



Health Care Mitigation Grants Program Final Report

Grant Recipient:	American Breathmobile Association California Regional (formerly Asthma & Allergy Foundation of America CA Chapter)
Contract Number:	HD-7821
Award Amount:	\$580,000.00
Date Submitted:	10/30/2013

Total POLB Expenditures:	580,000 (includes final payment pending)
Total Number Beneficiaries Served:	Approximately 3000
Please describe how you determined the number of beneficiaries served.	
<p>Patients documented in AsthmaTrax during the grant period number approximately 600. Additional patients seen by the Breathmobile team during school visits include siblings and parents of the school attendee, while some patients seen regularly (those at Harte Elementary, for example) are not tracked in AsthmaTrax due to the lack of connectivity to the AsthmaTrax server from that location, and so are estimated based on average number of follow up patients from the other schools. In addition, the team participated in at least one – two health fairs or community events per quarter, and at each screened or visited with more than 75 asthma sufferers. Finally the Breathmobile team also participated in educational meetings and consulted with families of the patients to educate them on managing their child’s asthma in the home environment, and provided educational information to the general population along the 710 corridor and through the Long Beach schools.</p> <p>While the impact of the Breathmobile has certainly reached a vast number of residents and schoolchildren with the Port of Long Beach’s mitigation area, the hands-on effect of services provided by the Breathmobile served far more than the 3000 beneficiaries conservatively named above.</p>	

Provide a narrative description of the project.	
<p>The Long Beach Breathmobile, run by the Division of Pediatric Allergy and Immunology at UCLA, currently operates under a grant generously provided by the Port of Long Beach. The unit serves children attending schools along the 710 corridor. The field team of asthma care specialists includes a board certified allergist, a registered nurse and patient registration worker. Services provided <i>free</i> of charge to all patients include allergy & asthma diagnosis, spirometry, physical examinations, pharmacological therapy, skin testing and asthma Education.</p> <p>Mattel Children's Hospital UCLA ranks among the world's elite institutions for pediatric research, teaching and care. Serving more than 6,000 inpatients and 100,000 outpatients annually. Mattel Children's Hospital UCLA offers a full spectrum of primary and specialized medical care for infants, children and adolescents and is a vital part of the UCLA Medical Center which continues to be ranked as "Best in the West" by <i>U.S. News & World Report's</i>. The Division of Pediatric Allergy and Immunology at the Mattel Children's Hospital UCLA has operated the Long Beach Breathmobile since September 23, 2009. All members of the Division are Board Certified Asthma and Allergy specialists, an important factor since specialist care has been well documented to provide improved health outcomes and decrease morbidity in children with asthma. Since starting operation, this unit evaluated close to 1000 children with asthma across almost 2000 visits. At follow-up 95% of those children reported no ED visits or hospitalization. More importantly, optimizing asthma care in this highly vulnerable population has resulted in an 80% reduction in school absenteeism due for asthma related causes (please</p>	

refer to supporting material for actual data).

The American Breathmobile Association California Regional, formerly the Asthma & Allergy Foundation of America California Chapter, was founded in 1976. This 501(c)3 nonprofit serves as the premier organization for those suffering from asthma and allergy related conditions. ABMA-CR started the Breathmobile program nearly **15 years ago** at LAC+USC Medical Center and has successfully grown the program to 14 units nationwide. In 2002, the Breathmobile Program became the first program in the United States to receive the award of disease-specific care certification by the Joint Commission on Accreditation of Healthcare Organizations (JCAHO). Collectively, the 14 Breathmobile units have logged more than 120,000 patient visits and visit nearly 500 elementary, middle and high schools throughout the country, as well as several comprehensive health clinics.

The UCLA Long Beach Breathmobile provides care to 26 schools and 6 Head Start Programs, as well as a number of community health fairs and children and family athletic days and events. While each appointment set is centered on a child identified through the school system, services are also provided to siblings and parents - especially pregnant mothers who suffer from asthma or allergies themselves.

The operational goals of the Breathmobile program in the Long Beach environment include:

1. identifying children and pregnant women at risk of asthma or with undiagnosed asthma.
2. improving the health status of participating children and women with asthma.
3. providing regular, ongoing and evidence based care to patients with asthma.
4. providing asthma education to patients and families including measures of indoor and outdoor environmental control to reduce asthma triggers as well as detailed instruction in the utilization and maintenance of devices and medications.
5. providing an opportunity for sustainable population based care that has successfully been credentialed as part of a disease management program.
6. using Asma-Trax to monitor and track asthma severity and that supports the application of disease management .

One of the efficiencies of the Breathmobile is that the same 3 member expert healthcare team (Board Certified Allergist, Registered Nurse, Driver/Patient Registration Worker) provides ongoing preventive care at school sites. The Long Beach Breathmobile has delivered care to 25 schools and 1 shelter site as well as 6 Head Start programs, returning to each site every 6-8 weeks to ensure continuity of care. Patients are able to contact the team during office hours if needed but are referred to their primary physician for long term care. Those with no health insurance are provided assistance for applying to low cost health programs.

The Breathmobile team identifies patients at each school and/or clinic site and schedules these patients for appointments at the sites. Several methods are used to identify the patients including:

- School nurses who refer families with children known to have respiratory problems.
- Clinic physicians referring patients known to have respiratory problems.
- Flyers sent home with children at school sites informing parents about the program and giving them the opportunity to have their children evaluated.
- New patients identified at health fairs and Long Beach community health events.

Once patients are identified and scheduled, the Breathmobile teams use reminder calls 1-2 days before the scheduled appointment. During the last 15 years, the Breathmobile teams have consistently been able to engage families in preventative care and to achieve show rates that average between 70-75%.

The Breathmobile Process:

Step 1: The patient registration worker registers the patients and assists them by checking on healthcare resources (Healthy Families, Medi-Cal, etc.) that patients may be eligible for but not aware of, and helping patients initiate their enrollment process.

Step 2: The patients move to the staff assessment conducted by the RN that includes vital signs, height, weight, spirometry, and evaluation of environmental risk factors and knowledge of their treatment plan (return patients). Intake data will be entered into Asma-Trax system at this time.

Step 3: After this intake assessment patients see the physician specialist who conducts a detailed assessment and development of a management plan. All patients are given written summaries of their visits to bring back to their primary care physicians and school nurses.

Step 4: Patients then return to the staff (RN) who provides medications if necessary as well as *educating* the families about their disease. Follow-up visits are generally scheduled 6-8 weeks later.

The essential clinical data along with benchmark outcome measures are recorded in the electronic medical record (AsmaTrax). AsmaTrax automatically produces the patient's individualized daily management plan, the clinic visit medical record, prescriptions, and a summary letter for the family to take to the primary care provider. The report includes pertinent clinical findings, diagnosis, treatment plans, and contact information so that the providers can call the healthcare team if needed. Demographic information, attendance records, clinical data, treatment plans, and essential outcome measures are recorded in real time as patients move through the healthcare encounter. The Asma-Trax data system tracks the following statistical outcomes: number of patients; return rates; hospitalization reductions; Emergency Department reductions; school absenteeism reductions; asthma control; asthma severity; morbidity and mortality. These outcome measures will be analyzed by ABMA's Breathmobile biostatistician, who provides both the Long Beach Breathmobile and ABMA statistical reports, thus allowing the unit a blueprint of programs success and/or areas for further study.

Provide a narrative discussion of the actual project results (outputs and outcomes) based on the metrics defined in your workplan. Please describe the methodology used for any quantitative results. Outcomes and outputs may include, but are not limited to:

- Number of filters installed;
- Number of people served;
- Number of educational sessions held;
- Decrease in missed school/work days;
- Decrease in hospitalizations;
- Improvements in quality of life;
- Other

Use additional sheets if necessary.

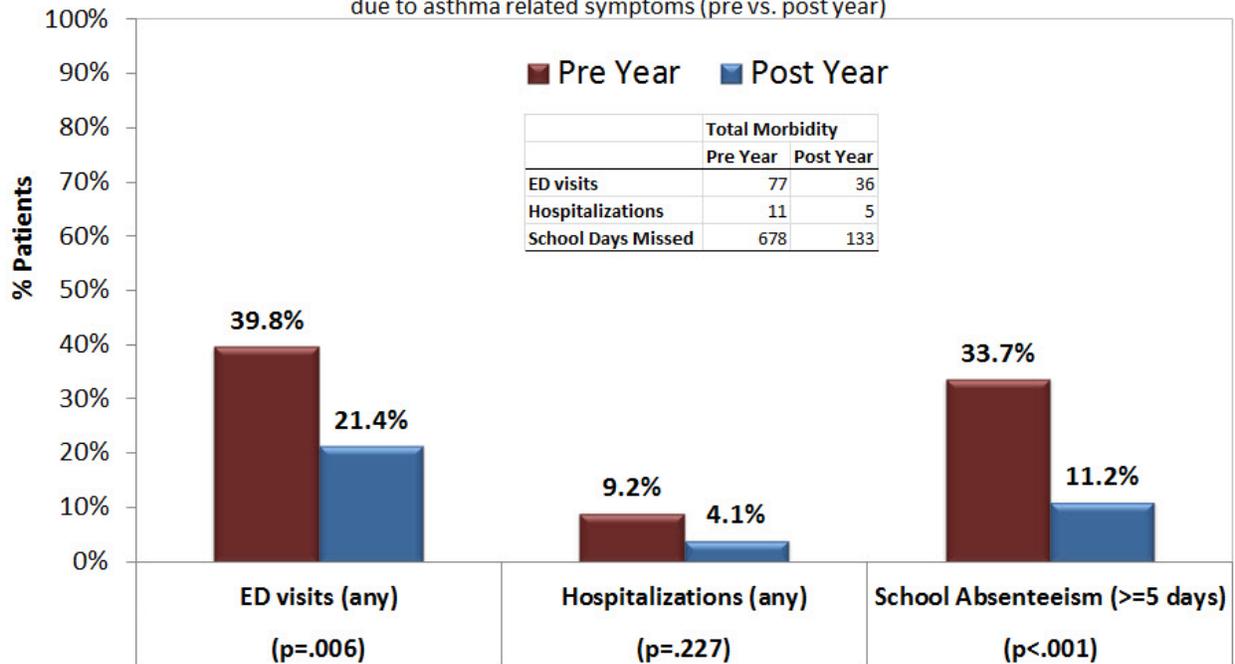
Throughout the two-year grant period, the UCLA Long Beach Breathmobile provided documented care to more than 565 (approximately 600) pediatric patients across 1502 visits during the time period from October 1, 2011-September 30, 2013. In addition, more than 1500 additional visits with multiple patients from health fairs, community events and with the siblings and families of documented patients were realized. Of the patients receiving regular follow up and documented in the Asthma-Trax system, patients were predominately Hispanic (48%) or African-American (35%) and 57% were male. A total of 454 (75.6%) diagnosed with asthma had the following baseline severity: 34% intermittent, 32% mild, 24% moderate and 9% severe.

In pediatric asthma patients who returned for follow-up care, approximately 65% were well controlled at their last visit, 22% not well controlled, and only 12% very poorly controlled. In 94% of follow-up visits the patient reported no ED visits/ hospitalizations during interval preceding the visit. Of the patients documented through the AsthmaTrax system, 93.9% required no steroid bursts since the last visit or at the current visit, 96.1% missed less than 5 days of school due to asthma related issues, 93.6% had no Emergency room visits and 84.4% showed decreases in their limitations during exercise. Asthma was diagnosed as well controlled during all follow-up visits in 61.1% of documented cases, and only 12.9% were diagnosed as poorly controlled.

Morbidity Reductions Post Year

Evaluated in 98 patients treated during period Oct 1, 2011 - Sept 30, 2011 who had been in program one year or longer by end of reporting period*.

(% patients reporting ED visits, Hospitalizations, and School missed (>=5 days) due to asthma related symptoms (pre vs. post year))



*Patient's baseline visit may have occurred prior to October 1, 2011 (i.e. N=98 includes new and return patients treated during two year period). Lifetime morbidity for ED visits and hospitalizations at baseline normalized to past year based on duration of disease (past year for newly diagnosed patients)

The unit was operational 163 days during the period, exclusive of days during which the Breathmobile was present at health fairs, community events and other ABMA program days.

Issues with the availability of connectivity for the AsthmaTrax system during on-site visits resulted in some visits being omitted from the AsthmaTrax reporting. During the first half of 2014 the connectivity issue will be resolved by adding a local server to the Breathmobile system, allowing AsthmaTrax to be updated once the unit is within a service area.

While the results offered through the analysis of data from the AsthmaTrax system are impressive and the program remains a highly successful one, resolving the difficulties with the on site data collection will increase the information available to the biostatistician and results will be more comprehensive. In addition, implementing the secondary step of collecting at least preliminary data on the visits held during community events and health fairs will further augment the results of the program. Please see the attached sheet for a breakdown of school visits by date and school.