Catalyzing Pediatric Tuberculosis Innovation (CaP TB) in Malawi

The Tuberculosis Epidemic

Globally, an estimated one million children are in need of treatment for TB, yet only 39% are diagnosed and reported to national TB programs. Little has been done to expand access to case identification, innovative diagnostic tools or child-friendly treatments that are now available.

TB is the second leading cause of death in Malawi, following AIDS. Although the National TB Control Program (NTP) recognizes the high prevalence of this epidemic and children as a priority population, diagnosis and management of pediatric TB remains a significant challenge. In 2016, Malawi registered 16,959 TB cases (NTP, 2016 report). Childhood TB made up 8.6% of these cases.

The NTP rolled out GeneXpert devices and recommended Xpert as the initial test for pediatric TB diagnosis, which will significantly improve diagnosis of TB in children compared to the old and less sensitive method, based on microscopy. In addition, the Ministry of Health (MOH) will be moving from the current first-line formulation of pediatric TB drugs to a new, child-friendly and appropriately dosed formulation. This will enable greater access to diagnosis and faster linkage to treatment for children. However, additional support is needed to roll out these innovations, including ensuring new pediatric formulations both for active and latent TB infection (LTBI) are ordered, available in clinics and used.

The Elizabeth Glaser Pediatric AIDS Foundation (EGPAF) has been a key implementing partner to the MOH in Malawi. EGPAF has supported the scale-up of prevention of mother-to-child transmission (PMTCT); HIV diagnosis, care, and treatment; and integrated HIV/TB services nationally since 2001. With over 400 highly-qualified staff and lay cadres working to support 147 sites across eight districts in Malawi, EGPAF is currently implementing a five-year, PEPFAR-funded, comprehensive HIV and TB care and treatment project and will leverage this experience to roll out CaP TB in facilities in Thyolo, Blantyre, Chiradzulu, Mwanza, Ntcheu, Dedza and Mchinji.

CaP TB

CaP TB is a four-year project, funded and supported by Unitaid, which aims to reduce pediatric TB morbidity and mortality in nine sub-Saharan African countries (Cameroon, Côte d’Ivoire, Democratic Republic of Congo, Kenya, Lesotho, Malawi, Tanzania, Uganda, and Zimbabwe) and India.

Due to its close and comprehensive work with the MOH, EGPAF is well-positioned to bring innovative solutions to tackle childhood TB, and will use the network built through its expansion of pediatric HIV testing and diagnosis to optimize access to vulnerable and high-risk populations. Building on existing project work and partnerships with the government and local organizations, EGPAF will increase coverage of new pediatric first-line FDCs and promote the introduction of innovative tools and service delivery models for pediatric TB. This work will be focused in 40 high-TB burden health facilities in seven districts.
CaP TB Outputs by Objective:

**Objective 1: Create an enabling policy and regulatory environment**

EGPAF will work with Malawi’s national technical working group on TB to enhance implementation of innovative and globally-recommended TB diagnosis and treatment guidelines. EGPAF will also work with this group to strengthen policy on the use of child-friendly TB treatment, as well as a new regimen for preventive treatment among children with LTBI.

EGPAF will advocate with the NTP and other stakeholders to incorporate CaP TB project activities into annual work plans and budgets and will collaborate with civil society organizations to create demand for quality TB care to ensure project sustainability.

**Objective 2: Introduction of effective and innovative models of care to improve detection of pediatric TB cases**

CaP TB will strengthen systematic TB screening in clinics in other health service delivery entry points, such as maternal and child health, under-5, and nutrition clinics. EGPAF will also build health care workers’ capacity on TB screening and community health workers’ capacity to conduct TB screening and contact tracing.

Without a swift turnaround time from sample collection to initiation on treatment (if needed), improved case detection can only go so far. Leveraging the PEPFAR-supported sample transportation system, EGPAF will accelerate transportation of samples to labs, and ensure timely return of results by working closely with partner Riders for Health - an organization focused on delivery of health care in rural settings through management of a fleet of vehicles and motorcycles. CaP TB aims to further improve the laboratory-based TB diagnosis system by supporting the introduction of a more sensitive assay (called Xpert MTB/RIF Ultra) as soon as it becomes available.

**Objective 3: Increase uptake of and access to improved pediatric TB treatments for active and LTBI**

EGPAF’s TB coordinators will ensure that site-level staff are prescribing newly introduced formulations according to updated guidelines and SOPs, both for active and LTBI. Clinicians will be trained both on- and off-site, and EGPAF will circulate clinician job aids on pediatric TB identification, diagnosis, and treatment to all supported sites.

**Objective 4: Generate novel evidence and data**

To ensure programmatic findings transition into innovative implementation, EGPAF will work with the NTP to incorporate systems to assess and measure the feasibility and effectiveness of the proposed approaches. EGPAF will gather data that will inform program refinement and recommendations for further scale-up within Malawi and in other countries where CaP TB is implemented.

**Objective 5: Effectively transition this work to management by national entities, thereby ensuring sustainability**

EGPAF will advocate with the NTP and other stakeholders to ensure childhood TB care and treatment is integrated in national systems and funding. EGPAF will also work with civil society organizations to increase awareness of pediatric TB and demand for the latest treatment options.

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This project is made possible thanks to Unitaid’s support.
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