

# OneCity Health Innovation Fund Awardee

## Developing an Asthma Smartphone Application Targeting Children and Families with Low Health Literacy: The “AsthMe Ask Me!” Program

**LEAD ORGANIZATION:** NYC Health + Hospitals/  
Kings County



Kings County

**JOINT APPLICANTS:** University Hospital of Brooklyn;  
CABS Home Health Attendants Services, Inc.

**NEIGHBORHOODS PROJECT INTENDS TO SERVE:**

Central Brooklyn (East Flatbush, Flatbush, Crown Heights, Bedford-Stuyvesant, Canarsie, East New York, Brownsville)

**BUDGET:** \$279,500

### OVERVIEW

Low parental health literacy is associated with unfavorable pediatric asthma outcomes. A recent systematic review on literacy and child health reported that most written health information is at a third to fifth grade reading standard. Pictorial aids have been shown to increase patient attention, comprehension, recall, and treatment adherence. Phone apps can be a powerful tool for asthma home management by incorporating pictures and algorithms with simple navigation.

We will develop an asthma smartphone application targeted to patients and caregivers with low health literacy to increase understanding of pediatric asthma and its management. Our target population will be children with asthma (ages 5-18) and their caregivers with emphasis on families enrolled in the DSRIP Asthma Home Management program. The application called “AsthMe” will consist of a variety of images or videos, including:

- Asthma education simplified with pictures
- Pictorial pick-list of all available asthma medications which can be selected, stored, and easily accessed and edited
- Pictorial symptom diary (including Emergency Room/hospitalization checkboxes)

- Pictorial pick list of asthma triggers
- Peak flow tracker
- An asthma action plan simplified with the “faces pain scale”
- Pictures of the medications to be used based upon symptoms
- Spacer use video

### DSRIP METRICS THIS PROJECT WILL ADDRESS

The DSRIP Asthma Home-Based Self-Management Program aims to reduce avoidable ED use and hospitalization related to pediatric asthma through providing home-based interventions; however, addressing low health literacy as a barrier to self-management is currently not a specific target of this program. Our project seeks to improve symptom control for children with persistent asthma, with the goal of better quality of life including less missed school days, decreased ER usage and reduced hospitalization for acute asthma. With the assistance of community health workers (CHW’s), families will use the AsthMe application to complement the in-home interventions provided by the CHW’s.

