

# **Activity Report on Asthma Screening, Lung Function Testing, and Sensitization at Kibuli Secondary School, Kampala, Uganda.**

**Date of Activity:** 25<sup>th</sup> September 2024

**Location:** Kibuli Secondary School, Kampala, Uganda

**Organized by:** Makerere University Lung Institute (MLI) Pediatrics Research Group led by Dr Hellen Aanyu.

## **Participants:**

- Students of Kibuli Secondary School (S1, S2, S3, S4, &S5) with respiratory symptoms.
- School Team (Deputy Headteacher, other teachers, and Nurses).
- Parents of some students.

**Facilitators:** Makerere University Lung Institute Pediatrics Research Group Members

## **1. Introduction**

Asthma is a prevalent non-communicable disease that affects many children and adolescents globally. In Uganda, asthma prevalence is estimated at 11% and is likely higher in children. Access to asthma screening, lung function testing, treatment, and education empowerment has remained suboptimal with many children remaining undiagnosed or receiving suboptimal care. Uncontrolled asthma among secondary school children in Uganda has resulted in absenteeism and poor academic performance, which has impacted the affected children's confidence and future productivity. In commemoration of World Lung Day, the Makerere University Lung Institute Pediatrics Research Group conducted an asthma screening and sensitization event at Kibuli Secondary School in Kampala. This report provides a summary of the activities conducted, results obtained, and key insights from the event.

## **2. Objectives**

The main objectives of the activity were to:

- Screen students for asthma and other respiratory issues.
- Conduct lung function tests among children with respiratory symptoms.
- Sensitize the students, teachers, parents, and staff on asthma presentation, treatment and outcomes
- Identify students who may require further assessment and enrolment into asthma care.

## **3. Activities Conducted**

### **a) Asthma Screening**

- An asthma screening was carried out for over 384 students with respiratory-related symptoms using a self-administered questionnaire.

- Students with potential symptoms of asthma were randomly sampled for lung function testing and further evaluation.

#### **b) Lung Function Testing (Spirometry)**

- Lung function tests were conducted on students whose screening results were highly suggestive of asthma, and whose parents consented to spirometry.
- Students who had abnormal spirometry results were invited to MLI, along with their parents, results were discussed and they were started on treatment and follow-up for asthma.

#### **c) Sensitization and Health Education**

- A sensitization session was conducted to raise awareness about asthma, its triggers, and management.
- Educational materials (pamphlets and posters) were distributed to the students and staff.
- The session covered the importance of identifying symptoms early, avoiding triggers, and managing asthma with inhalers and medication.
- Demonstration on the proper use of inhalers was done.

#### **d) Question and Answer session**

- A question and answer session was allowed for the participants to get clarifications on the information that was shared.

#### **Some of the questions that were asked included:**

- Do I need to use the inhaler daily?
- Can inhalers be used to treat sinuses?
- If I get an attack for the first time but I don't know if I have asthma, what do I do?
- If I have an attack and use an inhaler and fail to work, what do I do?
- Can I share an inhaler with another person?
- What do you use to clean the inhaler when you are to share it with someone else?
- Does the inhaler have a prescription?
- Is there an overdose of inhaler?
- Does Asthma go away?
- Can you get an attack when it's cold?
- Can severe attack of asthma cause fainting?
- Are there different types of inhalers for different stages of asthma?
- Imran Senkumba gets deep breathing and chest pain all the time, what can he do?
- Can you get an infection when you get an asthma attack?
- Can't the inhaler be used many times?
- Does herbal medicine treat asthma?

## **4. Outcomes and Results**

- A total of 384 students were targeted for screening, of these 90 consented out of which 5 were identified with symptoms consistent with asthma.
- Students diagnosed with asthma were enrolled in care.

### **5. Challenges Faced**

- Some students were reluctant to undergo screening and lung function tests due to fear of medical procedures.
- Limited resources and time constraints affected the ability to screen all students in the school.

### **6. Recommendations**

- Regular asthma screening and sensitization programs should be implemented in schools to ensure timely diagnosis and management.
- The school administration should collaborate with local health facilities to provide ongoing support for students with asthma.
- There is a need for more resources, including medical supplies and personnel, to expand such programs.

### **7. Conclusion**

The asthma screening, lung function testing, and sensitization event at Kibuli Secondary School were successful in identifying students at risk of asthma and improving awareness about the condition.

### **Pictorial**

1. Dr Hellen Aanyu during the Q& A session



2. Demonstration on asthma medication equipment use, by Drs Aanyu and Rebecca Nantanda



3. Dr Rebecca Nantanda explains asthma pathology



4. A student performs spirometry



Asthma talk to the students



Compiled by: Dr. Hellen Tukamuhebwa Aanyu

**PALI 2024 Grant Recipient**

Senior Consultant Paediatrician - Pulmonologist & Allergologist

Makerere University Lung Institute (MLI).