

## **How to Enhance the Asthma Patient Education System in Bangladesh**

### **Brief outline of context**

Clinical studies show inadequate inhaler technique is one of the major leading causes of Asthma treatment failure. The traditional method of patient education on inhalers does not give proper time and opportunity for patients to learn & practice the correct technique at their own pace. High rates of incorrect technique show the need of more effective educational tools.

### **Brief outline of what change you planned to make**

Introducing a new platform for Asthma patients to use their daily utility tool like smart phones to learn the correct inhaler technique in their regional language & practice real time using device camera to get visual feedback on their technique & share the results with their physicians for further review.

### **Assessment of existing situation and analysis of its cause**

Commonly used tools for education on inhaler technique include verbal/written instructions or a demonstration by healthcare workers. Online tools & videos have proliferated, but are mostly passive & lack important attributes such as ease of use, accessibility, & comprehensiveness. There is a need for more efficient tool that can reduce time demands of busy practitioners.

### **Strategy for change: who, how, following what timetable**

Our team brainstormed the education process to create interactive components like "How to inhale", this tool addresses errors that result from failure to take deep breaths or identify the points of full inhalation, full exhalation & the correct time to press the inhaler. "Interactive Inhaler Quiz" – points out common errors while inhaling & tips to avoid them.

### **Measurement of improvement**

A new enhanced approach to inhaler training & asthma education is likely to be a more effective alternative to the conventional methods.

### **Effects of changes**

Less Misuse of inhalers, effective drug intake into the lungs, improved patient satisfaction & better treatment plan and outcome.

### **Lessons learnt**

Patients need time & constant practice to perfect their technique. Using Smartphone apps for persistent training can give better treatment results.

### **Message for others**

Use of smart phones has the potential to get patient education system to the next level where people can independently train themselves with better retention.