

Tuberculosis

Supporting children, adolescents and young people living with HIV and diagnosed with TB, or at risk of TB



Children and adolescents living with HIV are at increased risk for tuberculosis (TB). Research has shown that there are specific challenges around paediatric and adolescent TB, both in terms of late diagnosis and poorer outcomes as compared to adults. The available data underestimates TB as a cause of death in children¹, with accurate diagnosis and reporting in only 45% of children with the disease.² The World Health Organization (WHO) estimates that in 2017, there were 1.12 million TB cases in infants, children and adolescents <14 years of age and 1.6 million cases in adolescents and youth, 15-24 years of age². WHO estimated 205,000 TB-related deaths in children, with 32,000 of those in children and adolescents living with HIV.² Africaid programme data supports this with most mortalities being either directly related to TB, or are suspected to have been related to undiagnosed TB. In Zimbabwe, there has been a push towards improving access to TB Preventive Treatment such as Isoniazid Preventive Therapy (IPT) among people living with HIV. However, many adolescents are reticent to start IPT due to fear of side effects and pill fatigue.

Zvandiri supports the government to improve TB literacy among CAYPLHIV, their families and communities. Zvandiri supports the national HIV and TB programme to improve the identification and diagnosis of CAYPLHIV with TB as well uptake of and adherence to TB treatment. CAYPLHIV exposed to TB are identified, linked and supported to adhere to TPT.

Strengthening the Evidence

Current research to measure the effectiveness of CATS in active case finding for TB among CAYPLHIV and mobilization of CAYPLHIV for TPT and adherence support:

Pilot study data, June-August 2019

- **9** CATS trained in 3 health facilities in Harare
- **264** CAYPLHIV screened:
 - **32** (12%) of CAYPLHIV screened had signs and symptoms of TB and referred for assessment
 - **3** (1%) were diagnosed with TB and linked to treatment and care.
 - **41** CAYPLHIV were assessed to be eligible for IPT and referred to the health facility
 - **32** (8%) of those eligible were linked to treatment and care and have all finished treatment.
 - Reasons for not starting IPT were fear of side effects, and pill burden.

The pilot study demonstrated that it is feasible to integrate TB services within Zvandiri and that the role of trained, mentored CATS had a positive impact on early TB diagnoses, linkage to TPT and adherence. **This led to the scale up of this CATS-led TB intervention.**

Advocacy

- Zvandiri youth advocates have participated in global efforts to mobilise resources for TB funding, particularly through the Global Fund Advocates Network
- Zvandiri youth advocates conduct advocacy activities through radio, print and social media to improve awareness of:
 - TB-related stigma
 - Pill burden for those on TB treatment & ART
 - Mortality rates among CAYPLHIV with HIV; early TB diagnosis and treatment
 - TPT for CAYPLHIV



Zvandiri Advocate, Loyce Maturu, with President Troudeau, Mark Dybal of the Global Fund and Melinda Gates

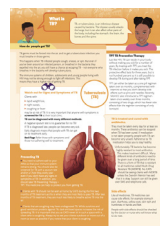


Promoting awareness and uptake of TB services on the Zvandiri Radio Show

Guidelines, Curricula and Tool Development

The following guidelines, curricula and tools have been developed:

- Participation of Zvandiri youth advocates in the development of the **national TB treatment guidelines**
- Development of the CATS Service Delivery Manual to guide CATS in the provision of TB services – **Chapter 8: Supporting your peers with Tuberculosis**
- Development of the **Zvandiri Mentor Standard Operating Procedures** to guide Zvandiri Mentors in the provision of TB services for children and adolescents living with HIV
- Adaptation of the MoHCC's **TB screening tool for CATS**
- Development of **child and adolescent focused IEC materials** to promote TB literacy among CAYPLHIV and their caregivers
- Development of **Zvandiri support group modules** on TB and TPT



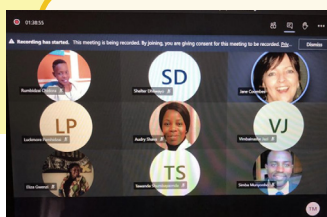
Strengthening TB literacy among CAYPLHIV with child and adolescent friendly information



CATS guidance to support identification, referral and counselling for CAYPLHIV in need of TB services

Strengthening the workforce

- Training and mentorship of CATS to identify, screen and refer CAYPLHIV for TB services
- Training and mentorship of health care workers to identify TB early among children, adolescents and young people living with HIV
- Training and mentorship of health care workers and CATS to deliver child and adolescent friendly TB counselling for CAYPLHIV and their caregivers
- Multidisciplinary case management to plan and provide care for CAYPLHIV with TB, involving health care workers and social services
- Mortality reviews



Onsite and virtual training and mentorship for health care workers and CATS to strengthen case management for CAYPLHIV with TB



Service Delivery

- Child and adolescent friendly TB information for CAYPLHIV and their caregivers to promote TB literacy and early uptake of services
- CATS-led TB screening of CAYPLHIV
- Referral for TB testing
- Child and adolescent friendly counselling on TB and TPT for CAYPLHIV and their caregivers
- Adherence monitoring and support for CAYPLHIV on TB treatment or TPT
- Financial assistance for CAYPLHIV to support access to TB diagnostics (e.g. Chest X-ray and abdominal scan)
- Information, counselling and support for caregivers
- Supporting routine TB screening and TPT for CATS as frontline community cadres
- Adaptation to virtual screening, referral, counselling and case management support during COVID-19

Results

In 2020, **910** CAYPLHIV were identified by CATS and Zvandiri Mentors as presumptive TB cases, based on having screened positive to at least one TB symptom, using the CATS TB screening tool.

- After referral to health facilities for investigations, **84 (9%)** of these were diagnosed with TB and linked to treatment and care.

Among those without TB, **574 (70%)** were commenced on TB Preventive Therapy, and provided with adherence support to complete the TPT course.

This figure could have been higher had the availability of Pyridoxine, a vitamin co-administered with Isoniazid, been guaranteed. Its shortage led healthcare workers to not offer TPT to eligible CAYPLHIV.



CATS-led TB screening, referral, counselling, monitoring and support for CAYPLHIV and their caregivers, at home, in the clinic, through support groups and MHealth, in partnership with the health facilities

Lesson learned and Recommendations

- The engagement of trained, mentored CATS is an effective strategy for mobilising CAYPLHIV for TB services, including screening, diagnosis, TB treatment and TPT
- CATS are well placed to support CAYPLHIV to gain access to treatment and care as they see their clients regularly and can identify those in need of diagnostic services at an early stage. They also help with adherence support for clients on TB treatment.
- CATS should be prioritised for TB screening and supported with TPT
- CATS as TPT Champions is an effective way of dispelling myths and creating demand for TB preventive services
- Information about TB and TPT presented in a child and adolescent friendly manner through social media, Support Groups and Radio shows is an effective way of sensitising adolescent and creating demand for TB preventive services
- Health care workers need training in how to diagnose TB among clients with advanced disease and atypical presentation.
- Lack of access to free CXR services is a significant barrier towards accessing diagnosis and care.

Vimbai

Vimbai is a 22 year old young woman who had been on antiretroviral therapy since 2007, and on second line since 2014. During a routine visit, her CATS observed that Vimbai was losing weight and coughing. The CATS conducted a TB screening and, finding her to be at risk of TB, referred Vimbai to the clinic. Vimbai had a negative sputum test but her viral load was high. The Zvandiri team continued to visit and support Vimbai for enhanced adherence support and counselling. She continued to lose weight. Zvandiri managed to assist her to be assessed at Newlands Clinic, a specialist HIV clinic with which Africaid has longstanding collaborations. Newlands agreed to take over her care, diagnosing her with TB based on her clinical symptoms and chest X-ray and started preparing her up for third line treatment. Vimbai still deteriorated and was referred to the hospital for urgent blood transfusion, which Zvandiri supported financially. She is now on third line ART, her health is improving and she is gaining weight. Zvandiri ensured she was identified and assisted to get investigations, treatment and care, which proved to be life saving for Vimbai. She continues to be closely monitored and supported to ensure she is able to remain adherent to third line ART.

References

1. Dodd PJ., et al. *The global burden of tuberculosis mortality in children: a mathematical modelling study*. Lancet Global Health. 2017; 5:e898-906
2. World Health Organization. *Global tuberculosis report, 2018*. WHO, Geneva.

