Identifying TB Suspects Among PLWHA and Their Household Members: Experiences With Civil Society Partnerships In Swaziland

Author: Dr. Sarram M. Haabu, USAID Health Care Improvement Project, University Research Co., LLC (URC), Mbabane, Swaziland
Co-authors: Ms. Cindy Dladla, Mr. Khisimusi Sibandze, and Ms. Lindiwe Mkhatshwa, USAID Health Care Improvement Project, University Research Co., LLC; Mr. Thembi Mhlaba and Mr. Lwandle Mkhulu, Swaziland Ministry of Health and Social Welfare; Ms. Alberntina Nyatsi, Women Together Support Group; Mrs. Thembi Mkhambule, Swaziland Network of People Living with HIV/AIDS; and Mr. Thabo Hiphe, Swaziland Ministry of Health

BACKGROUND

- Tuberculosis (TB) is a common and severe opportunistic infection associated with HIV infection. In Swaziland, TB is the number one contributor to deaths among persons living with HIV and AIDS (PLWHA).

- The increasing number of cases of TB associated with HIV infection in Swaziland has greatly increased the demand on TB and TB treatment programs. Swaziland has an estimated TB incidence of 155 cases per 100,000 population per year, a fourfold increase compared to a 1990 level of 267. While the incidence of new TB confirmed cases tripled within the same period. Similarily, TB mortality has increased from 76 per 100,000 population in 1990 to 278 deaths per 100,000 population in 2006.

- The known prevalence of HIV among the TB patients in Swaziland is 70% for men and 75% for women. TB infection increases an individual’s susceptibility to tuberculosis infection and to latent TB reactivation; the high number of HIV cases at community level leads to increased transmission of tuberculosis. Patients stictly infected with TB and HIV thus need to be identified quickly and treated.

METHODS

Setting

- The setting was the rural community of Mvembili in the northern part of Hhohho Region in Swaziland, about 6 km from Matsamo border with South Africa.

- The population of Mvembili was 1994 people, of whom 991 are male and 1003 are female (Census 2007). The community had 333 homesteads and 364 households, one clinic at Hosi, 14 shops, one police station, 35 water sources, 8 churches, and 2 primary schools. The area has 5 HIV support groups, of which Women Together is the largest group consisting of only women.

Enrollment

- The study was a cross-sectional study that enrolled 34 HIV-positive members of Women Together and their household members.

- The objective of the study was to identify TB suspects among PLWHA and their household members, all participants were subjected to a standard checklist that recorded history of TB symptoms, risk factors, and results from TB smear microscopy and chest X-ray examinations.

RESULTS

Of the 111 study subjects, 34 (30.6%) were HIV-positive, 20 (18%) were HIV-negative, and 57 (51.6%) had unknown HIV status. Sputum samples were requested on all 111 study subjects; however, on 69 cases (62.1%) provided sputum samples. Of the 69 samples, one was sputum but not tested; 12 were AFB-positive, one was AFB-negative, and 55 samples were AFB-negative.

- All 111 subjects were interviewed with the checklist on common TB symptoms and risk factors.

- The most common TB symptom reported by study participants was noticeable weight loss (reported by 37.4% of subjects), followed by persistent cough (over two weeks) (reported by 36.9%), night sweats (reported by 35.6%), fever (27.0%), and loss of appetite (20.7%).

- From among the 67 AFB-negative subjects and 42 who did not provide a sputum sample, chest X rays led to the identification of 31 TB suspects. From among all 111 study subjects, the TB status identified through sputum samples and X-ray readings were two cases of confirmed TB (1.8%), 14 cases with TB (12.6%), and 31 TB suspects (28.3%).

- Through bivariate analysis, the study identified four statistically significant risk factors for TB in the study sample:
  - Family history of TB (p=0.002)
  - Cough of at least 2 weeks (p=0.002)
  - Noticeable weight loss in the previous 6 weeks (p=0.002)
  - Shaving of sleeping rooms (p=0.026)

CONCLUSIONS AND LESSONS

- TB transmission is common in households of PLWHA.
- Community members participating in the study relied on the opportunity of being viewed by health care workers to do TB screening in their homesteads.
- The dissemination of results provided an opportunity for education on the linkage between TB and HIV and mobilization of community leaders to fight TB and HIV.

RECOMMENDATIONS

- Active case-finding and household contact tracing should be implemented as a package of care for HIV-positive.
- Partnerships with local HIV support groups in intensified case-finding is an effective strategy to identify TB suspects and TB cases in communities with high TB/HIV co-infection.

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