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LESSONS FROM THE FIELD

Strengthening Paediatric TB and HIV Case Finding at the Frontline: TB/HIV Integrated Community Case Management (iCCM)

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Community and primary health facility platforms have been recognized as important, but under-utilized entry points to address the large prevention, case detection and treatment gaps faced by young children with TB and/or HIV. In 2014, WHO and UNICEF revised community health worker packages for integrated community case management (iCCM) targeting children under five years of age, to include screening and referral for TB and HIV (TB/HIV iCCM).¹

As part of an integrated, child-centered approach, TB/HIV iCCM is recommended for use in high TB and HIV burden settings.

Background and objectives

Between 2015-2017, UNICEF, Save the Children and country governments, supported the pilot implementation of TB/HIV iCCM in Uganda, Nigeria and Malawi. The projects assessed the acceptability and feasibility of TB/HIV iCCM for community health workers (CHWs) as well as health system requirements to inform potential scale-up.

Approach

National iCCM packages, including job aids, registers, and sick child recording forms, were adapted to include specific questions assessing TB and HIV risk. Risk was defined as:

- 1. For HIV:** 'One or both parents have HIV but the child has not been tested' or 'parent's current HIV status is unknown'
- 2. For TB:** Child lives in a household with someone on TB treatment

In the case of a positive screening, CHWs were asked to advise the child's caregivers to present to the linked primary care facility, indicate this in the iCCM registers and issue a referral form to the caregiver. Prior to the adaptation for high burden settings, iCCM algorithms did not include specific questions related to TB or HIV. For TB, however, it was implied that children meeting one or more of the original referral criteria, such as cough for more than 2 weeks, might have to be assessed for TB at the referral facility.

Routine programme data (quantitative) as well as qualitative data in the form of key informant interviews and focus group discussions were collected as part of the pilot implementation projects.

Key findings

Across the three countries, all of which face high burdens of TB and HIV, 640 CHWs were trained, linked to a total of 61 primary health facilities. A total of 36,948 sick children <5 years were seen by CHWs. Of these 14,798(40%) were identified at risk of HIV, and 136 (0.4%) were identified at risk of TB, as defined by the national TB/HIV iCCM protocols. The specific breakdowns by country are detailed in Table 1 below.

Overall, results of the pilot implementation indicated TB/HIV iCCM was widely accepted by key stakeholders in all three countries. In general, CHWs could perform the risk assessment for TB and HIV based on the training and tools provided, and the addition of TB and HIV did not have a negative impact on the assessment and management of the 'traditional' iCCM components.

However, there were also some common challenges countries faced:

- The **risk assessment for TB** only identified young children with current household exposure ('child lives in a household with someone on TB treatment'), even though the highest risk of disease is within 1-2 years of TB exposure.
- **Stigma** was a major factor impacting whether CHWs assessed children for TB and HIV risk; whether caregivers disclosed

HIV status and/or TB exposure; and whether they adhered to referral. This was particularly the case in Nigeria and Uganda. For example, in Uganda, despite high coverage of prevention of mother-to-child transmission (PMTCT) of HIV services,² 96% (8308) of children seen by CHWs were identified as having 'unknown HIV exposure.' While in some cases, children were brought to CHWs by caregivers other than their parents, qualitative interviews conducted as part of the assessment indicated that many children were identified as of "unknown HIV exposure" due to issues relating to stigma, highlighting the need for counselling and referral of caregivers.

- **Major health system barriers** impacted children's access to diagnosis, prevention and treatment. These include weak community-facility linkages including referrals and back referrals; the high cost of transportation and distance affecting the uptake of referrals by caregivers; the lack of HIV testing for children <18 months and childhood TB diagnosis at the primary health facilities; stock outs of basic commodities at health facilities, including for other key childhood illnesses (e.g., dispersible Amoxicillin); the fragmentation of child health services at facilities; and the lack of integration of data systems across different levels of care and health programmes which complicates patient tracking.

	Malawi Jul 2015-Mar 2016	Nigeria Dec 2016-Jul 2017	Uganda Jan-Sep 2017
Number of CHWs trained	27	390	223
Number of linked PHC facilities	10	38	13
Number of sick children <5 years seen by CHWs	10,794	17,509	8,645
Number of children with known HIV positive status	9	0	19 (0.2%)
Number of children identified at risk of HIV	419 (4%)	6,071 (35%)	8308 (96%)
Number of children identified at risk of TB	17 (0.2%)	71 (0.4%)	48 (0.6%)

Table 1: Number of CHWs trained, number of children seen and results from TB and HIV risk assessment, by country (Malawi, Nigeria, and Uganda)

Conclusions and recommendations

Integrating pediatric TB and HIV case finding into other health service platforms is a good model for identifying cases and reducing morbidities and mortalities associated with TB and HIV and linked childhood illnesses such as pneumonia, considering the overlap of symptoms and the possibility of co-morbidity. iCCM targets sick young children under five who face the largest case detection gaps in both TB and HIV. However, a lack of awareness and demand by communities and health workers are major barriers that affect TB and HIV case finding. CHWs in high TB and HIV burden settings require basic knowledge about the risks of TB and HIV for children. TB/HIV iCCM is one opportunity to equip CHWs with this basic knowledge and skills.

Key recommendations for the successful implementation and scale-up of TB/HIV iCCM

- National strategies and policies for TB, HIV, child health and community health systems need to be aligned.
- Key stakeholders across health programmes at national and district level need to be engaged in planning and implementation.
- Algorithms for risk assessment should be revised to include clear actions in the case of unknown HIV exposure as well as to define TB exposure more comprehensively (e.g., not only current household exposure, but also past exposure). Exposed children should be detected early and prior to progression to disease through household contact screening activities, which are insufficiently scaled up in most countries.
- CHWs need to be equipped with basic skills to address stigma and counsel families on TB and HIV.
- Implementation requires a health systems approach which includes strengthening the cascade of care for children with TB and HIV to ensure functioning referral mechanisms (which will benefit all children referred from CHWs); capacity and tools at primary care facilities as well as the next referral level; coordinated monitoring, supervision and data recording; and reporting at all levels and across programmes.
- Similar to integration at the community level, TB and HIV screening should be equally integrated into child health services at primary health facilities, i.e., outpatient clinics/IMNCI as well as nutrition programmes.

References

1. WHO/UNICEF 2014. [Caring for the sick child in the community, adaptation for high HIV or TB settings.](#)
2. See <https://www.unaids.org/en/regionscountries/countries/uganda>.