



**ASTHMA GREEN LIGHT,
COMMUNITY-BASED EDUCATION
PROGRAM IN WASHINGTON, DC**

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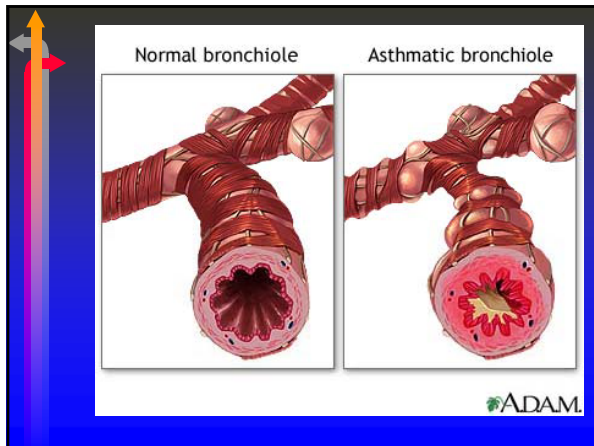
Background

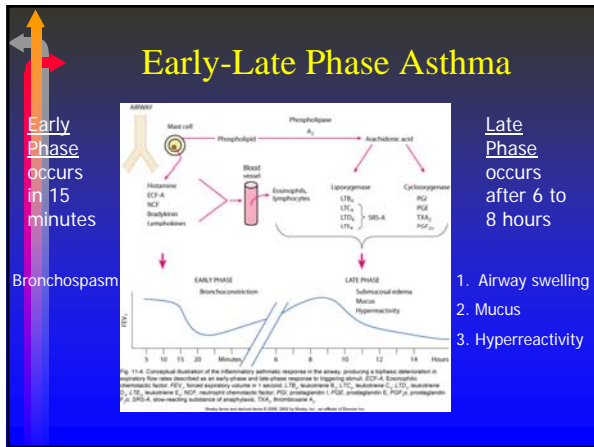
- Asthma affects 22 million Americans
- 6.5 million children under 18
- 11.8% in DC, close to 12,000 children
- 1 in 10 children in DC are absent from school and or daycare because of Asthma
- Leading cause of emergency room visits
- Leading cause of hospitalizations for the 0 to 4 year old
- Annually about 5000 people die from Asthma



Classic Asthma Characteristics

- Bronchospasm – tightening of the muscles of your airways
- Edema – swelling of your airways
- Excessive mucus production
- Hypersensitivity of your airways





- ### What are the Symptoms of Asthma?
- Coughing, Wheezing, Chest tightness
 - Difficulty breathing (especially at night or early morning)
 - When symptoms are worse than usual, this is an “asthma attack”.
 - In a severe asthma attack, the airways can close so much that a person can die from lack of oxygen.


What Causes Asthma?

- Researchers do not know the cause, although they know it is commonly seen in families.
- Exposure to tobacco smoke, infections and some allergens early in life increase the chances of developing asthma.
- Asthma attacks are frequently triggered by
 - Allergens
 - Irritants
 - Other causes


Allergen Exposure Can Trigger Asthma Attacks

- Dust mites
- Cockroaches
- Mold (indoor and outdoor)
- Animal dander (from skin, hair or feathers of animals)
- Pollen from trees and grass

Allergen Triggers




The image shows four types of allergen triggers: pollen grains (top left), dust mites (top right), grass stems (bottom left), and a cat (bottom right). The ADAM logo is visible in the bottom right corner of the illustration area.




Irritant Exposure Can Trigger Asthma Attacks

- Cigarette smoke
- Air pollution
- Cold air or changes in weather
- Strong odors (perfume, cooking, paint, onions, room sprays, deodorants)
- Nitrogen Dioxide from gas appliances, space heaters, wood stoves, fireplaces
- Strong emotional expression (crying, laughing, stress)




Other Triggers of Asthma Attacks

- Infections
- Medicine allergies, such as aspirin
- Sulfites in food (dried fruit, wine)
- Gastroesophageal Reflux Disease (GERD) – especially when lying down at night.




Mild Intermittent Asthma

- Daytime symptoms two or fewer days a week
- Nighttime symptoms two or fewer nights a month
- Only rescue medications for bronchospasm are needed
 - Short acting Beta-2 drugs - Albuterol




Persistent Asthma

- Mild, moderate or severe depending on frequency of day and night symptoms
- Rescue medications are indicated for attacks
- Controller medications are recommended to minimize the inflammatory response of airway swelling, mucus and hyperreactivity
 - Inhaled corticosteroids
 - Leukotriene modifiers
- ***Controllers are taken every day, not for symptoms**
- Long acting Beta-2 drugs may also be indicated




ASTHMA GREEN LIGHT PROJECT

- Grant funded by Research Infrastructure in Minority Institute
- In collaboration with:
 - University of the District of Columbia
 - Respiratory Therapy Program
 - Community Respiratory Therapist
 - IRB Approved through UDC IRB Board




PERCEPTION

- Consistent with the National Asthma guidelines; many families have differing perceptions of Asthma which only partially explains the lack of asthma control.




Purpose

- Asthma Green Light was a community-based intervention research project designed to increase family awareness of asthma risk factors in asthmatic children in the Washington, DC area.




Goal

- Goal 1: Identify 60 families for this intervention
- Goal 2: To teach families about asthma triggers and how to manage those triggers.
- Goal 3: To teach the families how to use their asthma action plan.




Research Question

- RQI:
Will an asthma educational session increase the families' use of Asthma Action Plans?




Research Question

- RQ2:
Will an asthma educational session improve the families' awareness of asthma risk factors?



Research Question

- RQ3:
Will an asthma education session improve the families' ability to self manage their child's asthma?



Study Design

- Pre-test post-test repeated measure design to collect data
- A baseline survey done at the first training and repeated at three (3) months
- Target population: Families that utilized United Planning Organization daycare centers

Study Design


- Educational sessions were conducted during required parent meetings
- Sessions lasted 60-90 minutes
- Sessions were conducted at the daycare center
- 54 families participated in the project.

Results

- Baseline survey data suggest 100% of the participants had some knowledge of asthma risk factors.
- 89% of participants at 90 day follow-up reported using some type of environmental steps to control asthma symptoms


Results

Adults surveyed	Pre/54	Post/28
Avg. Age of respondents	35	24
Gender Male	4	4
Gender Female	48	24
Avg. # symptom free days	2.16	4.57
# of visits to a medical provider	25	2
# of written asthma action plan	18	23
Main asthma trigger	Cold	Cold
Wash bedding	39	25
Use Mattress/pillow encasement	25	28




Program Outcomes

- Provided asthma education to 54 families and collected baseline survey data on 54 caregivers with asthmatic children.
 - 28 families available at the 3 month follow-up
- Conducted the Asthma education at 15 UPO Child care development centers.
- Provided 54 families with an asthma action kit.




Research Barriers

- Slight delay in the IRB approval process
- Delay in the payment process for consultants who worked with me on the project.
- A number of day care centers were required to close by a certain hour, which limited the time necessary to teach, and complete all the forms.




Research Barriers

- Many of the day care directors were able to target Asthmatic parents, but some conducted the meeting at the general parent meeting, which meant there were parents whose children were not asthmatic.
- Needed to provide packets of information to non-asthmatic parents




Lessons Learned

- Early start in the IRB process
- Early start in the ordering of supplies
- Designed and ordered the tote bags with the RIMI logo-this help market the program
- Maintaining a good relationship with the UPO Chief Health Officer
- Hiring of student researchers (best decision ever).
 - Two from Respiratory and one from Mathematics



Policy Implications

- Asthma is a chronic condition that can be managed; however, there is a need for a multi-focused approach.
- Educating childcare providers
 - This may be one of the best ways to educate parents as many children spend much time in child development centers



Policy Implications

- Educating school personnel
- Educating parents
 - Home visits is another way to educate parents about the environmental effects of asthma. It also can be a way to help the families identify environmental triggers in their homes.



Policy Implications

- Implementing a healthcare policy that promotes preventive care
- Provide funding for more primary care practitioners
- Provide funding for community based asthma programs, i.e. in schools, daycare, clinics



THANK YOU!

ANY QUESTIONS
