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Background

Child contacts <5 years and people living with HIV are at a higher risk of developing severe forms of active TB disease once infected. Access to TB preventive treatment (TPT) is therefore critical. The multicenter, cluster-randomized trial (CONTACT) evaluated the impact of a community intervention for contact investigation and TPT management in Cameroon and Uganda, targeting child contacts <5 years and contacts 5-14 years living with HIV. This study is part of the UNITAID funded CAP TB project to improve childhood TB detection.

We present the results of integrating HIV testing in the household to identify child contacts 5-14 years potentially eligible for TPT.

Design/Method

Trained community health workers (CHWs) visited the households of TB index patients identified in CAP TB supported facilities from seven urban/semi-urban and six rural districts or sub-districts and provided TB screening to child contacts. Children with TB symptoms were referred to facility for TB investigation.

HIV voluntary counseling and testing (VCT) were offered to all contacts (5-14 years old) whose HIV status was unknown by a CHW in Uganda and a community nurse in Cameroon after obtaining parental consent and the child's assent in order to identify those who could be eligible to TPT. Confirmatory test was done at facility by a nurse in both countries.

We describe the cascade of care for HIV testing and the factors associated with the acceptance of HIV testing using a generalized linear mixed model with country as fixed effect and cluster as random effects..

Results

Overall, 850 contacts (5-14 years old) declared by 372 index cases were screened for TB in both countries. Of them, 681 (80.1%) did not know their HIV status, 624 (91.6%) **accepted testing, and 614 (90.2%) were tested**. Of those tested, three (0.5%) tested positive. They were all linked to HIV care and initiated on antiretroviral therapy. They has negative TB symptom screen and were started on TPT. Table 1

None of the index cases (HIV status) and contact (gender, age, TB screening result, relation with the index case, district location) factors were independently associated with HIV testing acceptance.

Table 1. Cascade of care for HIV testing in children

	Global n (%)	Cameroon n (%)	Uganda n (%)
Index cases	372	237	135
HIV-positive	81 (21.8)	48 (20.3)	33 (24.4)
Contacts 5-14 years	850	589	261
Contacts knowing their HIV status			
Known HIV-positive	2 (1.2)	1 (1.2)	1 (1.1)
Contacts not knowing their HIV status			
Accept test	624 (91.6)	455 (89.7)	169 (97.1)
Tested	614 (90.2)	449 (88.6)	165 (94.8)
Positives	3 (0.5)	2 (0.5)	1 (0.6)
ART initiation	3 (0.5)	2 (0.5)	1 (0.6)

Conclusions

The high acceptance of HIV testing at the household level in both countries supports its integration in community-based TB contact investigation activities.

Table 2. Factors associated with acceptance of HIV testing

	Total	Acceptance of HIV testing n (%)	Univariate analysis	
			OR [CI 95%]	P
Gender				
Female	344	312 (90.7)	1	
Men	337	312 (92.6)	1.4 [0.8 - 2.5]	0.25
Age of assent (> 7-year CMR, > 8-year UGA)				
Age of assent	464	423 (91.2)	1	
Below age for Assent	217	201 (92.6)	1.1 [0.8 - 2.5]	0.88
Index case HIV status				
Positive	139	120 (86.3)	1	
Negative	540	503 (93.1)	1.8 [0.9 - 3.4]	0.07
Contact's TB screening result				
Presence of TB symptoms	53	45 (84.9)	1	
No symptoms of TB	627	578 (92.2)	1.7 [0.7 - 3.9]	0.25
Relation with the index case				
Other/not family member	416	377 (90.6)	1	
Direct family member	265	247 (93.2)	1.0 [0.7 - 3.9]	0.90

