

Resume/CV

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SUMMARY OF EXPERIENCE

Dr. Arlete Mahumane is a Medical Doctor, Public Health Specialist in Epidemiology (Epidemiologist), she holds Masters (MPH.) degree in Public Health and specialized in field of epidemiology. Dr. Mahumane has nearly 18 years in public health, most of which has been spent on infectious diseases management services and treatment and care services delivery at clinical and community with focus on pediatrics. She has demonstrated experience in integrated health programs support particularly Sexual Transmitted Infection (STI), Human immunodeficiency virus (HIV), Tuberculosis (TB), malnourishment and diarrheal diseases, as well as, conducting health systems research and has several scientific publications through peer review journals. Her expertise in management of Nutrition and WASH related diseases, communicable infectious diseases and non-communicable disease in Low-Income Country (LIC), is a valuable resource for this application.

Under her leadership the first national paper-based surveillance system during an emergency was established in Mozambique to capture any possible outbreak during the emergency phase. The system had indicators such as diarrhea, bloody diarrhea, cholera, malaria and pellagra. Later on, she led the transition of the surveillance system to World Health Organization electronic system for Emergency (EWARS).

Dr. Mahumane has expertise in leadership in Emergency and Disaster management. She was the Team leader during Cyclone Idai response phase in Beira, at Beira Operational Research Center (CIOB). She coordinated a task force of international epidemiologists to implement surveillance during the emergency and recovery phase of Idai cyclone. Dr. Mahumane, has experience in planning, design and implement protocols, including nutrition related diseases such as pellagra.

At the recovery phase of Cyclone Idai, Dr. Mahumane was the team leader in investigation of pellagra outbreak in Nhamatanda District. Dr. Mahumane, deployed a team of health workers to investigate the outbreak of pellagra using a case-control study design. The results of the study have been published on a peer review journal. She led the developed instruments for data collection for COVID-19 contact tracing and quarantines for Sofala, before the country had the first cases of COVID-19. Later on, the instruments were included in the national guidelines for COVID-19. Her expertise in Epidemiology made her an important advisory for the Local and national police makers. Through her leadership she led the design and implementation of scientific committees for COVID-19 in Sofala and Manica Provinces. Dr. Mahumane, using her scientific knowledge, trained the first group of case tracing health professionals in

Sofala Province in March 2020, who later on, were involved in the tracing of the first cases of COVID-19 in Sofala province in May 2020.

Under Dr. Mahumane leadership in Sofala a COVID-19 PCR laboratory was established, furthermore, she led the project for a construction of Public Health laboratory in Beira City, in order to respond to the high COVID-19 testing demands in Sofala. Currently, she is leading the implementation of COVID-19 vaccine Efficacy study in Sofala, Mozambique.

She has worked throughout the country for the Ministry of Health and partners at district, provincial and national levels, so she has knowledge of Mozambique rules, practices and procedures related to Nutrition and WASH as well as communicable diseases.

Additionally, since 2007 she is a lecturer of ID subjects for under degree students in Medicine and Post-graduate students in Public Health at the Catholic University of Mozambique (UCM) as well as a TA at Pittsburgh University. For nearly 8 years Dr. Mahumane worked as Public health specialist consultant and senior principal investigator, responsible for: design, implement, and management of research in the areas of HIV, Health System Evaluation, Data Quality Evaluation, Teenage and Young Woman Reproductive Health and Sexual Rights, Nutrition, WASH in the National Institute of Health (INS) under NIH, PEPFAR, Global Fund, UNFPA, WHO funding for programs implementation, research and scientific publications.

Currently, she works as Head of Department of Research, Training and Health Surveys at the regional INS branch, Sofala Provincial Delegation, which represents INS in the 4 provinces of the center region of Mozambique.

PROFESSIONAL EXPERIENCE

Regional Head of Department of Research, Training and Health Surveys – Central Region, National Institute of Health (INS), Sofala, Mozambique (from January 2020 – current).

Major Responsibility: Research management:

- Provide leadership in strategic plan for institutional development
- Develop budget for the institution fiscal year
- Write grants to fund institutional research
- Oversee the budget administrative process and review and approve the final financial report.
- Approve fund allocation for each program and sector.
- Advise local health authorities on strategic plans to improve the uptake of communicable diseases, Nutrition and WASH programs.
- Lead diarrhea outbreak diseases investigations, including cholera
- Develop and implement INS routine surveillance system for WASH related illness, respiratory infectious diseases, meningitis and measles.
- Develop and implement research to improve HIV uptake and quality of care among HIV mothers, children and their couples

- Develop strategic plan to improve the HIV care and retention in Sofala and Manica province
- Oversee the research activities in the central region of Mozambique
- Develop a counseling strategy for HIV individuals in the study, including tuberculosis and Sexually transmitted infections, malnutrition and wasting syndrome.
- Leadership in the Implementation of COVID-19 Seroprevalence Survey in Chimoio and Beira Cities
- Leadership in the establishment of COVID-19 Laboratories in Beira City
- Evaluation of COVID-19 trends in Sofala Province
- Monitor an evaluation of COVID-19 response plan in Manica and Sofala
- COVID-19 Risk assessment in Manica and Sofala Districts
- Provide support and feedback on COVID-19 Situation for Sofala and Manica Health Services and Directorate.
- Provide technical support to plan and design a preparedness response plan for COVID-19 epidemic in Sofala and Manica province
- Provide technical support to plan and design a preparedness response plan for emergency and disaster response in Sofala and Manica province
- Technical support to local health authorities to implement emergency response plan.
- Write monthly reports of COVID-19 situation in Sofala, based on the data collected from all traced individuals, sample collected, tested and reported cases.
- Technical Supervision of Sofala epidemiologic COVID-19 Bulletin
- Monitor and evaluation of COVID-19 surveillance system in Manica and Sofala province
- Write reports of COVID-19 risk assessment for each district of Sofala and Manica provinces
- Write recommendation for policy change based on the information gathered by the team on ground
- Advisory on better strategy to improve the quality of tracing, sample collection, and dissemination of information related to COVID-19.
- Plan and implement trainings related to COVID-19 for Sofala Health care professionals
- Collaborate with NGO to fund and support health needs in the fight against COVID-19
- Create and train a team to prompt inform all COVID-19 positive results to each patient in Sofala, based at CIOB
- Oversee the Implementation of an automatic SMS message system for COVID-19 Negative results, which goes direct to the patient cell phone.
- Provide mentorship and advisory for master's students at Catholic University

Major Responsibility: Effectiveness Evaluation of the Sinopharm Vaccine in the Dondo District in Mozambique

ECOVA Study.

- Strengthen surveillance system for COVID-19 in Beira and Dondo District

- Implement COVID-19 Surveillance system in new health facilities in Dondo
- Review the protocol study for effectiveness evaluation of Sinopharm vaccine
- Training of Health Care professional (MDs, PAs, Nurses, laboratory Technicians) in MOH on COVID-19 testing guidelines and procedures and in the new guidelines COVID-19 Sequencing.
- Evaluation of vaccine adverse events
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Major Responsibility: Evaluation of HIV positive newborns and infants and their HIV positive mothers from the Life Study.

- Training of Health Care professional (MDs, PAs, Nurses, laboratory Technicians) in MOH on HIV guidelines and procedures and in the new guidelines for neonatal HIV treatment.
- Clinical care of study participants
- Treatment and counseling for those with high viral load of HIV
- Develop a plan to improve retention a reduce loss of follow-up of HIV patients
- Develop strategies for outreach and better counseling
- Screening for Tuberculosis
- Screening for Sexually transmitted disease
- Screening for malnourishment in children
- Counselling regarding prevention of nutrition and WASH related diseases
- Treatment of children with any disease, including waterborne diseases.

Scientific Director – Beira Operational Research Center (CIOB), representing National Institute of Health in Central region of Mozambique (from 2016 – 2020)

Major Responsibility:

- **Programs Management:** Responsible for the design, implementation, monitoring, and reporting of research implementation in the central region of Mozambique through the INS via CIOB.
- **Research management leadership – grant applications:** Development of concept notes and research proposals, preparation of budget documents for the proposals, and submission of the applications. Preparation of research regulatory documents, review and analyze of research documents before submission to the Board Reviewers. **Financial Management** of ongoing research projects.
- **Monitoring and Evaluation of HIV projects Activities:**
- Provides direction and analysis in the monitoring and evaluation of the ongoing HIV research projects, ensuring that the monitoring and evaluation of activity outputs and impact are analyzed regularly, and the data is used to support activity managers in guiding IP performance. Conducts regular visits to the field/sites of research to monitor activities of assistant/young researchers within her/his portfolio, and assesses progress; identifies implementation problems,

and works with local sites and guide them and help the implementing partners (IPs).

- **Produce Official communications and Scientific literature:** reports, manuals, concept notes, scientific papers and guidelines.
- Establishment of partnership with local and foreign institutions for the development of research in Central Region.
- Design, implement research projects and protocols
- Plan training programs for the CIOB technical staff as well as for Ministry of Health staff in Central region of Mozambique.
- Clinical activities at outpatient study health facility:
- Establishment of partnership agreement with other institutions to support research in at CIOB
- Technical advisory to local Government and State Secretariat regarding the epidemiology and management of COVID-19
- Technical advisory to Manica province regarding the epidemiology and management of COVID-19
- Elaboration of the PowerPoint presentation for the Sofala Provincial Emergence Operative Committee (COE)
- Leadership in the Sofala COVID-19 Scientific Committee
- Development of the laboratorial chart flow component for COVID-19 (Sample Reception, testing and result feedback) to Sofala Health Directorate
- Leadership in the Investigation of Pellagra outbreak in Nhamatanda District in post-cyclone Idai phase.
- Lecturer of Epidemiology for Master students at Faculty of Science, Catholic University of Mozambique in Beira,
- Advisory of Master Students at Faculty of Science, Catholic University of Mozambique in Beira
- Coordinate the development and the design of a Project to build a Clinical Research Center for Covid-19 vaccine clinical trials in Mozambique, which was ready by May 2021. The Research Center is located in Beira City, next to CIOB

- Coordinate projects' activities planning and implementation with teams and sub-offices at provincial level to ensure that the projects' results and monitoring is aligned throughout the region. Coordinate and support field staff and implementing partners to support the timely and quality delivery of projects activities, based on a Results Based Management (RBM) framework approach, including support to field teams in developing quarterly workplans. Provide project administrative support for timely delivery of activities, including budget expenditures tracking, ensuring that expenditure is in line with timeframes and allocated funds.
- **Advocacy and portfolio development:** Participate and contribute to relevant provincial public health policy decisions. Support the building and consolidation of durable partnerships with government authorities at national, provincial, district and local levels, research institutions, stakeholders and policymakers, through regular liaising with key stakeholders and participation in relevant national and local sectorial meetings and working groups. Liaise with key Government institutions to ensure smooth implementation of the health programs at provincial and district levels.
- Actively support fundraising for INS, including contribute to the development of concept notes and project proposals.

- Developed periodic reports on infectious risk activities to support information systems as well as integration within the national health information systems, to facilitate recommendations and guidance on relevant actions to prevent or control health events.

MD Physician – Beira Central Hospital – Sofala Province, Mozambique (from 2007 to 2012)

Responsibility included: **Leadership:** Provide leadership in clinical assistance at Pediatric Department of Beira Central Hospital, provide guidance, for junior physicians in the department to assure high treatment success rates and low mortality rate. Coordinate the administrative functions of the department and intensive unit. **Technical support of Nutrition and WASH programs and malnourishment as well as provide assistance for children with HIV/AIDS** in terms of clinical care, prevention, treatment adherence, retention and viral load suppression. Monitor and evaluation of programs with focus on infectious diseases in the hospital.

Clinical Care Advisor across the Sofala province: Clinical management and care for drug resistant infectious diseases cases at the hospital and community level. Provide clinical care for HIV/AIDS infected patients on ARTs specifically those with treatment failure. Provide clinical care for critical patients with mild and severe infectious diseases and technical support for Physicians in clinical management of infectious diseases.

Epidemiologic surveillance: lead the surveillance activities of notifiable disease in Beira Central Hospital. Evaluation of trends of measles, flaccid paralysis, diarrheal diseases, meningitis, polio and neonatal tetanus. Produce monthly reports on hospital surveillance system.

Mentorship and tutoring undergrad medical students from UCM

Health Researcher Assistant and Professor, Faculty of Health Science - Catholic University of Mozambique, (2006-2018).

Responsibilities included: **Design and conduct health systems research** to produce scientific evidence and promote the use of evidence-informed approaches to improve the health of population in the central region. **Analyze quantitative and qualitative data** to assess family health program/project impact at the Faculty. **Produce Scientific Health literature** for publication (journal articles, brochures and guidelines). **Training students and health care workers** (undergraduate students, medical doctors and nurses, master's students, laboratory technician) on principles of health systems research, particularly on implementation sciences and operations research. Support implementation of research projects on HIV and infectious diseases, including Nutrition and Water, Sanitation and Hygiene related diseases. Provide assistance and care for patients with infectious diseases and non-communicable diseases. Mentor undergraduate students. Support development and update curricula of medicine at the university. Tutor undergraduates and graduates' students. Train medical students on medical procedures classes. Select patients for clinical exams of medical students. Examine clinical skills and competences of medical students.

Oversee community public health activities during internship phase for undergraduate students.

Professor of Epidemiology for master's students.

Teaching Assistant and Intern, Department of Epidemiology, University of Pittsburgh, School of Public Health, (20014).

Responsibilities included:

Prepare term's syllabus for the infectious disease's students.

Prepare lectures for the class and select textbooks for the term period and Lecture infectious disease master's student. Select articles to be given as assignments.

Post class material on school blackboard and access students' assignment for grading.

Elaborate assignments and post in the blackboard for the students.

Provide extra-tutoring for students who require more attention.

Elaborate and grade exams.

Prepare the database for statistical analysis.

Preform statistical data analysis of the data from the Pulmonary Complication on HIV.

Prepare reports from the data analyses results.

Write abstracts from the results for conferences.

Perform literature review for classes and for the study data analysis.

Discuss the results from the data analysis with my advisor and other team members.

HIV/HCV PACT Clinic, University of Pittsburgh Medical Center- Division of Infectious Disease Pittsburgh, PA (2012-2015).

Responsibilities included:

Clinical Care and training: Observership on Clinical management and care for patients with HIV/AIDS. Training on USA HIV guidelines and HIV patient management system. Training on Hepatitis C Virus (HCV) guidelines and treatment. Discuss with the infectious diseases doctors the approaches for patients with HIV and comorbidity with HCV. Acquire expertise in clinic care of HIV patients with mental health problems. Gain clinical practice on HCV patient treatment and the side effect of available medicine. Participate in clinical discussion of patients in the clinic. Participate in infectious diseases journal club and present articles for discussion.

EDUCATION

INSTITUTION AND LOCATION	DEGREE (if applicable)	START DATE MM/YYY Y	END DATE (or expected end date) MM/YYYY	FIELD OF STUDY
Catholic University of Mozambique, Medical Faculty, Beira, Sofala	MD	08/2002	08/2008	Medicine

INSTITUTION AND LOCATION	DEGREE (if applicable)	START DATE MM/YYYY Y	END DATE (or expected end date) MM/YYYY	FIELD OF STUDY
University of Pittsburgh, Graduate School of Public Health, Pittsburgh, PA	MPH	08/2012	08/2014	Epidemiology
	PhDs	10/2014	2016	Epidemiology

POSITIONS AND HONORS

YEAR	Positions and Honors
09/2020 until now	Head of Department of Research, Training and Health Surveys in INS-SOFALA
11/2016 -09/ 2020	Scientific Director at CIOB, Beira Operational Research Center, INS-Mozambique
2018-2019	Lecturer of Epidemiology for Master students, UCM Medical Science Faculty
2014-2016	PhD student at, Graduate School of Public health, Pittsburgh, PA
04/2015-07/2015	Observership at HIV/HCV PACT Clinic, UPMC- Pittsburgh, PA
05/2014-08/2014	Internship at Epidemiology Data Center, Graduate School of Public health, Pittsburgh, PA
01/2014-05/2014	Teaching Assistant at University of Pittsburgh, Department of Epidemiology
05/2012-08/2012	Observership at HIV PACT Clinic, UPMC, Pittsburgh, PA
2012-2014	MPH program, University of Pittsburgh
2011 - 2012	Head of Pediatric Epidemiological Surveillance Program for measles, acute flaccid paralysis and bloody diarrhea.
2011 - 2012	Head of Malnourished ward, Beira Central Hospital
2009- 2011	Head of Pediatric Emergency Services, Beira Central Hospital
2010-2012	Lecturer of infectious disease, UCM Medical Science Faculty
2009 -2012	Executive Assistant of Bioethics Sub-Committee in the Faculty of health sciences
2008-2009	Pediatric Department, nursery ward and infant ward, Beira Central Hospital

RESEARCH PROJECT MANAGEMENT AND SUPPORT

ONGOING Research study projects

1. 2021-2023

Project Ecova: Expanding Access and Delivery of Covid-19 Vaccines in Africa (ECOVA): Effectiveness Evaluation of the Sinopharm Vaccine in the Dondo District in Mozambique

Role: Local Coordinator for Surveillance

Sponsor: CEPI

The study intends to determine the effectiveness of two completed or uncompleted doses of the BBIBP-CorV vaccine against RT-PCR confirmed symptomatic SARS-CoV-2 infection. The primary and secondary objectives of this study will be addressed using a prospective cohort follow-up and a nested test-negative design (TND). The study will address adverse events following immunization through a mass vaccination program with the BBIBP-CorV vaccine as a secondary objective.

2. 2018-2022

Project LIFE: Neonatal HIV diagnosis and treatment, randomized clinical trial

Role: Local Coordinator (Sofala and Manica)

Sponsor: EDCTP

The study aim is to test newborn baby for HIV in maternity ward and if positive initiate HIV treatment at the maternity ward (a new strategy to reduce delay in HIV testing for infants) using point of care technology.

The study also intends to evaluate comorbidity and mortality among exposed infants, as well as HIV positive infants.

- 3.** Michigan Institute for Teaching and Research in Economics (MITRE). Barriers to Adherence to Antiretroviral Therapy in Mozambique. This is a randomized controlled trial among patients initiating antiretroviral therapy at the Munhava Health Clinic, Beira, Mozambique. Patients are randomly assigned to different treatments to test their impact on medication possession ratios. Treatments investigate the role of financial incentives, reminders, HIV information, anti-stigma information, and combinations of these.

Role: Co-PI

- 4.** Health, Education, and Economic Interventions for Orphans and Vulnerable Children in Mozambique

This project evaluates programs to improve the health and overall outcomes of orphans and vulnerable children (OVCs) in Mozambique. We measure health, education, and economic outcomes for representative samples of OVC households in baseline (pre-treatment) and follow-up (post-treatment) surveys.

Random assignment allows estimation of the causal impact of the health interventions, the economic interventions, and the interaction of the two.

Role: Co-I

Sponsor: USAID

5. Accelerating change in norms of social distancing in fight against COVID-19
Role: Co-investigator
Sponsor: University of Michigan, USA

6. RAPID: Health Decision-Making in the Aftermath of a Disaster: Evidence from Cyclone Idai in Mozambique
This grant partially funds an immediate post-disaster survey to allow collection of expanded data on the impact of Cyclone Idai in Mozambique. The grant allows inclusion of an expanded set of survey questions on human and material losses and household coping strategies in the wake of the disaster.
Role: Co-I
Sponsor: National Science Foundation

COMPLETED:

7. National Epidemiological Surveillance during Cyclone IDAI for the 4 most affected districts
Role: Coordinator
Sponsor: INS/WHO

8. **2018-2019:**
Baseline assessment of Obstetric Fistulas in Mozambique
Role: PI
Sponsor: UNFPA

9. **2018-2019**
My Choice, reproductive health and rights in teenagers and young women in Tete province
Role: **CO – PI**
Sponsor : UNFPA

10. **2017- 2021:**
PROJECT IDEA, Data quality evaluation and Readiness of the Health system in Manica and Sofala Provinces in Mozambique
Role: **PI**
Sponsor: Doris Duke II-Sub-agreement with Health Alliance International (HAI) / Washington University

11. **2016-2019:**

PEER: Reduction of lost to follow up of HIV exposed infants in Manica and Sofala -Mozambique

Role : **coordinator**

Sponsor: NAS/USAID

12. 2017-2019 :

Maternal and Child Health nurses mentorship in Zambézia Province

Role: **Co-PI**

Sponsor: UNICEF_Sub-agreement with HAI

13. 2017- 2018

Linkages: Prevalence of HIV in key population (MSM, Sex workers, transgender and IV drug users) in Mozambique

Role: **Coordinator**

Sponsor: University of North Caroline /FHI360

SCIENTIFIC PRODUCTION BACKGROUND

1. Mugabe VA, Mahumane A, et al. Cyclone Idai as a Trigger for Pellagra Outbreak in Nhamatanda, Mozambique: A Case-Control Study. *Am J Trop Med Hyg.* 2021 Apr 12;104(6):2233-2237. doi: 10.4269/ajtmh.20-1321. PMID: 33844647; PMCID: PMC8176470.
2. Vieira, L; Mahumane, A, et al, HIV-exposed infant follow-up in Mozambique: formative research findings for the design of a cluster randomized controlled trial to improve testing and ART initiation, *BMC Health Services Research* (2020) 20:226 <https://doi.org/10.1186/s12913-020-5051-8>
3. Lequechane, J.D., Mahumane, A., Chale, F. *et al.* Mozambique's response to cyclone Idai: how collaboration and surveillance with water, sanitation and hygiene (WASH) interventions were used to control a cholera epidemic. *Infect Dis Poverty* 9, 68 (2020). <https://doi.org/10.1186/s40249-020-00692-5>
4. Matsuzaki M, Sherr K. et al. The prevalence of hypertension and its distribution by sociodemographic factors in Central Mozambique: a cross sectional study. *BMC Public Health* 2020;20:1843. PMCID: PMC7709228.
5. Yang, Dean, Mahumane, A; James Riddell, and Hang Yu, "Direct and Spillover Impacts of a Community-Level HIV/AIDS Program: Evidence from a Randomized Controlled Trial in Mozambique," Accepted based on pre-results review at *Journal of Development Economics*, July 22, 2019.
6. Riddell, James, Mahumane, A; Hang Yu, and Dean Yang, 2019. "Interventions to Improve HIV Antiretroviral Therapy Adherence in Beira, Mozambique." American Economic Association RCT Registry. August 23.
7. Mahumane, A, et al; Seroprevalence of Hepatitis B e C in Southern Africa, 2014, PA, USA, MPH Essay.

ABSTRACTS

8. Gondwe T, Mahumane A and Cloonan, Y. Difference in seeking mental health

care within black subgroups in New York City a multiyear analysis, 2014, USA.

9. Mahumane, et al, Microbial Translocation in HIV+ Children from Pediatric Pulmonary and Cardiac Complications of Vertically Transmitted HIV Infection (P²C²) Cohort study, 2014, PA, USA.
10. Mahumane A, Gondwe T and Cloonan Y, An Assessment of Factors Associated with Adverse Health Outcomes in US Born and Foreign-Born Black Women in New York City from 2009- 2012., PA., USA 2016.

CONTRIBUTION TO SCIENCE AND OPERATIONAL DECISIONS

As a researcher at CIOB, my work is evidenced in a publication that addressed interventions to improve adherence to antiretroviral treatment (ART) in children, especially in a country where retention to HIV is still a tremendous challenge. In the study we implemented a model where ART, could be initiated at the same day of diagnosis of HIV. It was part of the study design the pediatric ART initiation by Physician Assistant. Through the results of our study the Mozambican Ministry of Health (MoH) changed the guideline for Pediatric ART initiation and PA were allowed to start ART and children could start ART in the same day.

I was assigned to work in a rural hospital, where I developed a project to create an Intensive Care Ward for premature newborn babies. The rural hospital did not have a ward for premature babies, and I saw an opportunity for intervention. I identified an area that for the nursery ward. Besides, the hospital had incubators, but the local staff was not using them due to the lack of training. I developed a plan to create Nursery ward and train the local staff in premature newborns care for nurses and Physicians Assistants. The training included aspects such as, how to operate the incubators and the kangaroo method (maternal skin-to-skin contact technique). The aim of the training was to improve the survival of the babies, by increase weight gain using the techniques mentioned above. The ward was fully operational by the time she left the rural hospital. That was just one of my contributions to that community, not just my skills to save one individual at time, but to leave a common resource for many other children. My skills as a physician are not limited to the clinical examination, but I have acquired experience in obstetric and cardiac echography during my career in Mozambique.

The ongoing Life study in Manica and Sofala, in which I serve as local coordinator, started in 2019, has already shown that Maternal Child Nurses can learn how to perfectly use **HIV point-of-care nucleic acid testing (POC-NAT) for newborn babies at maternity wards as well as testing HIV Viral load using point of care machines**. Through that recognition the MoH implemented Viral Load Point of Care testing nationwide, since 2021. The study has contributed to earlier viral load information for patients with HIV in public sector.

Under my leadership and my training as an epidemiologist, during Idai cyclone, my team detected the first cases of Cholera in Beira City, which led to the declaration of cholera outbreak in the city. Through our active surveillance system established at time that collected daily data on specific indicators and approved by me at CIOB, we quickly detected Cholera outbreak in 3 other districts most affected by Idai. The active surveillance was crucial for the Mozambique MoH to decide that it was urgent to have an Oral Cholera Mass vaccination to stop the outbreaks. I collaborated with WASH task force to implement interventions to stop the outbreak, using epidemiologic data and plotting epidemic curves of daily cases, segregated by neighborhood, and providing the data for WAHS program we were able to decide which areas needed more intervention to stop the outbreak.

During the recovery phase, analyzing the trends of the main indicators on surveillance system, an outbreak of pellagra was detected in Nhamatanda District. I trained a team of young investigators, who went to the field to investigate the outbreak using a case control study. The study has been published as a result of the investigation. During the process, I collaborated with the Nutrition program to inform the areas most affected by the outbreak, contributing to decision making in terms of food supply.

CONFERENCE TALK/POSTER

Poster; 13th International Workshop on HIV Pediatrics 2021 July 16-17, 2021.
Challenges in the effective treatment of infant HIV undermine the potential impact of birth testing and neonatal ART: preliminary results from the LIFE trial in Mozambique and Tanzania

Poster; Scientific Journey of the National Institute of Health, September 17-20th, 2017 Maputo, Maputo. **HAART in pediatric at CCR to reduce the lost of follow-up of pediatric HIV exposed infants, 2017, Maputo, Mozambique.**

Talk; Sofala NGOs, Partners and collaborators in Sofala, Sena Hotel November 2021: **Strengthening Public Health Laboratory to respond to COVID-19 in Central Region of Mozambique, November 2021**

Talk; MoH Reproductive Health and Maternal and Child Health Meeting with NGO: October 2019, Maputo: **Situational Analysis on Obstetric Fistulas and Sexual Health and Reproductive Rights in teenage and young women in Moçambique, 2018.**

Talk; Tete Health Directorate , June 2016, **Baseline Study on Knowledge, Attitudes and Universal Access to Sexual and Reproductive Health Services and Rights of Adolescents and Youth in Tete Província , 2018.**

Talk; MoH Reproductive Health and Maternal and Child Health Meeting with Unicef February, 2019, Maputo, **Evaluation of the mentoring programs for Maternal and Child Health program and integrated attention to infancy disease programs in Zambézia districts .**

Talk; Sofala and Manica Provinces, 2018 **Data quality and assessment of maternal and child health services in Manica and Sofala**

Talk; Zambézia Health Directorate, December 2018, **Evaluation of the mentoring programs for Maternal and Child Health program and integrated attention to infancy disease programs in Zambézia districts.**

Talk; at USAID-Maputo, December 2017, **Results of the study “Reduction of lost to follow up of HIV exposed children in Manica and Sofala Provinces, central region of Mozambique, 2014-2017”**

Talk; 16th Scientific Journey of the National Institute of Health, September 17-20th, 2017 Maputo Mozambique. **Reduction of lost to follow up of HIV exposed children in Manica and Sofala Provinces,**

Talk; CIOB Conference on Women’s and Children’s Health, Research, and Reflection in the context of HIV, November 6-7th, 2017 Chimoio Mozambique. **Implementation research addressing local needs in context of Pediatric HIV.**

REFERENCES

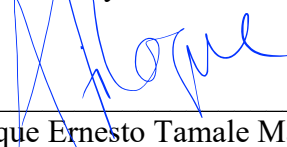
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February 8th, 2022



Arlete Miloque Ernesto Tamale Mahumane