

crops, and animal reservoirs, the low CL prevalence did not permit meaningful statistical analysis of potential risk factors for active disease. However, the multivariate statistical model identified three factors associated with CL history: age (> 15 years), non-endemic area birthplace, and residential province.

Interpretation: The prevalence of CL was much decreased compared to two decades ago but is consistent with Ministry of Public Health data. The data suggest that improvements in housing and changes in the ecological characteristics appear to have disrupted disease transmission in this area.

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Abstract #: 1.007_INF

HIV Self-Testing Values and Preferences in Rakai, Uganda: A Qualitative Study

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Background: HIV self-testing (HIVST) allows people who want to know their HIV status to collect a specimen, perform a test, and interpret the test results themselves; reactive results must be confirmed by health workers through national HIV testing algorithms. The privacy afforded by self-testing may encourage more people to learn their HIV status, but uptake and appropriate use of HIVST depends on communities' perceptions and understandings of self-testing. Using qualitative methods, we examined values and preferences related to HIVST among community members and health care providers in mainland and fishing populations in rural Rakai District, Uganda.

Methods: Interviewers conducted 33 in-depth interviews (IDIs) with health care providers and 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), stratified by sex and location, to examine social norms in both settings. Questions explored perceived positive and negative aspects of HIVST and implementation preferences. 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: Most participants had never heard of HIVST before. Participants cited HIVST-specific benefits of privacy, convenience, and ability to test before sex with a new partner. Participants voiced concerns regarding the absence of a health professional during testing, careless kit disposal and limited linkage to care. While many preferred to obtain HIVST kits at nearby health centers, others desired kit distribution more accessible on short notice. Key populations were seen as particularly benefiting from HIVST. Almost all participants reported they would be willing to use an HIVST if provided at a low cost and if educated sufficiently.

Interpretation: Our findings suggest a potential role for HIVST across populations in this setting. Though participants were unable

to base responses off direct experiences, most concluded that the personal benefits of HIVST outweighed the risks. If HIVST programs are introduced into these communities, implementers will need to consider how to balance accessibility with necessary professional support.

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High Spatial Resolution Mapping of Changing Inequalities in Child Mortality Across Africa between 2000 and 2015

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Background: Cross-country studies of trends in child mortality have shown, in average, large declines in nearly every country. At the same time, these successes have been varied. It is unknown though to what extent inequalities in child mortality exists and persists within countries, as there have never been contemporaneous and comparable cross-country subnational estimates.

Methods: Herein, we present a novel synthesis of existing survey data from Demographic and Health Surveys, Multiple Indicator Cluster Surveys, and censuses (in total representing over 330 million child-months of exposure) to produce estimates of neonatal, infant, and child mortality for every 5km by 5km pixel across Africa, for years 2000, 2005, 2010, and 2015.

We combine machine learning and model-based geostatistics methods in novel ways to increase predictive performance at high spatial resolutions. By modelling child mortality in a Bayesian geostatistical framework, we are able to harness the inherent spatial and temporal correlation in our data in order to produce estimates with full uncertainty.

Findings: We present a series of maps which allow for detailed inspection of highly local trends in mortality across the continent at pixel, district, and province levels of aggregation. We found that, despite overall declines, relative subnational inequality in child mortality remained mostly unchanged. Furthermore, across the continent, the top performing 10% in each country were all very similar, while the worst performing 10% in each country varied dramatically across countries. Annualized rates of change over the study period varied from an increase of 1% to a decreasing rate of greater than 8%, indicating that while several localities experienced

an increase in child mortality over the period, a number of others reduced child mortality at a pace even faster than that set by the MDGs.

Interpretation: These maps are important for accurately and optimally targeting interventions and to define a baseline for measurement that will facilitate independent auditing of progress in reducing child mortality as mandated by the new Sustainable Development Goal targets.

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Abstract #: 1.009_INF

Epidemiology of Soil-Transmitted Helminthiasis and Taeniasis in Rural Communities near Ranomafana National Park, Madagascar with a Comparison of Kato-Katz Technique Against Spontaneous Sedimentation Technique

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Background: Soil Transmitted Helminthiasis (STHs) and taeniasis are major health burdens in many developing settings. Rural communities near Madagascar's Ranomafana National Park (RNP) struggle to meet the basic standards of health from a lack of road infrastructure and endemic infections of parasites. This July 2016 study determined the epidemiology of parasitic infections and compared two parasitological stool diagnostic techniques.

Methods: A cross sectional study was conducted on 164 random households (561 people \geq age 5 years) around RNP. Surveys, blood and stool were collected from all participants. Distances to the main road from each village were measured using Google Earth. Kato-Katz (KK) and Spontaneous Sedimentation technique (S) were performed under field conditions. The data was analyzed by Stata® SE, version 12.1.

Findings: A total of 561 people (52.3% males) were included in this study. The age range was 5–82, median age 18. The overall prevalence rates with either technique was 71.3% for *Ascaris lumbricoides* (95% CI 67.58–75.06), 75.3% for *Trichuris trichiura* (95% CI 71.83–78.96), 33.4% for hookworm (95% CI 29.54–37.35), 2.1% for *Taenia* spp (95% CI 0.93–3.31), and 3.1% for *Strongyloides stercoralis* (95% CI 1.73–4.63). The majority of this population (92.7%) were found to have 1 or more parasite infection. Those with a parasite were found further away from the main road (mean distance of 6.3 km) than those without any parasite (mean distance of 4.5 km ($P=0.002$)). Sensitivity of the techniques for the diagnosis of each parasite were: *Ascaris* (S:96.1%, KK:93.4%), *Trichuris* (S:77.6%, KK:91.8%), hookworm (S:82.1%, KK:50.5%), *Taenia* (S:91.7%, KK: 83.3%), *Strongyloides* (S:72.2%, KK: 27.8%).

Interpretation: Despite current control measures rural regions near RNP is infected with parasites. Living further from the main road is associated with parasitic infections, suggesting that STHs are related to lack of infrastructure. Additional analysis is underway

to understand and resolve the factors that drive this problem. In comparing techniques: S, the simpler method to conduct, was more sensitive for most parasitic infections; KK was more sensitive for trichuris infections.

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Womens Constraint in Access to Prevention of Mother to Child Transmission of HIV/AIDS (PMTCT) in Enugu State Nigeria

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Background: The presentation is based on a study on prevention of mother to child transmission of HIV/AIDS (PMTCT) in Enugu state Nigeria. Prevalence of HIV/AIDS among children in Nigeria remains high. UNAIDS indicate that in 2009 children with HIV in Nigeria comprised about 1.8 million out of the 2.5 million that are HIV positive globally. Women's constraint in access to PMTCT is linked to gender inequality constraining them from making vital decisions to prevent primary infection of HIV, community norms and health system factors. The overarching aim of this study is to explore factors constraining women's access to PMTCT.

Methods: The study was carried out in three health facilities offering comprehensive PMTCT services namely University of Nigeria Teaching Hospital Ituku Ozalla; Mother of Christ Hospital Enugu and Bishop Shanahan Hospital Nsukka. Qualitative method using in-depth interviews (IDIs) and Focus Group Discussions (FGDs) were used for data collection. The target population for IDIs comprised nine HIV positive women, three per facility, and their male partners; six health workers, two per facility; and six PMTCT programme managers, two per facility. Four FGDs were held comprising a male and female group of members of HIV support groups at Enugu and Nsukka respectively.

Findings: Constraints women experience include; difficulty in practicing appropriate infant feeding; male control in decision-making on going to PMTCT; fear to disclose HIV status to spouse; limited spousal communication on prevention of unwanted pregnancy; hiding and skipping use ART drugs for fear of repercussion; difficulty in using ART facilities due to fear of stigma; inability to deliver in facilities providing optimal services for PMTCT due to distance; lack of adherence to treatment due to inability to collect and pay for ART drugs; and unwelcome attitude of health workers.

Interpretation: Strategies to enhance women's access to PMTCT services include sensitization to encourage male support to enable wives take their drugs regularly without hiding, enhance spousal communication about their status and enable spouses comply to treatment, learn how to protect the unborn babies and children born by HIV positive women from becoming HIV positive.

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