to 50% in 12 months</td>
<td>The proportion of AYPLHIV with VL &lt;1000 on a repeat viral load</td>
<td>50%</td>
<td>12 months</td>
<td></td>
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<tr>
<td>To increase the proportion of OTZ AYPLHIV with sustained viral suppression of &lt;1000 copies/ml on a repeat viral load from 60% to 80% in 12 months</td>
<td>The proportion of AYPLHIV with sustained viral suppression</td>
<td>80%</td>
<td>12 months</td>
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Table 1. Operation Triple Zero 12-Month Monitoring Framework.
Qualitative Measures of OTZ Implementation: The program also envisions carrying out an evaluation in the future to determine the impact of OTZ on the social and mental wellbeing of AYPLHIV in OTZ in a standard evaluation.

Communications and Feed-Back Loop: PEPFAR implementing partners track OTZ using standard data collection and reporting tools. Quarterly reports are reviewed and bidirectional feedback given to PEPFAR and IPs.

BUDGET

Cost of Innovative Solution: OTZ is integrated into the implementation of the APOC for AYPLHIV, which decreases costs. However, the program will need to plan for the availability of clinic space to accommodate OTZ activities, including indoor games, training and engagement of peer leads as champions, printing of information, education and communication materials, and extended working hours. Motivational activities, including retreats and awards for best performing sites, certificates for achievers and most improved, and exchange visits to best performing sites, also require additional resources. Adolescent resource centers equipped with appropriate tools for treatment literacy and improved life skills also require funding. The use of weekend staff (clinic hours) varied by IP.

Efficiency Measures: Implementation of the OTZ initiative was integrated within routine HIV prevention, care and treatment programming. OTZ brought the AYPLHIV on board to actively participate in management of their own health with support of HCWs who facilitated individualized health care plans. One of the notable observations during OTZ scale up is the way AYPLHIV of different ages, cultures, and education level quickly adopted and owned the initiative, spreading it quickly across peers. AYP ownership of the OTZ initiative saves time and resources that would otherwise be used for counselling, thereby making it easier and cheaper to scale up.

The OTZ initiative is integrated into national and PEPFAR priorities. The initiative successfully increases population-level viral suppression, which reduces HIV-related morbidity and supports HIV prevention efforts. The OTZ initiative is integrated with trainings and activities for the existing Kenya APOC. The initiative improves efficiency by reducing morbidity and mortality associated with HIV/AIDS, and promoting a healthy and productive nation.