### A TRIPARTITE CAMEROONIAN EXPERIENCE

# CHU CHARITÉ BERLIN - PROTESTANT HOSPITAL OF MBOUO -**EVANGELICAL UNIVERSITY OF CAMEROON**



Signing of the Agreement











2018

Capacity building for health-

care staff on the prevention,

laboratory diagnosis and ma-

Updating of the hygienic

quality plan of Mbouo Protes-

Reinforcement of equipment

and improvement of capacities

in microbiological and radiolo-

Increased range of treatment

options, for the treatment and

prevention of post-operative

tant hospital

gical diagnosis

nagement of nosocomial infec-

Strengthening quality in the prevention, diagnosis and

treatment of post-operative and musculoskeletal infec-

tions in Mbouo



local hospitals

in hospital



and musculoskeletal infections

+ Capacity building for health

students on the prevention,

laboratory diagnosis and ma-

nagement of nosocomial infec-

+ Reinforcement of practical

work equipment for biological

diagnosis of infections acquired

Development of an epide-

miological monitoring system

Skill-sharing workshops with

for nosocomial infections





First application **Second application** 

2020

Safety of patients and staff at surgery in Mbouo

- Training of surgical and intensive care staff in perioperative care focused
- + Improvement of the technical platform of the operating room, the surgery unit and the intensive care unit
- Improved infrastructure and transfer means to facilitate safe transfer and reduce the transfer time of patients between services before and after operations
- + Reinforcement of consumables and educational materials for practical work by students on health care safety issues
- Capacity building for health students in terms of safety for health personnel and patients
- + Exchange visits to the German partner

**Special application** 202

Transfer of North South South skills

to the Protestant hospitals of Bangwa

and Njisse-Foumban

(two others local hospitals)

#### Support for the diagnosis and treatment of Covid19 in the West Region of Cameroon

- Capacity building of healthcare personnel on health communication and good healthcare practices
- Improvement of the technical platform of the laboratory for the immunological and molecular confirmation of cases and for the evaluation of cellular immune activity in a Covid19 situation
- + Reinforcement of the infrastructures of intensive care and medical imaging services for the treatment and follow-up of serious cases of patients with Covid19

#### In summary!

#### **GREATEST SUCCESSES**

+ Improving the quality of training for health students, and quality of care in surgery + The transfer of North South South skills began to the Protestant hospitals of Bangwa and Njisse-Foumban (two others local hospitals) and in 2021, this expansion of cooperation was formalized by an accepted request CHU Charité - Bangwa

- + Compliance with schedules
- + Choice of local service providers
- + Scarcity of some local skills

#### A SPECIAL MESSAGE FOUR YOU

PARTNER INSTITUTIONS **Germany** 

**Region:** Central Africa

**Period:** 2017 - 2022

**Country:** Cameroon

**Locality:** Mbouo Bandjoun

+ Center for Musculoskeletal Surgery (CMSC) of the Charité Universitätsmedizin Berlin (CHU Charité)

Augustenburger Platz 1 (Intern: Mittelallee 4) 13353 Berlin, Deutschland; Tel: 0049 30 450 615 073

E-mail: andrej.trampuz@charite.de

#### Cameroon

+ Protestant Hospital of Mbouo

P. O. Box: 948 Bafoussam Tel: (237) 697 31 57 73, 656 56 32 32

E-mail: hopitalmbouo@yahoo.fr

+ Evangelical University of Cameroon (UEC)

P.O. Box: 127 Bandjoun Tel: (237) 699 91 10 14 E-mail: uec.info@uecam.org



Or write to

uec.info@uecam.org

#### BIGGEST CHALLENGES

"A single hand cannot tie a bundle of wood."



**1rst International Conference** 14 and 15 October 2022, Berlin



#### Chronic kidney disease (CKD) and its risk factors in Bouaké region, Cote d'Ivoire

Infectious diseases such as malaria, tuberculosis and HIV continue to account for the majority of deaths in Africa. However, morbidity and mortality from non-communicable diseases rise rapidly due to an increasing life expectancy and changing living conditions [1], thus placing a double burden on health systems.

Chronic kidney disease (CKD) constitutes a common pathway of both infectious and non-communicable diseases and, as an independent risk factor for cardiovascular mortality, is a growing concern with a global prevalence of 8-16% [2]. By 2030, over 70% of patients with end-stage renal disease will be living in developing countries [3]. People of African origin are at a significantly higher risk due to the high prevalence of risk factors and genetic polymorphisms [4, 5]. Complications of CKD such as anemia, edema, fractures and cognitive impairment lead to a significant reduction of quality of life and ability to work; the poorest part of the population bears the greatest risk. In addition, CKD in pregnant women increases the risk of complications during pregnancy such as preeclampsia and premature birth, which can be harmful to the health of both mother and child [6].

However, due to a long asymptomatic interval, there is a lack of awareness of the disease, although simple screening tests and basic therapeutic agents can significantly improve outcome. Due to the poor prognosis of endstage renal disease with very limited capacity for renal replacement procedures (dialysis), prevention is of *vital* importance.

#### We aim to

- augment screening for CKD especially in vulnerable groups such as pregnant women or people living with HIV
- establish / optimize standardized concepts for diagnosis and treatment of CKD
- optimize the quality of standardized abdominal sonography
- collection of local data on prevalence and risk factors of CKD



Figure 1: Presentation to the Head of Cabinet, Ministry of Health

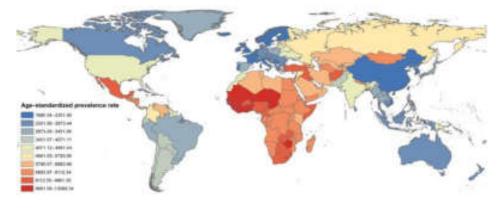


Figure 2: Worldwide age-standardized prevalence rate of CKD. Rate is per 100,000 population. [7]

- 1: Global, regional, and national age-sex specific mortality for 264 causes of death, 1980-2016: a systematic analysis for the Global Burden of Disease Study 2016. Lancet 2017; 390: 1151–210.
- 2: Jha V, Garcia-Garcia G, Iseki K, et al. Chronic kidney disease: global dimension and perspectives. Lancet 2013; 382: 260–72.
- 3: Stanifer JW, Jing B, Tolan S, Helmke N, Mukerjee R, Naicker S, Patel U. The epidemiology of chronic kidney disease in sub-Saharan Africa: a systematic review and meta-analysis. Lancet Glob Health. 2014 Mar; 2(3):e174-81.
- 4: Nyirenda MJ. Non-communicable diseases in sub-Saharan Africa: understanding the drivers of the epidemic to inform intervention strategies. Int Health 2016; 8: 157–58.
- 5: Friedman DJ, Pollak MR. APOL1 Nephropathy: From Genetics to Clinical Applications. Clin J Am Soc Nephrol. 2021 Feb 8;16(2):294-303. doi: 10.2215/CJN.15161219. Epub 2020 Jul 2. PMID: 32616495; PMCID: PMC7863644.
- 6: Piccoli GB, Cabiddu G, Attini R, Vigotti FN, Maxia S, Lepori N, et al: Risk of adverse pregnancy outcomes in women with CKD. J Am Soc Nephrol 2015; 26: 2011–2022.
- 7: Xie Y et al. Analysis of the Global Burden of Disease study highlights the global, regional, and national trends of chronic kidney disease epidemiology from 1990 to 2016. Kidney Int. 2018 Sep;94(3):567-581.









#### "Hawassa Child"



# Establishment of a Pediatric Surgery Department at Hawassa University Comprehensive Specialized Hospital (HUCSH)

Since 2017, the **Pediatric Surgery Foundation** is active in Hawassa, Ethiopia. The team consists of **Prof. Dr. Martin Lacher**, Head of Department of Pediatric Surgery University of Leipzig and CEO of the Pediatric Surgery Foundation together with **PD Dr. Peter Zimmermann**, senior surgeon from the Department of Pediatric Surgery University of Leipzig.

The aim of "Hawassa Child" is to establish a pediatric surgery department together with the team of **Dr. Wondmagegn Gizaw**, an ethiopian pediatric surgeon at HUCSH, a hospital located 280 kilometers south of Addis Ababa, which serves 18 million people. **Ethiopia has a great need for pediatric surgical care.** Currently, there are very few pediatric surgeons nationwide.

Together we train future pediatric surgeons, who will later use their skills to teach new specialists ("training for trainers") to reach independence and further development of the clinical staff.

### Our project is a contribution to a decentralized care and specialized training in pediatric surgery in Ethiopia. We are grateful for the support by GIZ!



What have been the greatest successes in your hospital partnership?
Improving service and outcome for our patients through sharing of experience
What were the biggest challenges and how were they overcome?

The biggest challenge was very degraded poor quality of surgical instruments and facilities for care.

Now we have the opportunity to improve

Did you use a special tool/method that you would recommend to other projects?

We filmed a documentary to show the impact we have on children, their families and the community What could other hospital partnerships (potentially) learn from your project?

Focusing on experience sharing from subject experts to make sure the change is sustainable ("training for

trainers")

Dr. Wondmagegn Gizaw

Assistant Professor, Pediatric Surgery

Hawassa, Sidama regional state, Ethiopia

Hawassa university comprehensive specialized hospital













# Advancing Cervical Cancer Screening in Gondar, Ethiopia

Ethiopia (M Adefris, C Baye, G Shiferaw, D Kassahun, Z Mengistu, R Alemu, Z Aychew, E Fekadu)

Germany (M von Knebel Doeberitz, H Bussmann, A Schneider, U Petry<sup>†</sup>, M Hampl, E Mayer, A Luyten, J Betzler, A Denecke)



# Setting up of colposcopy unit at OBGYN, University of Gondar

Contract 81224625 (2018-2021)

#### Objectives:

- Strengthening the treatment arm of the cervical cancer screening continuum
- Inclusion of colposcopy into the gyn-oncology curriculum of the OBGYN department, University of Gondar

#### **Activities**

- Hospitation visits of Ethiopian gynecologists in Germany (Wolfsburg, Berlin)
- Mentoring visits of German gynecologists in Gondar
- Provision of equipment



Colposcopy team at OBGYN department of Gondar university

### Challenges

- Covid-19 restrictions
- Armed civil unrest (curfew, military hospital services)
- Linking of colposcoyp service to health centers
- Import to Ethiopia of equipment/supply
- Visa application at German embassy in Addis



# Introduction of digital cervicography & thermocoagulation

Contract 81277523 (2022-2024)

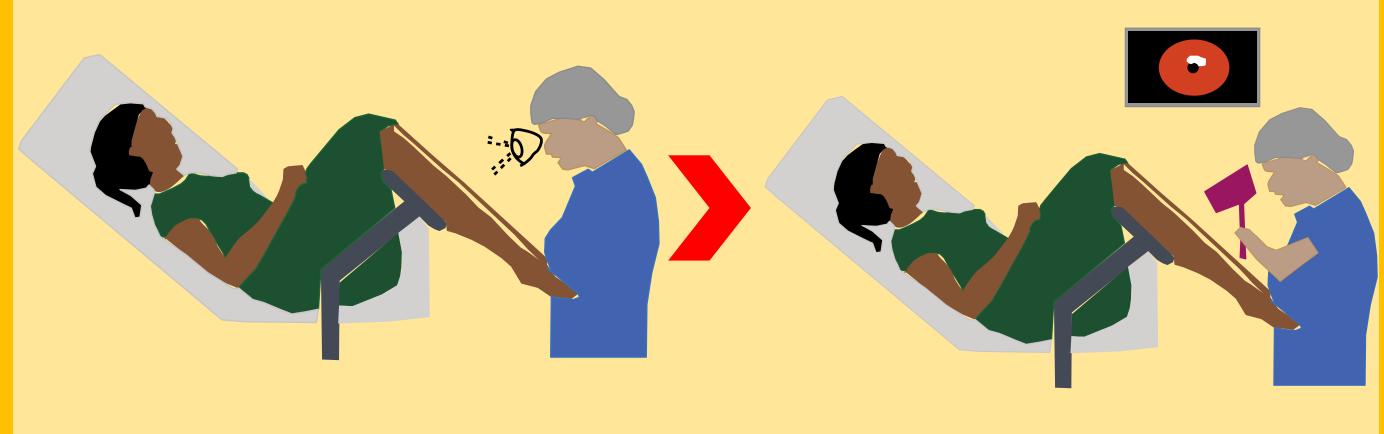
#### Objective:

Improving quality of cervical cancer screening through digital imaging:

- Improved magnified view
- Documentation and quality control
- Training, second opinion

#### Activities:

Training of midwives in peripheral clinics



- Naked-eye view,
- Operator -dependent

- Magnified view
- Image storagage
- Image sharing

### Lessons learnt

- Inclusion of community services
- Resiliance
- Breaking silos, networking

# Cervical cancer screening –eligible women waiting to be screened

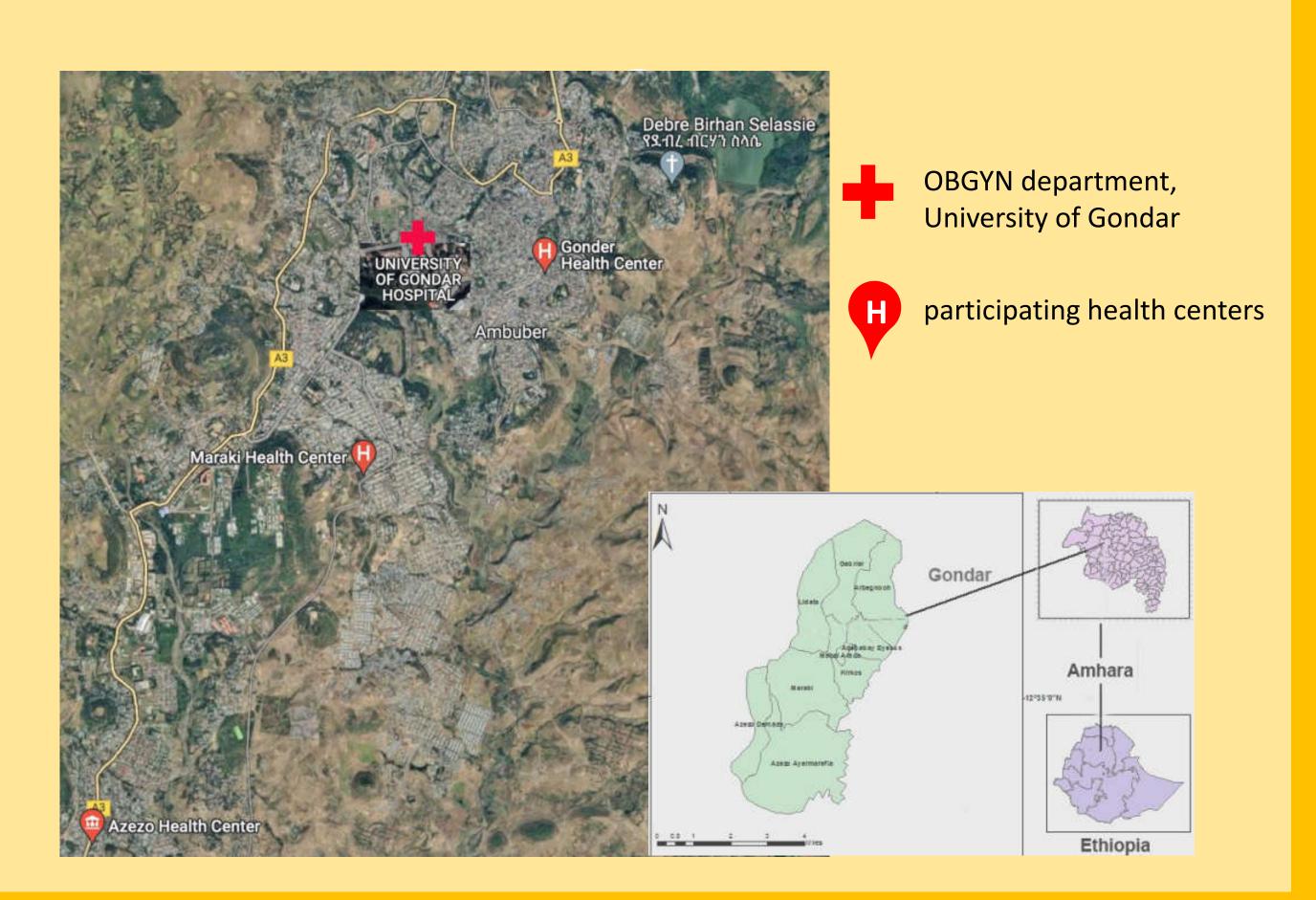
## Extending screening service to health center level

Contract 81277523 (2022-2024)

#### Objective:

Introducing digital cervicography & thermocoagulation in 3 health centers

- Mentoring and quality control by local gynecologists
- Remote consultation with German gynecologists



#### Success

- Strengthening the cervical cancer screening continuum
- GDPR compliant cloud platform (PAICON) with App
- Trusting and reliable partnership
- Engagement of German gynecologists

















1st INTERNATIONAL CONFERENCE
Resilience & Solidarity
in Times of Crisis

14 and 15 October 2022, Berlin



#### Development of Basic Medical Care in Bichena Hospital in Ethiopia with Klinikum Kulmbach in Germany







Ambulance donation

Publication on Germany newspaper

#### Greatest Success in our Hospital Partnership

- -Standard Ambulance Donation
- -Medical Equipment Donations (ultrasounds)
- -Successful Grant application on clinical partnership between Bichena & Kulmbach since 2019
- -Academic partnerships
- -Technological partnerships in which a phone appplication is being built for emergency care



Clinical partnership signing in Addis Ababa (Dr Salsa on left & Dr Addis on right)



Visit to Nuremburg (photos from left to right Dr Degalem, Prof Thomas, Dr Salsa, Dr Addis)

### Biggest Challenges & their Overcome

- COVID 19 Pandemic>>> Travel to ET for signing
- Logistics Beuroucracy>>>Persistent Efforts
- Questionable Sustablility>>> innovative fixes
- Travel restrictions>>>Consistent successful efforts



Bichena Hospital

#### Our Recommendations

- Comtmunication is key
- Building strong relationship between project leads from respective hospital partners
- Persistance despite unavoidable circumstances



Klinikum Kulmbach

#### Lesson for hospital partnerships

- Great opportunity to learn from each other & build a strong link to improve healthcare
- Share the knowledge and technicalities between diffrent institutions
- Learn how to work within various cultures



Introduction to the CEO of Klinikym Kulmbach and team from Bichena Hospital with Prof Thomas

Special Message we would like to share

"Sharing is Caring"



# Implementing cost-effective multimodal interventions to improve hand hygiene (HH) compliance at Ayder Hospital, Mekelle, Tigray, Ethiopia

M. Naizgi <sup>1</sup>, A. Haileslassie <sup>1</sup>, Z. Gessesse <sup>1</sup>, S. Temizel <sup>2</sup>, A. Potthoff <sup>3</sup>, A. Skaletz-Rorowski <sup>3</sup>, N. Brockmeyer <sup>3</sup>, M. Kasper-Sonnenberg <sup>4</sup>, F. Lemm <sup>5</sup>

- College of Health Sciences, Mekelle University, Mekelle, Ethiopia
- <sup>2</sup> Universitätsklinikum Augsburg, Stabsstelle für Hygiene & Umweltmedizin, Augsburg, Germany
- <sup>3</sup> Department of Dermatology, Venerology, and Allergology, Center for Sexual Health and Medicine, WIR Walk In Ruhr, Ruhr University Bochum, Bochum, Germany
- <sup>4</sup> Institute for Prevention and Occupational Medicine of the German Social Accident Insurance, Institute of the Ruhr-University Bochum (IPA), Bochum, Germany
- <sup>5</sup> Katholisches Klinikum Bochum, Hygiene Department, Bochum, Germany







#### Background:

- Healthcare associated infection (HAI) is a major problem in developing countries
- Hand hygiene (HH) is known to be the most effective measure to reduce HAI
- However, scarcity of resource and lack of well structured Infection prevention & control (IPC) programs are main challenges to improve HHpractice
- In our Clinic Partnership project between Ayder Hospital in Mekelle and the Hygiene Department of Katholisches Klinikum Bochum
- We aimed to improve HH practices and compliance.among healthcare workers (HCWs)





Locally produced handsanitizer and bottle holder



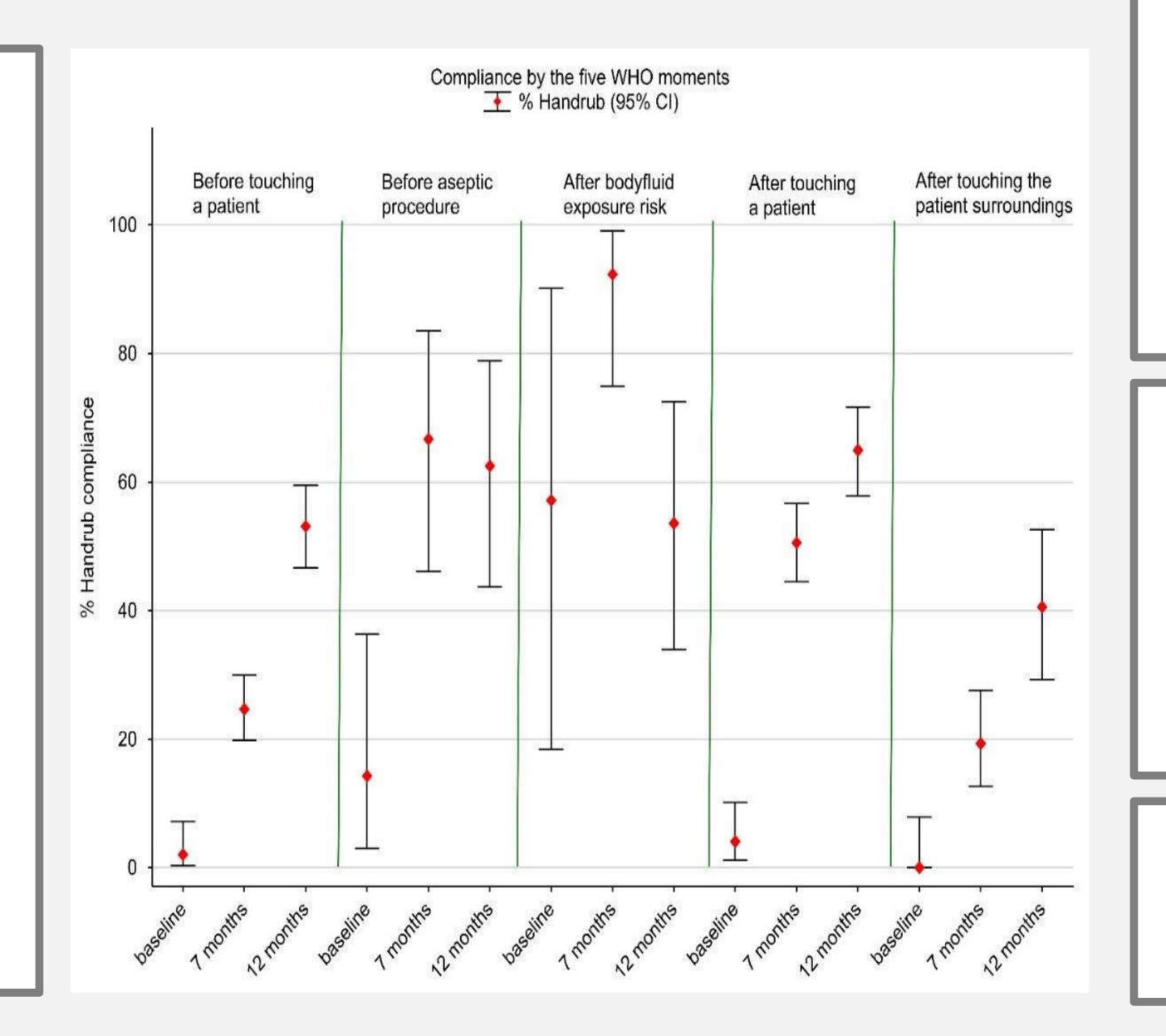


Staff while on training for nand hygiene

# HH Compliance (%) total 60 37,3 ■ Baseline on May 2018 ■ After 7 month of intervention ■ After 12 month of intervention

#### Results:

- obsevation after intervention
  - In the third observation, in 9.2% of the total compliance hand washing was practiced, (mainly after body fluid exposure)
  - The overall baseline rates of hand HH compliance among HCWs was 4.8%, one of the lowest
  - at the end of the project, with out including hand washing
  - baseline & in both subsequent obsevations
  - The least compliance rate was recorded after contact with the patient's surroundings both at baseline & after
  - There was no significant difference in the compliance of HH



#### Major Successes/lessons learned:

- Hand rub is accepted as the main disinfection method in the hospital
- Infection prevention has become a hospital-wide emphasized topic

#### Challenges:

- Infrastructural deficit
- Heavy workload leading to poor compliance
- Poor accessiblity of hand hygiene products due to financial limitation and the COVID-19 Pandemic
- The political situation with a total blockade of the Tigray region by the central government of Ethiopia stopped the project in 2020

#### Solutions:

- We convinced the hospital leadership to allocate budget to sustain the started efforts
- Champions selected from each ward and time was dedicated for their work on HH & other infection prevention
- The international community should strongly call for end of blockage to Tigray

#### Recommendations:

- Applying a multimodal strategies/bundle approach is vey important in implementation of Infection prevention projects
- Utilization of local resources should be strongly considered in implementation projects in developing settings

#### **Contact:**

Dr. Friederike Lemm: friederike.lemm@kklbo.de

Dr. Mulugeta Gebremicael: <u>mulugeta.gebremicael@kklbo.de</u>

#### **Methods:**

- A quality improvement project conducted at Ayder Hospital from April 2018 to May 2019
- A major HH-compliance observations were conducted at the start and repeated after 7 and 12 months of project implementation
- A bundle-strategy approach was followed which included
- To keep the institutional safety a multidisciplinary IPC committe established
- We introduced a system change: Setting up inhouse production of handsanitizer, bottle holder & avail one hand sanitizer bottle to each patient bed
- Staff training and putting reminders in workplace
- Regular observation of HH practice and giving feedback

- Only hand rub was practiced both at baseline & the first

- The compliance increased by more than ten times (56.1%)
- Compliance with HH was higher after patient contact both at
- intervention
- between nurses & medical doctors

#### **DINKNESH**









Eric Sven Kroeber<sup>1,2</sup>, Muluken Gizaw<sup>1,3</sup>, Sefonias Getachew<sup>1,3</sup>, Susanne Unverzagt<sup>2</sup>, Bedilu Deribe<sup>4</sup>, Eva Johanna Kantelhardt<sup>1</sup>

<sup>1</sup>Institut für Medizinische Epidemiologie, Biometrie und Informatik, Martin-Luther-Universität Halle-Wittenberg, Halle (Saale), Deutschland <sup>2</sup>Institut für Allgemeinmedizin, Martin-Luther-Universität Halle-Wittenberg, Halle (Saale), Deutschland <sup>3</sup> School of Public Health, Addis Ababa University, Addis Ababa, Ethiopia <sup>4</sup>School of Nursing, Hawassa University, Hawassa, Ethiopia

Objective: To strengthen Breast Cancer and Cervical Cancer Health Service in rural Ethiopia

#### Three main aims:

Training of cancer experts

Peripheral infrastructure development

Research development

Workpackage 1 aims at training "cancer experts" among Ethiopian lower and mid-level health professionals. They are the first contact persons to raise awareness, conduct screening, link within the health system and serve as a main source of information for women in rural areas.

We develop a culturally sensitive eLearning course on breast and cervical cancer screening and awareness that is aligned to national Ethiopian cancer guidelines. The material will be designed and provided digitally to increase the outreach among health workers.

In workpackage 2 of DINKNESH the focuses lays on the advancement of local health system structures. We want to equip lower level health facilities with a functional digital infrastructure, equipment, and coordination structures to improve the continuum of care.

We implement a digital cancer patient registration system, patient pathways and a cancer nurse with coordinative tasks to guide positively screened and diagnoses breast and cervical cancer patients between health system stages.

Within the 3rd workpackage we are supporting and the education of students and post-graduates in the fields of medicine, public health and nursing to generate an expert research team producing indepth evidence how to best integrate oncology care into the rural primary health care system.

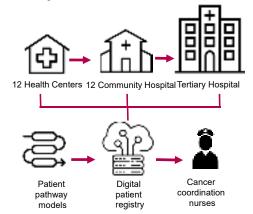
All implementation efforts are accompanied by needs-assessive and evaluative research. Hereby we improve competences in collection of high quality readata and contextualizing questions within the framework of international collaboration and governance.

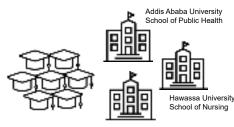


Format eLearning course

Target group 40 nurses & midwifes

Topic Breast and cervical cancer screening and awareness





- PhD candidates
- Master's students
- Martin Luther University Global Health AG

**Research & Education** 

What have been the greatest successes in your hospital partnership?

"To combine medically highly relevant implementation efforts with comprehensive research and education."

· What were the biggest challenges and how were they overcome?

"To coordinate the many important work aspects and involved persons. It's a work in progress."

Did you use a special tool/method that you would recommend to other projects? "Co-Visioning, Co-Planning and Co-Implementation."

· What could other hospital partnerships learn from your project?

"A great strength of our partnership lies in the cooperative approach and the possibility of people to create ownership of the work they are doing whilst having a common vision."

Do you have a special message you would like to share at the conference?

"The key to a successful partnerships seems to lie in the meaningfulness and enjoyment of the shared time and work."

Klinikpartnerschaften Academic Program

Start: June 2022 End: May 2024

Contact:

Dr. med. Eric Kroeber Mail: eric.kroeber@uk-halle.de Tel.: +49 345 557 4166







#### **HOPE**

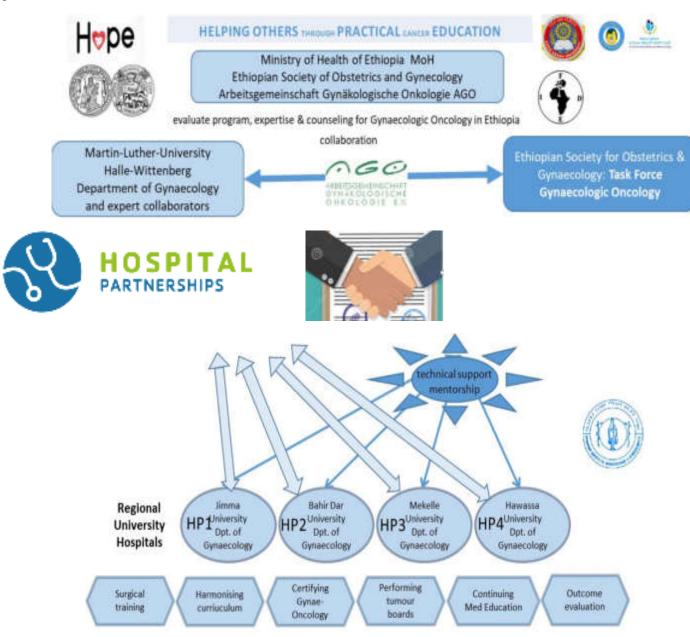
#### Helping Others through Practical Cancer Education



Improving awareness and cervical cancer screening at regional university hospitals in Jimma, Bahir Dar, Mekelle and Hawassa

#### **Objectives**

Female cancers (FC) are among the top 3 most common cancers in Ethiopia counting up to 10.000 per year. Access to FC care is nearly non-exixtent outside Addis Ababa and Gondar University. Ethiopia has 109 Millionen people and only 12 trained Gyncologists. Barriers such as trasportation fees, long distance overcrowding and waiting times hinder the rural population to come to capital, leading to a high mortality rate. Therefore, the hospital partnerships have been supporting improved awareness and cervical cancer screening since as early as 2015. Experienced gynecologists from Addis Ababa train gynecologists at 4 regional hospitals e.g. in surgical trainings and tumor boards are also held on a regular basis.



Outcome: comprehensive regional Gynaecologic Oncology services; certified regional centers; regional fellowship; reliable National data



#### **HOPE**

#### Facilitating Gynaecologic Oncology Training Halle & Hawassa & Bahir Dar & Jimma & Harar





#### PARTNERSHIP FOR GYNECOLOGIC ONCOLOGY TRAINING IN ETHIOPIA

Senior Ethiopian and German mentors jointly train Gynae-Oncology Fellows at new peripheral Cancer Centers

#### **OBJECTIVES**

#### **General Objective**

To decrease morbidity and mortality related to gynecologic cancers in Ethiopia through expanded cancer care fellowship training at regional Universities

#### **Specific Objectives**

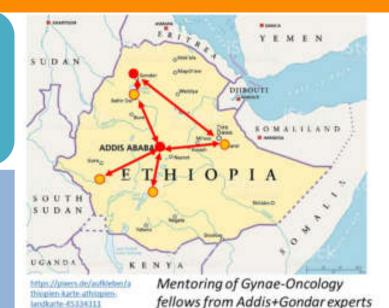
- To increasing access to comprehensive GO surgical services at selected regional hospitals
- ❖ To initiate GO fellowship training in selected hospitals and follow up
- ❖ To improve the quality of GO care in selected regional hospitals

#### Out come:

- Gynecologic oncology service established/strengethened
- 2 fellows started training at each sites
- Awareness at regional hospitals

#### Activities:

- Friday: virtual German-Ethiopian tumorboard
- Weeks of mentoring at peripheral sites
- ❖ 4 Fellows newly certified!







Contact: E-Mail: tadeurgie@gmail.com

Tadesse U. Beyene, Assoc. Prof. OBGYN,GynOnc,
SPHMMC,Coordinator for HOPE project,Ethiopia













# Optimization of Maternal and Child Health in rural Gabon



Hospital Partnership between the Centre de Recherches Médicales de Lambaréné (CERMEL) and the Bernhard-Nocht Institute For Tropical Medicine (BNITM)



#### Background

- Perinatal care is not always accessible in rural settings due to long distances to urban or suburban centers
- Distribution of health staff and facilities is skewed towards the larger cities and urban areas".



Figure 1 – Health education in Sindara 09/2021

#### Project area, aim and objectives

#### **Project area**

Sindara is a village in the province Ngounié in the middle of the tropical rainforest in Gabon

To enhance Mother and Child Health (MCH) in a remote area (Sindara) by establishing a basic health dispensary that provides the most basic primary health care services, including access to information about birth control measurements

#### **Primary objectives**

- To introduce perinatal consultation in Sindara
- To determine pregnancies at risk in Sindara
- To introduce general paediatric consultation until five years and to collect anthropometric data

#### Secondary objectives

- To determine the frequency of alcohol consumption during pregnancy
- To determine the incidence of birth defects



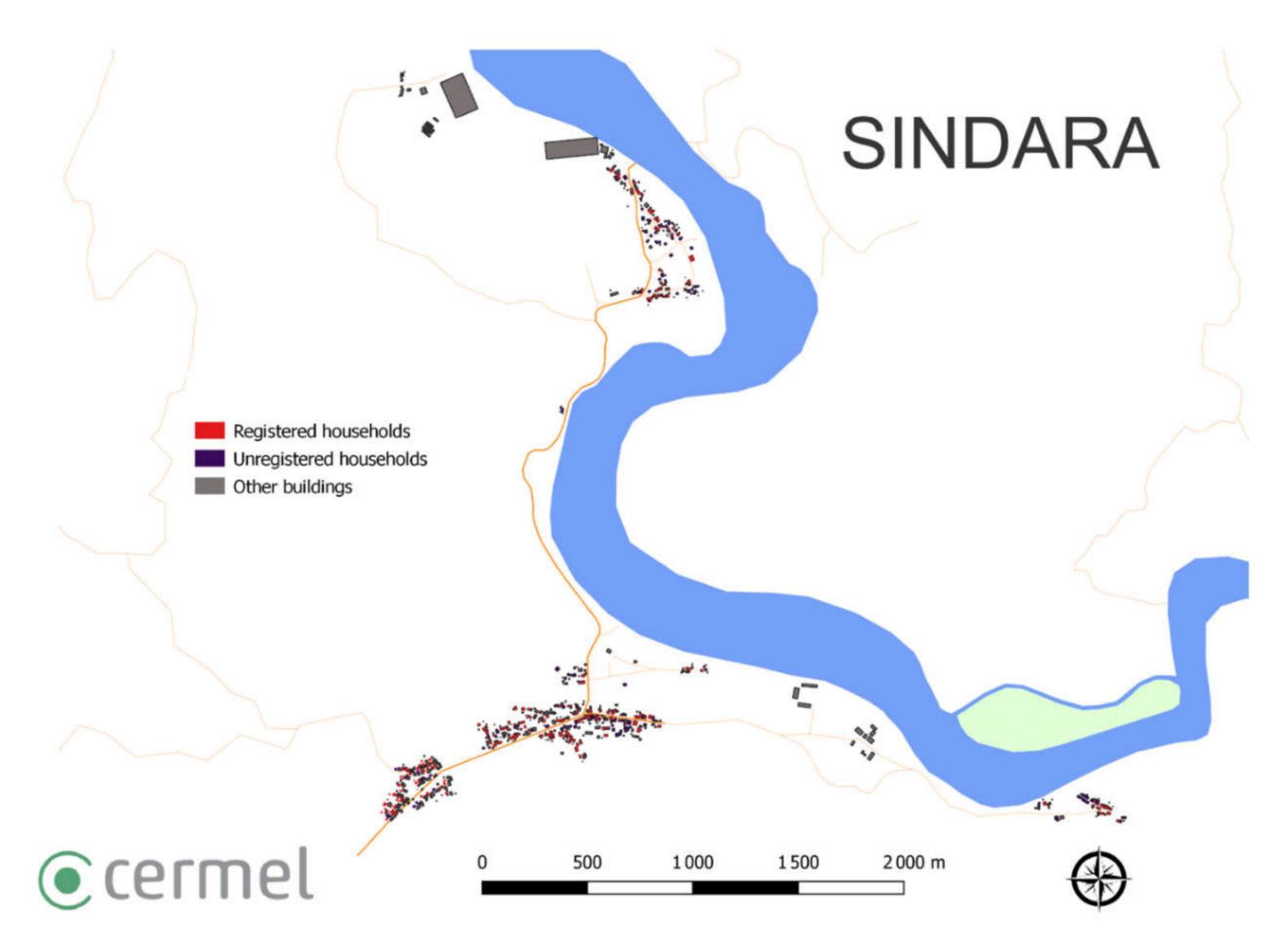


Figure 3 – Cartography of Sindara (02/2022)



Figure 4 – Paediatric consultation in Sindara (08/2022)

#### Reflection on hospital partnership

#### **Greatest success**

- Integration of a study team for basic perinatal care
- Integration of systematic screening of urogenital schistosomiasis in pregnant women in the third trimester
- Implication of midwives from former hospital partnership projects
- Implementation of a new technique for placental maceration at CERMEL for diagnosing placental schistosomiasis
- Open of functional health care dispensary that is accessible for the community as a point of care

#### Biggest challenge and solutions

- Limited financial resources vs accrued costs associated with delivery (limited funding, difficulties for assigning some costs to the budget lines) → solution of renewing old partnerships to reduce costs
- Unforeseeable needs for project materials
- Prioritizing socio-economical problems of mother and child

#### Recommendations for other hospital partnerships

- Submission of project proposals in English to involve the partner actively from the very beginning
- Frequent teleconferences for updating and monitoring projects
- Frequent project visits in the partner country
- Support with staff, if needed by the project partner (Students, physicians, lab technicians, coordinators...)
- Use as much resources from the partner country (supply of project materials, involve staff and assigning them important roles in the project)
- Open talks about obstacles and problems and to find together a solution

#### Take home message

"Todo el mundo sonríe en el mismo idioma" (Everyone smiles in the same language)



#### INTRODUCTION

The Komfo Anokye Teaching Hospital (KATH) is the second largest and second oldest teaching hospital in Ghana. Located in the traditional and culturally-rich city of Kumasi in the Ashanti Region, it commenced operations in 1955 and became a teaching hospital in 1975. It is a leading centre in West Africa for the training of undergraduate and postgraduate health professionals notably doctors, dentists, nurses, pharmacists, laboratory scientists, radiographers and clinical psychologists among others.

KATH has close to 5,000 workforce which includes 387
Allied Health Professionals, 2,282 Nurses and Midwives,
246 Pharmacists and Pharmacy Technologists and 462
Doctors. The hospital currently has 13 clinical directorates
and two supporting non-clinical directorates. The clinical
directorates include Surgery, Obstetrics and Gynaecology
(O&G), Child Health, Anaesthesia and Intensive Care,
Medicine and Family Medicine. The rest are Ear, Nose and
Throat (ENT), Trauma and Orthopaedics, Oncology.

Radiology, Emergency Medicine, Oral Health and Laboratory Services.







#### **GREATEST SUCCESS**

- 1. Signing of partnership Memorandum of Understanding (MOU) 2017
- 2. Four operative surgical outreach missions to KATH with delegations comprising surgeons, an operating theatre nurse, a dietician and an administrator: (2019, 2020, 2021, 2022): During these week-long missions, numerous surgical procedures were performed jointly with local surgeons resulting in exchange of knowledge and transfer of surgical skills. The surgeries performed include Insertion of Porta Cath for cancer patients needing several sessions of chemotherapy, complex gastrointestinal and hepatopancreatobiliary surgeries, as well as excision of retroperitoneal tumors.
- 3. Two surgeons undertook a three-month clinical observership at Klinikum Rechts Der Isar (General Surgery/Orthopedics) -2017
- 4. Two Residents undertook clinical observership at Klinikum Rechts
  Der Isar (Surgery/Anaesthesia) 2021
- Donation of medical equipment (ventilators), medical supplies, surgical instruments and training on the use of the ventilators - 2020, 2021
- 6. Collaboration between the visiting nutritionist and the Diet TherapyTumors Unit and the Catering Department of KATH, sharing ideas on the postoperative nutritional support for patients scheduled for surgery, especially cancer patients

#### **BIGGEST CHALLENGES**

- 1. Inadequate surgical instrumentation
- 2. Affordability of services

#### HOW CHALLENGES WERE OVERCOME

- Partners from Klinikum Rechts Der Isar supported with complementary instruments to facilitate surgeries.
- 2. Philanthropic donation of funds to support patient

### LESSONS FOR POTENTIAL HOSPITAL PARTNERSHIPS

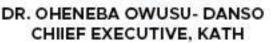
- Support from Central Hospital Management is essential to ensure a successful partnership.
- The cooperation between the visiting team and the local partners comprising surgeons, anesthetists and nurses is very valuable.
- Development of personal friendships among visiting and local team members keeps our bond strong, thereby fostering teamwork.

#### **SPECIALMESSAGE**

We would be glad to see the Partnership extended to other specialties such as Orthopedic Surgery, Urology, Paediatric Surgery, Neurosurgery, Cardiovascular & Thoracic Surgery and Plastic Surgery

#### **PRESENTERS**







DR. CHARLES KOFI DALLY HEAD -SURGERY DIRECTORATE, KATH

Contact: https:/kath.gov.gh Hotlines: +233 266 083 585 +233 556 490 029

+233 556 490 029

Address: P.O. Box 1934
Adum Kumasi.

Email: info@kath.gov.gh

# Partnering for Community Mental Health

Community-based mental health promotion with citizens of Kenya's urban slums

Caroline Sakwa, Sheripher Mutua, Philipp Wolf, David Otieno & Monica Blotevogel

Mental health is an essential component of life, health and development. In addition to medical and psychological care, preventing mental illnesses under consideration of social determinants plays an important role for healthy, productive and equitable societies.

SHOFCO (Shining Hope for Communities) is a grassroots movement that catalyzes large-scale transformation in urban slums, providing communities with the tools they need to escape survival mode and lift themselves out of poverty. Our partnership is about promoting mental health where people live, work, play and learn together with the following goals:

- 1. Make mental health promotion an explicit element of existing community services.
- 2. Develop mental health knowledge and skills at community level to promote individual and collective wellbeing.
- 3. Reduce stigma, raise awareness for human rights in mental health and facilitate timely utilization of available professional services where needed.

To reach these goals, SHOFCO staff are disseminating group intervention consisting of culturally adaptable psychoeducation and practical skills, the "Garden Method for Community Wellbeing". Trainers integrate the intervention in their respective workplaces, for example primary care clinics, gender-based violence prevention departments, SHOFCO Urban Network and a library where citizens of different ages study and acquire employability skills.

SHOFCO aims to help reduce the burden of mental ill-health in Kenya by delivering CORESZON's mental health capacity-building program to other organizations in Kibera, Mathare and other urban slums nationwide.

Five SHOFCO staff from the original Train-theTrainer cohort have qualified as CORESZON
Partners, enabling SHOFCO to secure the project's sustainability by training Trainers within their own staff, and for other local organizations

Train-the-Trainer 1, 2019
Initiation: Peter Möhrle Foundation

Co-development of context-adapted CORESZON Trainer Program & Pilot Hospital Partnership Project 1, 2020 – 2022

Expansion to other Kenyan organizations
Hospital Partnership Project 2, 2022 - 2023

#### Successes

HAMBURG

#### Within the organization:

- Despite high staff fluctuation, SHOFCO currently has 40 active Trainers who deliver multiple group workshops per month as part of their respective programs  $\rightarrow$  integrated mental health promotion
- Most Trainers are members of the community and use their training both within their respective roles at SHOFCO and to provide informal support, for example to friends and family members.
- Trained staff provide peer-to-peer support within their teams, buffering the emotional burden of their daily work and potential secondary trauma
- Senior staff has gained appreciation for staff's need for support and its mid- to long-term benefits, and has systematized employee wellbeing, e.g., better access to professional counseling when needed.

#### In the community:

- Community members are having more open conversations about mental health and requesting continuous training  $\rightarrow$  stigma reduction
- Referrals to and utilization of professional services have increased → timely intervention
- Youth Trainers are now sharing the intervention with other young people in their social environment as part of SHOFCO's new Youth Mental Health project

#### **Collaboration at institutional level:**

SHOFCO staff are now part of the strategic team implementing the Kenyan Mental Health Amendment Act, and the county Mental Health Hechnical Working Group.

#### **Challenges**

#### Time restrictions

- impact the sustainability of Trainer development and their activities in the community.
- impact the capacity of CORESZON for individual follow-ups to obtain information for adaptations.

Quality assurance & evaluation present particular challenges under the current implementation conditions, but are essential to the project's development.

Funding for locally led capacity-building beyond capacity-building with CORESZON via Hospital Partnership Global funding line.

#### **Current solutions**

Senior management co-developed an MOU outlining the resources Partners contribute to sustainability, i.e.staff working hours.

However, this challenge is embedded in the integrated approach and will need to be revisited as SHOFCO's mental health teaching activities expand.

Basic visual feedback methods are used in each training. Trainer feedback to CORESZON has been installed as a qualification criterium. External evaluation of SHOFCO's growing mental health program is underway.

SHOFCO is co-financing current partnership activities, but funding challenges for locally led capacity building will need to be addressed in the near future.

#### What we can share with other partnerships

- Experience in integrating mental health promotion into existing structures
- Strategies to get communities engaged in mental health promotion activities
- Lived experience as both implementers and users of peer-to-peer mental health promotion

#### THE GARDEN METHOD FOR COMMUNITY WELLBEING

is a peer-to-peer intervention consisting of five culture-sensitive educational modules about individual and social wellbeing, and five bodybased techniques to regulate stress.

#### **Example for 2 techniques:**

FINDING (TATUFA) means talking about things that give us strength and bringing attention to any sensations of wellbeing that arise.

NOTICING (NAHISI) means focusing attention on visceral sensations of wellbeing to intensify them, then NOTICING how this can activate autoregu-latory responses and/or increase a sense of physical and emotional wellbeing.

In CORESZON Workshops, people learn the method by practicing together. The primary objective is to sensitize participants to the connection between social experience, stress and wellbeing and give them tools to utilize this knowledge in their everyday lives.



FINDING & NOTICING sources of wellbeing









Artwork by Sheripher Mutua, CORESZON Partner at SHOFCC

#### Community feedback example:

A group of women in Korogocho slums received training over the course of 1 month. They shared that their perspectives have changed regarding dealing with daily stresses and trauma. The trainers observed that even women who at first hardly spoke in the group began to share their burden, and that by using the Garden Method technique "FINDING", the women were also able to share inspiration and hope.

#### Key message

Addressing inequities in mental health calls for multi-tiered approaches that encourage intersectoral cooperation and ease access to the right kind of help at the right time. This applies to both societies in the Global South and North.

Professionals in German mental health promotion & prevention can learn from the innovative strategies developed by locally led, grassroots organizations like SHOFCO to improve community engagement and facilitate bottom-up change for more equity in mental health & wellbeing.





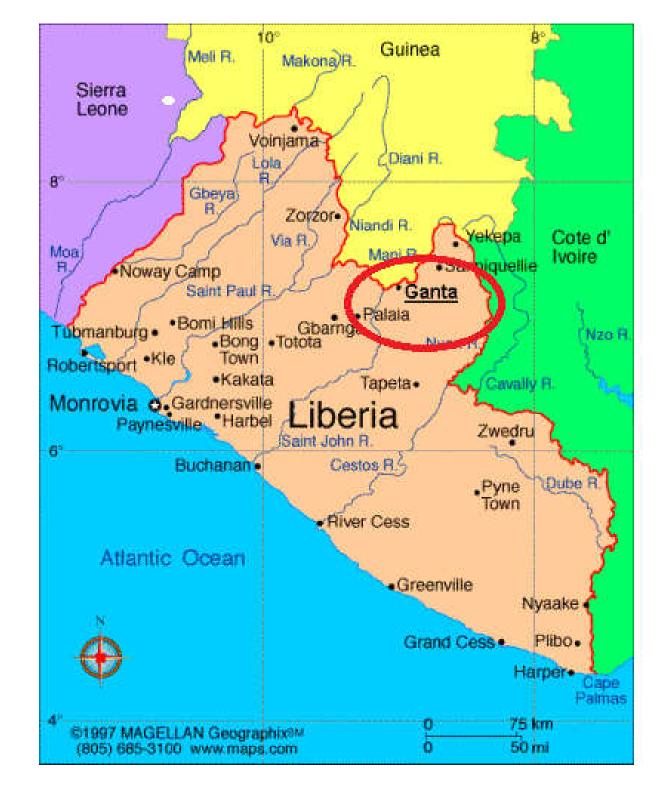




#### Strengthening the laboratory capacities of the Ganta Rehabilitation Centre, Liberia

#### Ganta Rehabilitation Centre, Liberia, DAHW Wuerzburg

#### Project Idea and Background



The Ganta Rehabilitation Centre (GRC) owns a functioning laboratory with highly motivated and committed staff for the diagnosis of neglected tropical diseases (esp. Leprosy, Buruli Ulcer) and Tuberculosis. Reliable and efficient laboratory diagnosis is crucial and indispensable – not only for improving patient's care and management, but also for monitoring and evaluating epidemiological changes in the region and to react to changing or emerging health concern. Strengthening the laboratory capacity, particularly in a resource-constrained setting, is a complex undertaking. It involves various aspects such as investments into the necessary equipment and the technical support to all cadres - the laboratory personnel, the medical staff as well as the management team. These multifactorial approaches are contributing to create a constructive environment for embedding new laboratory processes and procedures in a hospital. A total of 5 laboratory technicians are trained and the overall hospital management is integrated into the process of laboratory strengthening.

#### **Results and Achievements**

#### What have been the greatest successes in the project?

- Change of attitude -> Moving to "systems thinking for continuous quality improvement"
- Purchase of equipment (Simple Hematology analyzer, Reflotron, iLED Microscope, Slide boxes, etc.)
- Computer for data collection
- Increasing human resource capacities in the laboratory
- Implementing a quality management system with more than 30% documentation in place (Quality Policy Manual, System and technical procedures, Safety Manual) with adequate training and competence testing as well as the development of a handbook inclusive of turn-around-times
- Improvement in reference to quality indicators like EQA from 60% error rate (July 2022) to 0% error in September 2022
- Online mentorship during COVID-19 lockdown
- Positive feedback of clinicians in reference to turn-around-time and quality of lab reports
- Initiation of continuous medical education initiated by Laboratory Management

#### Methods / tools

#### Did you use a special tool/method that you would recommend to other projects?

- •Laboratory mentorship with subsequent enhancement of laboratory quality improvement by promoting accountability to QMS implementation, raising awareness of the importance of QMS, and initiating problem solving
- Joint review of documentation
- Locally owned capacity building (engagement of mentors from MoH Liberia)
- •Constant adaptation of teaching technologies in response to local situations
- •The WHO-AFRO SLIPTA checklist was used to measure progress of QMS implementation

#### Challenges

#### What were the greatest challenges and how were they overcome?

- •The "language" of a quality management system needs to be carefully translated into guidelines that are easy to understand in a step-by step approach
- •COVID-19 (Presence mentorship had to replaced with online sessions)
- Supply Chain Management
- •Data management, still a paper-based system with error rates. Computer purchased and training done, but there is still need for intensified training

#### **Conclusions:**

# What could other hospital partnerships learn from your project? Do you have a special message you would like to share at the conference?

- Capacity building is a continuous process, should be locally owned and should be done in cooperation with county- and MoH structures to create sustainability
- External proficiency testing schemes create professional ambition and demonstrate an important measurable indicator

#### **Project Activities**



Accredited Assessor in discussion with the laboratory staff of GRC



**CME Session for laboratory staff of GRC** 



Laboratory staff working with Reflotron instrument

#### Proposed Competency Evaluation Checklist For Fluorescence Microscopy Training for Ganta Rehab staff.

old employee do the following correctly?	-	COMMENTS
Sets up workstation and ensure there are adequate supplies/reagents are available before staining samples to avoid interruption of procedure? Checks expiration dates of reagents?	YES No	The state of the s
Receives slides and verifies sample IDs?	YES No	
Arranges slides on staining racks properly at least a finger apart to eliminate cross-contamination? Includes blind QC samples?	YES No	
Stains with Auramine (knows the right concentration) solution for a total of 15 minutes?	YES No	
Makes use of the timer each time timing is required and responds immediately it rings/sounds?	YES No	
Adequately applies decolorizer (and knows the right decolorizer and the right concentration) for the stipulated period?	YES No	
Washes slides with a gentle stream of water avoiding splashes that might result into cross-contamination?	YES No	5
Follows the SOP strictly?	YES No	
Applies the counter-stain (Potassium permanganate or Methylene Blue of the right concentration) for the designated time in the SOP?	YES No	
Leaves stained smears to dry before examination?	YES No	

Example of competence test for iLED Microscopy



Set-up of dust-protected room for computer and computerized instruments

# Crossing the last mile of TB care in the rural South of Madagascar: A multi-stakeholder initiative, 2019-2020

Nadine Muller, Fierenantsoa Ranjaharinony, Miandrisoa Etrahagnane, Hortensia Ramasimanana, Julius Emmrich

#### **Background**

Despite a free TB care policy, access to TB care in rural Madagascar is limited due to an overall drastically underfunded health care system. The WHO estimates the yearly estimated TB incidence in Madagascar at 238 cases/100,000 in 2020 with only half of the patients with TB being notified and treated. The aim of the hereby described intervention is to improve access to and quality of TB care in Ampanihy, a rural and remote district in Southern Madagascar.

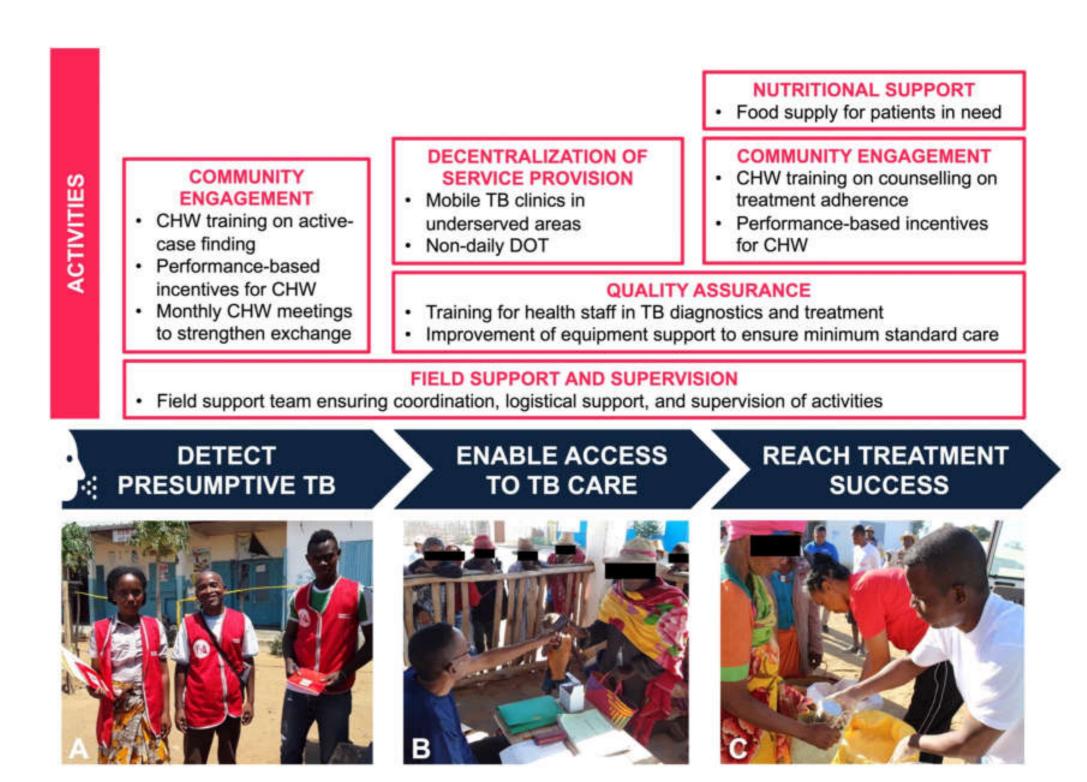
#### **Program description**

We involved national, regional, and local stakeholders in assessing the multifaceted challenges in the field and in co-designing activities of this intervention. Overarching principles of the intervention were:

- 1. Promoting national TB guidelines
- 2. Building on best practice experiences
- 3. Prioritizing low-cost activities to enable scale-up.

An in-depth assessment of challenges in accessing and delivering TB care concluded in the following activities (Figure 1):

- 1. Fostering community engagement
- 2. Decentralizing service provision
- 3. Providing nutritional support
- 4. Improving quality of care
- 5. Ensuring field support and supervision



**Figure 1.** Activities to improve the access to and quality of drug-sensitive TB care in Ampanihy-Ouest, Atsimo-Andrefana region, Madagascar, 2019-2020.

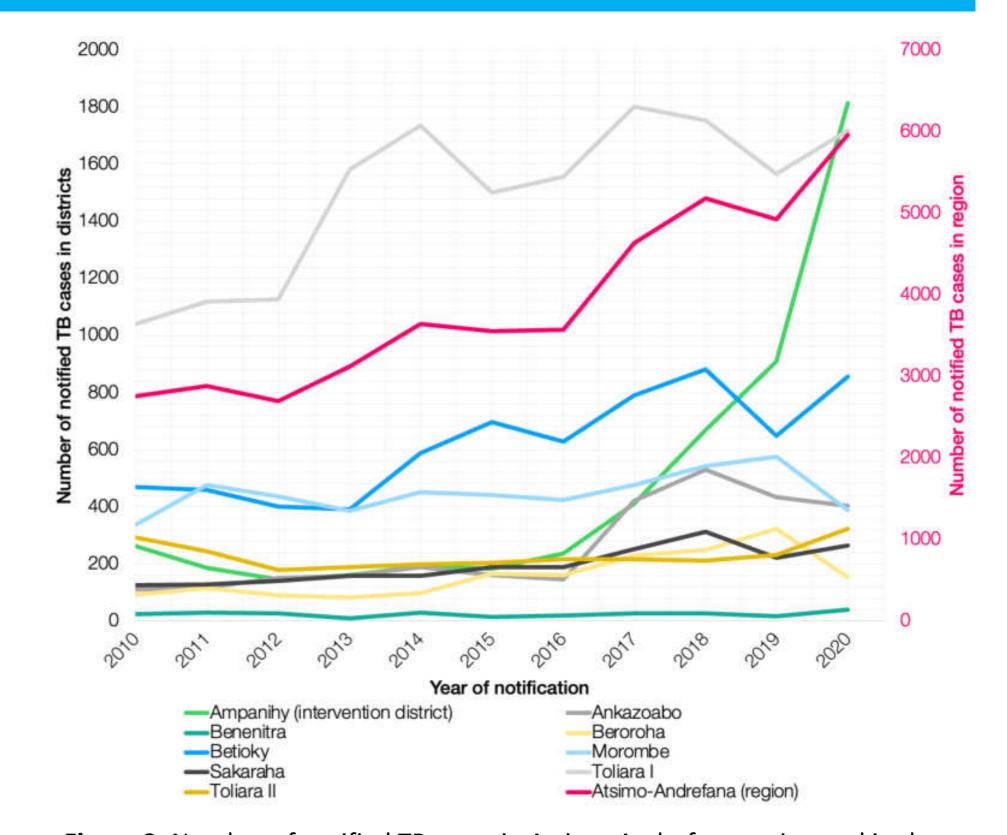
#### **Outcome**

The intervention was launched in 08/2019 and is still ongoing.

We gave training in basic TB diagnostics and treatment to 14 TB care staff and counseling on treatment adherence to 24 health staff and 32 community health workers (CHWs). We provided small instrumental equipment to TB care facilities based on needs. We included 32 CHWs in a continuous training program and provided performance-based bonuses for positive case finding.

Between 09/2019 and 12/2020, we performed 317 motorbike-based, mobile TB clinics in collaboration with two TB diagnostic and treatment centers. A total of 4,982 presumptive patients were screened during the mobile TB clinics of which 1,706 (34.2%) have been diagnosed with TB.

The official TB notification data show that the yearly number of TB cases notified from the intervention district increased from 669 cases in 2018 to 909 in 2019 and 1,815 cases in 2020. Based on the national population data (376,052 in 2018 and 427,934 in 2020), the district's TB notification rate increased from 178/100,000 in 2018 (before the intervention) to 424/100,000 in 2020 (during the intervention).



**Figure 2:** Number of notified TB cases in Atsimo-Andrefana region and in the nine districts in the region, 2010-2020, Southern Madagascar.

#### **Conclusions**

- Our intervention resulted in a stark increase in the TB notification number in a rural district in Madagascar.
- Community engagement and motorbike-based mobile clinics offer an effective solution for reaching rural populations.
- Involving stakeholders from different levels of care, including locally-experienced health care staff, was key to success.

#### Mitigating the COVID-19 fallout in Madagascar:

#### The "Tosik'aina" project

#### **Project overview**

#### Goals

- 1) Reducing catastrophic health expenditure for beneficiaries
- 2) Ensuring financial stability for partnering health facilities
- 3) Increasing price transperancy for patients
- 4) Establishing the mobile moeny based "mTomady" payment tool at partnering health facilities

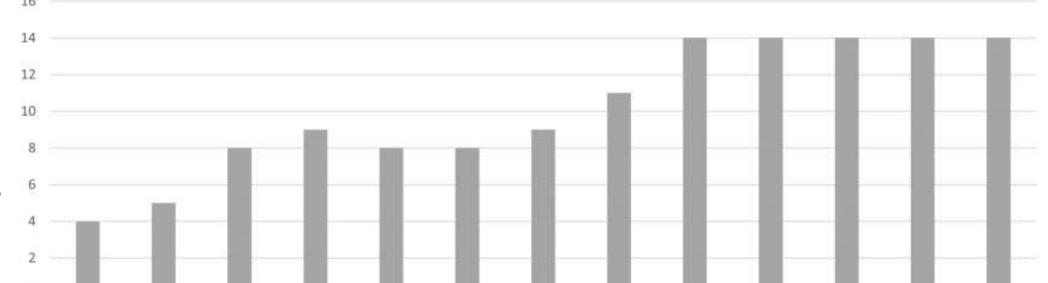
## Beneficiaries Prognant w

- Pregnant women
- . Children under 5

Accidents and injuries

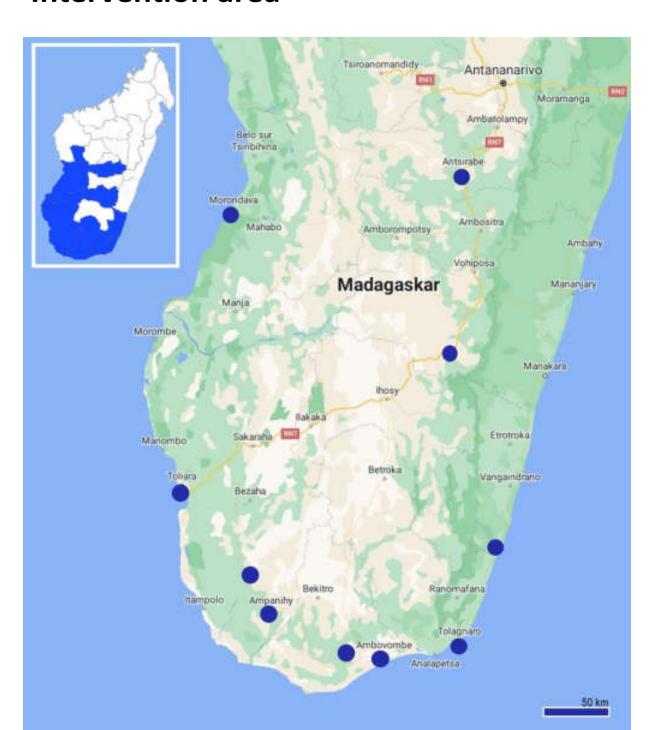
Life-threatening illness

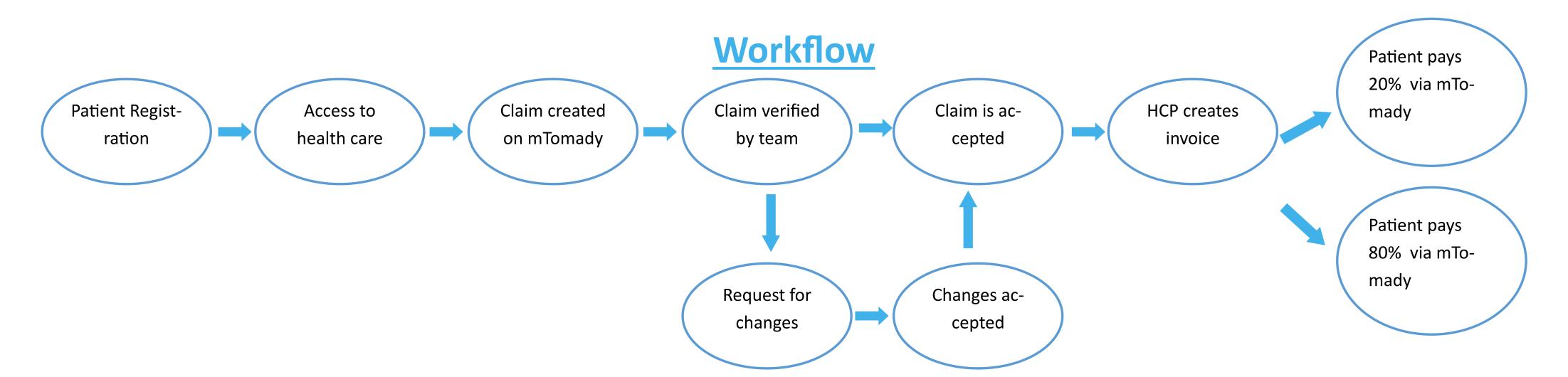
#### Participating facilities over time



Apr 21 Mai 21 Jun 21 Jul 21 Aug 21 Sep 21 Oct 21 Nov 21 Dec 21 Jan 22 Feb 22 Mar 22 Apr 22

#### **Intervention** area





#### **Successes and challenges**

Success	Reasons	Challenges	Solutions
	- Collaboration with overaching health	Increased administrative workload for	- Training on administrative tasks
verse facilities included	care provider networks	participating facilities	<ul> <li>Streamlining of project processes</li> </ul>
Quality improvement of care provided	- Quality control of every claim by a	Slow uptake of system after inital	- Community outreach and sen-
	trained medical team	rollout at participating faciltiies	sitisaion
			- Facility training and communication
Increased transparency of facility inco-	- Use of a mobile money-based pay-	Delays in payouts to participating faci-	- Improved administrative processes
me and resources	ment system	lities at programm beginning	at implementing agency
Patient financial empowerment	- Use of a mobile money-based pay-	Problems of health care providers in u-	- Repeated training
	ment system creating cost transpa- rency for patients	sing mobile tool.	- constantly available helpline for tech- nical issues



A project worker registeres a new patient for the mobile phone-based co-payment system, 2021.

#### **Lessons learnt**

- Mobile money tools can be established successfully even in low-resource, settings
- . Decreasing financial barriers to care increases healthcare utilisation
- . Mobile money tools increase financial transparancy for both patients and facilities
- · Profound training for health care providers is esential when introducing digital tools
- . Robust, streamlined processes at implementing agencies are essential for smooth rollout
- . Community outreach is important to engage patients





# Establishing ETAT+ in paediatric emergency care in the Alaotra Mangoro region, Madagascar



M Fier<sup>1</sup>, C Noa<sup>2</sup>, M Miadanaarisoa<sup>2</sup>, FG Raharinjanahary<sup>3,4</sup>, T Nomenjanahary Andriatahina<sup>5</sup>, AN Rahanitrarinivo<sup>3</sup>, R Razafimahatratra<sup>3</sup>, A Rabearilala<sup>3</sup>, HJ Lang<sup>1</sup>, M Galatsch<sup>6</sup>, K Fahlbusch<sup>1</sup>, F Yasmin<sup>1</sup>, R Weigel<sup>1</sup>, D Köcher-Andrianarimanana<sup>2,5</sup>

- 1 Friede Springer endowed professorship for Global Child Health, Faculty of Health, School of Medicine, Witten/Herdecke University, Witten, Germany
- 2 Faculty of Medicine, University of Mahajanga, Mahajanga, Madagascar
- 3 Ministry of Health, Madagascar
- 4 Regional Public Health Directorate Alaotra Mangoro
- 5 Société Malgache de Pédiatrie (SOMAPED), Madagascar
- 6 Institute of Nursing, School of Health Science, Zürich University of Applied Science, Winterthur, Switzerland

#### Introduction

Madagascar has a population of 29.6 million (July 2022); more than 40% are less than 15 years old [1]. The country is committed to achieve the child-health related SDG targets (table 1) [2] and effective emergency care can improve child health outcomes [3]. Emergency Triage, Assessment and Treatment plus (ETAT+) is an evidence-based intervention to improve the survival of children seeking emergency care [4] but few health care workers in Alaotra Mangoro's district hospitals and health centres (CSB2) underwent ETAT+ training so far. Based on the experiences of a training conducted in Mahajanga in 2019 [5], the partnership between the universities of Mahajanga and Witten/ Herdecke applied for funding to address this need. The project implementation started in July 2022.

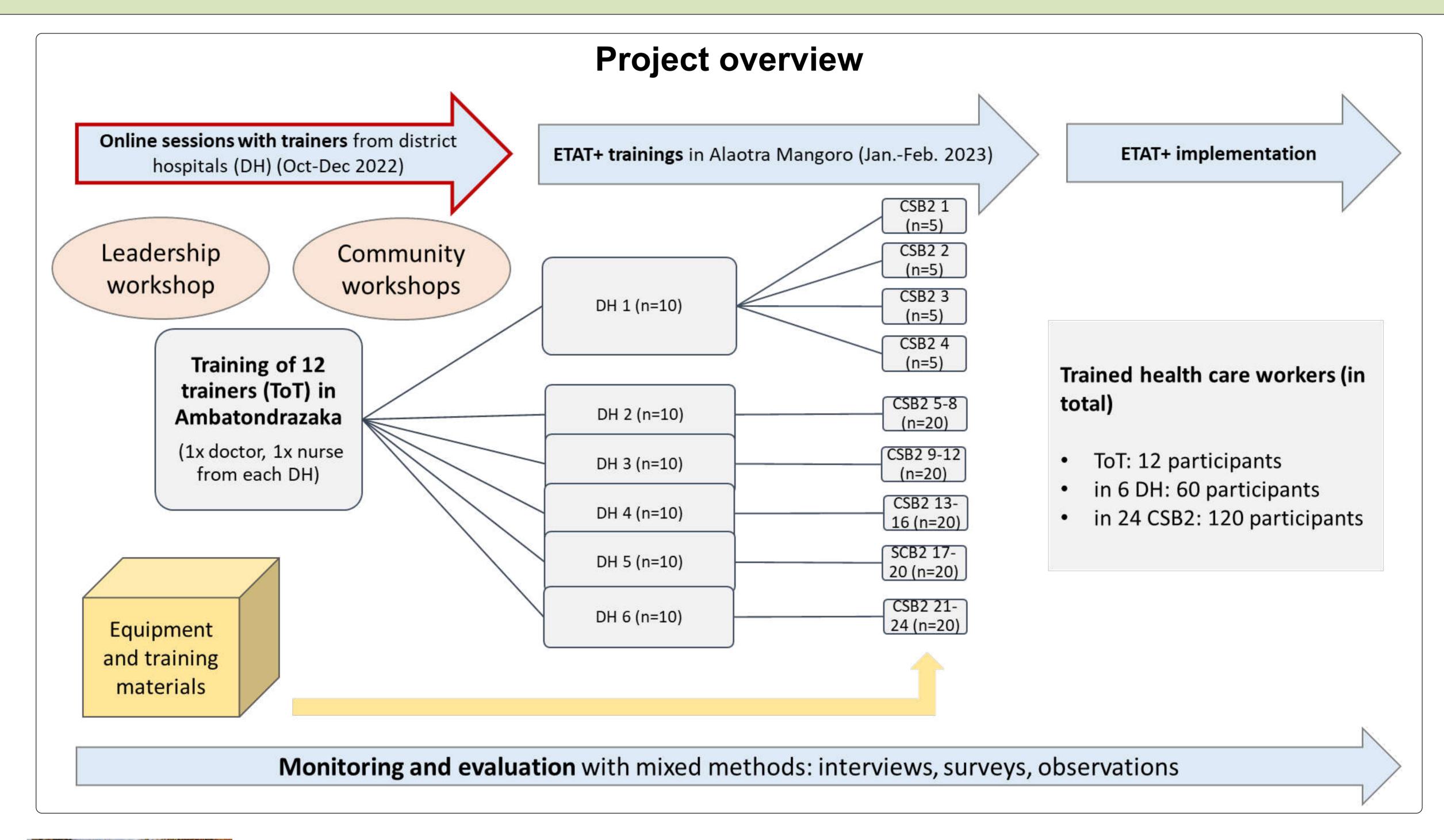
Table 1: Child health indicators in Madagascar and Alaotra Mangoro region in 2021 [6]

Indicator	SDG 3 target	Madagascar	Alaotra- Mangoro
Neonatal mortality per 1,000 live births	12	26	27
Under-5 mortality per 1,000 live births	25	75	60



#### Objectives

- To train health care workers and implement an adapted ETAT+ training in selected health facilities in the Alaotra Mangoro region
- To improve the quality of paediatric emergency care in the region



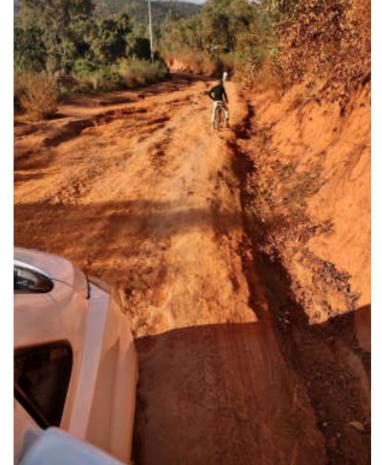
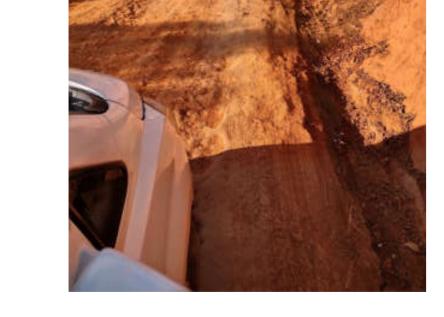


Fig. 1: Road conditions can be harsh









@UniWHgch

(i) uniwhglobalchildhealth

Fig. 2: CSB2 (health centre), Northern Alaotra Mangoro

Fig. 3: Emergency care equipment

#### Literature

- 1. Worldometer (2022). Madagascar Population.
- 2. Sima, B. (2015). Madagascar's health challenges. *The Lancet*, 386(9995):729-730.
- 3. Molyneux, E. et al (2006). Improved triage and emergency care for children reduces inpatient mortality in a resourceconstrained setting. Bulletin of the World Health Organization, 84: 314-319.
- 4. Duke, T. (2016). New WHO guidelines on emergency triage assessment and treatment. The Lancet, 387: 721-724.
- 5. Galatsch, M. et al (2022). A mixed-methods study on evaluating an updated, francophone version of ETAT+ in Madagascar. South African Journal of Critical Care, 38(2): 64-70.
- 6. Institut National de la Statistique (INSTAT) & ICF (2022). Enquête Démographique et de Santé à Madagascar, 2021. Antananarivo, Madagascar & Rockville, Maryland, USA: INSTAT & ICF.











Friede Springer Stiftungsprofessur für Globale

Kindergesundheit Universität Witten/Herdecke

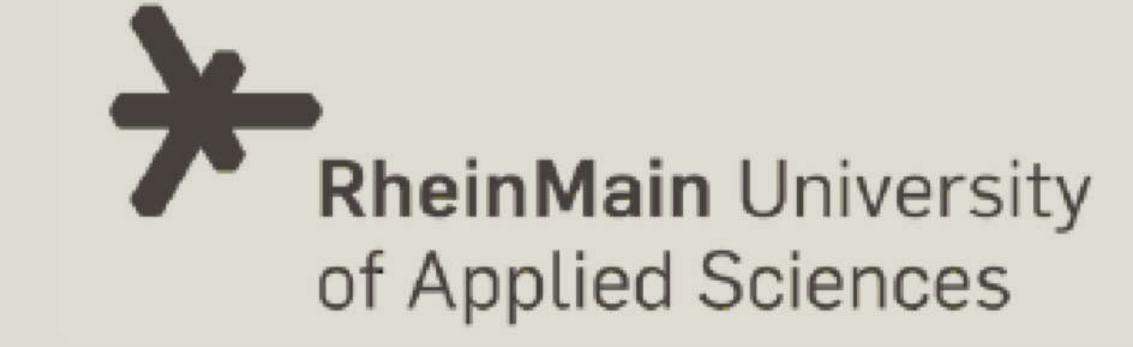
Fakultät Gesundheit/Department für Humanmedizin Alfred-Herrhausen-Str. 50

58448 Witten Tel.: +49 (0)2302 926 797

Fax: +49 (0)2302 926 44746 E-Mail: globalchildhealth@uni-wh.de



# SAFE@KGH



Development and design of the project "Safe@KCH" is to develop a sustainable partnership for the implementation of patient safety elements like safe surgery, safe childbirth safe medication

#### TEAM

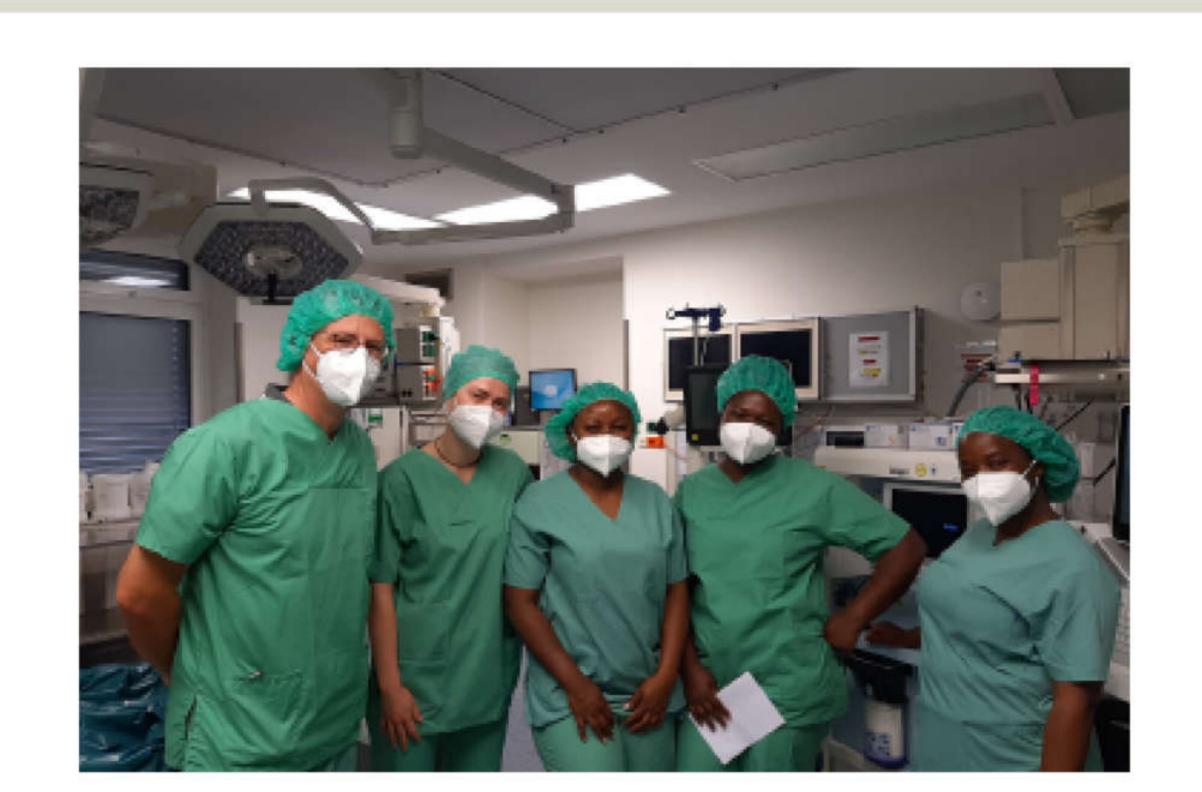
Mercy Katantha, Emmie Jingini, Stefan Boy, Hannah Rösner, Milesi Timbenawo, Prof Reinhard Strametz, Dr Jonathan Ngoma, Dr Thomas Stockhausen, Priscilla Chizombwe, Dr. Mwai Phirri, Grenah Jumbe

# WHAT HAVE BEEN THE GREATEST SUCCESSES IN YOUR HOSPITAL PARTNERSHIP?

A lot has been done, especially in the operating theatre, for example in terms of access and safety, staff use the patient wristbands for identification, instruments are counted, postoperative care in the operating theatre has improved. The revised pre Op checklist is being used in the surgical departments. The project has also spread to other hospitals and the ministry. Nkhoma Mission Hosp., Mua Mission Hospital and Ntcheu District Hospital have started to order patient identification wrist bands and set up projects on patient safety. A patient safety officer has been appointed in the Quality Management Directorate in the Ministry of Health. The project data that was presented, raised the awareness of patient safety at all levels in the surgical department, from the patient assistant to the Head of the departments.

# DID YOU USE A SPECIAL TOOL/METHOD THAT YOU WOULD RECOMMEND TO OTHER PROJECTS?

The joint project group work, also virtually, was very important. Currently, we are working together from Germany and Malawi on adapting the WHO Patient Safety Curriculum to Malawian conditions.



# WHAT WERE THE CHALLENGES AND HOW WERE THEY OVERCOME?

The biggest challenge is still to achieve the culture change, not all staff have understood what our project is good for. Fortunately, we have the full support of the hospital management. A constant feedback to the service providers is essential for the success. The project data is transparent to all staff members involved and the Hospital Management and is discussed within the departments.

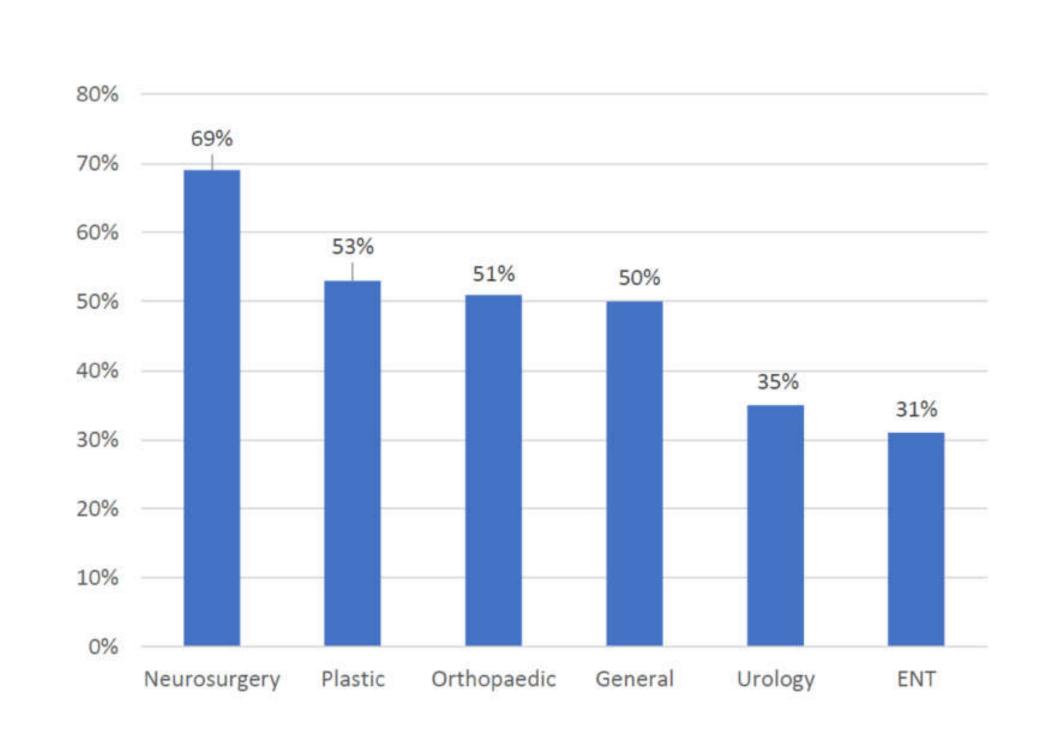


# WHAT COULD OTHER HOSPITAL PARTNERSHIPS (POTENTIALLY) LEARN FROM YOUR PROJECT??

THIS IS DIFFICULT TO ANSWER BECAUSE WE KNOW TOO LITTLE ABOUT THE PROJECTS BUT IS WAS GREAT TO CREATE THE VIDEO YOU CAN FIND IN THE LINK DOWN THE LEFT CORNER

#### HERE YOU CAN SEE AN EXAMPLE OF HOW THE DATA IS MADE AVAILABLE TO THE INDIVIDUAL DEPARTMENTS:

Adherance to Safe Surgical Checklist by Speciality Mar - July '22



# DO YOU HAVE A SPECIAL MESSAGE YOU WOULD LIKE TO SHARE AT THE CONFERENCE?

It would be nice if further networking of the clinic partners could succeed in general, but especially in Malawi. This would help to improve the quality of care not only in the individual facility, but also in the entire health system in Malawi.







# TÜBINGEN-BLANTYRE RETINA PROJECT

# Ophthalmology Departments of Kamuzu University of Health Sciences in Blantyre (Malawi) and University of Tübingen (Germany)

Petros Kayange, Thokozani Zungu, Shaffi Mdala, Constanze Kortüm, Faik Gelisken Project: 01.01.2019 – 31.08.2022 (Prolongation till 27.02.2023) Project Number: 17.2170.3-002.05

#### Introduction

Malawi is a sub-Saharan country with 20Mio habitants and 16 ophthalmologists. The Tübingen-Malawi partnership exists since 2005 with the aim of establishment of the residency training in ophthalmology at KUHEC. KUHEC is the only University in Malawi with a Medical College including an Ophthalmology Department. Beside the University of Tübingen many other Institutions, like Sight Savers, Lions Club, CBM, Orbis, Fresenius have supported the KUHEC. Since 2005, the third generation of residents finished their training in Blantyre.

Retina detachment is a serious eye disease leading to blindness if left untreated. The frequency in one year is estimated 1/10T of the population. In Malawi is 2000 new diagnosed cases of Retina detachment are expected per year. Our project aimed to implement a surgical treatment of this entity in Malawi.

#### Methods

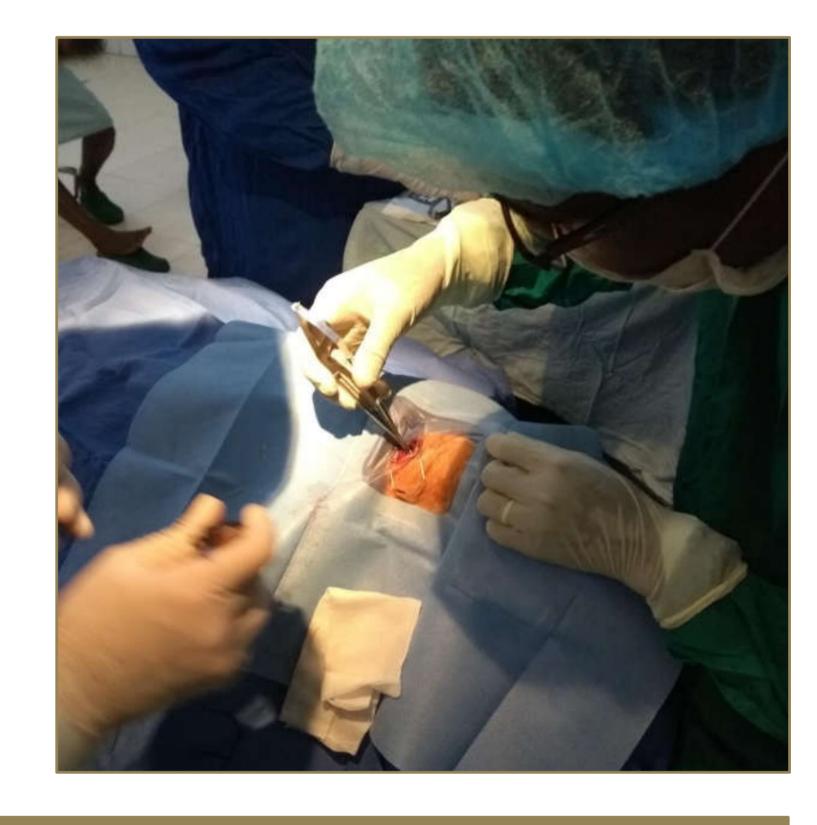
In the first phase of the project, we identified the existing infrastructure for the diagnosis and treatment of the retinal detachment in KUHEC. The current status of the necessary machines, surgical instruments as well as the knowledge of the operation team and physicians were assessed.

Thereafter, the "Tübingen-Blantyre Retina Project" for the "Implementation of the RD-Treatment in Blantyre" was applied by the GIZ (Deutsche Gemeinschaft für die Internationale Zusammenarbeit), and was accepted in in 2019.

The project included bilateral exchange of the medical personal between Blantyre and Tübingen. We also aimed the supply of the necessary instruments and main consumables for the management of the Retina Detachment.







#### Results

After the first phase of the bilateral exchange of the medical teams (2 from Blantyre and 1 from Tübingen), the COVID-19 Pandemic stopped the further exchange for two years. Thanks to the timely delivery of the consumables and instruments before the COVID-19 lock-down, no further medical materials were needed.

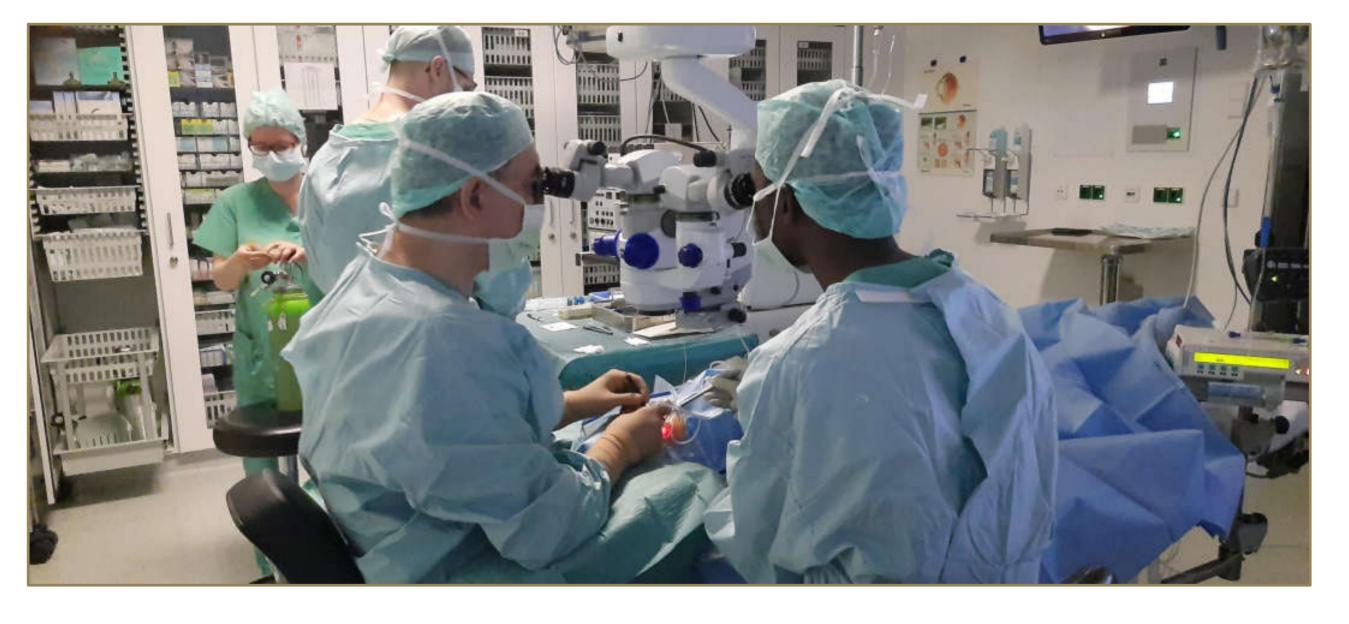
The Cryocoagulation Device, necessary one of the important steps of the surgery was implemented during the first exchange phase. In the visit of the Tübingen partner, theoretical and practical training were performed. Two patients with Retina Detachment were treated together.

During the lock-down period, we initiated an on-line Webinar Program by using the Zoom-Conference- tool between the residents of the Ophthalmology Departments in Blantyre and Tübingen. The Webinars were open for all the Malawian ophthalmologists (including the centers in Lilongwe, Mzuzu and Zomba). Some ophthalmologist from Tanzania and Namibia could also participate the Webinars. The Webinars were addressed to the main topics in the Ophthalmology-Training, and were presented by an international Faculty (mainly from Malawi and Germany but also from Turkey and Japan). In a total 35 Webinars were organized.

The Malawian Team performed almost 30 Retinal Detachment surgeries successfully without any assistance from abroad. For complicated cases, pre- and postoperative consultations were done by using the electronic messaging (WhatsApp).

After the termination of the lock-down limitations, five personals (physicians and nurse) from the Blantyre and one from Tübingen realized an exchange. It is of note that our project also realised the exchange of the operations nurses. This facility is an important motivation for the non-physician personal and contributes to the productivity of the team work.







#### Conclusion

In summary, the Blantyre-Tübingen Project reached the planned goals. A considerable number of Malawian patients with retina detachment could be treated in Malawi by the local team.

On the other hand, regarding the expected high number of the patients with retina detachment more physicians in Malawi should be trained intensively for the management of the retina detachment. Secondly, it became apparent that most of the patients with Retina Detachment presenting in the very late stage of the disease. These types of Retina Detachment, especially secondary to diabetics or trauma, require more aggressive and sophisticated treatment methods than we already implemented.

Blantyre-Tübingen Cooperation is currently working on the projects, aiming the establishment of well-equipped Retina-Service to cure the patients and prevent further blindness in Malawi.









# Implementation of Diabetes mellitus (DM) and Tuberculosis (TB) Integrated Healthcare Services at Embangweni Mission Hospital, Northern Malawi

JLZ. Nyirenda<sup>1,4,\*</sup>, D. Wagner<sup>1</sup>, B. Ngwira<sup>2</sup>, K. Zgambo<sup>5</sup>, P. Kileya<sup>5</sup>, D. Lusale<sup>5</sup>, Berit Lange<sup>3</sup>

<sup>1</sup> Div. of Infectious Diseases, Dep. Int. Med. II, Medical Faculty, University of Freiburg, Germany; <sup>2</sup>The Polytechnic College, University of Malawi, Malawi; <sup>3</sup>Helmholtz Centre for Infection Research, Epidemiology – Braunschweig, Germany; <sup>4</sup>Public Health Department, University of Livingstonia, Mzuzu, Malawi; <sup>5</sup>Embangweni Mission Hospital, Malawi

- As encouraged by WHO, there are efforts in low and middle-income countries (LMICs) to integrate TB and DM care
- In 2013 a National Action Plan for Prevention and Management of NCDs was launched in Malawi,
- Among other strategies, the plan includes integration of NCDS into infectious diseases programs such as TB and HIV/AIDS.
- The project is aimed at improving DM/TB bidirectional screening coverages, and ensuring joint cases management for both DM and TB.
- Besides the expected output, through a PhD Research Project, acceptability and feasibility of implementation shall be analysed.

# Rationale and Setting

- Embangweni Mission Hospital, a CHAM facility in Northern Malawi
- Approximately 38,000 direct beneficiaries with overall 100,000 estimated population through outreach services and referrals
- At estimated 5,6% prevalence of DM among 25-64 old people in Malawi, Embangweni expects almost 1064 patients.
- In 2018, the hospital registered 105 DM patients with none screened for TB.
- In 2019, none of 55 TB patients were screened for

# **Methods and Data Analysis**

- Capacity building of Health workers (trainings) and Health Systems Strengthening (materials and equipment support)
- Advocacy and collaboration (MoH DHO)
- Bidirectional screening algorithm development and application
- In-depth interviews and observations for analysis of implementation outcomes.
- Descriptive statistics and content analysis
- Routine health data Collection Health Management Information System

# Implementation Phases

- 2019: preparation phases (Introduction of the partnership and trainings)
- 2020: Initial Bidirectional Screening and joint patients' management,
- 2020: Training/ HbA1c Device Orientation, diagnostics workshop, project management, and supply of testing devices
- 2021: Continuation of bidirectional screening and joint patients
- 2021: Implementation research survey (Acceptability and feasibility of the initiative)
- July 2022, DM/TB Bidirectional screening, Training/ HbA1c Device Orientation, diagnostics workshop, project management.
- 2022: Evaluation and action (Plan-Do-Study-Act (PDSA) cycles)
- Expanding to two other hospitals (David Gordon Memorial and Ekwendeni)

## Results

#### Capacity Building, Access, impacts and systems strengthening





Laboratory Systems Strengthening: HbA1C; 2, Biochemistry analyser; 1.

BioHermes GluCoA1c HbA1c Analyser







Screenings performed: TB; 2017+, DM; 2194+

Project impacts

	PWD	PWD		TD 1 -	TD Dta Cama and	TD / DB 4
Year	enrolled in care	Screened for TB	DM/TR Pts	TB pts Registered	TB Pts Screened for DM	TB/DM Pts
2016 - 2019*	79	1 (1.3%)	1 (EPTB)	55	0 (0.0%)	0
July. 2022	313	313 (100.0%)	0	31	31	1 (3.2%)

#### Conclusion

Implementation in progress, and enrolment increased by 3 times.

These are interim results, final results are expected in January 2023.







Improvement of training, teaching, practical, and therapeutic structures and management in neurosurgical healthcare in Malawi









QUEEN ELIZABETH CENTRAL HOSPITAL BLANTYRE, MALAWI

#### **Greatest successes**

- Implementation of a holistic approach (doctors, nurses, physiotherapists work together)
  - => Goal of joint treatment improvement=> Improved practice (skills and knowledge)
- Number of trained individuals: physicians=4, nurses = 48, physiotherapists = 40
- Changes 2019 06/2022:
  - Patients treated 2019 499 => 2021 822
  - Surgical procedures 2019 377 => 2021 514
  - In-Hospital mortality rate 2019 16% => 2021 11% outcome
  - different treated pathological conditions
     2019 30 => 06/2022 36
- Introduction neuronavigation

# Our biggest challenges => Solutions

- Corona pandemic/Travel restrictions
   => Online-Meetings
- Ownership, awareness, active participation
   Personal engagement, teambuilding
- Many professional groups and many particular interests that do not always have the project goal in mind
  - => Communication and joint management

Potential learning effects for other hospital partnerships

- Hands-on workshops
- Interdisciplinary approach
- Recognition of own abilities and resources to reach the project goal
- Mutual visits for vision building
- Personal mentorship

#### Our special tools

- Online platform
- Regular exchange, mutual visits
- Communication and joint descisions at eye level
- Every professional group has its contact person

#### Special message

- Opportunities for both sides
- "Eyeopener"
- Motivation & active participation

## Cancer Care Collaboration

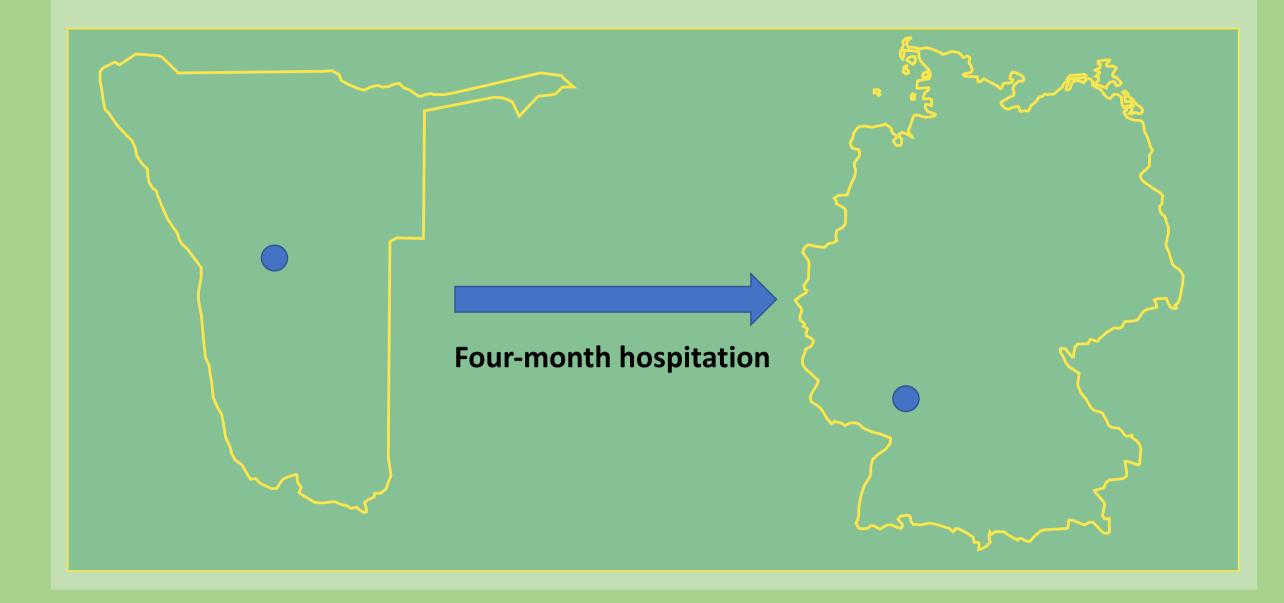
between the German Cancer Research Center (DKFZ), the University of Namibia (UNAM) and the Ministry of Health and Social Services

Onyemaechi O Azu; Hermann Bussmann; Cornell Enssle, Stefan Fröhling; Claudia Mayer; Heinz Schlemmer

#### Cancer Imaging

(Clinical Partnership 2007032)

Four months training at DKFZ in Ultrasound and MRI of four radiologists/ imaging scientists from Namibia

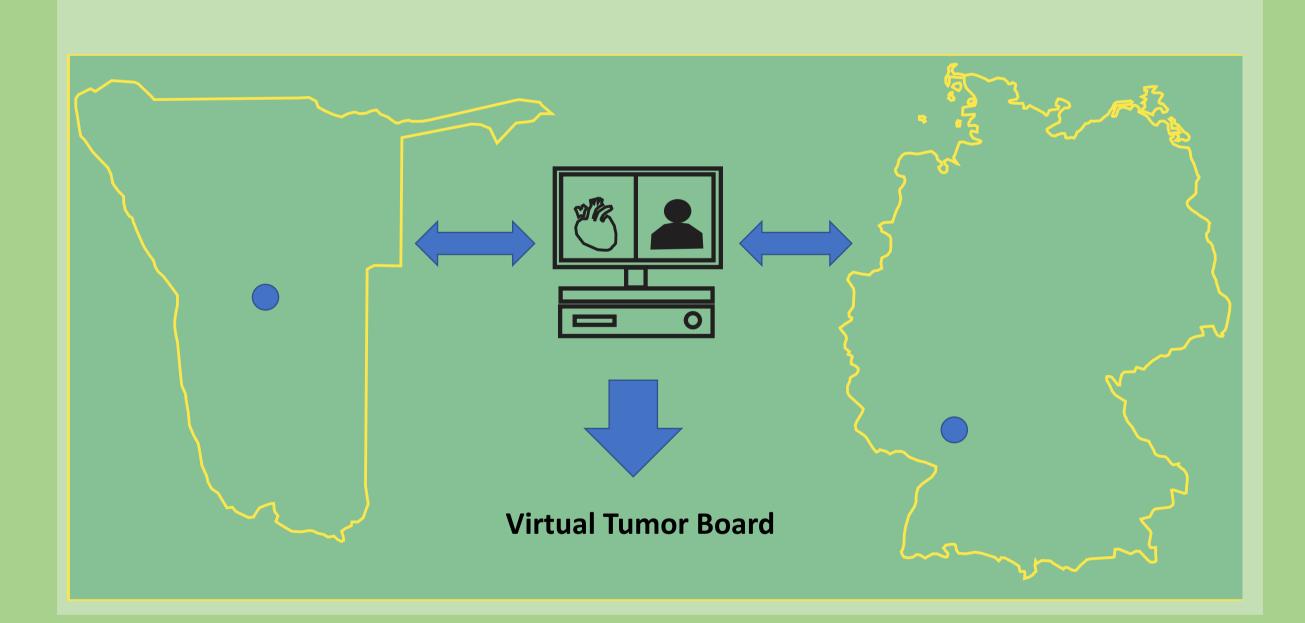


#### Virtual Tumor Board

(Clinical Partnership 2008034)

Regular multi-disciplinary virtual meetings between the major State Hospitals (WCH, IHK, Oshakati) and DKFZ

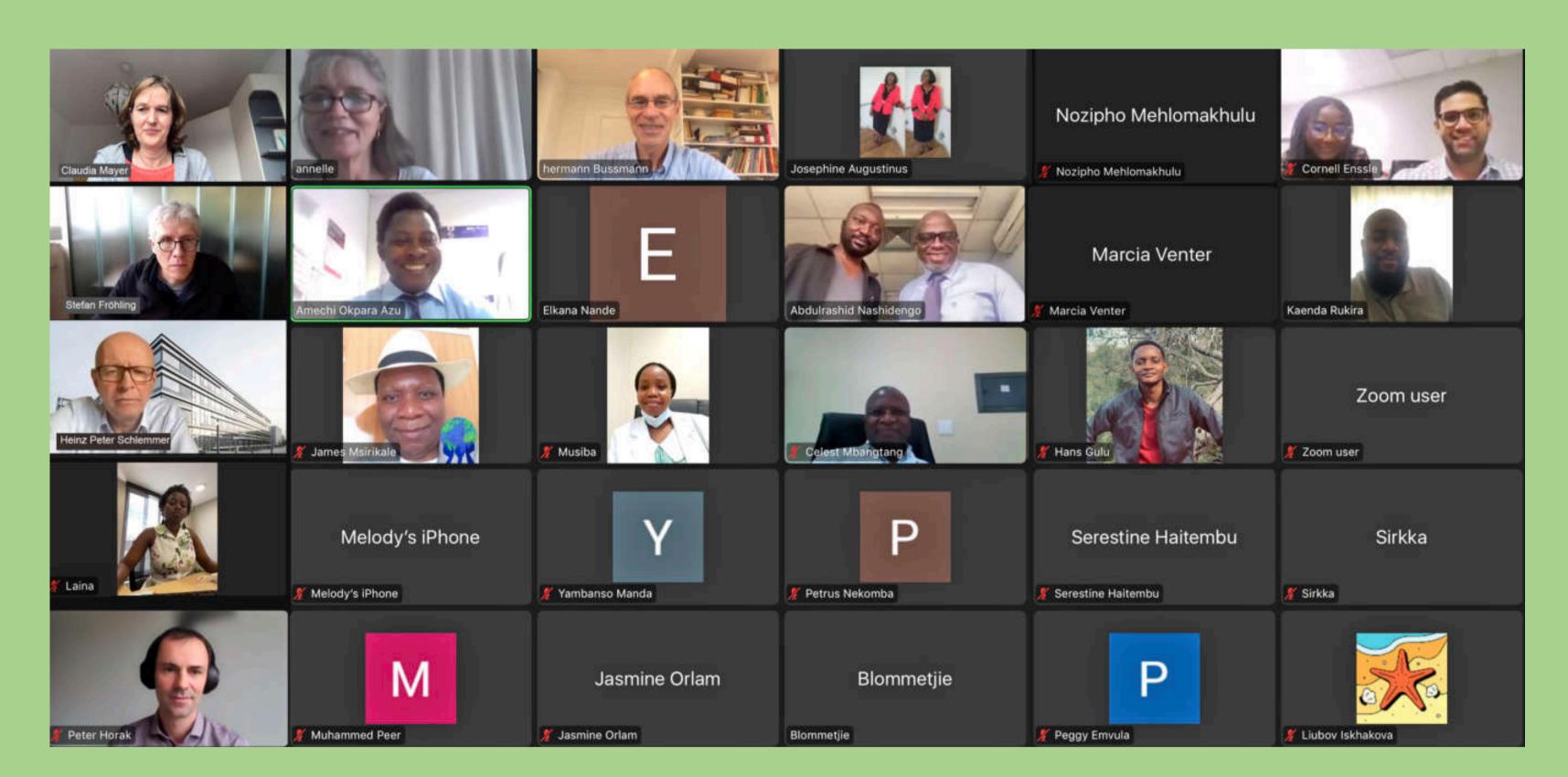
- Optimize decision-making and communication in cancer diagnosis and treatment
- Case presentations
- Consultation
- Teleradiology



#### Cancer Care Outreach Project

(Clinical Partnership 2008034)

- Designing and piloting of outreach program
- Exploration workshop with major stakeholders in cancer care including primary health care and specialists
- Empowering cancer care focal persons in hospitals/clinics including all regions
- Digital communication system for patient navigation and follow-up care



#### Challenges

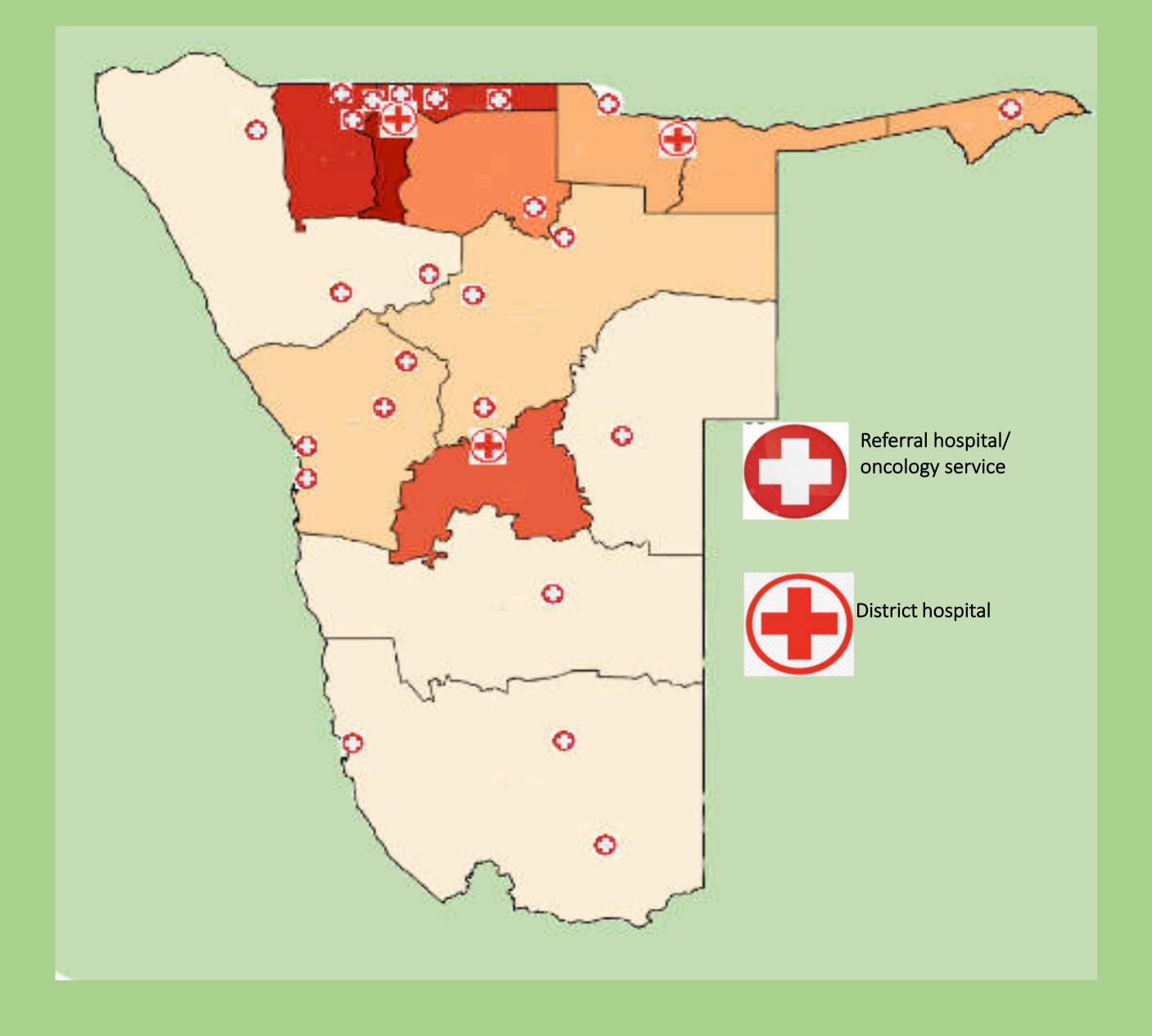
- Virtual calls vs. personal meetings
- Team building
- Intercultural communication

#### Strenghts

- Insight in cancer care inequalitites
- Dialogue on improving cancer care in Namibia
- Facilitated exchange between national cancer care programs
- Involvement of additional stakeholders in cancer care
- Complementing joint cancer prevention projects

#### Lessons learned so far

- Persistence
- Trust
- Face-to-face meeting













# Establishing extended Rh typing among multiply transfused patients in Kano

Dalha Gwarzo,¹ Aisha Gwarzo,¹ Kabiru Sulaiman,¹ Kathleen Selleng,² Andreas Greinacher²

- 1. Aminu Kano Teaching Hospital, Kano, Nigeria
- 2. Institute of Immunology and Transfusion Medicine, Greifswald, Germany



Aim: To establish the use of Microtitre Plates (MTPs) for extended Rh typing



### Background

Safe blood transfusion requires recognition of alloantibodies in multitransfused patients and in feto-maternal incompatibility in multiparous women.

Mismatches for the Rhesus (Rh) blood groups C, c, E, e has been shown to be the leading cause of allo-immunisation in Nigeria (~80%). To prevent this, extended Rh typing is necessary to allow alloantibody characterization and identification of compatible blood donors. However, despite the obvious need, extended Rh typing is currently not the practice in Nigeria, partly due to the meager health budgets and other competing demands. To ensure that extended Rh typing is done in Nigeria in order to protect the huge population of multiply transfused patients, we introduced the use of MTP method in our blood bank in Kano, Northwestern Nigeria. MTP method utilises a significantly lower quantity of reagents, making it cost effective and sustainable.

The costs of typing sera for extended Rh typing are usually prohibitive for blood bank laboratories. With the microtiterplate (MTP) method the amount of typing serum required for typing one patient/ blood donor is substantially decreased. The amount of serum required to typing of one donor by the classic tube technology is sufficient to type about 100 patients/ donors by the microtiterplate method.

#### **Equipment/reagents**

- Microtiter plates
- Pipettes
- Tubes
- MTP centrifuge (1000 U/min, r=980mm)
- Read-out mirror
- MTP shaker
- 4-5 ml donors blood
- Anti-Sera Anti C, anti c, anti E, anti e.

Figure 1: Example for microtiterplate extended Rhesus typing of patient/ donor red cells



Whole blood samples from 50 blood group O individuals were tested

mini" panel of cells were generated for Antibody identification

Using the "mini" panel of cells, samples of patients with positive cross-match were further analysed. We have so far identified 2 patients with Anti-E. They have been successfully transfused.

#### Methods

#### Manufacturing of microtiter plates

- 200 µl milk solution was added per cavity of the microtiter plate (MTP)
- The MTPs were incubated overnight in a fridge at 4-8 °c.
- MTPs were washed 2 times with 0.9 % sodium chloride solution; they were tapped gently on a paper towel to expel any remaining liquid
- Add 30 µl of either anti-serum or test red blood cells per cavity

#### **Preparation of Anti-sera**

• Serial dilution 1:2 using dilution PBS buffer was made for all the anti-sera to get the required dilution to be used

#### Preparation of test red blood cells (RBCs)

- Add 15µl of patient cells to one milliliter of Bromelain
- Incubate at room temperature for 10 minutes
- Add 30µl of the incubated cells in the MTP wells
- Agitate for 30 seconds
- Incubate at 37°c for 10 minutes
- Centrifuge at 1000 RPM for 1 minute
- Agitate for 30 seconds using the MTP shaker
- Read using the read-out mirror

**Table 1**: Extended Rh blood group results of some selected voluntary blood donors. Typing results are given as agglutination strength: 0 = no agglutination/ antigen is not detected, +1 to +4 = red cell agglutination/ antigen is detected

S/NO	Sample Regis- tration Number	RBC + Anti-C	RBC + Anti-c	RBC + Anti-E	RBC + Anti-e	Rh typing Results
1	9834	0	+2	0	+4	ccee
2	9856	0	+2	0	+4	ccee
3	10139	+1	+1	0	+4	Ccee
4	10228	0	+4	0	+4	ccee
5	10436	0	+4	0	+4	ccee
6	10509	0	+2	+3	+2	ccEe
7	10513	0	+4	+3	+4	ccEe
8	10514	+3	+3	0	+4	Ccee

#### Conclusion

Use of MTP for extended Rh typing is feasible in resource limited settings like Nigeria. Similarly, it will aid in identifying patients with Rh Allo-antibodies which will help in significantly reducing the challenges faced by multiply transfused patients and blood bank staff in getting compatible blood units. The method will improve care in newborns with hemolysis due to fetomaternal incompatibility.

# Antimicrobial Stewardship and Epidemic Preparedness in the Hospital Setting



Two GIZ "Global" partnerships of the Centre Hospitalier Universitaire de Butare (CHUB), Rwanda and the Institute of Tropical Medicine and International Health (ITMIH), Charité Berlin, Germany 2019 - 2022



#### Background:

- Since 2009, ITMIH and CHUB have cooperated in ESTHER/GIZ-Academic partnerships initially on HIV management, later on hospital hygiene
- Between 2014 and 2016, also in a BMBF supported research project on molecular parasitology: helminths, malaria, Giardia lamblia
- Since 2019, additional GIZ-Global partnerships: Antimicrobial Stewardship (AMS), Epidemic Preparedness in the Hospital Setting (EPH), Ultrasound Diagnostics

#### Greatest achievements:

- O Development of a Clinical Practice Guideline for Empirical Prescription of Antimicrobial Drugs for CHUB
- Support to the following COVID-19 response projects at CHUB:
  - 1. Strengthening ICU capacities through provision of new equipment and on-site-trainings
  - 2. Provision of the equipment for additional Operation Theaters for Covid-19 positive patients
- Increase of activities by more than 200% (budget) despite the pandemic
- o Growing network with new projects between the university hospitals and the national public health agencies of the two countries

#### Biggest hurdles and how we overcame these:

- COVID-19 pandemic with travel restrictions and overwhelming workload at both hospitals
- Concretizing the overall goals of the AMS
- Lack of baseline data on local multi drug resistance
- ✓ Addressing pandemic-related challenges in Rwanda
- ✓ Optimization of workflows on both sites
- Pilot projects as narrowed down examples: Analysis and management of multidrug resistance
- ✓ Shift to more online training
- Securing flexible and trustful collaboration with network and funder
- Currently: Expansion of laboratory capacities on the basis of quality management

#### Lessons learnt:

- Re-evaluate and adapt flexibly to the current situation
- Make use of the momentum describe the problem, implement solutions and advocate for support

#### Pictures and Participants:

- ) CHUB Accident and Emergency Department, Main Building, Butare, Rwanda
- 2) CHUB Microbiological Laboratory: Beatrice Kagwesage (CHUB), Dr. Djibril Mbarushimana (CHUB), Dr. Miriam Stegeman (Charité), Dr. Ute Aurbach (ITMIH)
- 3) CHUB ICU with selected new equipment, Dan Mudaheranwa (CHUB)
- 4) ITMIH Visit of the Minister of Health of Rwanda, September 2019; from left to right: Dr. Sabin Nsanzimana (CEO CHUB), Prof. Dr. Frank Mockenhaupt (acting Director ITMIH), Dr. Michaela Niebank (Robert-Koch-Institute, Berlin, Germany), Dr. Ngamije Madandi Daniel (MoH, Rwanda), Dr. Maximilian Gertler (ITMIH)
- 5) CHUB from left to right: Guideline, Jean Damascene Mazimpaka (CHUB), parts of the new equipment Not on the pictures: Dr. Jules Ndoli (CHUB), Dr. Andreas Lindner (ITMIH)



1) CHUB







Contact information:
University Teaching Hospital of Butare (CHUB)
Hospital Road, Huye, P.o Box: 254 Butare
<a href="https://www.chub.rw/">https://www.chub.rw/</a>

Charité – Universitätsmedizin Berlin, Institute of Tropical Medicine and International Health (ITMIH) Augustenburger Platz I, Berlin, Germany <a href="https://tropeninstitut.charite.de">https://tropeninstitut.charite.de</a>

#### Notes

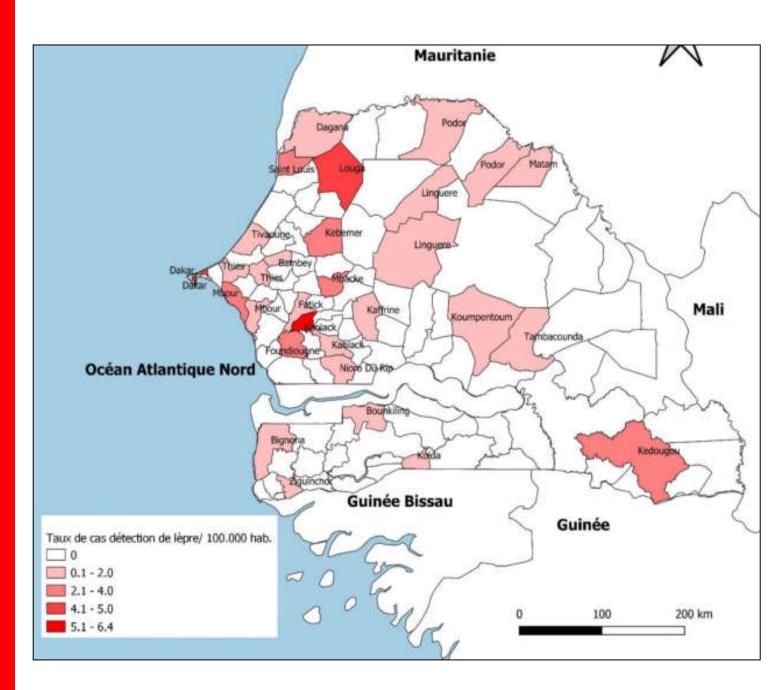


# Zero Leprosy for Senegal

Dr. Hyacinthe Zoubi <sup>1</sup>, Prof. Madoky Diop <sup>2</sup>, Dr. G Batista<sup>3</sup>, P.M. Diagne <sup>4</sup>, Dr. Christa Kasang<sup>5</sup> 1. National Leprosy Control Program (PNEL), 2. University de Thiès (UFR), 3. Action Damien , 4. ASCL/MTN, 5. Deutsche Lepra und Tuberkulosehilfe (DAHW)



#### Project Idea and Background



Senegal is low endemic country for leprosy with the potential to eliminate the disease by strengthening the National Leprosy Control Program and implementation of new WHO Leprosy Control Guidelines namely active case finding and Post Exposure Prophylaxis with single dose Rifampicin (SDR-PEP) given to close contacts of leprosy patients. Leprosy in Senegal is concentrated in hot spots with subtle transmission. This motivates active screening of contacts, combined with SDR-PEP.

#### Results or achievements

Dermatologist, health care worker and community health volunteers were trained for leprosy diagnosis and door to door active case finding approach which were conducted in nine high endemic villages. The screening of 7043 persons resulted in **39 new diagnosed leprosy cases** proving that transmission of leprosy is still going on. SDR-PEP Rifampicin was accepted at 97% (6376 people). However almost 2000 persons listed in the census were absent and 188 cases of refusal were recorded. The activities have led to increased community awareness of the fight against the disease.

The roll-out of WHO recommended approach of active case finding with SDR-PEP was accepted on the highest level of Ministry of Health National Leprosy control Program PNEL and included in the strategic plan 2021-2025

#### **Methods / Tools**

The active case finding approach included a door-to-door campaign with data collection including geographical coordinates (ODK collect. The project sites were leprosy high-endemic hot-spots following on reporting retrospective cases for the last 5 years in the national database. Measures to mitigate the risks of Covid-19 contamination were implemented.

Project Villages	Household members listed	Present	Examined	Eligible for SDR-PEP	SDR-PEP accepted
Koutal	1095	854	846	721	686
Mballing	3804	3079	3039	2795	2753
Peycouck	2294	1739	1709	1637	1580
Sowane	323	249	249	247	245
Fadiga	835	684	670	644	627
Djibelor	286	236	233	232	219
Kolda	205	174	169	164	151
Teubi	161	132	128	124	115
Diambo	78	75	75	72	72
Total	9081	7147	7043	6564	6376

#### **Challenges:**

We have successfully transcended the pandemic and have ethically accepted the refusals but continue to work on their deeper explanations. Knowledge of the socio-anthropological sources of such behaviour will strengthen the eradication of this neglected tropical disease. The covid-19 pandemic may have slowed down the management of several NTDs, but the Zero Leprosy project has made it possible to resume a field partnership with communities and the involvement of former patients and village relays, to stimulate the active case detection activities.

In the future it is also important to implement a Leprosy drug resistance surveillance system to mitigate the risks of resistance to Leprosy Multi Drug Therapy.

#### Conclusion:

Implementing this hospital partnership project made it possible to strengthen the national Leprosy control and to progress in the strategy of Senegal towards "Zero Leprosy" by the means of Leprosy elimination in Senegal 2030.



Discussion of the results among health professionals, PALs organizations, community leaders



Leprosy screening around contacts in families



Adaptation of team transport when areas were inaccessible by cars



Administration of Rifampicin to eligible individuals



National Level Team MoH and University Thies







# Princess Christian Maternity Hospital, Freetown, Sierra Leone and Institute of International Health, Charité Berlin: "Improving the Quality of Care in Maternal Health in Sierra Leone"

Dr. Joan H Shepherd, Abu Bakarr Lewally, Dr. Stefanie Theuring

Goal of the Project: Is to Improve the Quality of Care in Maternal Health at the PCM Hospital.

#### Key Activities of the Project

Donation of Two Autoclave to assist with Aseptic Techniques.

Construction of Bridge linking the New and Old Labour Ward.

Internet Connectivity, Computers, Obstetric Drugs, Medical equipment procured. Printing of Midwifery Procedure Manual

#### **Trainings and Refresher Training**

- a) Infection, Prevention and Control (IPC) and Covid-19;
- b) Birth Companionship for Triage, ANC, Labour Ward, Midwife Educators and other Health Staff:
- c) Training of Nurses and Midwives on the Implementation of the E-Health Referral Tool at 10 PHUs for Referrals and Refresher Training for PHU Staff on the E-Health Tool.

#### **Research and Publications**

- Research and Publications on barriers to facility-based deliveries and on risk factors for pre-/eclampsia".
- Covid-19Sero Prevalence Covid-19 among Hospital Staff and Patients at PCMH.
- Birth Companship at PCMH.

#### Successes in our partnership:

- Capacity building: Multiple trainings and workshops on various topics, including hygiene, COVID-19, respectful maternity care
- · Infrastructural upgrade of delivery ward
- South-south-cooperation for neonatal care training with a hospital in Uganda
- Implementation of an eHealth tool to improve referral services in peripheral health units
- Respectful Maternity Care campaign, implementing birth

#### Challenges in our Partnership:

- Lack of continuity of project lead Vision due Change in hospital administration.
- End of funding after April 2022 despite successful project implementation, therefore, expanding eHealth component and birth companionship was not possible.
- New funding was granted, but a change of focus and a different topic now: A study on female genital mutilation (FGM/FGC).



#### What other Hospital partnerships could learn from our partnership:

- Effective Collaboration leads to acheivable Goals & Vision

Mutual respect, Committment and Hard work yields positive Maternal and Infant outcomes.









1st INTERNATIONAL CONFERENCE
Resilience & Solidarity
in Times of Crisis

14 and 15 October 2022, Berlin



# Bugando Medical Centre Mwanza (BMC) & University Medical Centre Mainz

"Establishing a Multiplex-PCR detecting malaria-like infections in children"

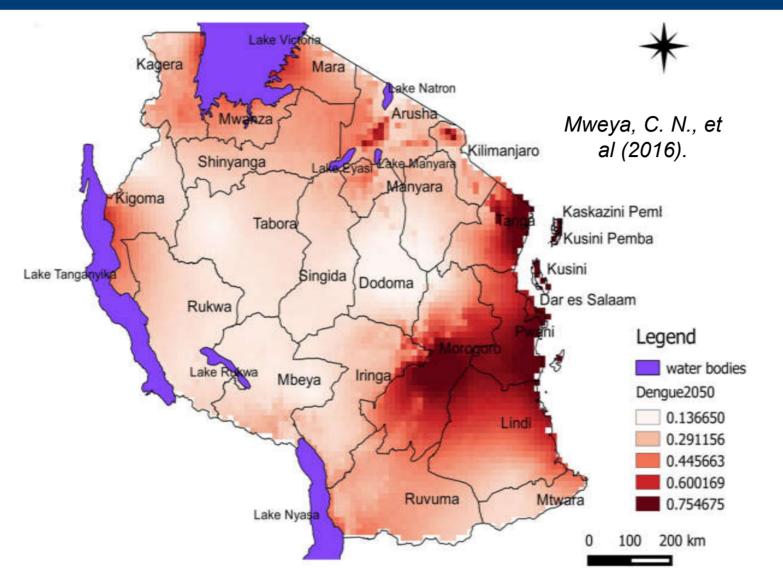
Presenters: Kayange N<sup>1</sup>, Koliopoulos P<sup>2</sup>, Groendahl B<sup>2</sup>

1 Department of Pediatric and Adolescent Medicine, Bugando Medical Centre, Mwanza, Tanzania 2 Center of Pediatric and Adolescent Medicine, University Medical Center, Mainz, Germany

#### **Our Project**

Background: Acute mosquito-transmitted febrile diseases are serious threats for children in Sub-Sahara-Africa (SSA). An increasing number of malaria-like infections have gained a considerable relevance including Dengue (DENV) and Chikungunya (CHKV).

The lack of diagnostic tools distinguishing between various pathogens, make inadequate treatment decisions unavoidable.



**Dengue Distribution Model 2050** 

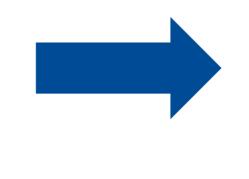
#### Aims:

- Expand & establish laboratory methods for detecting vector-borne pathogens in the Lake Victoria region of Tanzania and identify epidemics at an early stage
- Reduce the misclassification of mosquito-borne diseases in pediatric patients with acute fever.
- Reduce unnecessary antibiotic and antimalarial treatment and thereby prevent the emergence of resistances.

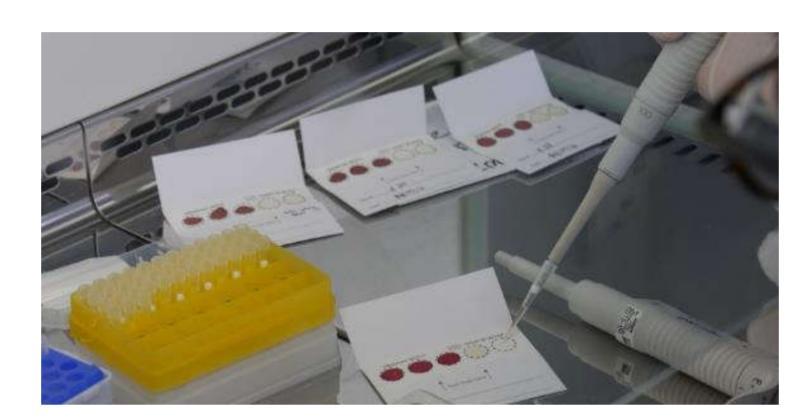
#### **Methods & Results:**



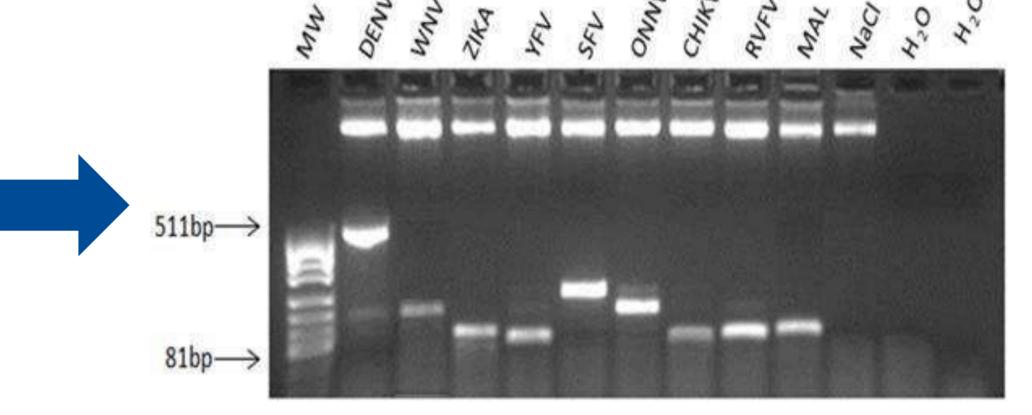
patients with acute fever (> 38.0 °C).



Sociodemographic and clinical data were obtained, and Malaria Rapid Test (NADAL®) was performed on samples from pediatric



Sera and Dried Blood Spot Samples were stored and shipped to Mainz, Germany.



**Gel-Electrophoresis** parallel detection of 9 different vector-borne diseases via multiplex-PCR. Confirmation by ELISA.

#### Detected pathogens by multiplex-PCR-ELISA at Lake Victoria Region 2016-2020

	P. Falciparum (Malaria)	Arbovirus (Zika, Dengue, Chikungunya, Rift-Valley-Fever, Yellow-Fever)
mPCR	19,6 %	0%
positive	(137/698)	0/698



# Sensitivity and Specificity of Malaria Tests

	Sensitivity [95% CI]	Specificity [95% CI]
MRDT (NADAL®)	86,57 %	98,28 %
n=658	[79.60 - 91.84]	[96.76 - 99.21]
Blood Smear	33,3 %	93,18 %
n=122	[15.63 - 55.32]	[85.75 - 97.46]



#### 3 High rate of antimalarial prescription

	Bugando Medical Centre	Sekou Toure Regional Hospital	Sengerema District Hospital	Σ
P. falciparum PCR positive	100.00% (24/24)	77.36% (41/53)	100.00% (55/55)	90.91% (120/132)
P. falciparum PCR negative	75.00% (63/84)	25.32% (60/237)	7.21% (15/208)	26.09% (138/529)
Σ	80.56% (87/108]	34.83% (101/290]	26.62% (70/263)	

#### Our Challenges

- No evidence for arboviral infections was found.
- The implementation of mPCR-ELISA detecting mosquito-transmittable diseases is hampered by time-effort, costs and supply of material at Mwanza.

# Immune response to dengue infection Guzman, M. G. et al. Dengue: A continuing global threat. Nature Reviews Microbiology 8, S7–S16 (2010) Viraemia Viraemia Viraemia Acute illness NS1 Days

Contact Mwanza:

Neema Mathias Kayange, MD MMed M. Sc
Department of Pediatric and Adolescent Medicine,
Bugando Medical Centre, P.O. Box 1370, Mwanza
neemakayange@gmail.com

- SARS-CoV-2 pandemic complicated the exchange of personnel.
- Continuous effort with extension of ethical clearances, funding and publishing of scientific data.
- Reliable transportation of temperature sensitive sample material to Germany.

#### **Contact Mainz:**

Univ.-Prof. Dr. med. Stephan Gehring Center of Pediatric and Adolescent Medicine, University Medical Center Mainz; Langenbeckstr. 1, 55131 Mainz stephan.gehring@unimedizin-mainz.de

# Our Partnership

- We are two pediatric departments of university clinics working together in clinical field (ultrasound & training program since 2012) and research (since 2016).
- 2016). Exchange of personnel has been a key factor for our partnership.



- BMC's goal to stop misclassification of malaria-like diseases inspired our common research passion on vector-borne neglected tropical diseases.
- Awareness of climate change effects on the distribution of vector habitats made us realize that mosquito-borne pathogens are a global health problem.
- Results have been and will be published in peer-reviewed, open access scientific journals - recognizing both: Tanzanian and German researchers as authors equally.
- Gender equality is important to us. We want leading positions to be filled by women. Our PI Dr. N. Kayange (head of the department of pediatrics at BMC) is supported in her PhD thesis.

#### Outlook:

- Continuation of monitoring mosquito-transmittable diseases in acute febrile children. Intensified exchange program of interns, students and lab personal between BMC and University of Mainz.
- Transfer scientific and diagnostic technologies to Mwanza Region: Evaluating the use of new POCTs such as Magneto-optical detection devices (Gazelle®) or Micro PCR Analyzers (Molbio®) and their effect on treatment decisions. Isolation of RNA/DNA in Mwanza.
- Screen for Artemisinin-resistance markers (SNPs Kelch13-propeller gen).







#### Improving Paediatric and Neonatal Care through Training of a Qualified Health Care Work Force in Dodoma, Tanzania, 2021-2024

Dr. Shakilu Jumanne, Lead (Tanzania), Department of Paediatrics & Child Health, University of Dodoma (UDOM) PD Dr. Carsten Krüger, Lead (Germany), German Society of Tropical Paediatrics & International Child Health (GTP)

#### Main objective

Improving healthcare services for newborns, children & adolescents in Tanzania by training highly qualified paediatricians (MMED) and other paediatric health care providers in a collaborative project between UDOM and GTP in-country within nationally approved curriculum.

#### Background

- lescent mortality remains too countries due to limited number of skilled health care providers with specialist qualifications.
- •As of 2015, Africa had 1.3 per 1000 population health care workers (HCW) compared to the WHO recommended 4.5/ 1000 in order to meet SDGs by 2030.



- •Of the 14 million global health care workforce shortage Africa shortage highest the has amounting to 6.1 million.
- •In the year 2020, Tanzania had 225 paediatricians to serve a population of over 60 million with over 48% being < 18yrs of age, and most of the paediatricians were only found in big cities.

#### **Project activities**

•Global neonatal, child & ado- 1.Two-week teaching visits at UDOM by German experts to train MMED high especially in low-income candidates and other health care providers on selected topics in paediatrics & neonatology, paediatric intensive care and paediatric point of care ultrasound techniques.



- 2.Procurement of prioritized missing medical and e-learning equipment to improve the quality of patient care, teaching and learning environment.
- 3. Virtual courses on topics where there is no local expertise & for which German experts are unable to physically visit Dodoma for formal teaching.





- 4. Virtual courses on research methodology for paediatric residents and young academic researchers.
- 5. Supporting the participation of Tanzanian paediatric trainees in the GTP annual conference and intensive course on global child health (bi-directional exchange).

#### **Impact & successes**

- •High in-country retention rate of specialists (> 95%).
- •Increased access to specialized health care services and improvements in the quality of services offered to newborns, children and adolescents attended at all UDOM affiliated teaching hospitals.
- •In the long term, other healthcare institutions benefit from the paediatricians trained under this program.

#### Challenges

- •Program implementtation amid the Covid19 pandemic and its associated restrictions.
- •Procurement of medical equipment not available in Tanzania, in the Covid19 era customs issues, equipment registration and maintenance in Tanzania.

#### Recommendations

- •Establish long-term partnerships: this project is a continuation of a previous one running 2017 - 2020.
- •Build up trust and mutual understanding.
- •Align activities to the country's needs. Involve all stakeholders right from the beginning.

Member of

In collaboration with









Implemented by







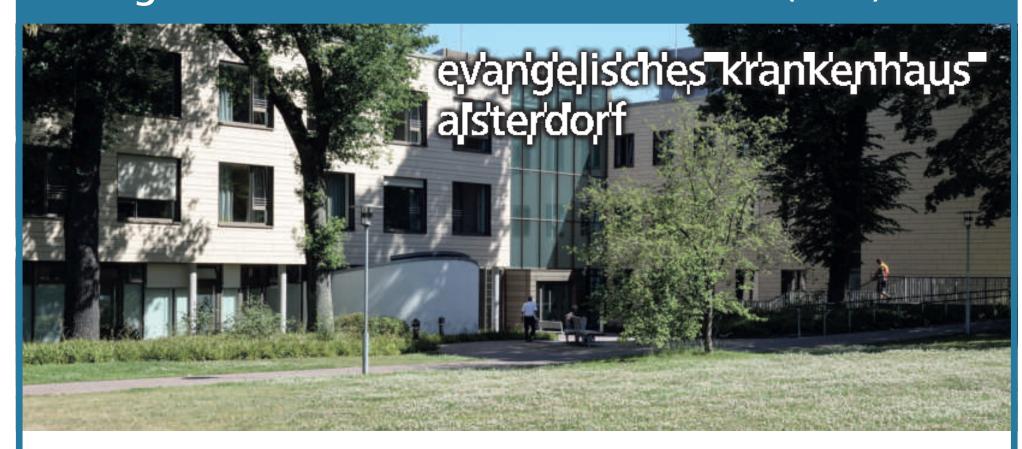
Cardinal Rugambwa Hospital (CRH) is located in Ukonga constituency in Ilala Municipal in Dar Es salaam City, Tanzania. The population of Ukonga ward in which the hospital is based is about 507,415 people.

The Hospital provides inpatient and outpatient services. The surrounding community is highly characterized by people on middle and low income level who depend much on small businesses for a living. Young people are the largest group in this community and are the most dependable for taking care their families. The accessibility to health care is a big challenge especially for children, elders and disabled people.

- CRH has 90 beds
- Inpatients per year: more than 7,000
- Outpatients per year: more than 100,000
- Reproductive and Child Care Unit, Maternity Ward, Operating theatre, Laboratory, Pharmacy, X-ray-department, Rehabilitation-Unit and Dialysis-Service

Since 2022 CRH is a Regional Referral Hospital (Level 3).

#### Evangelisches Krankenhaus Alsterdorf (EKA)



The Evangelisches Hospital Alsterdorf (EKA) is located in Hamburg, Germany. It provides inpatient and outpatient-services. It is specialized in the diagnostics and treatment of Epilepsy (biggest unit in Germany) and has a strong focus on people with disabilities.

- 314 beds
- Inpatients per year: more than 5,000
- Outpatient services/day clinics: 500
- Neurology/Focus Epilepsy, Internal Medicine, Geriatrics, Orthopedic, Psychiatry (children and adults), special care for people with disabilities









Greatest

Success:

Establishing

a Rehabilitation

Unit

#### Joint interests, joint efforts: Hospital-Partnership 2019–2021/focus on people with disabilities

During the first term of the Hospital Partnership that was supported by the GIZ the CRH implemented "Screening Days" to get an impression of the scale and severity of disabilities and needs. A team of doctors, occupational and physiotherapists and nurses examined the children. Here is an example of the diagnosis found on the first screening day on Oct. 3<sup>rd</sup>, 2020.

#### The following table shows the number of diagnosis and disease conditions

Diagnosis	Number		
Cerebral palsy	18	The second secon	
Cognitive disability	10	I	
Adhd	2		LINZING
Down syndrome	2		
Autistic spectrum disorder	2		
Epilepsy	18		
Malnutrition	3		
Cleft palate	1		
Total	53		

#### Challenges

- Poor adherence to medication by the disabled children of whom are suffering from serious neurological and medical conditions, such as cardiac disorders and epilepsy medications are difficult to afford.
- Lack of nutritional supplements to severe malnourished children with disability.
- Lack of regular trainings and seminars to our staffs on issues pertaining to disabilities.
- Lack of reliable transport means for grown up severely disabled children.
- Lack of funds to run the program and to purchase assistive and therapeutic devices.

#### **FUTURE PLANS**

• To develop the rehabilitation department in our hospital which will provide rehabilitation services such as occupational therapy, physio therapy, speech therapy, and manufacturing of orthotics and protheses so as to deliver high quality care to this group of people who really need special care.

• To provide regular training to our staff and the community so as to create awareness on disability issues.







#### Special Needs, Special Care – Hospital Partnership 2022–2024

#### Special needs, special care

The aim of the second term of the GIZ-funded Hospital Partnership is to share skills and knowledge especially in the field of epilepsy/disabilities, focusing on diagnostics and therapy.

A visit of an EKA-team (doctor, therapists, nurses) to CRH in August 2022 further deepened the understanding of the challenges faced. Together we defined the next steps: establish an EEG for epilepsy-diagnostics and strengthen the therapeutic team at the rehabilitation unit by sharing knowledge.



PO Box 40960, Dar es Salaam · Tel +255 222 843 199 Email: cardinal\_rugambwa@yahoo.co.uk · kahumbyasarah@gmail.com

# THE RIGHT MEDICINE AT THE RIGHT TIME

# Pharmaceutical support for Hanga Health Centre

A cooperation between St. Bernard Hanga Health Centre and Pharmacists without Borders Germany since 2008

#### **OBJECTIVE**

Securing the supply of high quality medicines to improve the health care system of Hanga and its surrounding villages

#### **ACTIVITIES & PROGRESS**

- Providing logistical and financial support
- Numbers of treated patients and operations are increasing
- → People of Hanga and surrounding villages have access to adequate medical care

#### **CHALLENGES**

- The need of essential drugs differs a lot depending on the climate periods during the year
- stock management and calculations have to be well adjusted
- prices for high quality medications have increased
- it's important to find affordable and secure suppliers

#### WHAT CAN WE SHARE?

A long living cooperation based on trust

**GERMAN** 

A lively exchange virtual and in presence

#### WHAT CAN WE LEARN?

How other projects maintain the high clinical and medical standards even during difficult times (e.g. the covidpademic).



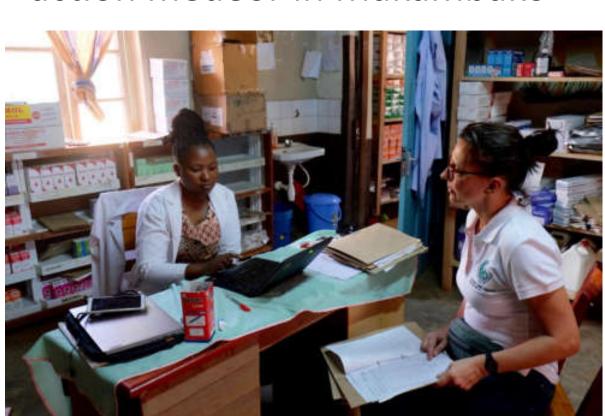
Hanga Health Centre main entrance



Newborn child after a C-section performed in Hanga Health Centre



With our local partner and supplier: action medeor in Makambako



Inventory in the pharmacy



Laboratory



Storage room in the pharmacy



Training for medical staff regarding storage management



Pharmacy staff in Hanga Health Centre



Cosultation of patients regarding the right intake of medicine



# Strengthening clinical and laboratory capacities in Tanzanian hospitals for better diagnosis of febrile and





other illnesses in children

Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) Gmb

Neyaz Khan<sup>1</sup>, Mohammed Saleh<sup>2</sup>, Mercy Chiduo<sup>3</sup>, John Lusingu<sup>3</sup>, Ricardo Strauss<sup>4</sup>, Massimo Gozzelino<sup>5</sup>, Denise Dekker<sup>1</sup>

<sup>1</sup>One Health Bacteriology, Bernhard Nocht Institute for Tropical Medicine, BNITM, Hamburg, Germany; <sup>2</sup>Bombo referral hospital, Tanga, Tanzania; <sup>3</sup>National Institute for medical Research, Tanzania; <sup>4</sup>Department of Infectious Disease Epidemiology, Bernhard Nocht Institute for Tropical Medicine, BNITM, Hamburg, Germany; <sup>5</sup>Strand Medical Centre, Bootle, UK

#### Background

The majority of hospitals in Tanzania do not offer differential diagnosis, and antibiotic susceptibility testing is not routinely carried out, leading to treatment failures. There is still need for improved and standardized diagnostics of febrile illness such as sepsis but also for other disease for example affecting the urinary tract or the gastrointestinal tract, in order to enable pathogen-specific management and treatment of patients. The Bombo hospital, Korogwe District hospital, National Institute of Medical Research (NIMR) and Bernhard Nocht Institute for Tropical Medicine (BNITM) have jointly designed this project in a way that it reinforces and strengthens of what has already been taught and serves as an expansion of diagnostics. The long-term plan would be a continuous expansion to other hospitals in the Tanga region and in other African countries.

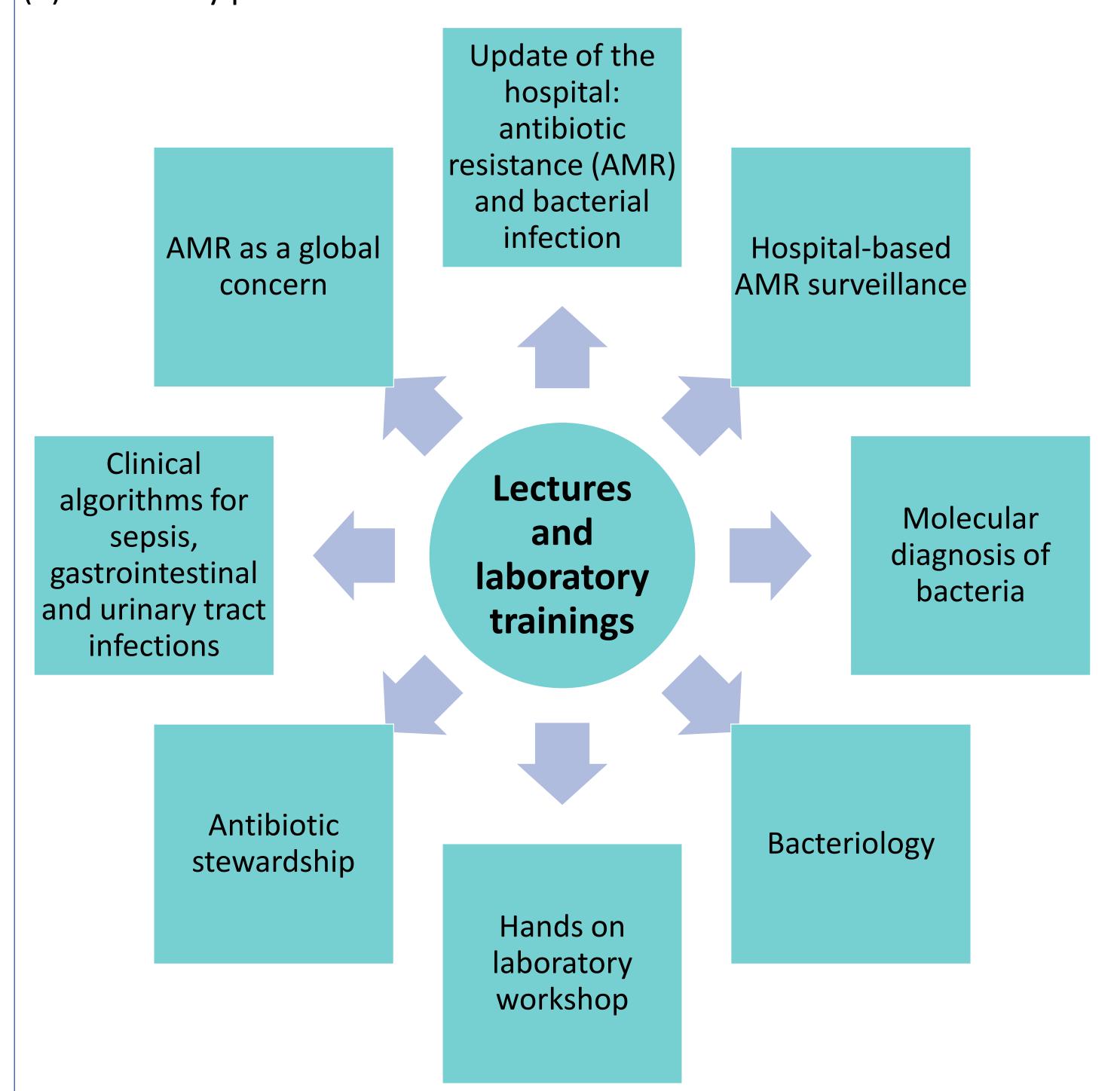
#### **Objectives**

- Train personnel in the fields of laboratory methods for differential diagnostics of febrile illnesses, antibiotic stewardship and clinical algorithms.
- Expanding clinical diagnostics and hence clinical training, which would continuously support the newly funded AMR project at the hospital.
- Building a step-wise AMR surveillance system including multiple sites in Tanzania and in the near future including another country.

#### Methods

Lectures and laboratory training will be given to the direct target groups of this project:

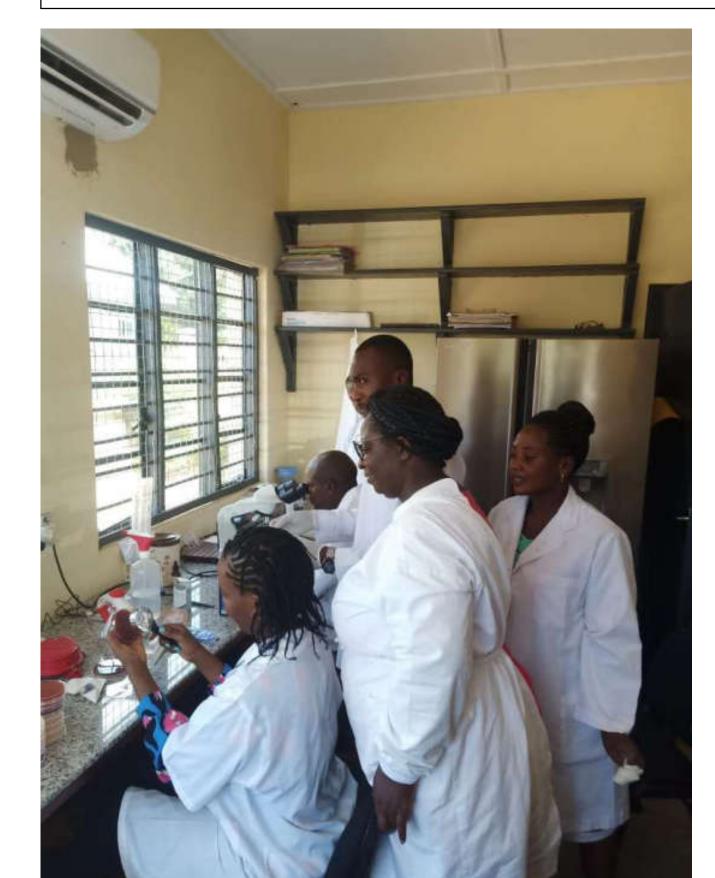
- (1) clinicians, including paediatricians, clinical officers and nurses
- (2) laboratory personnel.







Pictures from the theoretical teachings. Clinical lecture were made by visiting guest Dr Massimo (right) on antibiotic use: the chances of a diagnosis. (Photo credit - Denise Dekker)



Laboratory capacity building sessions. (Photo credit - Denise Dekker).

#### Outcomes

- We have successfully trained approximately 50 personnel 40 medical staff including doctors and nurses, and 10 lab technologists.
- The theoretical knowledge and laboratory training have been put into practice in several ongoing projects such as an AMR surveillance and a transmission in neonates study in Tanga.

#### Methods to recommend

#### **Interactive workshops:**

- Participants will be divided into different sub-groups and they will be asked to discuss different clinical cases within each group.
- Then a reasonable algorithm to deal with febrile and other illnesses will be established by the trainers.

#### Challenges

- Uncertainties due to COVID-related travel restrictions and increases in costs in general in relation to workshops some of the lectures were held online and the onsite workshops were restricted to 50 individuals.
- Increased overall travel and transport costs due to Ukraine war shipments will be planned well in advance, staff duration of stay at African partner sites will be increased to reduce no. of flights per staff.

#### **Future Plans**

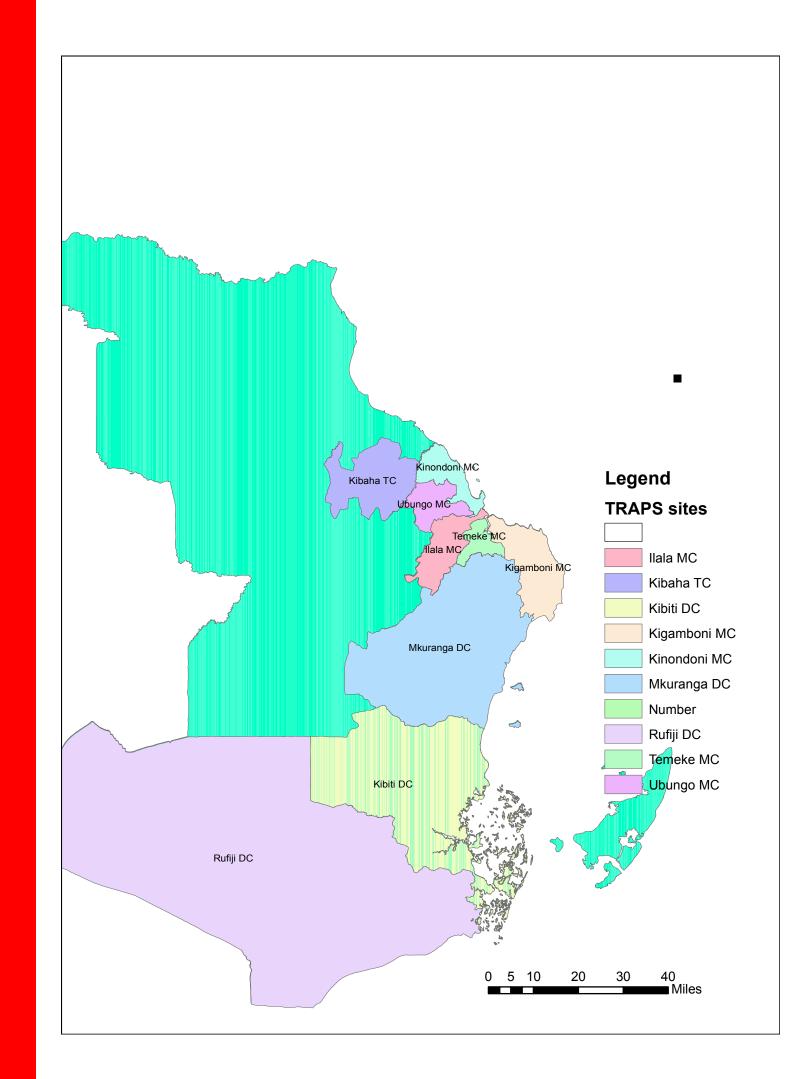
- Expand the trainings to other hospitals in Tanzania and possibly to other countries.
- Dedicate a separate training to the topic of antimicrobial resistance, in particular, to AMR surveillance, which is among the high priority topics on the Tanzanian agenda for public health.







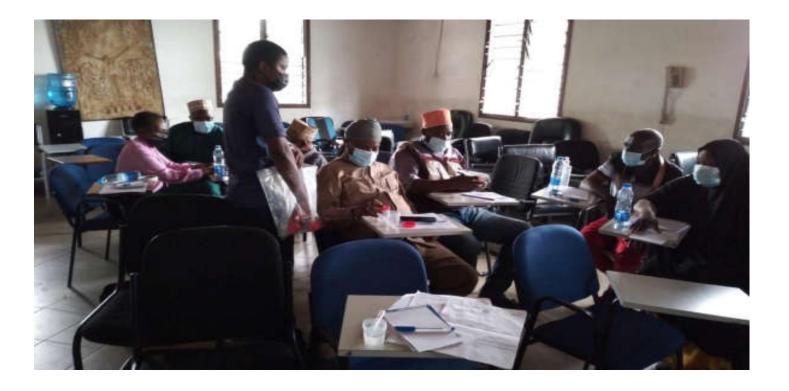
# Three years experience of TRAPs intervention in Tanzania



#### Project Idea and Background

Tanzania is among countries with high TB burden in the world. Despite of this, still there are missing cases who have not been reached due to different reasons including being reluctant to visit health facilities to seek health services. Here is when PASADA came with the idea of open up TRAPs (Tuberculosis Rapid Assessment Posts) in community. Where CHW (volunteers), traditional healers and drug sellers do TB screening, sputum sample collection and the collected samples are transported to the nearby laboratory for investigation. Results are send back to clients and those diagnosed with TB are linked to TB clinic for treatment initiation.

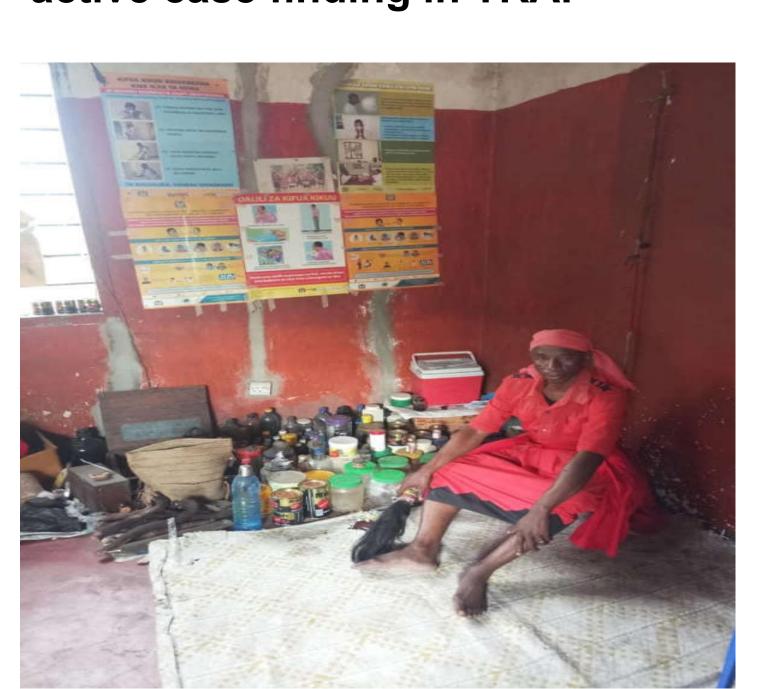
Traditional healers and drug seller, during training on the basics of TB at PASADA conference room



Community volunteers doing sputum sample collection among PWID and PWUD in the TRAP located at Kigamboni



Traditional healer located at Kijichi in Dar es Salaam who is working with PASADA in TB active case finding in TRAP



Drug seller located at Temeke, while packing the collected sputum samples in the cool box



#### Achievements

- Establishment of 19 new TRAPs while maintaining the existing 20 TRAPs
- ❖ 833 TB cases detected in TRAPs
- ❖ 100% of TB cases tested for HIV where 18% tested HIV positive
- Treatment success rate is 95%
- Able to reach people who use drugs (PWUD) and people who inject drugs (PWID)
- ❖ Able to convince traditional healers to save as TRAPs

#### Methods /tools

Tools used include, X-ray, microscope, Gene-Xpert and APOPO.

#### **Challenges:**

- Shortage of cartridges for Gene-Xpert machine
- Shortage of sputum containers.
- X-ray costs has been challeging since most of clients can not afford
- Information collection is in paper based that need extra work to enter data and conduct analysis which take time for conclusion and decision making
- Lack of important equipment in TRAPs e.g big umbrela, gum boots, rain coats.

#### Conclusion:

TB case detection should not be emphasized in health facilities only. Instead, TB can be detected beyond health facility level. TRAPs project proved to be sensitive and timely for TB detection hence majority of TB cases received their results within two days from the day of sputum collection. Furthermore, majority of TB cases had promptly initiated TB treatment, i.e the same day they received their results.

# Health screening, infection prevention and development of the dental clinic of the ILH/Tanzania



T. Bensel<sup>1</sup>, W. Kronenberg<sup>2</sup>, S. Megiroo<sup>3</sup>, W. Bömicke<sup>4</sup>, S. Hinz<sup>5</sup>

<sup>1</sup>Private Dental Practice Zahnarztpraxis Am Rain, Leipzig, Germany <sup>2</sup>Ilembula Lutheran Hospital, Ilembula, United Republic of Tanzania

<sup>3</sup>Health Department, ELCT/NORTH CENTRAL DIOCESE, Arusha, United Republic of Tanzania <sup>4</sup>Department of Prosthetic Dentistry, Heidelberg University Hospital, Heidelberg, Germany <sup>5</sup>Department of Prosthodontics, Martin-Luther-University Halle-Wittenberg, Halle (Saale), Germany



1<sup>st</sup> International Conference of Hospital Partnerships

October 14<sup>th</sup> – 15<sup>th</sup> 2022

Berlin, Germany

**Contract- ID #81277537** 

#### **Objectives**

Owing to the reduced dental treatment infrastructure in the Tanzanian highlands, maintaining good oral health is a challenge for not only the general population but also individual professional groups.

The aim of this project and the accompanying scientific study is to assess oral hygiene, oral health status, orthodontic and prosthodontic treatment need in nursing staff of the Ilembula Lutheran Hospital (ILH) and Ilembula Institute of Health and Allied Sciences (IIHAS) in order to determine if nurses in rural areas without adequate dental treatment facilities could generally screen and educate their patients regarding oral health-related diseases and how to prevent them.

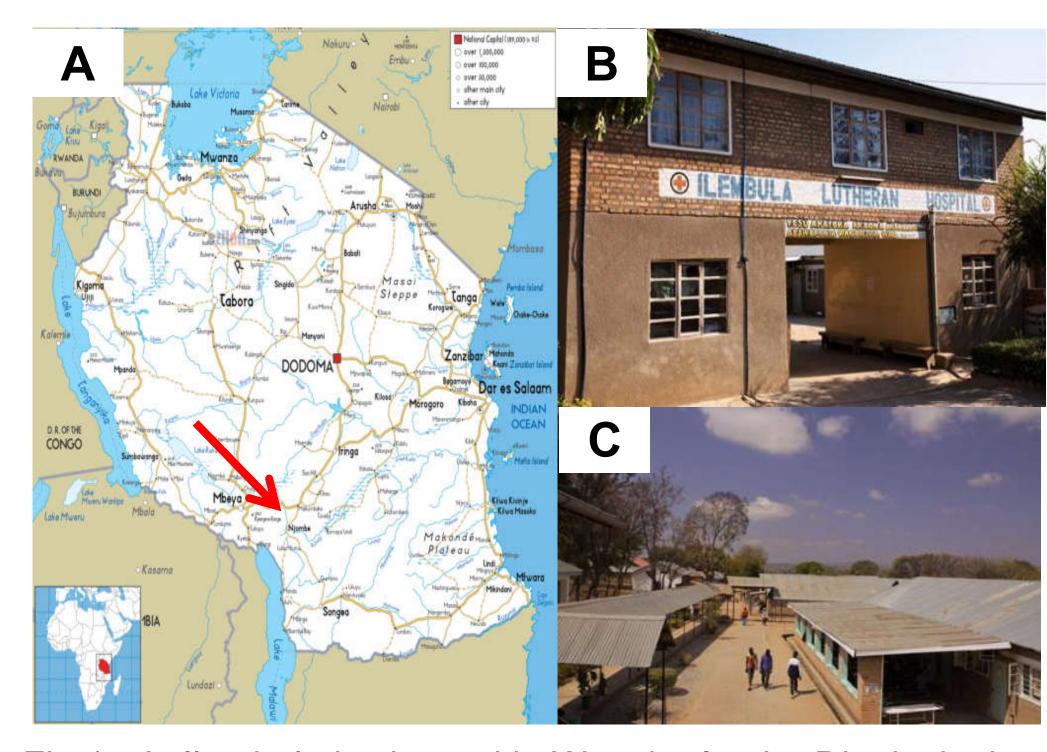


Fig 1.: A: Ilembula is situated in Wanging'ombe District in the Njombe region in the southern highlands of Tanzania. B: ILH is a health facility that belongs to the Evangelical Lutheran Church in Tanzania (ELCT) - Southern Diocese (SD) and has operated as a hospital since 1950. C: The ILH is one of four hospitals of the Iringa-region with a commuter area of up to 2.7 million inhabitants (Morogoro-Mbeya-Region).

#### Methods

- 1. Oral helath situation of the nursing staff: 168 ILH and IIHAS nurses and nursing students (87 women, 81 men; age 23.1±6.1 years, range 18–58 years) participated in this cross-sectional study conducted in February 2020. The participants were examined at the dental office of ILH. The Decayed, Missing, and Filled Teeth (DMF/T) Index, Simplified Oral Hygiene Index, and details regarding edentulism, nutrition habits, and socioeconomic factors were collected.
- 2. Improvement of the dental station of the ILH: Analysis of the technical requirements.
- 3. Professional training of the nursing students and the teachers of the IIHAS in terms of advanced oral health knowledge.

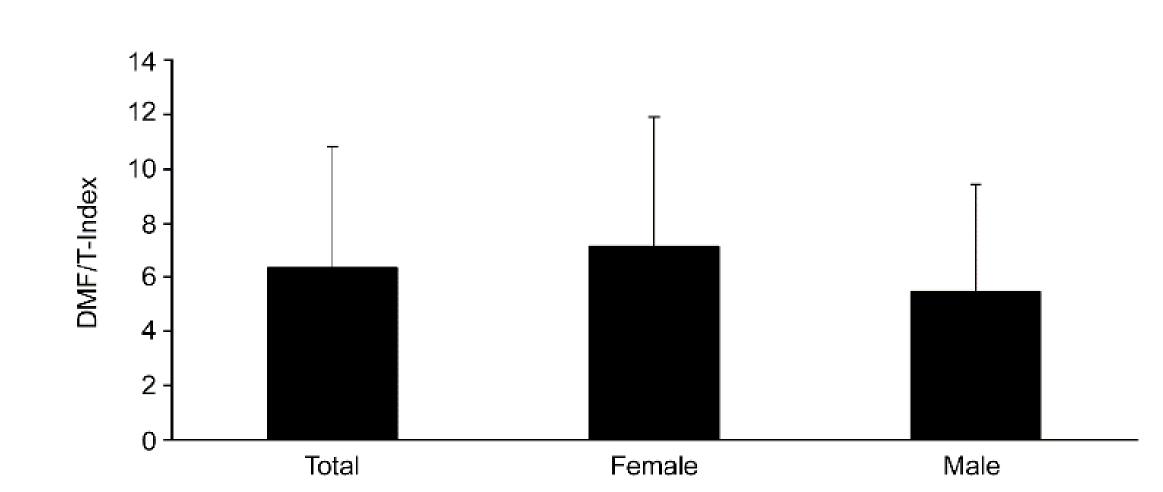


Fig. 2: Caries experience of the participants: Decayed, Missing, and Filled Teeth-Index

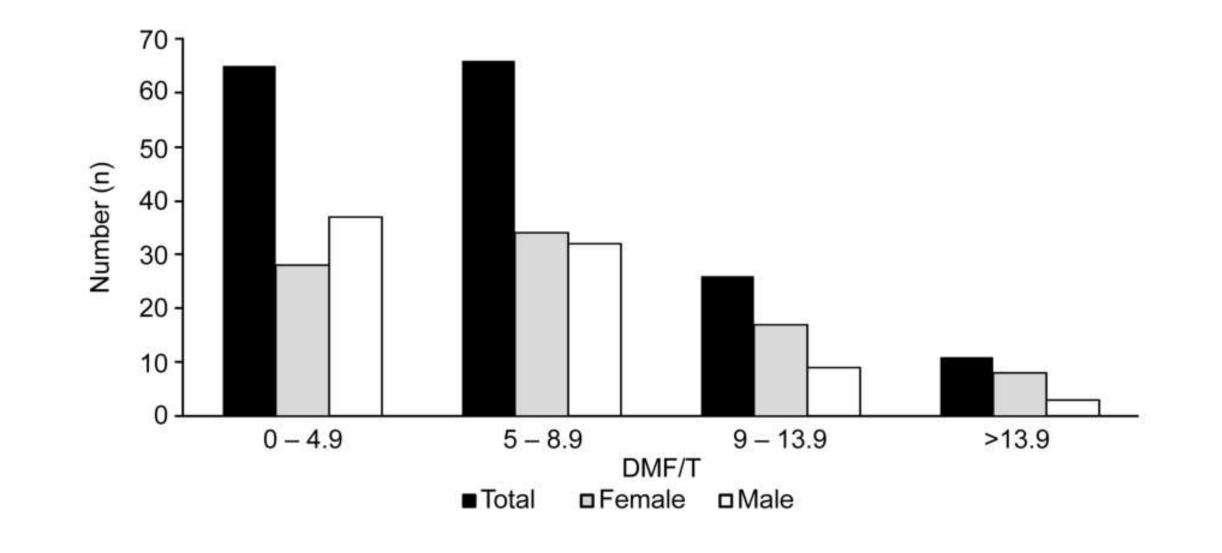


Fig. 3: Number of participants subdivided based on very low, low, moderate, and high Decayed, Missing, and Filled Teeth

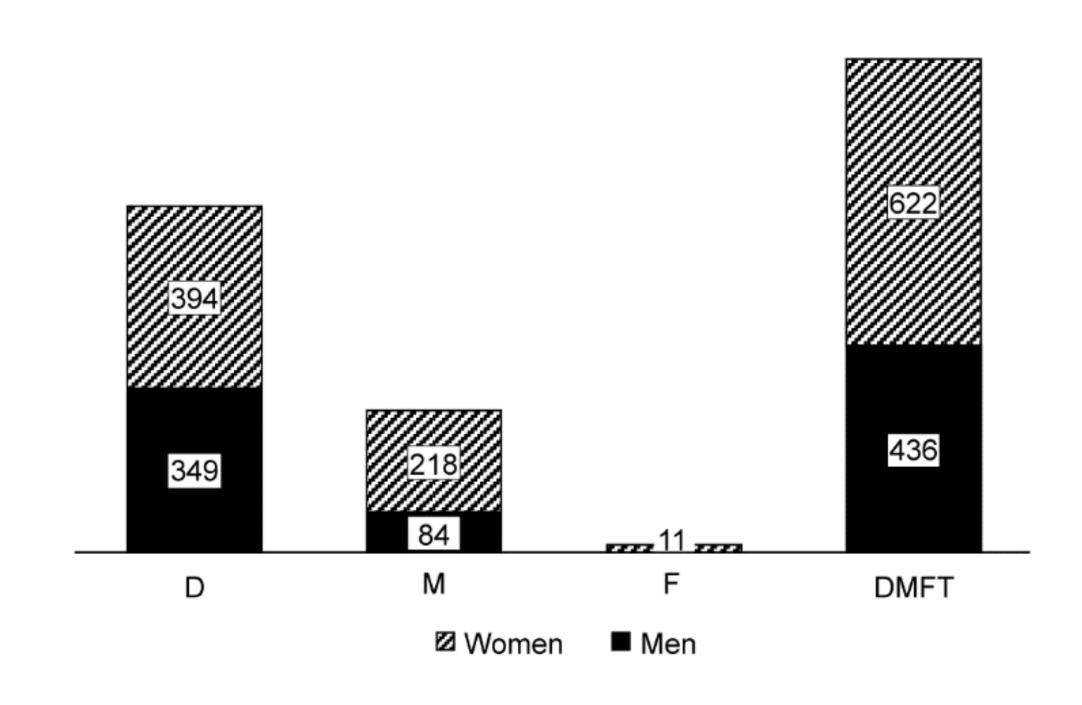


Fig. 4: Number of decayed teeth, missing teeth, and filled teeth distributed by gender

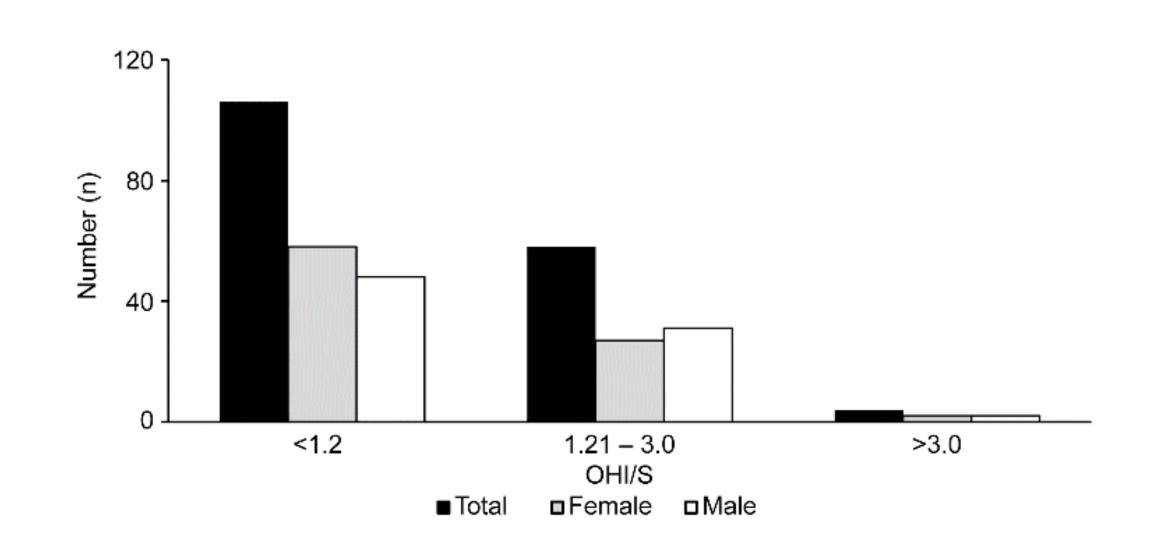


Fig. 5: Number (n) of the participants subdivided based on simplified oral hygiene index

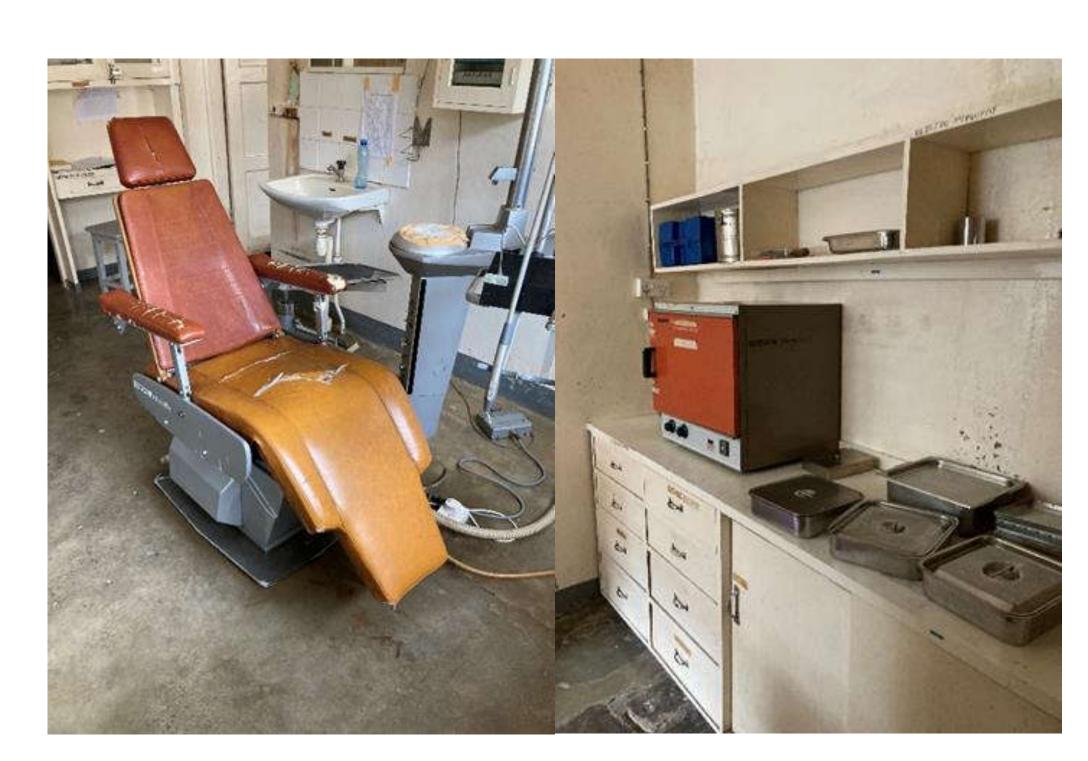


Abb. 6: Current status of the dental station of the ILH.

#### Results

- 1. Oral health situation of the nursing staff: The mean DMF/T-Index was 6.30±4.52. In 7.14% of the investigated nurses, no dental plaque was detected. An enhanced prosthodontic treatment (Kennedy Class III) demand was identified in 31.50% of the participants, and 4.80% of the participants required treatment for acute malocclusion. Oral hygiene products were used by 99.4% of the patients.
- 2. Improvement of the dental station of the ILH: Fact Finding Mission has been performed in February 2022 to evalute the current technical and personal situation of the dental station. The material requirements planning has been performed and the beginning of improvement will be implemented in the 3rd quarter of 2022.
- 3. Professional training of the nursing students: The development of structured educational programme is in progress in close cooperation with the principal of the IIHAS. Online- meetings and lectures will start in February 2023.

#### Conclusions

It can be concluded that most nursing staff of the ILH and IIHAS had good personal oral hygiene and low DMF/T values. The reported recall visits to dental treatment facilities were poor. However, the use of personal oral health items and practice of daily oral hygiene was better than expected. Against the background that the majority of Tanzanian adults mostly seek dental care for pain relief, it is important to sensitize nursing staff in rural areas regarding the prevention of oral diseases. Nurses in rural areas without adequate dental treatment facilities should screen and educate their patients regarding oral health-related diseases and how to prevent them. Therefore, advanced oral health knowledge should be inculcated into the structured education of nursing students.

# What have been the greatest successes in your hospital partnership?

- Evaluation of the Oral Health Status of the nursing students of the ILH for determination of the teaching material
- Improving the cooperation with the ILH during the internal restructuring of the project

# What were the biggest challenges and how were they overcome?

Internal restructuring of the project

# Did you use a special tool/method that you would recommend to other projects?

 Implementation of requirements planning before the project application

# What could other hospital partnerships (potentially) learn from your project?

Planning, management and perseverance

# Do you have a special message you would like to share at the conference?

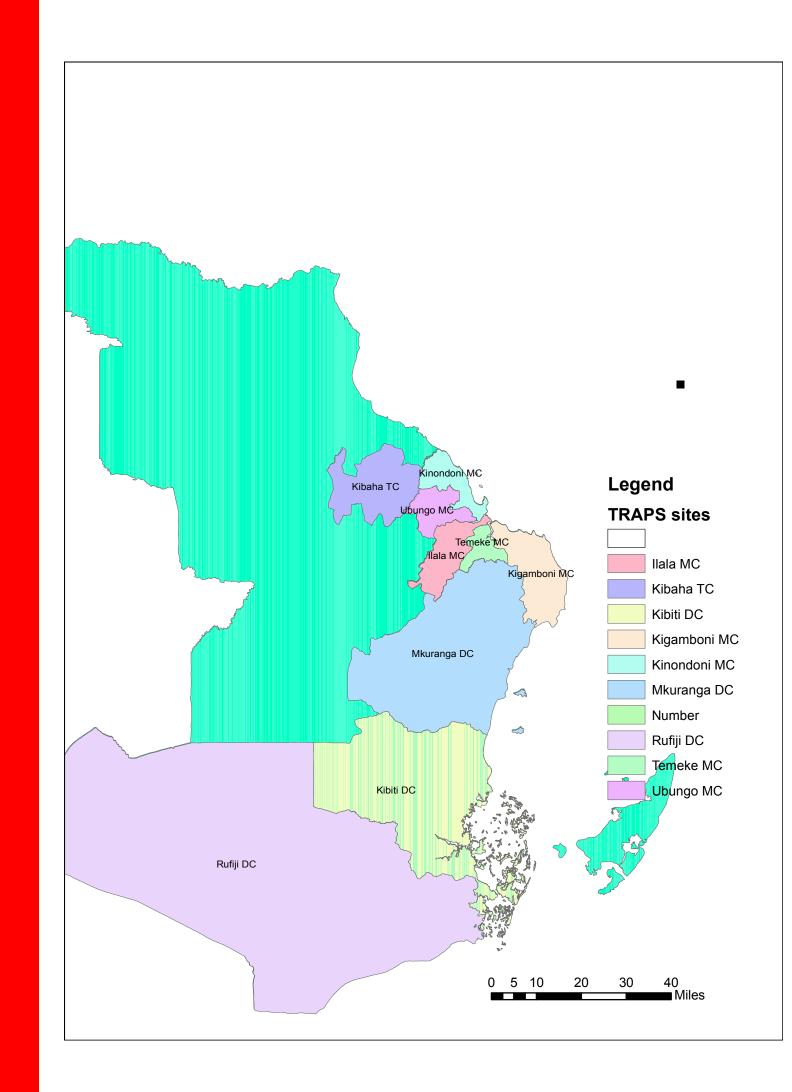
Try to cross (mental and global) borders







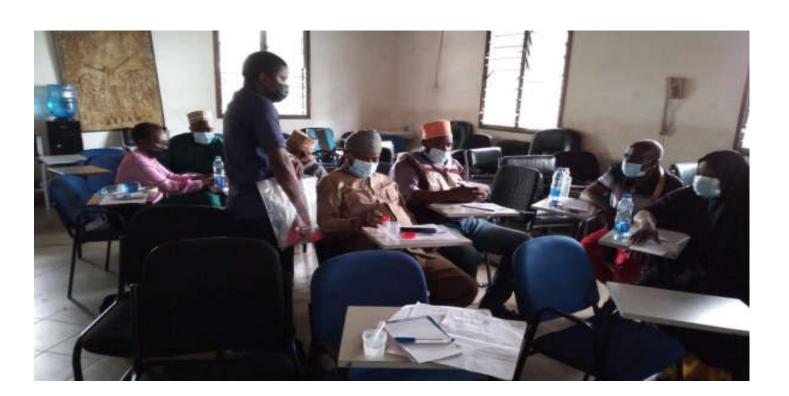
# Three years experience of TRAPs intervention in Tanzania



#### Project Idea and Background

Tanzania is among countries with high TB burden in the world. Despite of this, still there are missing cases who have not been reached due to different reasons including being reluctant to visit health facilities to seek health services. Here is when PASADA came with the idea of open up TRAPs (Tuberculosis Rapid Assessment Posts) in community. Where CHW (volunteers), traditional healers and drug sellers do TB screening, sputum sample collection and the collected samples are transported to the nearby laboratory for investigation. Results are send back to clients and those diagnosed with TB are linked to TB clinic for treatment initiation.

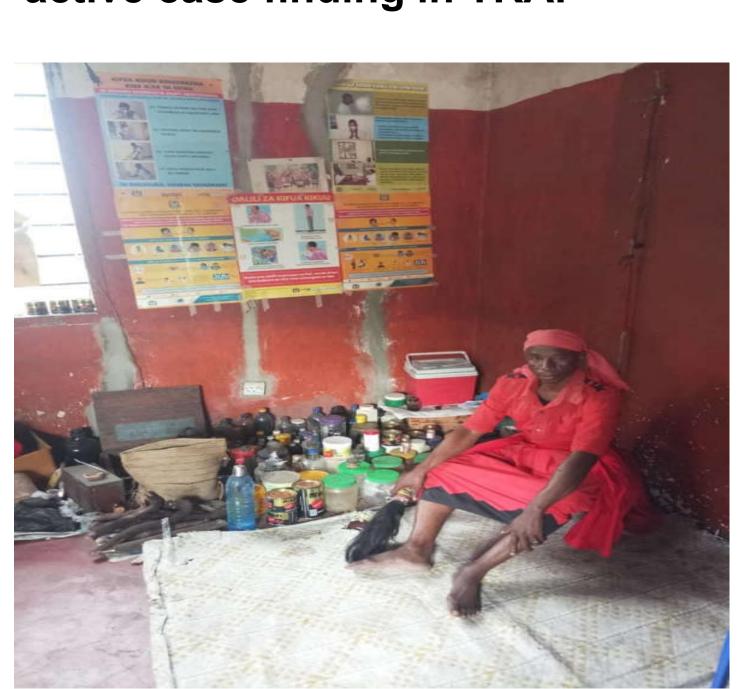
Traditional healers and drug seller, during training on the basics of TB at PASADA conference room



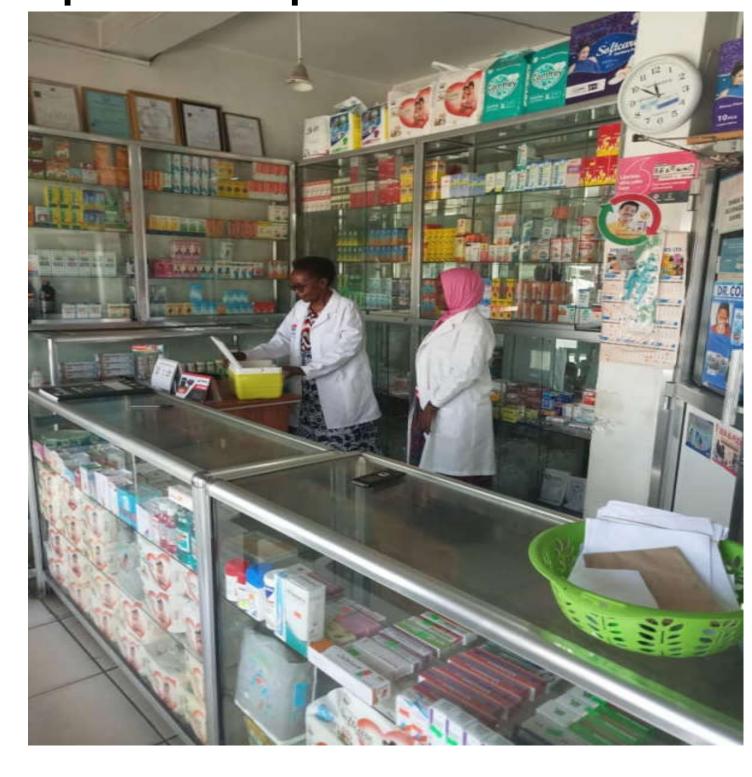
Community volunteers doing sputum sample collection among PWID and PWUD in the TRAP located at Kigamboni



Traditional healer located at Kijichi in Dar es Salaam who is working with PASADA in TB active case finding in TRAP



Drug seller located at Temeke, while packing the collected sputum samples in the cool box



#### Achievements

- Establishment of 19 new TRAPs while maintaining the existing 20 TRAPs
- ❖ 582 TB cases detected in TRAPs
- ❖ 100% of TB cases tested for HIV where 18% tested HIV positive
- Treatment success rate is 95%
- Able to reach people who use drugs (PWUD) and people who inject drugs (PWID)
- Able to convince traditional healers to save as TRAPs

#### Methods /tools

Tools used include, X-ray, microscope, Gene-Xpert and APOPO.

#### **Challenges:**

- Shortage of cartridges for Gene-Xpert machine
- Shortage of sputum containers.
- X-ray costs has been challeging since most of clients can not afford
- Information collection is in paper based that need extra work to enter data and conduct analysis which take time for conclusion and decision making
- Lack of important equipment in TRAPs e.g big umbrela, gum boots, rain coats.

#### Conclusion:

TB case detection should not be emphasized in health facilities only. Instead, TB can be detected beyond health facility level. TRAPs project proved to be sensitive and timely for TB detection hence majority of TB cases received their results within two days from the day of sputum collection. Furthermore, majority of TB cases had promptly initiated TB treatment, i.e the same day they received their results.

# FARAJA HOSPITAL, DIAKONIE KLINIKUM SCHWAEBISCH HALL

# PARTNERSHIP IN EMERGENCY MEDICINE

# GREATEST SUCCESS

- Increased knowledge and ability of our staff to handle different emergency cases
- It has led to our hospital being seen as a model by other hospitals nearby in emergency services

# BIGGEST CHALLENGES

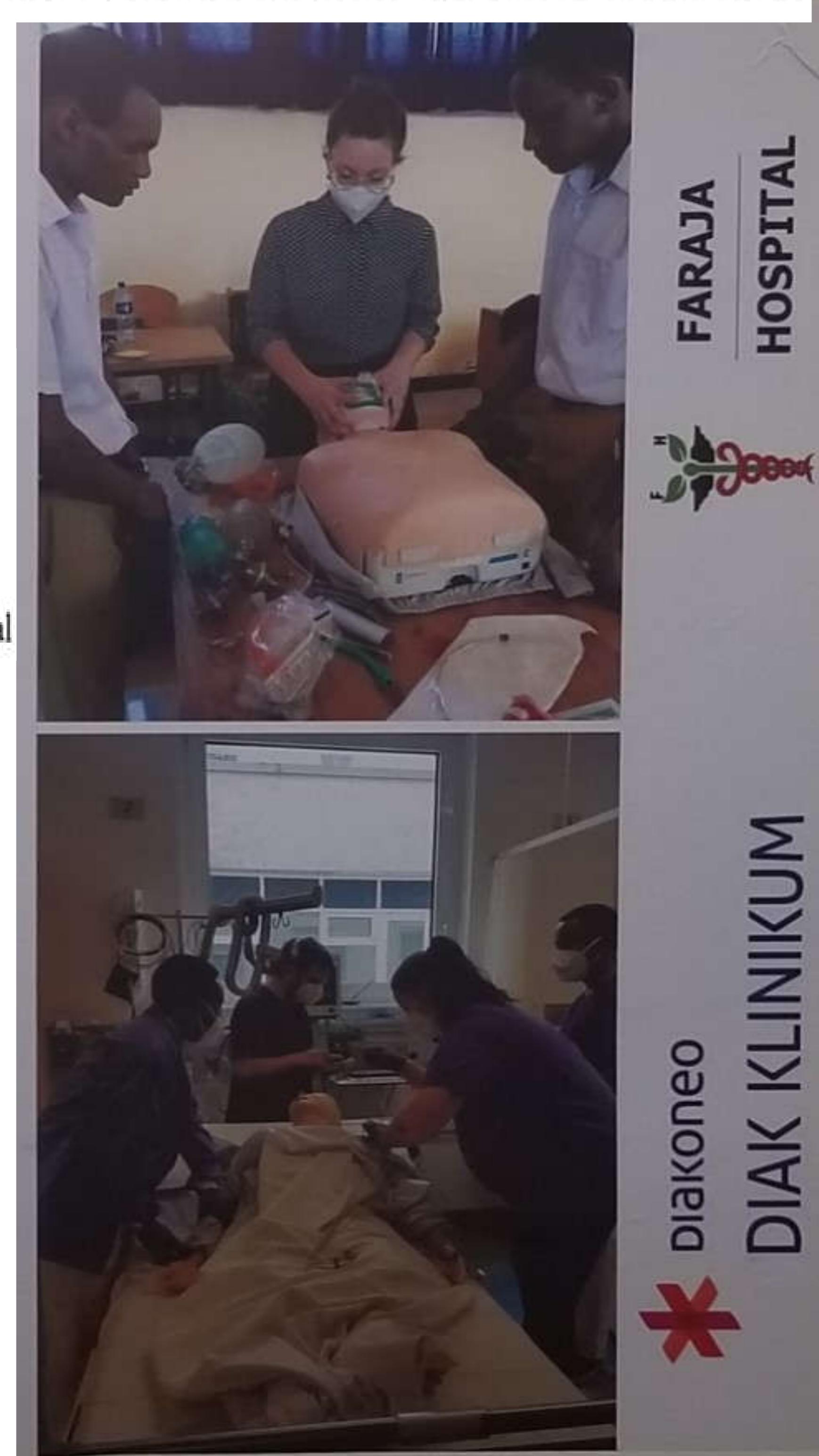
- Our best staff leaving; Having to train new incoming staffs every time
- Patients without insurance and unable to pay for services; putting financial constraints to the hospital

# SPECIAL METHOD TO RECOMMEND TO OTHER PROJECTS

· See one, Do one, Teach one

# WHAT OTHER HOSPITAL PARTNERSHIPS COULD LEARN FROM OUR PROJECT

- Consistency; we have been doing trainings in Himo and hospitation in Schwaebisch Hall every year since 2018 except 2020 due to the pandemic
- Open-mindedness; To be able to acquire new ideas and methods with ease
- Motivated staff















#### Hospital partnership since 01.09.2018

Neonatal unit of Muhimbili National Hospital & German Society of Tropical Paediatrics and International Child Health eV

#### **Objectives**

- > Continuous education and on job training of invasive and non-invasive respiratory support under consideration of adequate nutrition and infection prevention & control (IPC) measurements.
- Consolidation of ultrasound / echocardiography skills as diagnostic tools at the neonatal unit of Muhimbili National Hospital in Dar es Salaam, Tanzania.

#### Successes

- > Establishment of the first Tanzanian MSc Neonatology Programme at Muhimbili University in collaboration with GTP
- > Implementation of basic neonatal echocardiography and brain ultrasound at the neontal unit of Muhimbili

#### Challenges

- ➤ Long-term planning in Germany (annual leave / unpaid leave often to be fixed at the beginning of the year) versus short term planning in Tanzania (last minute demand from MoH for mentors or workshop participation)
- > Rotation of local staff at Muhimbili, especially nursing staff

#### **Strategies**

- > Close communication and flexibility
- Motivate more people to get involved
- > Create awareness for the importance of high quality neonatal care





While we go.....





.....we grow!



#### **Learning Points**

- Learning and working together is very rewarding
- Exchange programs benefit from being bidirectional
- Partnerships need time to grow (2 years period too short)

#### Message from us

We aim to keep this partnership growing and to bring light into the lives of sick and small neonates and their families.







# Can-START

# Cancer STAging and early Referral for Treatment

### Partnership

Marangu Lutheran Hospital



University
Hospital
Bonn

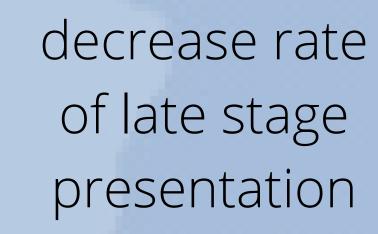


in cooperation with experts from

- Cancer Care Centre at Kilimanjaro
   Christian Medical Centre
- Federal Armed Forces Hospital Berlin

### Objectives

Cancer patients
are diagnosed
earlier and
receive a basic
staging at district
hospital level



increase of the quality of the population-based, regional cancer registry

#### Successes

- Multi-stage capacity-building
- Collaboration with ultrasound experts & the NGO 'SonoForKlinik'
- Interprofessional training of medical and nursing staff on cancer staging and referral



### Challenges

- Mobility/ multiday work exemption of skilled healthcare personnel for training
- Establishment of new work routines

#### **Lessons Learned**

- Necessity and importance of capacity-building prior to and accompanying introduction of medical equipment (here: hand-held ultrasound)
- Motivation is key.

#### Contact

Dr. med. Oliver Henke, MSc Oliver.Henke@ukbonn.de phone +49 (0)228 28751521

### STOP VIOLENCE PROJECT

Quality Improvement of Mother-Child as well as Reproductive health services including management of Gender based Violence.

# Partners: Heidelberg University, MAMC & MUHAS - School of Public health and social sciences

#### Introduction

- This Initiative started in 2017 between School of public health and social sciences-MUHAS, University of Heidelberg-German and MAMC.
- This started by brainstorming meeting among hospital management team, hospital quality improvement team, MUHAS and University of HeidelbergProf Michael Marx.

#### **Objectives**

- To support quality improvement program including the assessment of quality of mother and child care at MAMC through facilitation and coaching.
- Develop and implement tailored QI training modules including OJT
- Develop a short course on GBV and MCH at MUHAS
- Networking with Police, Social welfare and Universities on GBV and VAC
- Conduct training for health care providers with focus on GBV prevention, services provision and safety plan for women.
- Conduct follow up training with MUHAS and Hospital administrators

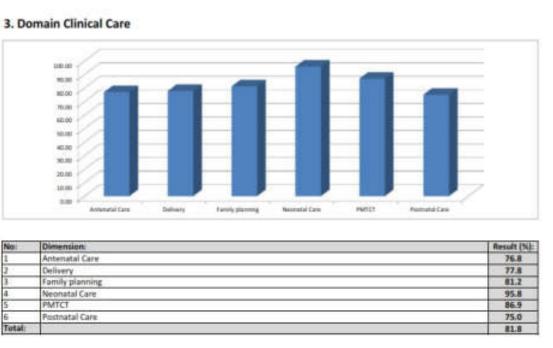
#### QI workshop

#### Basic concepts of QI and customer care to QIT





#### **Baseline QI Assessment using TIBAS**





#### Courses funded by the project

Three candidates benefited from Online Quality improvement :A key for health system strengthening from University of Heidelberg. This was a 6 months course.

#### IPC TRAINING TO MATERNAL AND NEWBORN UNIT





MUHAS: Muhimbili University of Health and Allied Sciences IPC: Infectious Diseases Prevention and Control TIBAS:

QIT:

GBV: Gender Based Violence

#### **GBV** training

- A short courses focusing on GBV was tailored based on the national standardized training manual
- A total of 20 participants received training on provision of quality services for survivors of gender based violence and violence against children
- Participants came from four one stops centers in Dar es Salaam,
   Muhimbili National Hospital and MUHAS
- The training was conducted by GBV and VAC National Master Trainers from different field such as Medical, Psychosocial, Forensic and prevention

#### **Forensics aspect of GBV**

#### How to fill in a PF3 properly





Importance of assessing psychological and social needs of survivors of GBV and VAC





Collaboration and networking was one of the key aspects of GBV training





#### Successes

- The Partnership helped to empower a multidisciplinary team who are the front liners in care provision (Paeds, Psychologists, Police, Pathologists, Faculty, Obgyn, One stop centers-staff etc.) on GBV
- New Networks of GBV stakeholders were established specifically to include one stop centres, the police gender desks, universities.
- As the government plans to scale up and establish more one stop centres, such training will help to speed up implementation.
- The multidisciplinary team (Participants and Facilitators) were brought together and had opportunity to discuss the current situation and practices and brain stormed on how to improve coverage and quality of services for GBV survivors. Research needs to generate evidence were highlighted.
- The training on GBV were aligned to the national training package (materials and facilitators) and hence are in adherence to the National GBV prevention strategies.

#### Challenges

- COVID 19 pandemic delayed implementation and hence limited time for monitoring and evaluation. We created an email group to facilitate communications post training to share experiences regularly.
- Only few representatives from each unit participated in trainings due to the funding level. Emphasis was put on cascading and knowledge sharing
- Staff turnover and transfers within and outside the partner Institution.



#### THE IMPACT OF PARTNERSHIPS BETWEEN AMANA HOSPITAL AND HAMBURG HOSPITALS IN IMPROVING MATERNAL AND NEW BORN CARE IN DAR ES SALAAM CITY OF TANZANIA





#### **INTRODUCTION**

Maternal and new born care in resource limited countries have remained an area of public concern due to high morbidity and mortality rate beyond tolerance limit.

In year 2003 the Association for International Medical cooperation e.V(VIMZ) started the cooperation with Amana Hospital within the framework of city- partnership and linked Amana hospital to different hospitals in Hamburg. In the early years VIMZ trained health professional from Amana in Hamburg in internal medicine, endoscopy and physiotherapy

Tanzania as one of the developing countries have made a significant improvement in maternal and neonatal care which has contributed to the observed decline in neonatal mortality rate from 45.4 deaths per 1000 live births in 1971 to 20.1 deaths per 1000 s live births in 2020 .( https://knoema.com )

The collaboration between the two Sister hospital I made a significant contribution in addressing maternal and neonatal care in Ilala Municipal in the city of Dar es salaam.



A 31 years old mother named Azizi posed in picture with a nurse and doctor from Amana hospital and her 6 months old triplet who were born before term and nursed at Amana hospital Neonatal Intensive Care unit picture taken on 13th January 2022.

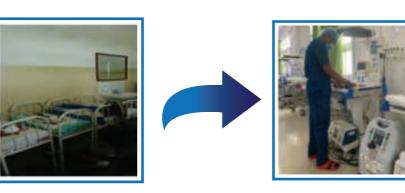
For the past 17 years the two hospital have been working hand in hand in improving maternal and child care by focusing on three pillars

- >> Healthcare delivery infrastructure
- >>> Strength human capacity
- >>> Strengthening referral system



#### 1. Infrastructure and human capacity training

Establishment of 30 beds neonatal unit at Amana RRH with basic life saving equipment and machines. In one-year time neonatal mortality rate dropped by half



#### 2. Human capacity Strengthening

Exchange program for skilled health care worker from both side was established aiming at imparting life serving knowledge and skills focusing on top ten causes of admission and mortality in neonatal and maternity ward at Amana RRH

causes of admission and mortality in neonatal and maternity ward at Amana RRH Strengthening

#### 3. Strengthening Referral System

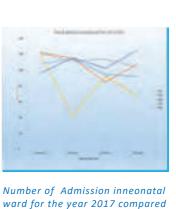
- Mospital management information system were transformed from manual to paperless
- Mobile phone was registered and shared with lower level facilities to facilitate information sharing between Amana hospital staff and lower level facilities before referring a patient
- Referral feedback introduced and joint meeting for data sharing between Amana hospital, referring facilities obsand regional and municipal health management team established
- Outreach were set to addressed gaps observed from referring facilities

#### **Impact**

- ▼ Progressive improvement of neonatal services to Amana RRH from 30 beds facility into an 80 beds Neonatal Intensive care unit
- Reduced congestion in maternity block and reduction in number of normal deliveries
- ☑ Progressive improvement of neonatal services to Amana RRH from 30 beds facility into an 80 beds Neonatal Intensive care unit
- ☑ Reduced congestion in maternity block and reduction in number of normal deliveries



year 2017 compared to 2021



Free medical camp for Dare es salaam community to celebrate 12 years of wonderful Dar es salaam and Hamburg City partnership.

A three days free medical check up for non-communicable diseases, Vaccination against COVID -19 and blood donation activities took place from 30th June to 2nd July 2022 at Amana regional referral Hospital



Figure 1; Picture shows people from Hamburg city who visited medical camp on 2nd July 2022

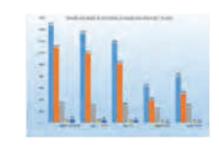
Figure 2; People of Dar es salaam City waiting for health check-up conducted by Amana RRH.

The medical camp was successful, we were able to attend 748 people, some were treated instantly, some were enrolled to specialised clinic for further follow up, newly diagnosis like hypertension, diabetes, renal disease, urology condition, sickle cell etc were taken care



#### Challange

Amana being a referral center for over 187 lower level health facilities it is overwhelmed with pregnant women who are referred for blood transfuse. On average the hospital used around 20 units of blood each day for maternity care alone. Obtaining safe blood has remained a main challenge due to lack of in-house capacity to screen blood by PCR and preparation of blood products like fresh frozen plasma and platelets concentrate. The trend of Anemia for the past one



Anemia in preanancy ia a New area of local concert



#### DIAGNOSIS OF BURULI ULCER IN MARITIME **REGION, TOGO**



#### GADAH Denis, PITEN Ebekalisaï, AGBENU Abla Esenam,

#### Centre Hospitalier Regional de Tsevie (CHRT)

#### **Project Idea and Background**

Buruli ulcer causes immense suffering and disability, mainly in children under 15 of age (60%) and in people living in rural communities, especially when detected and treated late.

In Togo, Buruli ulcer cases has doubled in 10 years, from 42 cases in 2009 to 94 cases in 2018 following the intensification of awareness raising and sensitization activities, In combination with active screening efforts in endemic communities

PCR testing is the gold standard for Buruli ulcer diagnosis according to the WHO. In Togo, the PCR confirmation rate is 70% since 2013, but this rate dropped to 54% in 2018 with the decentralization strategy, whereas the WHO recommends that it be 85%.

Low PCR performance is due to the lack of capacity of the providers to correctly make the clinical diagnosis of Buruli ulcer as well to the fact that the system remains too centralized with the CHRT being the only center to have skills in the management of Buruli ulcer.

#### **Project Activities**



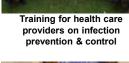
**Group Photo** Session 3, Training/Clinical Confirmation



Practice of the knowledge acquired during the training sessions

Training session on biological confirmation of Buruli ulcer







materials to protect against infection

#### Results or achievements

Indicator	Output value	Actual value	Target value	Measuring instrument
Confirmation rate of Buruli ulcer by PCR		<ul><li>✓ 68,8% in 2020</li><li>✓ 78,9% in 2021</li><li>✓ 75% up to August 2022</li></ul>	85%	National BU Reference centre National Reference Lab report (INH) Report
Average time to treatment after clinical screening		✓Immediately at National BU Reference Centre, ✓14 days at the peripheral level	5 days	Consultation and treatment register

#### Methods / tools

Capacity building workshops:

- 3 sessions on clinical diagnosis
- 3 sessions on biological diagnosis and sample collection techniques

Post training supervision of all trained actors

#### Challenges:

- Like others, the health care system in the Maritime Region is not prepared to deal with the outbreak of the Sars-Cov-2 virus;
- Lack of sampling materials forcing health care managers to refer patients to the National Reference and Treatment Center for Buruli ulcer for biological confirmation;
- Lack of dressing materials for former patients with ulcerative lesions referred from the Buruli ulcer National Referral and Treatment Center to the peripheral health centers or further management (dressings);
- Lack of dressing materials for patients seen for an unconfirmed suspected Buruli ulcer lesion.

This project has confirmed the importance and usefulness of continuously strengthening the skills of Supporting health facilities with health care providers in the management of Buruli ulcer cases. It has allowed for the early diagnosis of several new cases resulting in recovery without sequelae. As a corollary, there has also been an increase in the PCR positivity rate.

We would like to take this opportunity to launch an appeal to all those who are willing to support us in helping vulnerable people suffering from chronic non-Buruli ulcer wounds.

# Klinikum Nürnberg vir sind für Sieda!







# 5 Jahre Klinikpartnerschaft mit dem Hospital Bassar/Togo









#### What has been the greatest success in your hospital partnership?

Establishment of an own water supply and many oxygen concentrators in the hospital, an own cleaning service, a new sterilisation facility for surgical instruments, an own ambulance, free surgeries for numerous destitute people and financial aid for a solvent hospital pharmacy.

Etablierung einer eigenen Wasserversorgung für das Hospital sowie eines Reinigungsdienstes. Anschaffung einer Aufbereitungsanlage für chirurgische Instrumente und von Sauerstoffkonzentratoren. Kauf eines Rettungswagens. Angebot kostenloser Operationen für mittellose Menschen. Finanzhilfen für die Krankenhausapotheke.

#### What were the biggest challenges and how were they overcome?

There are, as in all countries (not only in Africa), considerable governmental hurdles, customs restrictions, bureaucratic barriers, mistrust of the population, bad experiences of the cooperation partners with other aid organisations, competitive thinking of other NGOs, superstition and traditional healing methods. In addition, climatic adversities and the risk of infection (e.g. malaria, typhoid, meningitis). The biggest challenge was to gain the trust of the local authorities and the clinic staff. We succeeded in this by maintaining continuity, honesty, freedom from prejudice and personal relationships with official and private persons over the years. Furthermore the Fi Bassar association is engaged in other humanitarian projects in the Bassar region.

In Togo gibt es, wie in vielen Ländern, für Hilfen erhebliche staatliche Hürden, Zollbeschränkungen, bürokratische Barrieren, Misstrauen der Bevölkerung, schlechte Erfahrungen der Kooperationspartner mit anderen Hilfsorganisationen, Konkurrenzdenken von NGOs. Außerdem klimatische Widernisse und Infektionsgefahren. Die größte Herausforderung war, das Vertrauen der örtlichen Behörden und des Klinikpersonals zu gewinnen. Das gelang uns, indem wir über Jahre hinweg Kontinuität, Ehrlichkeit, Vorurteilsfreiheit und persönliche Beziehungen gepflegt haben. Außerdem engagiert sich der Verein FI Bassar in weiteren Projekten außerhalb des Krankenhauses.

#### Did you use a special tool/method that you would recommend to other projects?

A person who can be contacted at any time, easily reachable (e-mail plus telephone plus WhatsApp) with good language skills, preferably the national language. Strong cooperation partners in Germany.

Das Wichtigste ist eine Person in der Organisation, die jederzeit ansprechbar und gut erreichbar ist, mit guten Sprachkenntnissen, am besten auch in der Landessprache. Außerdem braucht es starke Kooperationspartner und Unterstützer.

#### What could other hospital partnerships (potentially) learn from your project?

One should meet people at the same level and with respect, paying particular attention to the cultural conditions. This includes the language and the different dialects. In addition, when planning, you should make sure that the implementation of the projects in the country is realistic, for example, the climate could be a challenge. Furthermore, it is essential to respond to the wishes of the population so that a compromise can be found together and a sustainable solution can be worked out.

Man sollte den Menschen auf Augenhöhe und mit Respekt begegnen, indem man insbesondere auf die kulturellen Gegebenheiten achtet. Dazu gehören die Sprache sowie die verschiedenen Dialekte. Zudem sollte man bei der Planung eines Projektes darauf achten, dass die Umsetzung in dem Land auch realistisch ist. Beispielsweise kann das Klima etwa bei der Anlage von Gärten oder Brunnen eine Herausforderung darstellen. Darüber hinaus ist es essenziell, auf die Wünsche der Bevölkerung einzugehen. Nur so kann eine nachhaltige Lösung entstehen.

#### Do you have a special message you would like to share at the conference?

It pays to look beyond the boundaries of the clinic and to include the needs of the staff and equally of the population. This creates a good working environment, trust, future prospects and hope, and thus also a sustainable impact and good basis for further cooperation.

Understanding and patience for the staff in the country are key and of great importance.

Es zahlt sich aus, über die Grenzen der Klinik und des Projekts hinauszublicken und nicht nur die Bedürfnisse der Mitarbeitenden, sondern auch der Bevölkerung einzubeziehen. Auch wenn das Kompromisse bedeutet. Es schafft jedoch ein gutes Arbeitsumfeld, Vertrauen, Zukunftsperspektiven und Hoffnung, und damit auch eine nachhaltige und gute Basis für die weitere Zusammenarbeit. Verständnis und Geduld für die Menschen vor Ort sind wichtig.





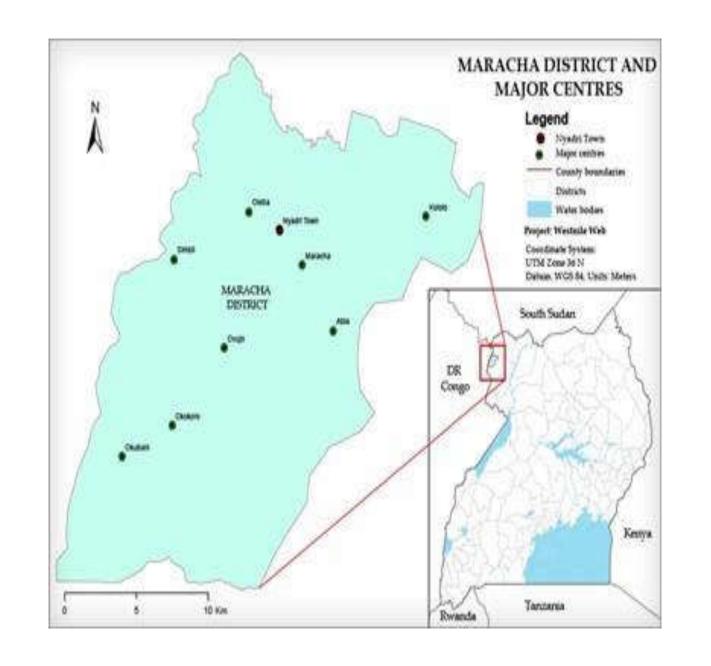






### Enhancing ability through psycho-social support, Maracha Uganda

St. Joseph's Hospital Maracha, Uganda Catholic Medical Bureau, German Leprosy and Tuberculosis Relief Association Kampala, Uganda, Uganda National Alliance against Leprosy



#### **Project Idea and Background**

St. Joseph Hospital, Maracha, West Nile Uganda under the umbrella of Uganda Catholic Medical Bureau and in cooperation with DAHW Uganda and UNALEP has trained 14 community nurses and 36 village health teams (VHTs) in the provision of basic rehabilitative health care services for persons living with disabilities – and in a second project phase - enhanced ability of Persons with Disabilities further through by complementing services with the provision of psycho-social support. The project therefore wanted to ensure that identified persons with disabilities and impairments receive adequate rehabilitative and psychosocial support.

#### **Results and Achievements**

#### What has been the greatest successes in the project?

- Identification of more than 603 Persons with Disabilities between the age of 1 to 110 years (62% of these beeing men)
- ❖ 73% of the disabilities identified were associated with mobility impairments, the remaining 27% consisted of visual impairments, mental illnesses, cerebral palsy, epilepsy, and others
- Assitive local devices were prepared for 412/603 (68%) Persons with Disabilities
- Psychosocial support was provided to 556/603 (92%) Persons with Disabilities and their caregivers
- A database of Persons with Disabilities with details of conditions identified
- Linkage to social and legal services established within district and government systems

#### Methods / tools

#### Did you use a special tool/method that you would recommend to other projects?

- 1.Involvement and Training of Village Health Teams and health workers for screening and identification of Persons with Disabilities
- 2. Capacity building for VHTs to prepare simple local assistive devices to initiate physical rehabilitation
- 3.Psychosocial mentorships with role-plays rather than traditional refresher trainings

#### **Challenges:**

#### What were the greatest challenges and how were they overcome?

- 1.Complex devices like wheelchairs are not sufficiently available because of the cost (32 Persons with Disabilities pending) Advocating for support from available NGOs
- 2.Covid-19 and its effects: greatly affected movement in 6 months of the project implementation period delayed household visits by VHTs

#### Conclusion:

#### What could other hospital partnerships (potentially) learn from your project?

- 1.After 4 years, we have built capacity among VHTs for supporting Persons with Disabilities, including psychosocial services, which can be disseminated to neighbouring districts
- 2.Inclusion of Persons with Disabilities by provision of simple local assistive devices with adequate psycho-social empowerment
- 3. Using community structures and localised materials is efficient and sustainable
- 4. Livelihood within the community can be supported through the formation of self-help groups
- 5. Setting up a referral system for medical and social rehabilitative services

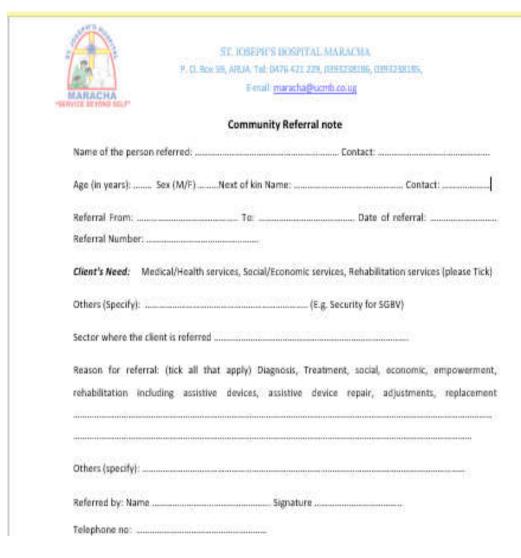
#### Do you have a special message you would like to share at the conference?

Community and civil society engagement can drive inclusion of persons living with disability by promotion of physical and psycho-social rehabilitation.

#### **Project Activities**



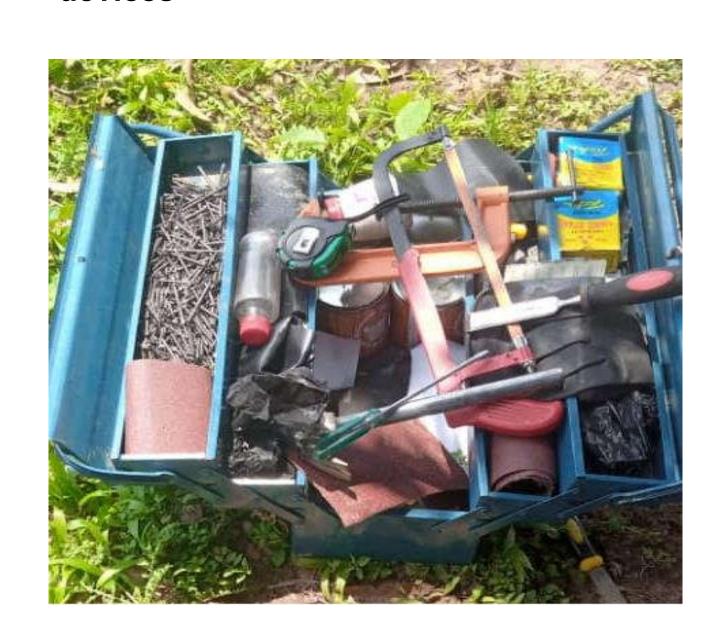
Assistive devices prepared by VHTs



Referral forms for clients assessed by VHTs



VHT with tools for preparing assistive devices



VHT received a toolbox for the preparation of assistive devices



Groupwork and role plays for delivering psycho-social messages



# Hospital Partnership -Salem-Kolonyi Health Centre & German Doctors



Strengthening hospital capacities for specialised healthcare in Mbale, Uganda



#### **Summary**

According to Uganda's Health Strategy (HSDP 2019/20), the lack of health workers is the key challenge in the provision of health services. For this reason, the hospital partnership improves the healthcare for the rural population of Mbale district by investing in knowledge and skill transfer of health workers at Salem-Kolonyi Health Centre in the form of training, mentoring and continuing education. The Health Centre is a private, non-profit institution and provides health services in the surrounding communities, which earn little income from subsistence farming.

Maternal and child health has always been a focus, as the facility receives a considerate number of referrals of complicated pregnancies from smaller clinics. There is a high need for specialisation in gynaecology, paediatrics, anaesthesia and surgery. German Doctors provides training, mentoring and professional exchange that enables the Health Centre to provide specialised care in the near future. This is of particular benefit to low-income patients.

#### The Partners

erman Doctors e.V. (GD) is a non-profit, charitable association registered with the Bonn district court. 24 employees at the head office in Bonn organize medical missions, partner projects, manage the finances and inform the public about the work of the organization. German Doctors e.V. is an active member of VENRO and certified by Uganda. The focus of its work lies on community the DZI. The organization's focus lies on medical projects in six countries worldwide (India, Bangladesh, Philippines, Kenya, Sierra Leone, and Uganda). German volunteer doctors on six-weeks medical missions work there hand in hand with national employees at outpatient clinics that are frequented by patients with no or low income who have no adequate access to medical care. In addition, national community health workers are trained and educated on health issues. Some projects are co-financed by the BMZ. Furthermore, German Doctors e.V. is involved in complementary programs on education, women's rights and community development.

alem-Kolonyi Health Centre, operated by the Salem Brotherhood Uganda Ltd., is located in Mbale District in Uganda and serves approximately 30,000 people. It is officially recognized by the Government of Uganda, and a member of the Association of Protestant Non-Profit Hospitals in healthcare, as well as on the training of nursing staff in the Salem School of Nursing, founded in 2010. The Health Centre is particularly involved in the provision of quality healthcare for women and children. Salem-Kolonyi with a total of 60 beds has 53 employees, operates a general outpatient clinic staffed 24/7 by medical personnel, an ambulance, an outpatient clinic for pregnant women, and a delivery room with an operating theatre. For children with malnutrition and infections, a separate Child Nutrition Unit is available. The SKH is well integrated into the health structure of the district.





#### **Achievements so far:**

- Procurement and installation of ultrasound scanner, training by ultrasound expert from German Doctors with 138 supervised examinations immediately after the training;
- Procurement of nebulizer and suction machine for pediatric ward, German pediatrician currently visiting the health centre;
- Training and on-the-job coaching by surgeon, pharmacist, gynaecologist and anaesthesist from German Doctors;
- 47 joint surgeries during the visit of the German surgeon;
- Exchange visit to German Doctors' health facility in Nairobi;
- Procurement of e-learning equipment for online Project Management course in 2023