THPEE669

TB AND HIV IN CHILDREN, NIGERIA

A child being tested for HIV at a DOTS clinic in Nigeria.
Laura Pohl for CRS

The presence of HIV in the household further increases a child's risk of exposure to TB through a co-infected adult.

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Using a Targeted Approach to Boost TB Case-Finding Among Vulnerable Children—The SMILE Experience

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BACKGROUND

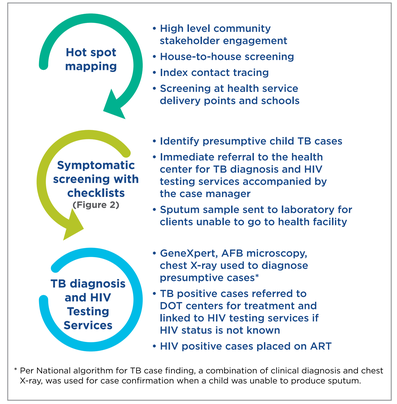
Nigeria has the highest TB burden in Africa, with an estimated half a million new TB cases every year. TB case notification rates are low, with only 100,433 TB cases notified in 2016[1] representing approximately 20% of actual cases. Among children under five who were in contact with a bacteriologically confirmed TB case in 2016, only 18% received preventive TB treatment.[2] Alongside the threat posed by endemic TB lies Nigeria's HIV prevalence of 2.9%.[3] The presence of HIV in the household further increases a child's risk of exposure to TB through a co-infected adult. The presence of active TB in children, as in adults, also signals the need to rule out underlying HIV infection.

DESCRIPTION

Sustainable Mechanisms for Improved Livelihood and Household Empowerment (SMILE) is a PEPFAR-funded USAID orphans and vulnerable children project (OVC) project implemented by Catholic Relief Services. In 2016, SMILE initiated community-based TB case-finding in children in Benue state, with a focus on highly vulnerable children and their caregivers. This initiative aimed to strengthen National TB Program (NTP) capacity and commitment to active case-finding (ACF) of childhood TB cases using the strategy shown in Figure 1.

ONLY
18%
OF CHILDREN UNDER FIVE RECEIVED PREVENTIVE TB TREATMENT IN 2016

FIGURE 1: SMILE accelerated childhood TB case finding strategy



* Per National algorithm for TB case finding, a combination of clinical diagnosis and chest X-ray, was used for case confirmation when a child was unable to produce sputum.

FIGURE 2: Modified TB screening tool for child case-finding

SMILE worked with the NTP to modify the existing adult TB-screening tool for use with children. During home visits, case-workers asked if there were any known TB cases in the household, then applied the NTP screening tool, asking caregivers:

1. **Has the child been coughing for two weeks or more?**
2. **Has the child been losing weight recently or not growing properly?**
3. **Has the child been having fever for an extended period of time?**
4. **Has the child been having excessive night sweats?**
5. **Does the child have swellings on the neck?**

PROGRAM RESULTS

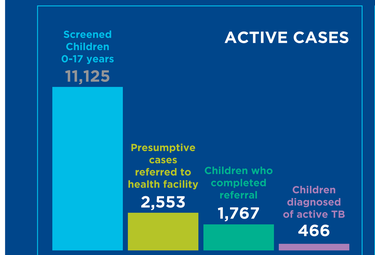


FIGURE 3: SMILE childhood TB active case finding exercise February to December 2017

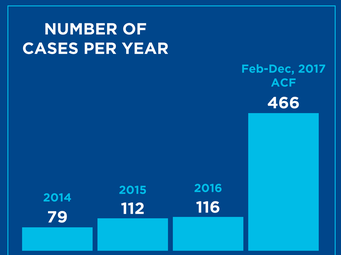


FIGURE 4: Trend in childhood TB case finding in Benue state

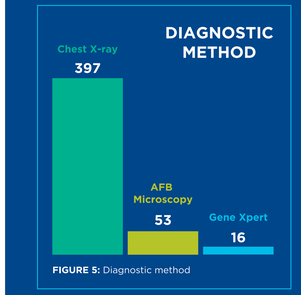


FIGURE 5: Diagnostic method

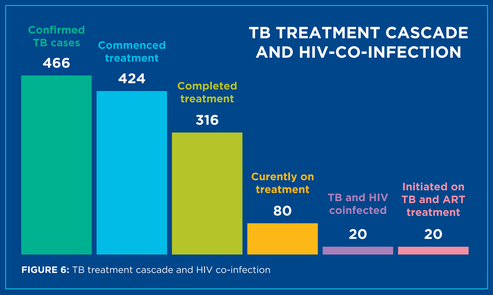


FIGURE 6: TB treatment cascade and HIV co-infection

100%
OF CO-INFECTED CHILDREN WERE LINKED TO HIV TREATMENT

CONCLUSION

The SMILE community-based TB case-finding in children initiative demonstrated that programs designed to serve OVC households, through their community presence, network of case managers, and robust relationships with community influencers and child caregivers, can be extremely effective in a new role of detecting pediatric TB cases. Accompanied referrals significantly enhanced access to TB diagnostic services and reduced turnaround times, contributing in a large part to high referral completion rates and treatment initiation. This effort strengthened SMILE's HIV mitigation mandate by using TB screening as an entry point for promoting targeted HTS for children most at risk, while linking 100% of co-infected children to TB and HIV treatment.

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