

## **1st IPCRG South Asian Scientific Conference**

### **Research Ideas on Respiratory Conditions and Tobacco Dependency Abstracts**

#### **RI-01. Awareness Assessment of Asthma among the secondary School Students of Bangladesh**

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##### **Research Question:**

To Assess the awareness of asthma among the secondary students of Bangladesh

##### **Background:**

Asthma is a disease of airways that can make it hard for a person to breath. It can be control, usually with a combination of medicine and other measures. A wide range of triggers can bring on an asthma episode. Triggers vary from individual to individual. Common asthma triggers include: dust, changes in weather (most often cold weather), mold, pollen, respiratory infection, animal dander, smoking, Chemicals in air or in food, exercise, strong emotions (stress). Complication of asthma can be severe. Some include: Death, decrease ability to exercise and take part in other activities. Asthma education program in school is very effective for asthma control of students.

##### **Possible Methodology:**

Cross sectional type of descriptive study take place at different secondary schools of various places in Bangladesh from 1st January to 10 November 2016.

##### **Questions to Discuss:**

How to aware about signs & symptoms of asthma? When and what initiatives should be taken.

##### **Declaration of Interest:**

None.

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## RI-03. Low-smoke Chulha in Indian Slums: Study Protocol for a Randomised Controlled Trial

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### Research Question:

What is the impact of an improved cookstove on the personal exposure to air pollution and the respiratory health of women and children in Indian slums.

### Background:

Biomass fuel is used as a primary cooking source by more than half of the world's population. In developing countries, biomass fuel is typically burnt in open fires or inefficient cookstoves, often in poorly ventilated cooking areas. Although cleaner fuels are available, some households continue using solid fuels because of financial constraints and absence of infrastructure, especially in non-notified slums.

### Possible Methodology:

The study is a randomised controlled intervention trial in a non-notified slum in Bangalore, India. The intervention group will receive an improved cookstove (low-smoke chulha). Primary cook (woman  $\geq 18$  years) and one child per household (0-5 years) will be included in the study.

Primary outcomes include change in lung function ( $FEV_1/FVC$ ) in the primary cook, and incidence of pneumonia for children  $\leq 5$  years. Secondary outcomes include change in personal  $PM_{2.5}$  and CO exposure, incidence of respiratory symptoms, prevalence of other related symptoms, and change in behaviour and attitudes of user and adoption of the improved cookstove as part of a process evaluation. A total of at least 250 households with at least one child aged 5 years or younger will be selected in this study.

The randomised controlled trial is funded by Technology Foundation STW; van Vollenhovenlaan 661, 3527 JP Utrecht, The Netherlands. The trial was registered with clinicaltrials.gov on 21 June 2016 with the identifier NCT02821650.

### Questions to Discuss:

How can we minimise loss to follow up in a slum setting?

Any suggestions on overcoming challenges related to spirometry in the field?

### Declaration of Interest:

The authors declare that they have no competing interests.

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## **RI-04. Study on Knowledge of Asthma & Assessment of Airway by Peak Flow Meter in the Rural Community**

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### **Research Question:**

What about the awareness of Asthma and airway condition of rural community in Bangladesh?

### **Background:**

Asthma is a disease of airways that can make it hard for a person to breath. It can be control, usually with a combination of medicine and other measures. A wide range of triggers can bring on an asthma episode. Triggers vary from individual to individual. Common asthma triggers include: dust, changes in weather (most often cold weather), mold, pollen, respiratory infection, animal dander, smoking, Chemicals in air or in food, exercise, strong emotions (stress). Complication of asthma can be severe. Some include: Death, decrease ability to exercise and take part in other activities, lack of sleep due to night time symptoms, permanent changes in lung function, persistent cough, and trouble breathing etc.

### **Possible Methodology:**

A cross sectional type of descriptive study carried out by the 4th year students of Rangpur Medical College. Data were collected from 950 respondents through face to face interview with a pretested structured questionnaire from some selected village of Palashbari Upazilla of Gaibandha district and the air way condition assessed by Wright Peak Flow meter.

### **Questions to Discuss:**

How to increase awareness about asthma by changing attitude of grass root level health workers by strengthening their capacity & update knowledge of asthma control?

### **Declaration of Interest:**

Nothing

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## **RI-05. Trends in Respiratory Diseases in Sri Lanka: A Review**

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### **Research Question:**

The annual health statistics of Sri Lanka indicate that respiratory diseases are becoming increasingly common among the Sri Lankan population. Respiratory diseases have become the fourth leading cause of hospital deaths and the third leading cause of hospitalization. Thus, it is important to look into the underlying causes of this upward trend. Therefore, a systematic review was carried out to identify the trends in morbidity and mortality patterns of respiratory diseases in Sri Lanka, to compare these patterns among male and female groups and different age groups and to identify the factors influencing these trends.

### **Background:**

The data on morbidity (cases per 100,000 population) & mortality (cases per 100,000 population) of respiratory diseases, tuberculosis, pneumonia, other diseases of upper respiratory tract (DURT) and diseases of respiratory system (DRS) were extracted from Annual Health Bulletins published by the Medical Statistics Unit, Ministry of Health, Sri Lanka from 2009-2015 and were systematically analyzed. The analysis showed that there is an increase of morbidity of 118.6 cases per 100,000 population (4%) and an increase in mortality of 13.4 cases per 100,000 population (38%) from respiratory diseases from 2009-2015. During this period, an increase is shown in total cases of tuberculosis by 713 (8%) & deaths by 27 (8%), total cases of pneumonia by 3738 (14%) & deaths by 1438 (44%) and total cases of DRS by 46293 (10%) & deaths by 1484 (37%). Over 50% of the affected patients are males in all disease categories throughout the years. Males are more affected with tuberculosis compared to females with an approximate ratio of 7:3. Age is not a risk factor except for tuberculosis which is mainly seen among young and middle aged (17-49 years and 50-69 years).

### **Questions to Discuss:**

In conclusion, there is an emerging need to investigate the potential causes for increasing trends in mortality due to respiratory diseases. Male predilection for respiratory diseases needs more concern as Sri Lanka is reported to have lower tobacco use than other Asian countries. Effects of indoor and outdoor air pollution and occupational exposures to air pollutants need appropriate attention and investigation.

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