IMPALA’s Approach

The International Multidisciplinary Partnership to Address Lung Health and TB in Africa (IMPALA) is a four-year collaborative programme launched in 2017 in 10 countries of SSA to generate knowledge and implementable solutions for high burden, under-funded and under-researched health problems where lung health and TB belong. IMPALA’s comprehensive approach to improving Africans’ lung health involves multidisciplinary collaborative work encompassing a range of clinical, social, health systems, health economics, policy, and implementation scientists from Africa and the United Kingdom (UK).

IMPALA operates in 10 countries of Sub-Saharan Africa: the Sudan Republic, Ethiopia, Kenya, Malawi, Ghana, Tanzania, Uganda, South Africa, Cameroon, and Nigeria.

IMPALA Partners

IMPALA is a Global Health Research Unit funded by the National Institute for Health Research (NIHR). Hosted by the Liverpool School of Tropical Medicine (LSTM). It is comprised of international partners and over 15 organisations across 10 African countries. LSTM’s Professor Bertie Squire is the Principal Investigator, accompanied by an expert team representing the spectrum of applied health research disciplines.

IMPALA’s Impact

IMPALA is strategically positioned to advance lung health in Africa. The meaningful and timely evidence generated will drive national and regional lung health agendas by being effectively communicated to people and bodies able to implement policy-level change for improved lung health.
**IMPALA Study Summaries**

**Multiple Disciplines: cross-cutting capacity development project (MUDI)**

**Yan Ding, PDRA, Policy delivery and impact**

The MUDI project aims to generate evidence on what works for fostering multidisciplinary research and in what contexts, using lung health and TB as an example, and other IMPALA postdoctoral-led research as case studies. MUDI’s findings will be used to develop evidence-based actionable recommendations to catalyse effective and sustainable collaborative multidisciplinary research in low and middle-income countries.

**An integrated health systems approach for improving health services for chronic lung disease in Sudan and Tanzania**

**Uzochukwu Egere, PDRA, Health Systems, & Elizabeth Shayo, PDRA, Applied Social Sciences**

Despite the large number of illnesses and deaths from chronic lung diseases (CLDs) in low and middle-income countries (LMICs)—including much of SSA—CLDs are often neglected in LMICs’ health systems which focus mainly on TB. This study aims to identify ways to include these ‘forgotten’ patients with CLD into existing healthcare for people with TB (in Tanzania) and asthma (in Sudan). Study findings will provide decision makers in Tanzania and Sudan with the much-needed data to support improved care of people with CLD within their health systems.

**Maternal and socioeconomic determinants of lung function among young infants in Uganda: a birth cohort study**

**Rebecca Nantanda, PDRA, Clinical and Public Health & Zelalem Terfa, PDRA, Health Economics**

Sub-optimal lung function at birth compromises long-term adult lung health. This study aims to understand whether pregnant Ugandan women’s diets, the quality of the air they breathe, household food insecurity and socioeconomic status affect their newborn babies’ lung function. The findings aim to inform interventions for primary prevention of lung diseases in Uganda and across SSA.

**Chronic respiratory symptoms in adults and children in Kenya: how do health systems respond and what are the opportunities for health system strengthening?**

**Stephen Mulupi, PhD Candidate, Health Systems**

There is an urgent need to strengthen health systems in low-and-middle-income countries (LMIC) to effectively respond to the massive anticipated increase in CLD cases over the coming decades. Yet there is little research data on CLD patients’ experiences seeking healthcare services. Conducted within Kenya’s public healthcare facilities, government and community sites, this study aims to assess how the Kenyan health system is responding to CLDs, by 1) estimating CLD reporting in healthcare facilities, 2) identifying challenges experienced by patients when seeking CLD medical care in public healthcare facilities, 3) assessing the readiness of Kenya’s public health system to provide care for people with CLD and 4) identifying practical solutions to these challenges.

**Patient and health worker experiences with communication about TB and CLDs in hospitals around Kampala**

**Irene Ayakaka, PhD Candidate, Applied Social Sciences**

Effective health communication is critical to health care—empowering patients with the skills and knowledge to manage and improve their health. Health communication is particularly important for patients with CLDs which are widespread in LMICs and cause notable disruptions in patients’ daily lives. This study seeks to understand how patient, caregiver, and health worker perspectives of communication during CLD diagnosis and treatment impact patient choices for disease management and coping strategies. The study findings will guide interventions and promote patient-centered communication for improved CLD management in Uganda.

**The Utility of Clinician-Performed Cardiopulmonary Ultrasound Assessment of the Acutely Breathless Patient: Breathlessness Early Detection with Ultrasound trial (BED-US Trial)**

**Jacqueline Kagima, PhD Candidate, Clinical and Public Health**

Emergency doctors often base treatment decisions on limited clinical information—compromising accurate diagnoses, effective treatment and improved health outcomes. This study seeks to identify the usefulness of point of care ultrasounds in doctors’ clinical diagnostics and decision making for breathless patients who need urgent care in Kenyana’s Kenyatta National Hospital. The study findings will inform improvements to health care and delivery for acutely breathless patients.

**Assessing the societal burden of airflow obstruction and modelling the potential impact of leading interventions amongst adults in Malawi**

**Martin W. Njoroge, PhD Candidate, Health Economics**

Despite the massive mortality and morbidity burden of non-communicable respiratory diseases (NCRDs) in low and middle-income countries (LMICs), little is known about NCRD’s economic costs in LMICs. This study aims to estimate the health and economic cost of NCRDs among Malawi’s adult population and identify effective interventions to reduce the burden of NCRDs, using data from a longitudinal follow-up study and mathematical modelling techniques.

**Evaluating the impact of operational modelling on TB and lung health policy and practice in Sub-Saharan Africa**

**Brenda Mungai, PhD Candidate, Policy Delivery and Impact**

Understanding what influences lung health policy is important to ensure research findings inform policies in order to effectively manage the burden of TB and respiratory diseases. This study will develop an operational model and use data from multiple sources, including Kenya’s TB prevalence survey to project potential interventions to improve detection and management of TB and non-infectious lung problems. It will then undertake a lung health policy analysis to understand the processes, factors and actors that influence the importance of modelling approaches for lung health policy formulation and implementation in Kenya.