

Mobilizing Operation Triple Zero in the Democratic Republic of the Congo: Using youth-driven programming, self-care, and virtual support communities to improve youth treatment continuity and viral suppression.

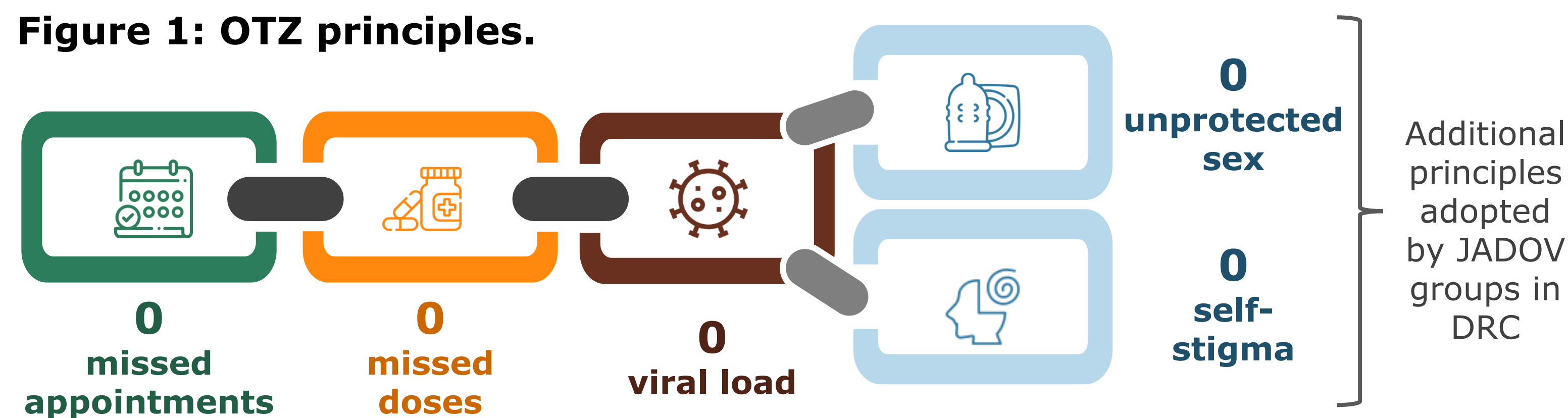
Authors: R. Mwamba¹, J. Masusu, E. Kabange¹, M. Kawen¹, G. Chomba¹, S. Luisi¹, D. Canagasabey², C. Tendo-Bugondo³, PM. Kibwa¹, JC. Kiluba³
Authors' affiliation: ³ Independent (former PATH, Democratic Republic of the Congo [DRC]); ² PATH, Washington DC; ³ PATH, DRC.

Background

The Democratic Republic of the Congo (DRC) continues to experience gaps across the pediatric HIV cascade, with treatment coverage lower among children under 15 years of age compared to adults (32% and 85%, respectively [PNLS, 2021]) and sub-optimal viral load suppression (VLS), ranging from 33% (males 1–4 years) to 93% (females 10–14 years) in September 2020.

Operation Triple Zero (OTZ) was introduced in Kenya and has been successfully deployed in Ethiopia, Kenya, and Nigeria to improve adolescent treatment adherence, continuity, and VLS. The US Agency for International Development-funded Integrated HIV/AIDS Project in Haut-Katanga (IHAP-HK) worked with adolescents and local stakeholders to co-adapt OTZ for the DRC context and tested the approach from May 2021 through September 2022 to improve youth and adolescent treatment outcomes.

Figure 1: OTZ principles.



Description

Using human-centered design, we worked with IHAP-HK supported adolescent support group members to co-adapt Kenya’s OTZ model. While other OTZ models primarily focus on adolescents, we adapted the approach for youth and adolescents under 18 years of age, creating three age-stratified *Jeunes et Adolescents Vivant avec VIH* (JADOV; Youth and Adolescents Living with HIV) clubs:

- 1) Children under 10 years of age;
- 2) Youth ages 10-14 years, integrating a focus on HIV status disclosure; and
- 3) Adolescents ages 15–18 years, with an added focus on positive peer prevention.

Each JADOV member committed to the three “triple zero” outcomes: zero missed appointments, zero missed treatment doses, and zero viral load (Figure 1); specific groups also opted to make additional commitments to zero unprotected sex and zero self-stigma.

The OTZ model leverages self-care principles and creates an enabling environment that inspires youth to be self-health managers; encourages them to take charge of their healthcare decisions; and provides them with an enabling environment to both provide and receive support from peers, families, and extended networks. Our model further integrated virtual support components to provide a more comprehensive support platform for JADOV members. The JADOV package comprised the following elements:

- Use of daily ringtone or designated peer focal point to hold members accountable for taking medication daily.
- Appointment reminders sent by peer group facilitators.
- Missed appointment follow-ups via WhatsApp/SMS/home visit.
- Active participation of JADOV members in facility case conferences to share adherence/continuity challenges and experiences.
- Creation of WhatsApp groups to create a virtual support community.

Additionally, JADOV clubs at specific facilities also conducted quarterly awareness campaigns on safe sex practices, and Medical Directors at some facilities chaired JADOV-focused meetings.

Results and lessons learnt

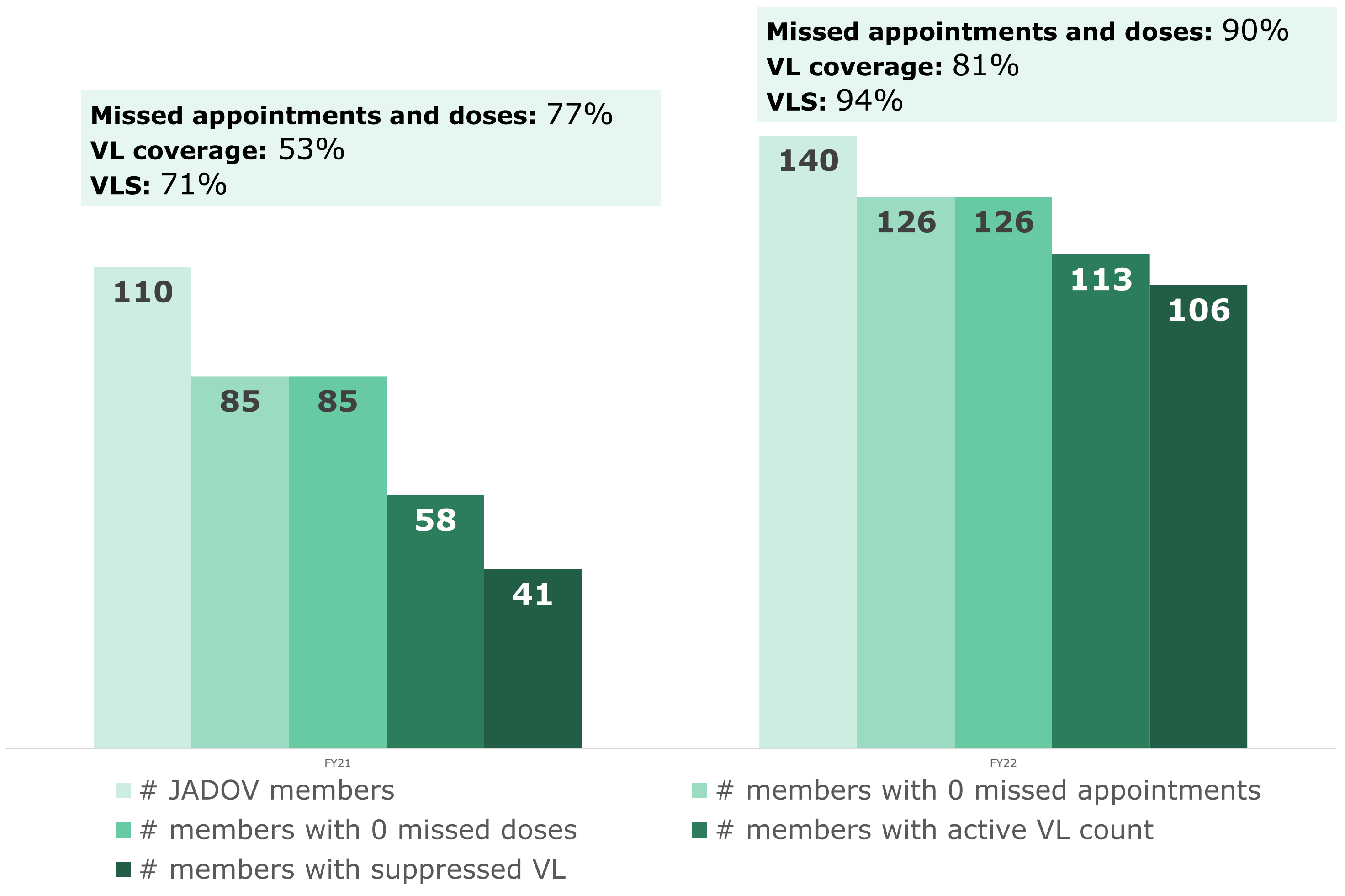
We piloted this model at three high-volume facilities between May 2021 and September 2022, assessing the impact of JADOV participation on treatment and viral load (VL) outcomes. 110 and 140 youth enrolled in JADOV clubs in fiscal year (FY) 2021 and 2022, respectively. Improvements were observed across all tracked outcomes between fiscal years:

- Self-reported adherence and continuity (77%→90%)
- VL coverage (53%→81%)
- VLS (71% →94%)

There were two- and two and half-fold increases in members with active VL counts and suppressed VL, respectively (Figure 2).

WhatsApp/virtual messaging facilitated accountability and on-demand support for club members, contributing to improved outcomes. Peer facilitators and members leading follow-up and peer prevention campaigns reported feeling more empowered to lead their peers in collectively managing their health goals. The involvement of Medical Directors in the JADOV approach was critical for active, sustained engagement and support by facility-based providers.

Figure 2: Treatment and VL outcomes for JADOV members by fiscal year, May 2021–September 2022.



JADOV members at Sendwe Center of Excellence conducting a campaign to raise awareness of and share strategies to prevent HIV, sexually transmitted infections, and unwanted pregnancies at a local secondary school in Lubumbashi. Photo: PATH/Gracia Chomba.

Conclusions & next steps

- Results showed our adapted OTZ model to be feasible and effective at improving youth treatment continuity and VL outcomes.
- HIV program implementers in the DRC should refine (for local context) and scale this model to address persisting challenges in sub-optimal pediatric VLS and to enable the DRC to achieve HIV epidemic control goals.