or Fisher's exact tests as appropriate. Multivariate analysis including logistic regression models will be used to test for associations between maternal characteristics and SP resistance. Level of significance will be set at p<0.05.

Conclusion In a malaria-endemic country like Nigeria with a large at-risk population, information on the effectiveness of chemoprevention is essential. Determining the proportion and extent of relevant molecular markers within the population offers an invaluable tool for epidemiological surveillance of SP resistance within this endemic setting.

PO 8503 **EPIDEMIOLOGY, CO-INFECTIONS AND HAEMATOLOGICAL FEATURES OF SCHISTOSOMIASIS IN SCHOOL-AGED CHILDREN LIVING IN LAMBARÉNÉ, GABON**

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Background Schistosomiasis is a highly prevalent parasitic infection in Central Africa, where co-endemicity with other parasitic infections is common, and schistosomiasis outcomes can be affected by those other infections. Therefore, proper schistosomiasis control needs epidemiological data accounting for co-infections, too. In this present study, our objective was to determine the epidemiological situation around schistosomiasis in Lambaréné.

Methods A cross-sectional study was conducted among school-aged children living in Lambaréné. Urine filtration exam was performed for the detection of *Schistosoma* eggs. Kato-Katz and stool culture (Coproculture and Harada-Mori) techniques were used for the detection of soil-transmitted helminths. Detection of *Plasmodium* spp. and blood microfilariae was performed applying light microscopy. Risk factors for schistosomiasis and factors associated with schistosomiasis were investigated; haematology parameters evaluated.

Results A total of 614 school children with available schistosomiasis status were included in the analysis. Mean age was 10.9 (SD=2.7) years, with a 0.95 boy-to-girl sex ratio. The prevalence of schistosomiasis was 26%. No risk factors except human-water contact were associated with schistosomiasis. Only *Trichuris trichiura* co-infection was associated with an increased odd (aOR=2.3, *p*-value=0.048) to be infected with schistosomiasis. Full blood counts showed a decrease of haemoglobin level and increase of WBC and platelet levels among the schistosoma-infected children. Haematuria was found associated with schistosomiasis (aOR=14.5, *p*-value<0.001) and was suitable to predict the disease.

Conclusion The prevalence of schistosomiasis is moderate in Lambaréné where human-water contact remains the main risk factor and praziquantel is available for treatment. Trichuriasis is associated with increased risk to be infected. Children with schistosomiasis exhibit a distinct full blood count profile and haematuria is found to be more suitable to predict infection. However, it is desirable to implement comprehensive approaches beyond chemotherapy for schistosomiasis control in this area as recommended by WHO.

PO 8504 **EFFECT OF INCREASED USER FEES IN ACCESSING NEW TUBERCULOSIS DIAGNOSTIC SERVICES IN TANZANIA**

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Background While user fees in healthcare systems have been associated with quality improvement, a substantial increase may have a detrimental effect. This paper reports on the effects of increasing user fees on utilisation of TB diagnostic services in Tanzania.

Methods We retrospectively analysed data on TB diagnostic services utilisation between July 2013 and June 2015 in Mnazi Mmoja Zanzibar (MMZ), Musoma and Sumbawanga hospitals. In July 2014, user fees in Musoma were increased substantially from 2 to 5 US dollar; Sumbawanga increased the fees stepwise, from 1 to 2 US dollar in July 2014, and from 2 to 3 US dollar in January 2015 MMZ did not raise the fees. We compared TB services utilisation before and after introduction of user fees.

Results Out of 7483 presumptive TB patients registered in all sites, 50.2% were males. Over half (3969) were registered before the user fee was increased. Among 3969, 1579 (39.8%) were from Musoma, 922 (23.2%) from Sumbawanga and 1468 (37.0%) from MMZ. Of the 3514 patients registered after the introduction of user fees, 983 (28%), 952 (27.1%) and 1579 (44.9%) patients were from Musoma, Sumbawanga and MMZ, respectively. The number of presumptive TB patients seeking TB diagnostic services at Musoma decreased significantly by 38% from 1579 to 983 after the increase of user fees (p=0.001). More females (817; 51.8% vs 458, 35.9%) attended Musoma before user fees were increased as compared to males whose attendance did not differ much (761; 48.2% vs 525; 53.4%); (p=0.01). There was no significant decrease of patients at Sumbawanga and MMZ.

Conclusion There was a significant decrease in the number of presumptive TB patients who accessed new TB diagnostic services in Musoma after a substantial increase of user fees, the effect was stronger among women. Although user fees are beneficial, they should be increased stepwise so as not to affect service utilisation.

PO 8505 **LEISHMANIASIS IN ANGOLA – AN EMERGING DISEASE?**

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Background Poverty, lack of resources, inadequate treatments and control programmes exacerbate the impact of infectious diseases in the developing world. Leishmaniasis is a vector-borne disease that is among the ten major neglected tropical diseases. Although endemic in more than 90 countries, the ones most affected, representing over 90% of new cases, are Bangladesh, Brazil, Ethiopia, India, Kenya, Nepal, and Sudan. In Africa south of the equator, the impact of leishmaniasis is

much lower. In several countries, like Angola, little is known about this infectious neglected disease. In the 1970s, a group of Portuguese researchers described three cases of cutaneous leishmaniasis in children from Huambo district and in the 1990s visceral leishmaniasis was diagnosed in an African patient. More recently a canine survey in Luanda revealed two *Leishmania*-infected dogs.

After some suspected cases of human cutaneous leishmaniasis in Huambo region in 2017, the Angola health authorities and the Instituto de Higiene e Medicina Tropical (IHMT), Lisbon, Portugal, established a collaboration to analyse samples from some suspected cases.

Methods Three paraffin-embedded human skin samples from dermatological lesions were sent to IHMT for molecular analysis. After DNA extraction, PCR was performed by using four protocols with different molecular markers.

Results One PCR protocol using a nested approach was positive in two of the samples. Sequencing analysis confirmed *Leishmania* sp. DNA.

Conclusion This was the first time that suspected human cutaneous samples were screened for leishmaniasis by molecular methods with detection of *Leishmania* sp. DNA. These preliminary studies highlight the need for higher awareness of health professionals for leishmaniasis clinical forms, to recognise risk factors and the epidemiological features of leishmaniasis in the Huambo province. It would be relevant to perform further epidemiological studies to confirm if this vector-borne disease could be emergent in this country.

PO 8515 **CAPACITY BUILDING IN PREPARATION FOR AN HIV VACCINE TRIAL: THE GLOBALLY RELEVANT AIDS VACCINE EUROPE-AFRICA TRIALS PARTNERSHIP (GREAT)**

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Background The Globally Relevant AIDS Vaccine Europe-Africa Trials (GREAT) partnership is an EDCTP-funded project that aims to foster collaboration between institutions in Europe and sub-Saharan Africa to build capacity among African clinical research centres (CRCs) for the design and conduct of HIV-1 vaccine efficacy trials.

Methods In January 2017, the University of Oxford (UOXF) and five CRCs in Kenya, Uganda and Zambia were awarded a 5 year grant for capacity building and to support conduct of an HIV-1 vaccine trial in different high-risk populations across Africa using cross-clade (conserved protein regions) T-cell vaccines. UOXF and CRCs embarked on activities to strengthen capacity of the CRCs for future efficacy trials. This included training, community engagement, cohort preparation and infrastructure upgrade.

Results In the first year, the African investigators at the CRCs collaborated on the development of a protocol aimed at assessing the safety and immunogenicity of the tHIVconsvX vaccines. In preparation for the planned vaccine trial, infrastructure upgrades were prioritised at all partner sites and this included building laboratory space and procurement of appropriate laboratory equipment. Planned infrastructure upgrades will also ensure that high-risk populations can be safely and confidentially included in HIV prevention clinical trials. Systematic community engagement was implemented at all sites, training in GCP/GCLP was provided and training is planned for nominated CRC staff to lead community engagement efforts.

Conclusion Improved infrastructure and the provision of targeted training will enhance future trials and increase the capacities of CRCs and staff to conduct quality trials in previously hard-to-reach populations. Early collaboration between investigators from European and sub-Saharan African institutions, with equal responsibilities in the protocol development process, established a meaningful partnership. EDCTP funding also offers a unique opportunity for capacity building.

PO 8518 **LATENT TUBERCULOSIS INFECTION DETECTION BY IGRA USING *MYCOBACTERIUM TUBERCULOSIS* ALTERNATIVE DESATURASE A1 IMMUNE-DOMINANT ANTIGEN**

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Background Despite an efficient treatment and a widely-used vaccine, one third of the world's population is estimated to be latently infected (LTBI) with *Mycobacterium tuberculosis* (Mtb) and are at risk of progressing to contagious active tuberculosis. New TB vaccines and improved detection of LTBI are therefore urgently required for global TB control. As a first step towards these goals, a better understanding of host recognition and response to immunogenic Mtb antigens is needed.

Methods In this study, interferon-γ release in response to the immunodominant antigens ESAT-6, TB10.4, Ag85A, Rv2031 and DesA1 was assessed by ELISPOT on PBMC from 55 newly diagnosed pulmonary TB patients, 121 of their household contacts and 123 matched community controls, enrolled in a high-burden area.

Results ESAT-6 and PPD ELISPOT responses were higher in the TB patient group compared to both contacts and controls ($p < 0.05$ repectively). These responses increased with time after recruitment in the contacts and fell after successful treatment in the patients consistent with the hypothesis that responses to these antigens reflect antigenic or bacterial load. However, the response to DesA1 was significantly lower in the controls compared to the contacts ($p < 0.05$ respectively). Receiver Operating Characteristic curve analysis showed that PPD/ESAT-6 best segregated TB patients from the other groups, while DesA1 best segregated contacts from controls.

Conclusion The present study therefore identifies DesA1 as an immunodominant antigen with the potential to contribute to improved immunodiagnosis.