#### Prevalence of Extra Pulmonary Tuberculosis in Patients with Tuberculosis Attending Institutions Managed by Zanmi Lasante in Saint-Marc, Haiti

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**Background:** Tuberculosis is as a global health problem responsible for millions of deaths each year. Lung disease remains the most common clinical form, however extra pulmonary localizations are increasingly seen with HIV infection. Extra pulmonary tuberculosis (EPTB) is most prevalent in low income countries. Few studies on EPTB have been carried out in Haiti, at risk because of poor economy and high HIV prevalence. This study aimed to determine the prevalence of EPTB and its association with HIV in two public institutions managed by Zanmi Lasante in Saint-Marc.

**Methods:** This cross-sectional study included patients 18 years and over diagnosed with tuberculosis seen at outpatient clinic (SSPE) and Saint Nicolas Hospital (HSN) from July 2011 to June 2014. The data were extracted from the patient registers, tabulated on Excel 2013, and analyzed using Epi Info 7 TM. We report on frequencies of EPTB, HIV and patient characteristics. We evaluated the association of EPTB and HIV or patient characteristics using chi square tests, Fisher exact tests and t-tests.

**Findings:** Of 794 patients seen, 137 were diagnosed with EPTB (17.28%). The prevalence of EPTB was twice high in HSN than in SSPE (23.85% vs 11.16%, P=0.000003). Among the total, 297 patients (37.41%) were HIV infected. Prevalence of EPTB was similar in those with (17.17%) and those not infected with HIV (17.30%, p=0.96). However, there was an association between HIV and EPTB in SPPE: 16.40% of HIV infected patients and 3.05% of people not infected had EPTB (p=0.00005). This was not the case in HSN. Pleural localization was the most frequent EPTB (52.55%) regardless of HIV status. There was no significant association of EPTB with age, sex, or geographical location.

**Interpretation:** The prevalence of EPTB was 17.28% and was two times higher in HSN than in SSPE; probably due to an under-diagnosis in SSPE because of weaker technical platform and staff training. HIV was associated with EPTB only in SPPE, maybe because of more statistical power given by the high number of HIV patient in this facility. Pleural localization was the most common EPTB. It is important to strengthen capacity of SSPE to diagnose of EPTB and increase awareness of people on EPTB without HIV status discrimination.

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## HIV Partner Notification Values and Preferences in Rakai, Uganda: A Qualitative Study

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**Background:** HIV partner notification, also known as assisted partner services or contact tracing, involves contacting the sexual partners of people who test HIV-positive to link people at heightened HIV risk to testing services, treatment, and prevention. As partner notification programs expand across sub-Saharan Africa, organizations must consider community perceptions and preferences to design acceptable, effective programs. We conducted a qualitative study to understand values and preferences around HIV partner notification in Rakai, Uganda.

**Methods:** We conducted 63 in-depth interviews with 20 health care providers and 43 community members in both high-risk fishing communities (including sex workers and fishermen) and low-risk rural mainland communities. We also conducted 6 focus group discussions (FGDs). Questions explored specific approaches to partner notification, including passive referral (self-disclosure), provider referral (anonymous provider-led notification), and contract referral (provider-led notification after a period for self-disclosure). Interviews and FGDs were conducted in Luganda or English and audio-recorded after obtaining written informed consent. Qualitative data were translated, transcribed, coded, and analyzed using a team-based matrix approach.

**Findings:** Participants generally supported partner notification programs. Sex workers, fishermen, and health care providers agreed that passive referral is most effective for married couples or those in close, intimate relationships. Mainland community members felt contract referral was also acceptable for married couples. Provider referral was preferred for individuals with multiple, casual partners and was highly acceptable among sex workers and fishermen. Anonymous provider referral appealed to sex workers and fishermen, though participants worried provider involvement might encourage skepticism and rumors. Health care providers voiced concerns about limited time, resources, and training for provider-assisted approaches.

**Interpretation:** We found generally positive views of partner notification programs, with different approaches meeting the needs of different groups and for different relationship types. The anonymity of provider-assisted partner notification may help people overcome the social and economic barriers to HIV serostatus disclosure. Findings suggest that a range of services may help expand HIV services to high-risk individuals in this setting.

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## Increasing Access to HIV Treatment and Care Services for Key Populations in Zambia: A Partnership Approach to Strengthening Local Capacity to Provide Sensitivity Training to Health Workers

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Program/Project Purpose: HIV and AIDS continue to be a major developmental challenge for Zambia, which has one of the highest HIV prevalence rates in the world. There is limited information and services available for key populations (KP) such as female sex workers (FSW), people who inject drugs (PWID) and men who have sex with men (MSM) due to the illegal status of these highrisk populations. It is recognized that stigma and discrimination increase the risk of HIV exposure or limit access to treatment services. Estimates suggest that KP may be HIV epidemic drivers in Zambia.

The goal of the partnership, which is funded by the US President's Emergency Plan for AIDS Relief (PEPFAR), is to strengthen the capacity of Chreso Ministries in Zambia to conduct sensitivity trainings as a way to mitigate the impact of HIV on KP by increasing health care worker (HCW) awareness and understanding, reducing the stigma and discrimination experienced by KP, and improving access to crucial health and allied care and support services.

**Structure/Method/Design:** The University of South Carolina (USC) and Chreso Ministries, a faith-based, nonprofit, charitable NGO which provides HIV care to >40,000 individuals in Zambia, partnered to conduct a comprehensive needs assessment, develop and adapt a standardized sensitivity training package, administer baseline knowledge and attitude assessments and provide initial training sessions.

**Outcome & Evaluation:** Initial assessments found limited services available for KP, particularly MSM and PWID. HCW were unaware of needs of MSM and PWID populations, and few MSM and PWID were engaged in care. HCW scored poorly on baseline knowledge and attitude assessments. Two, one-day training sessions were conducted in Livingstone and Lusaka. Forty-one HCW participated. HCW leaders from Chreso Ministry came to USC for additional mentorship. The number of individuals from KP seeking care at Chreso Ministries has increased.

**Going Forward:** To further increase HCW capacity to provide care to KP moving forward, partners will engage members of KP groups in an advisory board to better inform service needs. In addition, partners will develop a train-the-trainer curriculum and handbook.

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#### One Health Student Club Model: Preparing the Future Workforce to Address Infectious Disease Threats in Rwanda

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**Program/Project Purpose:** Rapid and effective response to infectious disease threats requires multidisciplinary collaboration. Despite recognition of the human, animal, and environmental interface that underlies most infectious diseases and subsequent emerging pandemic threats, pre-service educational programs (e.g., veterinary sciences, public health, nursing, medicine) continue to be siloed

with rare opportunities to understand and experience the benefits of multidisciplinary collaboration. The purpose of the One Health Student Club Model is to provide students from varied disciplines with didactic and clinical experiential learning activities that benefit students and communities and address relevant zoonotic infectious disease threats.

**Structure/Method/Design:** The University of Rwanda One Health Student Club organized in 2012 and has over 900 members on four campuses around the country. Students have a leadership structure, and organize themselves with support from University faculty. A range of activities take place on campus, in communities, and at demonstration sites (ie, ideal geographic settings that include human, animal-livestock and wildlife, and environmental interactions conducive to zoonotic diseases) such as Akagera National Park. Examples of these activities are community outreach campaigns addressing infectious diseases, vaccination campaigns, and conducting community-partnered research on infectious diseases. Through community-based observations, interviews with community members and stakeholders, educational interventions (ie, radio shows, drama/sketches), and post-event student and faculty debriefing, the students realize significant growth in appreciating the importance of multidisciplinary efforts to address global infectious disease threats.

**Outcome & Evaluation:** The One Health Student Club Model has demonstrated anecdotal successes, with students expressing appreciation for gained insight, education, and hands-on community-based experience. Graduating students who have participated in club activities are beginning to work professionally across Rwanda in medicine, nursing, public health, veterinary medicine, environmental health sciences, and other fields. These students bring a depth of appreciation for multidisciplinary collaboration and multi-sectoral efforts that is unprecedented.

Going Forward: Multi-disciplinary clubs afford students learning opportunities not available in traditional discipline-specific curricula. Barriers to developing multidisciplinary undergraduate or graduate programs persist, which makes the extracurricular club model ideal for developing key competencies in our future workforce. Growth in One Health Student Clubs in numerous Central and East African countries, as well as many Southeast Asian countries, demonstrates belief in this model being critical to equipping students to eliminate infectious disease threats.

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# Stigma among Women Living with HIV in Nepal: A Double Burden of Disease and Disparity

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**Background:** Globally, women living with HIV feel the most burden of HIV stigma. They not only face stigma of having HIV, but also other multiple stigmas associated with gender disparities