

Tanzanian-Ethiopian-German Network: improvement of diagnostics, treatment and management for patients at Mbeya Zonal Referral Hospital and Jimma University Medical Center



**HOSPITAL
PARTNERSHIPS**

University Hospital of Munich and Ludwig-Maximilians-University and Mbeya Zonal Referral Hospital and Mbeya Medical Research Centre and Jimma University Medical Center

The challenge

Both the Jimma University Medical Center (JUMC) in Ethiopia and the Mbeya Zonal Referral Hospital (MZRH) in Tanzania are referral hospitals in their respective countries. In both hospitals, infections account for the majority of diseases. Due to the high infection rates, antimicrobial substances are often prescribed on a syndromic basis, leading to a rise in the number of resistant pathogens. A significant increase in antimicrobial resistances (AMR) worldwide and especially on the African continent has also been documented in current research.

In close cooperation between JUMC and the University Hospital of Munich, a routine laboratory for bacteriological services has been operating since 2013. Since then, basic antibiotic resistance surveillance has been carried out. The Focal Point staff receive training and are able to operate the services independently. However, some aspects of the services are still dependent on external capacity and supplies.

A major shortcoming in the current management of antibiotic use and drug resistance in both MZRH and JUMC is the lack of awareness of patients, as well as of health care professionals in some cases. The low level of patient confidence in the reliability and quality of health services also affects the maintenance of health care and the appropriate use of recommended treatments and interventions.

Partnership activities

Through the partnership, various measures to increase patient safety at both hospitals will be developed. A diagnostic algorithm for monitoring bacterial infections will be developed in MZRH. The hospital already has a basic infrastructure for isolating bacterial pathogens. However, the departments do not use the services consistently, meaning that employees' awareness is patchy, and stringent, enforceable guidelines are urgently needed.

In addition, laboratory operation is hampered by technical deficiencies and a lack of trained personnel and consumables. Within the partnership, training courses for the hospital laboratory services staff will be conducted and the local infrastructure will be improved. The intervention will be supported by the Mbeya Medical Research Center, which will allow expertise to be pooled.

'There are considerable shortcomings in terms of infrastructure and consumables, but the ownership of improvements has to lie within the health care staff in order to allow for success.'

Dr. med. Günter Froeschl, University Hospital of Munich

At JUMC, the diagnostic capacities for bacterial infections will be expanded through the partnership. The staff at JUMC has the experience to set up and run a microbiology infrastructure, but services are still dependent on external support. The activities will target these shortcomings and increase independent operability by conducting needs assessments and tailor-made training for JUMC staff.

In addition, a south-south partnership for antibiotic stewardship competence and the diagnosis of infectious diseases is being established between MZRH and JUMC.



Consultation in a health center in Mbeya Region, Tanzania © GIZ / Günter Fröschl



Federal Ministry
for Economic Cooperation
and Development



Financing

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Results

- Patients and health care professionals will gain an awareness of the principles and the impact of antibiotic resistances.
- A procedural algorithm will be put in place that addresses allocation of patients to different levels of health care, choice of diagnostic measures, decisions on anti-infective treatment and quality control measures.
- Antibiotic stewardship will become a sustainable component of service provision in the partner facilities.

The partners

The partnership between the University Hospital of Munich and MZRH started in 1988 with GIZ (then GTZ) involvement in response to the emerging HIV pandemic. A successful ESTHER partnership between both institutions has been ongoing since 2009.

Institutions in Tanzania

The Mbeya Zonal Referral Hospital was formally upgraded in 1984 from a regional hospital to a tertiary 'zonal' level serving the Southern Highlands zone of Tanzania. The hospital serves approximately 8 million people in seven regions. The Mbeya Medical Research Center, located on the same compound, is a renowned research institution of the National Institute of Medical Research.

Institution in Ethiopia

The Jimma University Medical Center, formerly known as Jimma University Specialized Hospital, is the only teaching and referral hospital in the south-western part of Ethiopia, providing services for approximately 18.000 inpatients, 208.000 outpatients, 14.000 emergency cases and 5.000 deliveries in a year, with a catchment population of about 15 million people.

Institutions in Germany

The University Hospital of Munich in the Bavarian capital of Munich treats around 500.000 patients annually. The clinic is divided into 29 specialised clinics, eleven institutes and seven departments. To this end, 49 interdisciplinary centres work together across subject boundaries. In addition to the outpatient care facilities, just over 2.000 beds are available for partial and full inpatient treatment. 1.700 physicians and 3.200 nursing staff take care of patients directly.

Ludwig-Maximilians-University (LMU), Munich, is a university with a history going back more than 500 years. In the winter semester of 2015/16, more than 50.000 students were enrolled at the LMU, making it the second-largest university in Germany in terms of student numbers.

Overview

Name	Tanzanian-Ethiopian-German Network: Improvement of diagnostics, treatment and management for patients at Mbeya Zonal Referral Hospital and Jimma University Medical Center through antibiotic resistance surveillance, antibiotic stewardship and diagnostic process optimisation	
Impact	To increase adequate use of antibiotics through identification of infectious agents and resistance patterns, and through provision of feasible and acceptable treatment algorithms for health care professionals	
Countries	Ethiopia Tanzania	Germany
Cities	Mbeya, Tanzania Jimma, Ethiopia	Munich
Institutions	Mbeya Zonal Referral Hospital Mbeya Medical Research Center Jimma University Medical Center	University Hospital of Munich Ludwig-Maximilians-University Munich
Term	July 2017 – April 2019	
Budget	115.000 EURO	

Contact person for the partnership

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