

utilized logistic regression to determine potential risk factors for *M.leprae* seropositivity.

**Findings:** Of the 148 participants, 62% were female. Ages ranged from 4 to 89 with an average of 35. Concordance between the ML Flow and ELISA LID-NDO results was 84%. 20% of women were seropositive compared to 16% of men. Seropositivity among contacts was almost twice that of controls (22% vs 13%).

**Interpretation:** Surveillance of multibacillary leprosy patients should include neighboring residents in order to obtain elimination as current programs fail to include individuals with high rates of seropositivity. In addition, PGL-I or NDO-LID assays are effective and affordable tools for diagnosis in endemic areas that could be part of the final push to eliminate leprosy.

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### What is the TB Burden in Nigerian Prisons? – An Enhanced TB Case Finding Program experience from 13 Nigerian Prisons

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**Program/Project Purpose:** In resource-limited settings like Nigeria, prisons and correctional facilities are typically congested and lack adequate ventilation. Inmates are therefore particularly vulnerable to infections like TB and Nigeria ranks 4<sup>th</sup> among the 22 high burden countries with TB (WHO report 2015: Global Tuberculosis Control). WHO recommends active case detection to reduce the burden of TB. TB case detection in Nigerian prisons is passive. Our project was designed to actively increase TB case finding among inmates at 13 prisons in Nigeria.

**Structure/Method/Design:** From July 2014 through August 2015, we implemented an Enhanced TB Identification program. A baseline needs assessment of staff and equipment of prison laboratory and

DOTS center was conducted to identify gaps. 12 clinic staff and 5 laboratory staff were trained in active clinical TB screening and AFB microscopy using the National training tools. The laboratories were equipped with microscopes, reagents, slides and reporting tools. Prison **Chest camps** were conducted quarterly during which all inmates were assembled and clinically screened for TB.

**Outcome & Evaluation:** A total of 8584 inmates were clinically screened. 535 had a positive clinical TB screen. 448 sputum samples were obtained and sent to the prison laboratory for AFB smear microscopy. Only 4 samples (0.9%) had positive AFB smears.

**Going Forward:** Although prevalence of tuberculosis was apparently low in our study prisons, our program demonstrated that with investments made in training staff and equipping the labs a simple standardized approach to TB screening is feasible, acceptable and can be sustained in prisons in resource-limited settings. Study limitations include the low sensitivity of AFB microscopy.

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### Epidemiology of Cutaneous Leishmaniasis in an Endemic Pacific Coastal Rainforest Area of Ecuador

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**Background:** Cutaneous leishmaniasis (CL) is present in Ecuador's northern Pacific coastal rainforest area, similar to the rest of the mainland. Our previous studies in the 1990s indicated that this area was hyperendemic for CL and had a complex epidemiologic profile. Since then, a number of significant ecological and population changes have occurred caused by intensive economic development (primary rainforest destruction, increased mono-cropping of palm oil and other crops, in-migration from non-endemic areas, tourist industry development). The present study was conducted to (1) investigate CL prevalence, distribution, and risk factors and (2) to compare changes in those that may have occurred in the two decades since our last survey in the same area.

**Methods:** The survey was conducted during a 24-month period (2013-2015) in 21 rural communities located in the aforementioned endemic rainforest area. Grid sampling was used to randomly select 10% of households located within each of the 21 community hamlets. Household members who gave their informed consent or assent completed a leishmanin skin test (LST), medical history, and a detailed dermatological exam (n=820). Samples of suspicious lesions were taken for parasitological analysis. Data were collected from an adult participant subsample (n=351) on household and community characteristics.

**Findings:** Thirty-five percent of the 820 participants showed evidence of prior CL (33%) or parasitological evidence of active disease (2%), mostly caused by *L. guyanensis* (86%). Participants identified a number of changes in household reported major changes from 20 years ago regarding occupation and other sociodemographic characteristics, home attributes (exterior wall construction, window coverings, flooring, electricity, water source, sanitation, wastewater, garbage disposal, cooking facilities), type/proximity of cultivated