edition of a specialized peer review journal. The process included design and strategic dissemination of call for applications, three-stages selection process of mentees, identification of mentors according to the research topic of the mentees and building of six mentor-mentee dyads. It was completed by competency-based trainings on scientific writing and advocacy (in-person workshop and webinars), in-person/remote meetings and email exchanges between each mentee-mentor dyad and internal peer-review of manuscripts before submission to the journal.

Results We selected six mentees (four women and two men) with medical, midwifery, demography and social sciences background. Their mean age was 35.2 and only two published a paper as first author. The addressed topics were related to identity effects of differential gender socialization on first child and marriage aspirations of adolescents, delivery experience, modern contraception use among adolescents and abortion. All the manuscripts are currently in the peer-review process for publication. The research results will be used to support advocacy activities in each context.

Conclusion This mentorship program provides early-career researchers with research and advocacy skills. The network set up is an enabler for the continuous production of knowledge and its effective use to drive change for the benefit of the region's communities.

PA-382 TRENDS IN SULFADOXINE-PYRIMETHAMINE RESISTANCE MOLECULAR MARKERS AMONG PLASMODIUM FALCIPARUM ISOLATES BEFORE AND AFTER ADOPTING SEASONAL MALARIA CHEMOPREVENTION IN NANORO, BURKINA FASO

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Background Despite various efforts to control malaria among children, the disease remains a leading cause of morbidity and mortality worldwide. In the Sahel region, including Burkina Faso, seasonal malaria chemoprevention (SMC) using Sulfadoxine-Pyrimethamine (SP) and Amodiaquine has been implemented since 2014. However, introducing this new strategy may lead to the spread of Plasmodium falciparum resistance to SP. This study analyses the mutations in SP resistance genes, dihydrofolate reductase (Pfdhfr) and dihydropteroate synthase (Pfdhps) before and after adopting SMC in Burkina Faso.

Methods Dried blood spots obtained from previous studies conducted in Nanoro from 2010 to 2020 were randomly selected. Out of this selection, 769 Plasmodium falciparum isolates were retained, with 299 collected between 2010–2012 before the SMC adoption and 470 collected between 2018–2020 after the SMC implementation in 2014. The Pfdhps and Pfdhfr genes were amplified using nested PCR, and mutations that confer resistance were identified by sequencing the resulting products.

Results The prevalence of Pfdhfr triple mutations (CIRNI) increased from 44.4% before the adoption of SMC to 84.4% following its implementation ($p<0.0001$). There were no mutations at codon Pfdhps 540; those at Pfdhps 581 remained rare and were reported exclusively after the SMC implementation (2.8%). The prevalence of haplotypes observed for the Pfdhps gene did not differ significantly over time. However, the Pfdhps haplotype quadruple mutant VAAKGS recently reported in Nigeria was found only in 2020 (1.4%). The combined Pfdhfr/Pfdhps quadruple mutant IRN/AAKA was the most common and increased following SMC implementation (44.9% vs 16.5%; $p<0.0001$).

Conclusion After the SMC implementation, the prevalence of Pyrimethamine resistance markers increased significantly, while no difference was observed for Sulfadoxine resistance markers. Nevertheless, the detection in 2020 of the emerging Pfdhps haplotypes highlights the need to monitor SP resistance continuously.

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PA-384 LASSA FEVER VACCINE TRIAL PREPAREDNESS: PRELIMINARY FINDINGS OF A TARGETED COMMUNITY-BASED EPIDEMIOLOGIC STUDY IN NIGERIA

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Background Developing a vaccine to prevent Lassa Fever (LF), caused by Lassa virus (LASV), is a World Health Organization priority. We describe preliminary findings of a LASV epidemiologic study in Nigeria to inform preparation for CEPI/EDCTP funded phase 2 LF vaccine trial.

Methods We conducted a community-based cross-sectional study at 10 randomly-selected primary healthcare centers in Abuja Municipal Area Council (n=6) and Ikorodu (n=4). A total of 630 participants aged $\geq$ 18 years were enrolled between February-September 2022. Socio-demographics, willingness to participate in a future LF vaccine trial, and knowledge of LF were assessed in questionnaires. Blood and urine samples were collected for laboratory analyses, including LASV antibody assays using Zalgen ReLASV Pan-Lassa Combo NP/Prefusion GP IgG/IgM ELISA kits.

Results Of 630 participants, 434 (69%) were female and the median age was 38 years (interquartile range 28–50). LASV IgG seropositivity was detected in 51 of 176 (29.0%) participants so far tested; further testing is underway. Most participants (87%) were knowledgeable about LF and radio/television was the most commonly reported source of information (63%). Willingness to participate in a future LF vaccine trial was affirmed by 580 (93%) participants and 99.7% (574/576) were willing to provide biological samples.

Potential protection from LF was the most common reason for willingness to participate (78%). Among 22 (4%) unwilling participants, the most common reason was fear of harm by the vaccine (36%).

Conclusion Our findings suggest substantial LASV exposure and eagerness to participate in a LF vaccine trial in two Nigerian locations with previously limited epidemiologic data. Radio and television-based messaging that emphasizes the safety of vaccine trial participation and the potential protective value of a licensed LF vaccine may improve recruitment for the imminent phase 2a LF vaccine trial in Abuja, Nigeria.

PA-386 HIGH EXPOSURE TO SARS-COV-2 IN RURAL SOUTHERN MOZAMBIQUE AFTER 4 WAVES OF COVID-19: COMMUNITY-BASED SEROSURVEYS

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Background In the same month the WHO declared COVID-19 a pandemic (March 2020), the first case was reported in Mozambique, and by April 2023 the country had seen four waves of COVID-19 233,334 with cumulative positive cases and 2,242 deaths. We conducted community-based serosurveys in the Manhiça district to assess the evolution of exposure after successive COVID waves.

Methods Four seroepidemiology surveys separated by ~3 months were conducted between May 2021 and June 2022. In each, 1,200 individuals residing in Manhiça District were randomly selected from the Demographic Surveillance System, stratified equitably into four age groups (0–19, 20–39, 40–49, ≥60 years). Blood samples were collected and analyzed by commercial Elisa kit (Wantai) for the detection of total antibodies (IgM and IgG).

Results Overall, 4,579 participants had blood samples collected, of which 3,346 were tested. The prevalence of SARS-CoV-2 antibodies increased over time from 27.6% (184/666) in serosurvey one to 63.6% (595/936) (p: <0·001) in serosurvey two, reaching 91.2% (700/768) (p: <0·001) and 91.1% (1017/1117) (p: 0·941), in the third and fourth serosurveys, respectively. Higher antibodies detection was observed among individuals aged 20–39 years in serosurveys one, three, and four (32%, 96.1% and 94.3% respectively), but age group 40 – 59 years during serosurvey two (66.8%). A high seroprevalence (85.7%; 156/182) was still observed among individuals who had not been vaccinated at the time they were enrolled in serosurvey 4. The pattern of increasing seroprevalence was related to the occurrence of COVID-19 waves.

Conclusion Our data demonstrate increased seroprevalence levels after each serosurvey from 27% to 91%, showing universal exposure to SARS-CoV-2 of the general population residing in the Manhiça District after four COVID-19 waves. High seroprevalence were also observed among unvaccinated and vaccine ineligible (<18 years) individuals reaching over 90% at the last serosurvey.

PA-388 PLACEMENT FOR TRANSFORMATIVE CLINICAL TRIAL SKILLS TO SUSTAIN CHAIN REACTION-LIKE MODEL OF EXPANDING HUMAN CAPITAL FOR ACCELERATING DEVELOPMENT OF SAFE, EFFICACIOUS, ACCESSIBLE AND AFFORDABLE ANTI-TUBERCULOSIS

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Background High burden of Tuberculosis (TB) in Africa justify continued need for development of safe, efficacious, accessible and affordable anti-TB. Paradoxically, the continent contributes <3% of global clinical trial outputs. Lack of appropriate trainings has been cited as important factor. Therefore, this project aimed to strengthen capacity of the fellow and peers in clinical trial designs, operational planning, conducting, management and reporting.

Methods EDCTP funded and linked the fellow to Pan-African Consortium for Evaluation of Antituberculosis Antibiotics (PanACEA) at University of St. Andrews. The fellow and supervisors developed 12 months training plan with five objectives fitting precisely into the ongoing SimpliciTB-OptiRiMoxTB trial to evaluate short treatment regimen for drug-susceptible TB. Intensive field work activities have been conducted at Kibong'oto Infectious Diseases Hospital-Tanzania, followed by National Health Services (NHS) Scotland, Helse-Nord TB-Initiative (HNTI)-Malawi and other PanACEA sites. The fellow attended meetings including PanACEA Annual 2022 meeting and The Union World Conference on Lung Health.

Results Skills of clinical trial designing and operational planning were imparted during development of OptiRiMoxTB protocol version 1.0. Developed drug management plan provided skills on handling of investigational medicinal products to ensure quality, safety and efficacy. Obtained ethical and regulatory approvals and reflective report on community engagement during clinical trials transformed the fellow on ethical consideration and safety. Reflective report from experiential visits at NHS and HNTI, in-person Good Clinical Trial training and developed Manual of Procedures have imparted clinical trial conducting and management skills. Developed manuscript of OptiRiMoxTB protocol has strengthen fellow's scientific reporting skills during clinical trials.

Conclusion The acquired transformative skills prepared the fellow for further sustaining chain reaction-like model of expanding human capital with clinical trial skills for TB and other poverty related diseases through short course trainings of almost 100 peers and personal career development hence increasing clinical trials leadership in Africa.

PA-390 EVALUATION OF THE SALINE GARGLE COLLECTION METHOD FOR THE MOLECULAR DETECTION AND SEQUENCING OF SARS-COV-2 IN BOTSWANA

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