



MAKERERE UNIVERSITY

Makerere University Lung Institute

MAKERERE UNIVERSITY COLLEGE OF HEALTH SCIENCES

Science for Health Lungs

www.mli.mak.ac.ug



5 YEAR IMPACT SUMMARY



MLI BACKGROUND

Makerere University Lung Institute (MLI) is a semi-autonomous academic research institute within the Makerere University College of Health Sciences. The Institute was created following signing of a Memorandum of Understanding between Makerere University and the Lung Consortium International, Ltd in 2015. It was later incorporated as a company limited by guarantee in November 2018 and thereafter granted financial autonomy by the University

Council on 1st July 2019. In April 2019, the Institute held its 1st International Lung Health Symposium and was officially launched by the Minister of Health, Hon. Dr. Jane Ruth Aceng. MLI works in partnership with a number of local and International organizations and Universities to provide specialized clinical care to the people of Uganda as well as designing and implementing interventions to improve lung health.

Mission

To conduct high quality lung health research that integrates disease prevention, clinical care and training in sub-Saharan Africa.

Vision
An Africa with Healthy Lungs

Core Values

- ✓ Integrity
- ✓ Excellence
- ✓ Effort norm
- ✓ Care
- ✓ Innovation

OVERALL ACHIEVEMENTS' SNAPSHOT

Creation of employment opportunities



Contribution to Uganda's economy: UGX 601,696,264

Contribution to Government revenue in Shillings



Contribution to foreign exchange inflows in US dollars



MLI Grand Home Project

Proposed grand home - Centre for Pulmonary Care in Uganda. This project will have a teaching hospital State-of-the-Art Research laboratories, Training facilities and administrative units. On the right, is the Centre's artistic impressions.



DEPARTMENTS

Finance & Operations

The Finance and Operations department provides overall financial management and operations support of the Institute.

Achievements

1. Procurement of **3 vehicles** (Double cabin Ford ranger, Double cabin Toyota Hilux & Toyota Land cruiser Prado)
2. Procurement of a **60KVA standby generator**
3. Installation of **Internet fiber cable at MLI**
4. Installation of **fire extinguishers and biometric access**
5. **Fully furnished offices**

Research and Innovation

The department of Research and Innovation at MLI supports researchers and Principal Investigators to conduct good quality and ethical research.

Achievements

1. Over **22 research fellows** including Physicians, Pediatricians, Public health specialists, health economists, and researchers
2. **Collaboration** with over 8 institutions some of which are the world-leading in lung health research

Lung Health Research at MLI

1. MLI is actively conducting research in a wide range of lung diseases. i.e, asthma,

chronic obstructive pulmonary disease (COPD), tuberculosis (TB), air pollution, post-TB lung disease, pulmonary rehabilitation, lung cancer, and corona virus disease 2019 (COVID-19). In addition, the institute conducts research specific to lung diseases in children including pneumonia, asthma, TB as well as conditions during pregnancy that affect lung health in children.

Impact on policy, health and well-being of Ugandans

1. **Eighty (80) peer reviewed scientific papers**
2. Our research findings have guided policy makers
3. Highlighted the quality & need for air quality monitoring in Kampala
4. Provision of **novel diagnostic tests & treatments for lung health patients in Uganda**

Clinical research

1. Spirometry services in 5 regional hospitals in Uganda
2. State of the art equipment that measures lung function in newborns.
3. Pulmonary rehabilitation (PR) services and a building dedicated to offering patients this service as well as training other health care workers in PR.
4. Equipment that measures the ability of lungs to transfer oxygen from the air we breathe, into the blood
5. Equipment that measures the degree of inflammation in the airways of people with asthma.

Lung Institute Clinic

Opened on 19th June 2018 to support lung health research & provide highly specialized clinical pulmonary services at MLI.

Achievements

1. Since its opening, MLI clinic has handled a total number of **3492** patients, **860** of whom are research patients.
2. **Staffing:** 4 Full time staff, 4 experienced physicians and 2 paediatrician specialists
3. **Services:** Difficult Asthma, COPD, Obstructive Sleep Apnea, Interstitial Lung disease, Post TB Lung Disease, Post COVID care, Smoking cessation and DLCO.

Diagnostics

1. **Largest pulmonary function testing service** in Uganda
2. **>2000 spirometry tests** in addition to Fraction of Expired Nitric Oxide (FeNO), Sleep Apnea Testing as well as allergen testing (skin prick testing) etc.
3. Proposed setting up of the **novel Diffusion Lung Studies equipment** in Uganda.
4. **Pulmonary Rehabilitation (PR)** services to over >100 individuals
5. Construction & commissioning of **KUPUMUA**
6. Provision of **relatively affordable drugs**
7. **Hosted & supported 5 studies** (COPA, LULI, TGF-BETA, RECHARGE and ECBS), which have together recruited more than 1000 study participants over a period of two years.

Department of Training and Education

The overall goal of the department is to design, implement and monitor training and education activities, projects and programmes that contribute to improvements in the care of people with lung diseases, prevention of lung diseases and health promotion to prevent lung diseases. The achievements to date include:

Day of Lung Science sessions that are conducted monthly that aim to improve our understanding of the science underlying the different lung diseases/conditions and how this facilitates appropriate care to improve patient outcomes. The sessions attract participants from the academia, clinical practices, policy makers and programmers.

Capacity building sessions for researchers in MLI. The sessions range from research methods, project management and effective

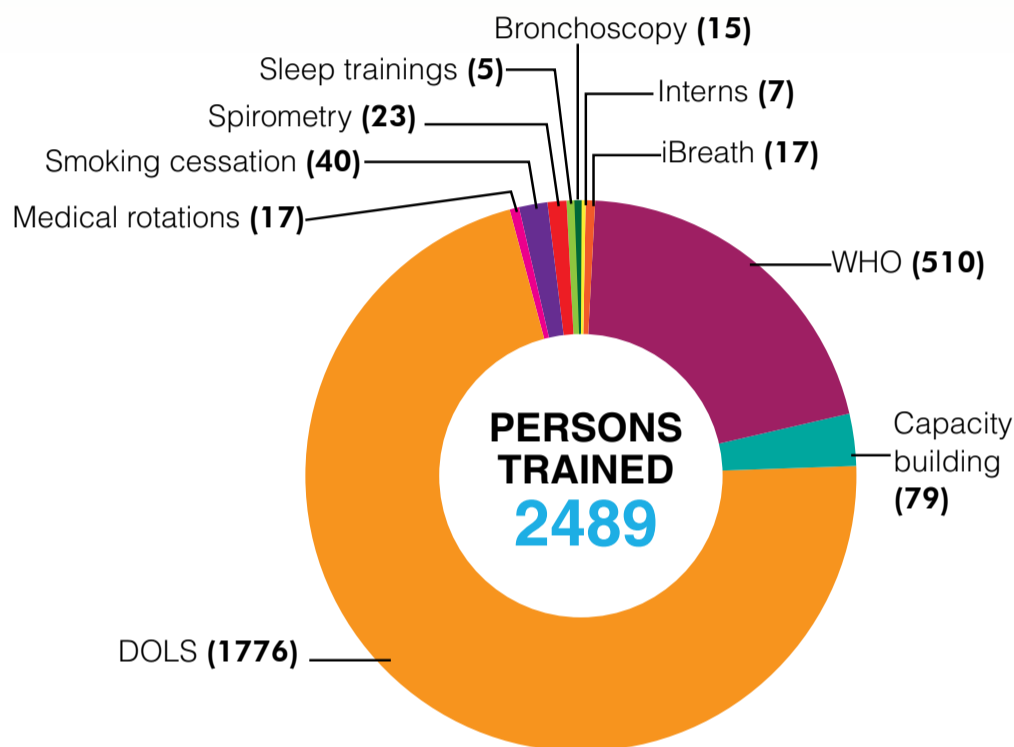
communication. Plans are underway to offer similar standardized courses to other researchers outside MLI through the near-ready Non-Degree Research Fellowship programme.

The department is also involved in training graduate students from Makerere College of Health Sciences. Residents from the department of Paediatrics and Child Health, and Internal Medicine rotate at MLI to get an opportunity to be exposed to the specialized services at MLI and get a deeper understanding of lung health problems. They also get an opportunity to learn about lung health research and participate in journal clubs. **iBreath training programme:** This blended training programme was established 3 years ago with an aim of improving the competencies of primary care health workers in diagnosis and management of respiratory

diseases. Some of the trainees of this programme have established asthma care clinics at their places of work.

In addition to the iBreath programme, the department conducts regular Continuing Medical Education (CME) sessions to health care workers on specific topics of interest with an aim of improving their competencies in the care of patients with respiratory diseases.

Pulmonary and Critical Care Programme: In collaboration with the department of Internal Medicine at MakCHS, the department has developed a curriculum for a fellowship program in Pulmonology and Critical Care. Plans are underway to have the program approved by the Uganda Medical and Dental Practitioners Council (UMDPC) and Makerere University.



MLI GRANTS PORFOLIO (2015-2021)

