Abstract # 728

HIV Testing Uptake among Household Contacts of MDR-TB Index Cases in Eight Countries

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ABSTRACT

Background: HIV co-infection rates among MDR-TB cases vary globally, and is associated with higher morbidity and mortality. Household contacts (HHC) of MDR-TB/HIV co-infected cases are at high risk for both HIV and TB infection. However, uptake of HIV testing among HHC is understudied. As part of a cross-sectional feasibility study for a randomized trial of preventive therapy for HHC of MDR-TB index cases (IC), we evaluated factors associated with HIV test uptake among HHC.

Methods: Adult IC with at least one HHC were eligible. A HHC was defined as living in the same dwelling and sharing housekeeping arrangements with an IC in the past 6 months before the IC started MDR-TB treatment. All adult and child HHC were offered HIV testing if never tested or last tested HIV-negative >1year prior to study entry. HIV testing was done using standardized algorithms. Logistic regression for clustered data was used to evaluate associations.

Results: From 10/2015–5/2016, 1007 HHCs of 284 IC were enrolled from 16 sites in 8 countries (Botswana-1 Brazil-1, Haiti-1, India-2, Kenya-1, Peru-2, South Africa-7 and Thailand-1). Among the 284 IC, 102 (36%) were HIV-infected, 156 (55%) were HIV-uninfected, and 26 (9%) had unknown status. HIV status was known for 225 (22%) HHC: 39 (4%) were HIV-positive, 186 (18%) were HIV-negative. HIV testing was offered to 770 (98%) of the 782 remaining HHC, of whom 545 (71%) agreed to testing; 535 (98%) were tested, and 26 (5%) were HIV-positive. Testing uptake varied by site (median 86%; p<0.001); 4 sites had 100% uptake, but 5 sites had <50% uptake. Uptake was 74% for females versus 67% for males, and was lower in children 2–4y (51%), 5–12y (56%) and 13–17y (63%), compared to <2y (77%) and adults ≥18y (78%). Of the 225 HHC who declined testing, 119 (53%) gave a reason; common reasons were perception of low risk (23%), not wanting repeat testing (9%), not ready (5%), not enough time (3%), fear of disclosure (3%). The proportion of HHC of HIV-infected IC versus HIV-uninfected IC agreeing to HIV testing was similar (68% versus 67%, P=0.87), but the proportion testing positive differed (8% versus 2%, P=0.008). Of the 225 HHC who declined testing, 71 (32%) were contacts to an HIV-infected IC.

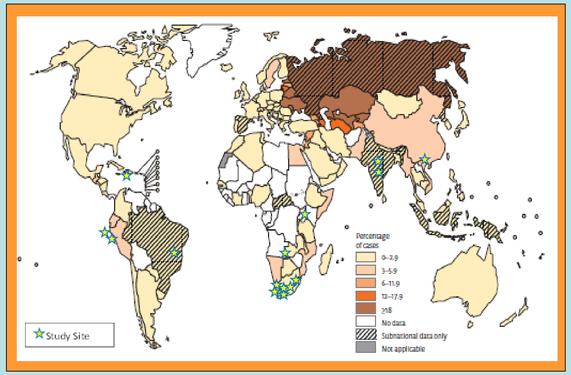
Conclusions: HIV testing uptake varied considerably among sites and was lower in children and adolescents compared to infants and adults. Addressing participant perceptions of HIV risk may increase HIV test uptake, with particular emphasis among HHC of HIV-positive IC given their higher risk of HIV infection.

BACKGROUND

- HIV testing is the cornerstone of the UNAIDS 90-90-90 strategy.
- TB is the leading cause of death in people living with HIV, which is further amplified with multidrug-resistant (MDR) TB.
- Household contacts (HHC) of people with MDR-TB are at high risk for TB infection.
- The uptake of HIV testing among people at high risk for MDR-TB infection is understudied among children and adults.
- Understanding reasons for declining HIV testing is important to guide interventions targeted at addressing barriers.
- We examined HIV testing rates among adult and child household contacts and factors associated with declining testing in A5300/I2003.

SETTING

- 16 sites in 8 countries (Botswana-1, Brazil-1, Haiti-1, India-2, Kenya-1, Peru-2, South Africa-7 and Thailand-1)



OBJECTIVES

- To determine the proportion of the household contacts with unknown HIV status who were willing to be tested for HIV.
- To identify sociodemographic, clinical and site-related factors associated with unwillingness to test for HIV.

METHODS

- Cross-sectional, multi-country study of adult MDR-TB index cases (IC) and their HHC.
- HHC was defined as living in the same dwelling and sharing housekeeping arrangements as the IC, with exposure in the 6 months preceding the IC starting MDR-TB treatment.
- All adult and child HHC were offered HIV testing if never tested or last tested HIV-negative >1year prior to study entry. HIV testing was done using standard site-approved algorithms.
- A structured questionnaire was completed by all sites regarding HIV testing approaches and perceived barriers.

RESULTS

Table 1: Summary of HIV Test Uptake by Age and Sex

Characteristic		Testing Uptake (n, %)
Age, in years		
	<2	17 (77%)
	2-4	30 (51%)
	5-12	73 (56%)
	13-17	50 (63%)
	>18	375 (78%)
Sex		
	Male	224 (67%)
	Female	321 (74%)

Figure 1: Summary of HIV Test Uptake, by site (n, %)

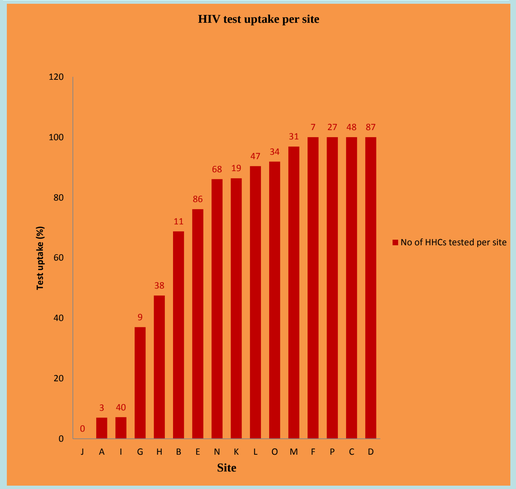


Figure 2: HIV testing among Household Contacts

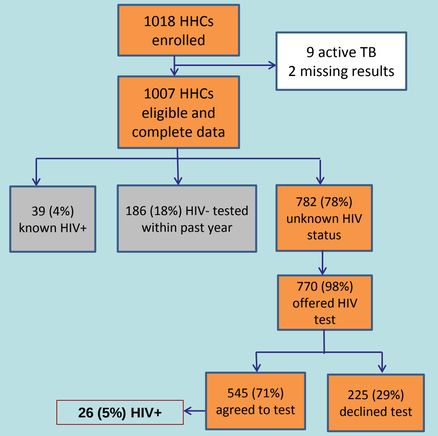
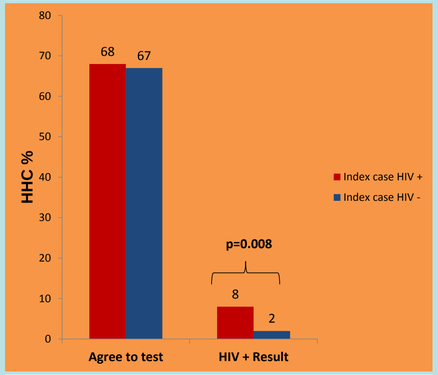


Figure 3: HIV Test uptake and Test result, by Index Case HIV status



- Of the 225 HHC who declined testing, 71 (32%) were contacts to an HIV-infected IC

Reasons for declining testing, reported by 119 (53%) of 225 contacts who declined:

- Perception of low risk: 23%
- Do not want repeat testing: 9%
- Not ready to be tested: 5%
- Not enough time: 3%
- Fear of disclosure: 3%

Site coordinators' responses on HIV testing practices and potential barriers to HIV testing uptake:

- Fear of testing/knowing the result
- Stigma/fear of disclosing status
- Perception of low risk
- Previously tested
- Blood volume
- Consent for children
- Privacy

CONCLUSIONS

- HIV test uptake varied considerably among sites.
- HIV test uptake was lower in children than adults.
- Addressing participant perceptions of HIV risk may increase HIV test uptake.
- Particular emphasis is needed among HHC of HIV-positive IC, given their higher risk of HIV infection.

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