Model NHLBI funded NACI programs addressing disparities

Mamta Reddy, MD
Bronx-Lebanon Hospital Center
Department of Pediatrics
Chief, Allergy/Immunology
South Bronx Asthma Partnership

S.O.B.R.A.P.

Helping the South Bronx breathe easy.
The South Bronx Community

- Homelessness
- Poor housing
- Poor access to health care
- Low educational levels
- Discrimination
- Immigration-related issues
- Poor nutrition
- Low literacy
- Poor health outcomes

- 57% Hispanic, 37% Black
- 32% born outside of the U.S.
- 56% non-English at home
- 68% high school diploma
In partnership with

NATIONAL ASTHMA CONTROL INITIATIVE

Keeping Airways Open
NAEPP releases Expert Panel Report-3 guidelines

NAEPP Guidelines Implementation Panel prioritizes six messages

NACI Plan of Action provides framework for implementation

NACI Action Guide engages diverse stakeholders
1. Use inhaled corticosteroids
2. Use asthma action plans
3. Assess asthma severity
4. Assess and monitor asthma control
5. Schedule follow-up visits
6. Control environmental exposures
NACI Mission

- Institutionalize GIP Priority Messages/EPR-3 Recommendations
- Build capacity through health professionals engaged in asthma improvement work
- Evaluate impact
- Use technology to bring state-of-the-art practice into medically underserved communities
- Integrate practice and decision support tools into routine practice
Asthma
Passport

South Shore Asthma Partnership
Sobrap
Demonstration Projects
The Asthma Passport

A palm-sized, wire-bound guide that includes 10 key educational messages:
1. Set asthma self-management goals
2. Learn asthma basics
3. Identify my asthma symptoms
4. Understand my asthma medicines
5. Follow my Asthma Action Plan
6. Use my inhaler properly
7. Keep a symptom diary
8. Identify my asthma triggers
9. Schedule a follow-up every 2-6 weeks
10. Ask my doctor specific questions
Clinical Asthma Champions Leadership Training Program
Clinical Champion Projects
Model NHLBI funded NACI programs addressing disparities

Redesigning the Practice Delivery System

Asthma Passport

Clinical Asthma Champions Leadership Training Program
Clinical Asthma Champions Leadership Training Program
Clinical Asthma Champions Leadership Training

CALL FOR NOMINATIONS

South Bronx Asthma Partnership
SOBRAP
Helping the South Bronx breathe easy.

In partnership with
NATIONAL ASTHMA CONTROL INITIATIVE
Keeping Airways Open

A free professional development opportunity for young physician leaders
Become a champion for quality asthma care

Application deadline: 5 p.m. Eastern Time on Tuesday, August 2, 2011
# Clinical Asthma Champions Leadership Training

## Congratulations!

### Workshop Dates and Participants

#### Champions Group #1: Friday, September 9th and Saturday, September 10th

<table>
<thead>
<tr>
<th>Champion</th>
<th>Institution</th>
<th>City</th>
</tr>
</thead>
<tbody>
<tr>
<td>Traci A. Dewe, MD</td>
<td>Stony Brook Children's Hospital</td>
<td>East Setauket, NY</td>
</tr>
<tr>
<td>Aril Gogineni, MBBS</td>
<td>Bronx-Lebanon Hospital Center</td>
<td>Bronx, NY</td>
</tr>
<tr>
<td>Jason Hughes, DDS</td>
<td>Koolauana Community Health and Wellness Center</td>
<td>Kailua, HI</td>
</tr>
<tr>
<td>Edward Neevelek, MD</td>
<td>Michigan State University</td>
<td>East Lansing, MI</td>
</tr>
<tr>
<td>Megan Pierce, MD</td>
<td>Children's Hospital at Erlanger</td>
<td>Chattanooga, TN</td>
</tr>
<tr>
<td>Anale Slenger, MD</td>
<td>Bronx-Lebanon Hospital Center</td>
<td>Bronx, NY</td>
</tr>
</tbody>
</table>

#### Champions Group #2: Friday, September 16th and Saturday, September 17th

<table>
<thead>
<tr>
<th>Champion</th>
<th>Institution</th>
<th>City</th>
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</thead>
<tbody>
<tr>
<td>Sheila Alexander, MD</td>
<td>Morris Heights Health Center</td>
<td>Bronx, NY</td>
</tr>
<tr>
<td>Elliott S. Atisha, DO</td>
<td>Henry Ford Health System, School-Based &amp; Community Health Program</td>
<td>Detroit, MI</td>
</tr>
<tr>
<td>Kenneth Eschneider, MBBS</td>
<td>Bronx-Lebanon Hospital Center</td>
<td>Bronx, NY</td>
</tr>
<tr>
<td>Takeshi Inaba, MBBS</td>
<td>UAMS Ahec, Fort Smith</td>
<td>Fort Smith, AR</td>
</tr>
<tr>
<td>Arni Espoir, MBBS</td>
<td>Bronx-Lebanon Hospital Center</td>
<td>Bronx, NY</td>
</tr>
<tr>
<td>Sheila Khri, MD</td>
<td>Morris Heights Health Center</td>
<td>Bronx, NY</td>
</tr>
<tr>
<td>Nader J. Nakheh, DO</td>
<td>Jersey Shore University Medical Center</td>
<td>Neptune, NJ</td>
</tr>
<tr>
<td>Jamie M. Pinto, MD</td>
<td>K. Rovnanian Children's Hospital</td>
<td>Neptune, NJ</td>
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</table>

#### Champions Group #3: Friday, October 14th and Saturday, October 15th

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<thead>
<tr>
<th>Champion</th>
<th>Institution</th>
<th>City</th>
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</thead>
<tbody>
<tr>
<td>Shirish Balachandra, MD</td>
<td>Urban Health Plan</td>
<td>Bronx, NY</td>
</tr>
<tr>
<td>Kelly Clark, MD</td>
<td>Munson Medical Center</td>
<td>Traverse City, MI</td>
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<tr>
<td>Matthew Grisham, MD</td>
<td>Greenville Hospital System University Medical Group</td>
<td>Greenville, SC</td>
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<tr>
<td>Loom Masuo, MD</td>
<td>West Hawai Island Health Center</td>
<td>Kailua-Kona, HI</td>
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<tr>
<td>Sharyn Middelko, MD</td>
<td>Montefiore Medical Center</td>
<td>Bronx, NY</td>
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<tr>
<td>Pamela Ponce, MD</td>
<td>Orlando Health</td>
<td>Orlando, FL</td>
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#### Champions Group #4: Friday, October 21st and Saturday, October 22nd

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<tr>
<td>Janice Schnoebel, MD</td>
<td>Children's Hospital at Maimonides Medical Center</td>
<td>Long Branch, NY</td>
</tr>
<tr>
<td>Kristin Miller, MD</td>
<td>Sinai Hospital at Baltimore</td>
<td>Baltimore, MD</td>
</tr>
<tr>
<td>Vijay Narayanan, MBBS</td>
<td>Hurley Medical Center</td>
<td>Flint, MI</td>
</tr>
<tr>
<td>Jennifer Reynolds, MD</td>
<td>McLaren Family Medicine Residency Program</td>
<td>Flint, MI</td>
</tr>
<tr>
<td>Lakshmi Upadhyaya, MBBS</td>
<td>UMDNJ/ Robert Wood Johnson Medical School</td>
<td>New Brunswick, NJ</td>
</tr>
<tr>
<td>Christine Vena, MD</td>
<td>Center for Advanced Pediatrics</td>
<td>Norwalk, CT</td>
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</table>

#### Champions Group #5: Wednesday, November 16th and Thursday, November 17th

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<tr>
<td>Annette Cameron, MD</td>
<td>Hospital of Saint Raphael</td>
<td>New Haven, CT</td>
</tr>
<tr>
<td>Rhonique Harris, MD</td>
<td>Children's National Medical Center</td>
<td>Washington, D.C.</td>
</tr>
<tr>
<td>Ann Sashian, MD</td>
<td>Hospital of Saint Raphael</td>
<td>New Haven, CT</td>
</tr>
<tr>
<td>Justin Sanders, MD</td>
<td>Mount Sinai Medical Center/Family Health Center</td>
<td>Bronx, NY</td>
</tr>
<tr>
<td>Tessa Rhiner, DO</td>
<td>Walnute General Comprehensive Health Center</td>
<td>Walnute, HI</td>
</tr>
<tr>
<td>Karen Thompson, MD</td>
<td>Spectrum Health Medical Group</td>
<td>Grand Rapids, MI</td>
</tr>
</tbody>
</table>
Redesigning the Practice Delivery System

- Clinical Strategies
- Communication Strategies
- Systems-Improvement Strategies
Redesigning the Practice Delivery System

- Clinical Strategies
- Communication Strategies
- Systems-Improvement Strategies
Workshop Overview

- Part 1: Friday Morning
  - Stepwise approach for long-term asthma management
The Stepwise Approach for Long-Term Asthma Management

Problem-Based Learning Activity
EPR-3 Tables
SEVERITY

CONTROL

TREATMENT

Age 0-4

Age 5-11

Age 12+

Components of Severity

Classification of Asthma Severity (0-4 years of age)

SEVERITY

Components of Control

Classification of Asthma Control (0-4 years of age)

CONTROL

Recommended Action for Treatment

Components of Treatment

TREATMENT
Asthma Emergency Department Visit Rate per 10,000 Residents by Age Group, New York State, 2005

New York State Asthma Surveillance Summary Report, p 65; October 2007
Clinical Guideline for the Diagnosis, Evaluation and Management of Adults and Children with Asthma

Color Key
- Four Components of Asthma Care
- Classifying Asthma Severity, Assessing Asthma Control and the Stepwise Approach for Managing Asthma in Children Aged 0–4 years
- Classifying Asthma Severity, Assessing Asthma Control and the Stepwise Approach for Managing Asthma in Children Aged 5–11 years
- Classifying Asthma Severity, Assessing Asthma Control and the Stepwise Approach for Managing Asthma in Children ≥12 Years of Age & Adults
- Long-Term Control Medications: Estimated Comparative Daily Dosages
- Long-Term Control Medications: Usual Dosages
- Quick Relief Medications

Guidelines are intended to be flexible. They serve as recommendations, not rigid criteria. Guidelines should be followed in most cases, but depending on the patient, and the circumstances, guidelines may need to be tailored to fit individual needs.
New York State Asthma Provider Toolkit

NYS Consensus Asthma Guideline Expert Panel

SOBRAP's Case-based DVD-Tutorial
Hosted on IPRO's “Joint Effort NY” Website
http://jeny.ipro.org/files/Asthma

AAFP/IPRO-sponsored CME
Managing Asthma in the Primary Care Practice
Pre-Test

1. In the past six months, a 10-month old male has required systemic steroids twice for isolated episodes of wheezing. In between these episodes his mother reports nighttime cough only about once per week. The BEST treatment choice for this patient would be:

   A. A leukotriene receptor antagonist (based on “Step 2” care)
   B. A low-dose inhaled corticosteroid (based on “Step 2” care)
   C. A medium-dose inhaled corticosteroid (based on “Step 3” care)
   D. At this time, I would not treat with asthma medications

2. A 6-year old female with mild persistent asthma was started on “Step 2 Care” about six weeks ago. Today, her mother now reports that her SABA use frequency has improved to less than twice per week and her nocturnal symptoms have improved to about three times per week. The next BEST step would be to:

   A. Maintain her at “Step 2” care
   B. Step down to “Step 1” care
   C. Step up to “Step 3” or “Step 4” care
   D. Recommend more frequent SABA use before bedtime

3. A 15-year old girl who has been taking a medium-dose inhaled corticosteroid and a leukotriene modifier for about one year presents to your clinic today for follow-up. She denies any report of daytime or nighttime asthma symptoms for the past four months. This patient’s asthma severity classification today is:

   A. Intermittent Asthma (Step 1)
   B. Mild Persistent Asthma (Step 2)
   C. Moderate Persistent Asthma (Step 3 or 4)
   D. Severe Persistent Asthma (Step 5 or 6)
Asthma Champions - Managing Asthma in the Primary Care Practice - Test

Results

<table>
<thead>
<tr>
<th></th>
<th>Pre-Test</th>
<th>Post-Test</th>
<th>6-Month</th>
</tr>
</thead>
<tbody>
<tr>
<td>Severity</td>
<td>33.33%</td>
<td>75%</td>
<td>91.67%</td>
</tr>
<tr>
<td>Control</td>
<td>91.67%</td>
<td>100%</td>
<td>95.83%</td>
</tr>
<tr>
<td>ICS</td>
<td>91.67%</td>
<td>91.67%</td>
<td>91.67%</td>
</tr>
</tbody>
</table>

- Severity: Pre-Test: 33.33%, Post-Test: 75%, 6-Month: 91.67%
- Control: Pre-Test: 91.67%, Post-Test: 100%, 6-Month: 95.83%
- ICS: Pre-Test: 91.67%, Post-Test: 91.67%, 6-Month: 91.67%
Asthma Champions - Classifying Asthma Severity
Treatment based on NAEPP Criteria

Treatment corresponding to:
- "Step 2" Care
- "Step 3" Care [Correct Answer]

<table>
<thead>
<tr>
<th>Time Period</th>
<th>Total Percentage of Champions per Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>Baseline</td>
<td>66.67% (16 Champions)</td>
</tr>
<tr>
<td>Post-Session Test</td>
<td>33.33% (8)</td>
</tr>
<tr>
<td>Six Month Test</td>
<td>75% (18)</td>
</tr>
</tbody>
</table>

84.67% (22) at 91.67% (Step 3)
Asthma Champions: Empowering future physician leaders to improve their accuracy in classifying asthma severity

N Kollura, T Jimenez, M Heady, MD; I Krimsky, I Brown; D Strom, LCSW; J Jacobs, LMSW; R Kalra, MD; Y Persaud, MD, MPH; N Neugebauer, PhD.
Bronx-Lebanon Hospital Center, Department of Pediatrics, Bronx, New York, affiliated with the Albert Einstein College of Medicine.

BACKGROUND
- Studies show that using a system for classifying asthma severity increases the likelihood that physicians will consider the long-term management of asthma, and not just acute treatment. 1,4
- Funded by the National Asthma Control Initiative (NIH-NHLBI), this project implemented interactive, allergist-delivered workshops to cultivate “Asthma Champions” across the United States who will improve the clinical application of key NAEP guidelines, including the classification of asthma severity.

METHODS
- National recruitment targeted 32 early career physicians (27 practice teams) caring for children with asthma residing in medically underserved populations.
- Champions traveled to New York City to attend one of five 1-1/2 day workshops in the fall of 2011.
- A problem-based learning session outlined key NAEP guidelines, including vignettes about: 1) severity classification; 2) control assessment; and 3) prescribing stepwise therapy.
- A knowledge-based assessment with three clinical vignettes [Figure 1] was completed by 24 of the 27 practice teams at baseline, immediately following the session and six months later.
- Performance after the session and six months later was compared with baseline.
- The study was approved by Bronx-Lebanon Hospital Center’s Institutional Review Board.

RESULTS
- All Champions were recruited from geographic areas with high childhood asthma prevalence: 56% reported practicing in urban settings and 70% supervise residents-in-training. [Figure 2]
- At baseline, 17% of Champions answered all three vignettes correctly; 83% (p<.001) answered all three vignettes correctly on the post-session test and six months later, respectively. [Figure 3]
- Regarding the vignette that assessed Champions’ ability to accurately classify asthma severity (Figure 4, a 93% average at baseline improved to 92% (p=.001) on the post-session test; from baseline to six months, the average improved to 75% (p<.001).

CONCLUSION
- These results show the importance of interactive, case-based discussion using clinical vignettes in empowering physicians to translate NAEP guidelines into quality clinical practice.
- Therefore, interprofessional provider education opportunities are vital, particularly in underserved populations where under-classification and under-treatment must be overcome to improve asthma outcomes.

DISCUSSION
- The 32 Champions trained through this initiative collectively educated 1,286 providers over the past six months and anticipate the opportunity to educate 1,676 providers over the coming 12 months.
- Empowering future physician leaders using “train-the-trainer” programs can have a widespread effect on long-term asthma outcomes.

REFERENCES
Interactive provider education opportunities are vital, particularly in underserved populations where under-classification and under-treatment must be overcome to improve asthma outcomes.
Redesigning the Practice Delivery System

- Clinical Strategies
- Communication Strategies
- Systems-Improvement Strategies
Redesigning the Practice Delivery System

- Clinical Strategies
- Communication Strategies
- Systems-Improvement Strategies
Health Education
vs
Health Literacy
How do you read a thermometer and what does the number mean?

A doctor tells a mother that her baby has an ear infection. How does she know that the liquid prescription she’s given goes in his mouth?

A patient is told to take his pill three times a day. Is it OK to take them at dinner at 6 PM, watching TV at 8 PM and at bedtime at 10 PM?
An early assumed solution (1990s) was to “simplify the language”

- Visually easy to read
- Linguistically appropriate
- Culturally relevant
Clear language is necessary... but not sufficient
Understanding the Context of the Patient’s Experience
Workshop Overview

- Part 1: Friday Morning
  - Stepwise approach for long-term asthma management
  - Communication strategies that promote asthma self-management
Communication Strategies to Promote Asthma Self-Management

Interactive Role-Play Activity
NAEPP Guidelines: every patient with asthma should have a written home management plan, regardless of severity.
<table>
<thead>
<tr>
<th>The Three Types of Asthma Medicine</th>
<th>What does it do?</th>
<th>When do I take it?</th>
<th>Be Careful!</th>
<th>Medicines:</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Long-Term Control</td>
<td>This medicine controls the swelling and mucus build-up in your airways to prevent asthma symptoms.</td>
<td>Take this medicine every day, even when you feel well and have no asthma symptoms.</td>
<td>This medicine does not stop asthma symptoms once they start!</td>
<td>My long-term control medicine is:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Take this medicine every day until your doctor tells you to stop.</td>
<td>It does not relieve symptoms now. It does not make you feel better today.</td>
<td>Flovent Pulmicort Asmanex</td>
</tr>
<tr>
<td></td>
<td></td>
<td>It may take up to 4 weeks to feel the benefits.</td>
<td>If you use this more than twice a week, you should talk to your doctor.</td>
<td>QVAR Alvesco Advair Symbicort Dulera</td>
</tr>
<tr>
<td>2. Quick-Relief</td>
<td>This medicine relaxes the muscles around the airways. This helps more air get to the lungs.</td>
<td>Take this medicine at the first sign of asthma symptoms. It will help you feel better now.</td>
<td>This medicine does not prevent symptoms. It only relieves current symptoms.</td>
<td>My quick-relief medicine is:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>This medicine might be prescribed for use before exercising or gym class.</td>
<td>If you use this more than twice a week, you should talk to your doctor.</td>
<td>(Albuterol) Ventolin Pro-Air Proventil Xopenex</td>
</tr>
<tr>
<td>3. Emergency</td>
<td>This medicine brings back control of serious asthma symptoms. It might take several hours to start working. It is taken as a pill or liquid.</td>
<td>Take this medicine only for serious symptoms. ONLY take this medicine for as long as your doctor tells you to.</td>
<td>This medicine can cause serious side effects in other parts of the body.</td>
<td>Examples of Oral Steroids:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>If you need this medicine more than twice a year, you should talk to your doctor.</td>
<td></td>
<td>Prednisone Orapred Preolve Prednisolone</td>
</tr>
</tbody>
</table>

Developed by the Literacy Assistance Center of NYC for SOBRAP’s Asthma Literacy Project (funded by the United Hospital Fund)
### Understanding Asthma Medicine and Treatment

#### The Three Types of Asthma Medicine

<table>
<thead>
<tr>
<th>Type</th>
<th>What does it do?</th>
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<th>Medicines:</th>
</tr>
</thead>
</table>
| 1. Long-Term Control | This medicine controls the swelling and mucus build-up in your airways to **prevent** asthma symptoms. | **Take this medicine everyday,** even when you feel well and have no asthma symptoms. | This medicine **does not** stop asthma symptoms once they start!                                                              | **My long-term control medicine is:**  
  - Flovent  
  - Pulmicort  
  - Asmanex  
  - Alvesco  
  - Symbicort  
  - Advair  
  - Dulera  
  I will take this medicine: __________________________________________ |
| 2. Quick-Relief | This medicine relaxes the muscles around the airways. This helps more air get to the lungs. | **Take this medicine at the first sign of asthma symptoms.** It will help you feel better **now.** | **This medicine does not** prevent symptoms. It only relieves current symptoms.  
  If you use this more than twice a week, you should talk to your doctor. | **My quick-relief medicine is:**  
  - (Albuterol)  
  - Ventolin  
  - Pro-Air  
  - Proventil  
  - Xopenex  
  I will take this medicine: __________________________________________ |
| 3. Emergency | This medicine brings back control of serious asthma symptoms. It might take several hours to start working. It is taken as a pill or liquid. | **Take this medicine only** for serious symptoms. **ONLY** take this medicine for as long as your doctor tells you to. | This medicine can cause serious side effects in other parts of the body.  
  If you need this medicine more than twice a year, you should talk to your doctor. | **Examples of Oral Steroids:**  
  - Prednisone  
  - OraPred  
  - Prelone  
  - Prednisolone  

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### Understanding Asthma Medicine and Treatment

#### The Three Types of Asthma Medicine

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<td>This medicine <strong>does not</strong> stop asthma symptoms once they start!</td>
<td>Flovent, QVAR, Asmanex, Advair, Symbicort, Dulera.</td>
</tr>
<tr>
<td>2. Quick-Relief</td>
<td>This medicine relaxes the muscles around the airways. This helps more air get to the lungs.</td>
<td>Take this medicine at the first sign of asthma symptoms. It will help you feel better <strong>now</strong>.</td>
<td>This medicine <strong>does not</strong> prevent symptoms. It only relieves current symptoms.</td>
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</tr>
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<td>This medicine can cause serious side effects in other parts of the body.</td>
<td>Prednisone, Orapred, Predolone, Prednisolone.</td>
</tr>
</tbody>
</table>

**Be Careful!**

- If you need this medicine more than twice a year, you should talk to your doctor.

*Images and logos are not included.*

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Developed by the Literacy Assistance Center of NYC for SOBRAP’s Asthma Literacy Project (funded by the United Hospital Fund)
# My Asthma Diary

<table>
<thead>
<tr>
<th>Date</th>
<th>Peak Flow</th>
<th>Wheezing</th>
<th>Coughing</th>
<th>Stuffy/runny nose</th>
<th>Medication</th>
<th>What happened</th>
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<tbody>
<tr>
<td>Sunday</td>
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<tr>
<td>Monday</td>
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**My Asthma Diary:**

Answer these questions every day:
1. Did I cough last night?
2. Did I need my quick-relief inhaler?
3. Did I have difficulty with exercise or activity?

Remember to bring this Asthma Diary to your next doctor’s appointment!

Use these symbols to record any other symptoms you had:
- Day Wheezing
- Night Wheezing
- Day Coughing
- Stuffy Nose
- Runny Nose
- Sneezing
- Itchy Eyes

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How to Use a Spacer

Step 1. Remove the caps from the inhaler and the spacer.
Step 2. Shake the inhaler well for 5 seconds.
Step 3. Insert the spacer into the open end of the spacer.

Step 4. Inhale slowly and deeply through the mouth.
Step 5. Wrap your lips around the mouthpiece of the spacer to block any air leaks out.
Step 6. Push the inhaler down once. This will release the puff of medication into the spacer.

Step 7. Exhale into the cup using a steady and even breath. Hold your breath for 10 seconds. Then inhale normally.
Step 8. How many puffs did your doctor say you should take for Step 6-7? Record the number of puffs taken. If you need more puffs, follow steps 4-8 for every puff ordered by your doctor.

Step 9. Rinse your child’s mouth with water. Clean the spacer and facemask once a week with soap and warm water and then let air dry. Replace caps on inhaler and spacer.

How to Use a Spacer with a Facemask

1. Remove the caps from the inhaler and the spacer.
2. Shake the inhaler well for 5 seconds.
3. Attach the mask to the mouthpiece of the spacer. Now insert the inhaler into the open end of the spacer.
4. Put the facemask up to your child’s face. Make sure it is tight around the child’s nose and mouth so that no air leaks out.
5. Push the inhaler down once. This will release one puff of medicine into the spacer.
6. Hold the facemask to your child’s face for enough time to allow at least 6 breaths. This may take 10-15 seconds.
7. Remove the facemask from your child’s face.
8. How many puffs did your doctor say to take? Wait 1 minute between each puff. Follow steps 4-8 for every puff ordered by your doctor.
9. Rinse your child’s mouth with water. Clean the spacer and facemask once a week with soap and warm water and then let air dry. Replace caps on inhaler and spacer.
Environmental Assessment & Recommendations for Reducing Exposure to Triggers
How To Control Things That Make Your Asthma Worse

This guide suggests things you can do to avoid your asthma triggers. Put a check next to the triggers that you know make your asthma worse and ask your doctor to help you find out if you have other triggers as well. Then decide with your doctor what steps you will take.

**Allergens**
- **Animal Dander**
  - Some people are allergic to the dander of skin or dried saliva from animals with fur or feathers.
  - The best thing to do:
    - Keep furry or feathered pets out of your home.
    - If you can't keep the pet outdoors, then:
      - Keep the pet out of your bedroom and other sleeping areas at all times, and keep the door closed.
      - Remove carpets and furniture covered with cloth from your home.
    - If that is not possible, keep the pet away from fabric-covered furniture and carpets.

- **Indoor Mold**
  - Pollen and Outdoor Mold
    - What to do during your allergy season (when pollen or mold spore counts are high):
      - Try to keep your windows closed.
      - Stay indoors with windows closed from late morning to afternoon, if you can. Pollen and some mold spore counts are highest at that time.
      - Ask your doctor whether you need to take or increase antihistamine medicine before your allergy season starts.

- **Dust Mites**
  - Many people with asthma are allergic to dust mites. Dust mites are tiny bugs that are found in every home—in mattresses, pillows, carpets, upholstered furniture, bedcovers, clothes, and fabric or other fabric-covered items.
  - Things that can help:
    - Encase your mattress in a special dust-proof cover.
    - Encase your pillow in a special dust-proof cover or wash the pillow each week in hot water. Water must be hotter than 130°F to kill the mites.
    - Wash the sheets and blankets on your bed each week in hot water.
    - Reduce indoor humidity to below 60 percent (ideally between 30–50 percent). Dehumidifiers or central air conditioners can do this.
    - Try not to sleep or lie on cloth-covered cushions.
    - Remove carpets from your bedroom and those laid on concrete, if you can.
    - Keep stuffed toys out of the bed or wash the toys weekly in hot water or cooler water with detergent and bleach.

- **Cockroaches**
  - Many people with asthma are allergic to the dried droppings and remains of cockroaches.
  - The best thing to do:
    - Keep food and garbage in closed containers. Never leave food out.
    - Use poisons, powders, gels, or paste (for example, boric acid). You can also use traps.
    - If a spray is used to kill roaches, stay out of the room until the odor goes away.

**Irritants**
- **Tobacco Smoke**
  - If you smoke, ask your doctor for ways to help you quit. Ask family members to quit smoking, too.
  - Do not allow smoking in your home or car.

- **Smoke, Strong Odors, and Sprays**
  - If possible, do not use a wood-burning stove, kerosene heater, or fireplace.
  - Try to stay away from strong odors and sprays, such as perfume, talcum powder, hair spray, and paints.

**Other things that bring on asthma symptoms in some people include:**
- ** Vacuum Cleaning**
  - Try to get someone else to vacuum for you once or twice a week. If you can, stay out of rooms while they are being vacuumed and for a short while afterward.
  - If you vacuum, use a dust mask (from a hardware store), a double-layered or microfilter vacuum cleaner bag, or a vacuum cleaner with a HEPA filter.

- **Other Things That Can Make Asthma Worse**
  - Sulfites in foods and beverages: Do not drink beer or wine or eat dried fruits, processed potato, or shrimp if they cause asthma symptoms.
  - Cold air: Cover your nose and mouth with a scarf on cold or windy days.
  - Other medicines: Tell your doctor about all the medicines you take. Include cold medicines, aspirin, vitamins, and other supplements, and nonselective beta-blockers (including those in eye drops).

For More Information, go to: [www.nhlbi.nih.gov](http://www.nhlbi.nih.gov)

NIH Publication No. 07-5251
April 2007
Dust Mites
A dust mite is a tiny bug that is too small to see but can cause breathing trouble for children with asthma.
They are everywhere, even in the cleanest homes.
They live in things that collect dust like pillows, bedding, chairs and sofas with down covers, nestresses, and rugs.
The best way to kill them is by washing items in hot water.

Bedroom/Sleep Space
Sheets and clothing on sofas and chairs can be full of dust mites.
Wash all bedding in hot water once a week.
Wash pillows once a month.
Cover mattresses, box springs, and pillows in a dust proof cover.
If your child sleeps on a sofa, cover the sofa with a clean sheet or slip cover that can be washed.
Vacuum the sofa every week.
Keep windows closed, use an air conditioner if possible in warmer months.
Children under the age of one should never sleep on a sofa.

Toys
Toys, stuffed animals, and stuffed animals can also be full of dust mites.
Keep stuffed toys off the child's bed, if possible.
Wash them weekly in hot water and dry them completely. Washing is best but if they can't be washed, put them inside a plastic bag and leave it right for two days. This helps kill dust mites but doesn't remove their droppings.

Rugs
Rugs can also be full of dust mites.
Children with asthma should not have rugs in their homes. If the rug must stay, vacuum it once a week with a HEPA vacuum, if possible. A HEPA vacuum has a special filter that leaves dust so it doesn't go back into the air.
Dust mites should be removed irregularly or vacuumed with a HEPA vacuum.

Avoid vacuuming when your child is around, if possible.

Pets
Children with asthma can be allergic to animals, such as cats, dogs, and hamsters.
Pets should always be kept on leashes, if possible.
Do not allow pets in the child's sleep area.
Pets should stay on sofas and chairs with dust covers.

Smoke
Cigarette smoke makes asthma worse and may cause children who do not have asthma to develop it. Nobody should ever be allowed to smoke in the house or car.

Pests
Many children with asthma are allergic to cockroaches, mice, and rats.
Because these pests need food to live, they like to live in places where there is lots of food left around.
Do not allow anyone to eat where your child sleeps.
Make your bedroom trigger-free.
Self-Management Tools

**Asthma Action Plan**

<table>
<thead>
<tr>
<th>Symptom</th>
<th>Severe</th>
<th>Very Severe</th>
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<tr>
<td>Expiratory Flow Rate</td>
<td>&lt; 30 L/min</td>
<td>&lt; 20 L/min</td>
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**Understanding Asthma Medication and Treatment**

1. **Daily Preventers**
   - Medicine controls inflammation in the airways and prevents asthma symptoms.
   - Take this medicine regularly, even when you feel well.
   - My daily preventer will help prevent symptoms and reduce the need for urgent treatments.

2. **Quick-Relief**
   - Medicine acts quickly to relieve symptoms.
   - Take this medicine at the first sign of symptoms.
   - My quick-relief will help relieve symptoms.

3. **Emergency**
   - Medicine acts quickly to relieve severe symptoms.
   - Take this medicine at the first sign of severe symptoms.
   - My emergency treatment will help relieve symptoms.

**How to Use a Spacer**

1. Choose the right one for your child.
2. Make sure the indicator is set.
3. Place the spacer on the nebulizer and turn it on.
4. Put the spacer over the child's mouth and nose.
5. Push the child down onto the seat.
6. Put the mask on the child's mouth and nose.
7. Set the time and turn off the nebulizer.
8. Remove the mask from the child's mouth and nose.
9. Make sure the spacer is clean.

**Triggers**

-...
Asthma Passport
The Asthma Passport

1. Set asthma self-management goals
2. Learn asthma basics
3. Identify my asthma symptoms
4. Understand my asthma medicines
5. Follow my Asthma Action Plan
6. Use my inhaler properly
7. Keep a symptom diary
8. Identify my asthma triggers
9. Schedule a follow-up every 2-6 weeks
10. Ask my doctor specific questions
The Asthma Literacy Project

- Community Volunteers
- Asthma Education
- Emergency Care Settings
- Health Literacy
The Asthma Literacy Project

- How to Use a Spacer
- Understanding Asthma Medicines
- Keeping a Symptom Diary
- Understanding Asthma Triggers
Redesigning the Practice Delivery System

- Clinical Strategies
- Communication Strategies
- Systems-Improvement Strategies
Redesigning the Practice Delivery System

- Clinical Strategies
- Communication Strategies
- *Systems-Improvement Strategies*
Workshop Overview

Part 1: Friday Morning
- Stepwise approach for long-term asthma management
- Communication strategies that promote asthma self-management

Part 2: Friday Afternoon
- Defining the current systems
- Developing, implementing and testing a change
Defining the Systems and Implementing a "Change Project" Proposal

Clinical Asthma Champions Leadership Training Program

conducted by
Bronx-Lebanon Hospital Center &
the South Bronx Asthma Partnership
## Clinical Asthma Champions

### Resources and Obstacles Worksheet

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The Chronic Care Model

Community
- Resources and Policies
  - Self-Management Support

Health Systems
- Organization of Health Care
  - Delivery System Design
  - Decision Support
  - Clinical Information Systems

Supportive, Integrated Community
Informed, Activated Patient
Prepared, Proactive Practice Team

Productive Interactions
Functional and Clinical Outcomes

Developed by The MacColl Institute
® ACP-ASIM Journals and Books
The Chronic Care Model requires changing practice culture and infrastructure as well as changing specific aspects of patient care.
The Chronic Care Model: Assessment of Chronic Illness Care Survey
(adapted from ACIC Tool Version 3.5)

<table>
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<tr>
<th>Your Name:</th>
<th>Date: / /2011</th>
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<td>Organization Name:</td>
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<td>Names of Other Persons Completing the Survey with You:</td>
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Briefly describe the process you used to fill out this form:
- [ ] Reached consensus in a face-to-face meeting
- [ ] Filled out by the team leader in consultation with other team members
- [ ] Team members filled out separate forms and the responses were averaged
- [ ] Other: ____

Instructions: Please use the following adaptation of the Assessment of Chronic Illness Care (ACIC) survey to evaluate your organization's efforts in improving chronic care for patients with asthma. The ACIC was derived from specific evidence-based interventions for the six components of the Chronic Care Model. Like the Chronic Care Model, the ACIC addresses the basic elements for improving chronic illness care at the coalition, community, practice and patient level. This survey is designed to help systems and provider practices move toward the "state-of-the-art" in managing chronic illness. The results can be used to help your team identify areas for improvement.

Component 1: Health Care Organization (HCO)
Definition: Facilitate care coordination within and across organizations by creating ongoing linkages and interventions between providers of health care, caregivers for children and their families.

ACIC Section Subscale Score for your organization: ____

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<td>Limited Support for Chronic Illness Care</td>
<td>Basic Support for Chronic Illness Care</td>
<td>Reasonably Good Support for Chronic Illness Care</td>
<td>Fully Developed Support for Chronic Illness Care</td>
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PROBLEM AND POPULATION DEFINITION WORKSHEET

Describe the problem you are planning to address.

Who is affected by this problem?

What is the target population for your change project?
Aim Statement Worksheet

Organization Name: ____________________________

1. Create an aim statement for improvement. Include numerical goals.

2. Who (by role or title) would be included on the improvement team to accomplish this aim?

3. Given your aim, what are some of the changes that will help you reach your aim?
The Chronic Care Model

Community
- Resources and Policies
- Self-Management Support

Health Systems
- Organization of Health Care
  - Delivery System Design
  - Decision Support
  - Clinical Information Systems

Supportive, Integrated Community

Informed, Activated Patient

Prepared, Proactive Practice Team

Productive Interactions
Functional and Clinical Outcomes
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<th>Self-Management</th>
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<th>Clinical Information System</th>
<th>Delivery System Design</th>
<th>Health Care Organization</th>
<th>Community</th>
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<tr>
<td>Collaborate with patient and family to set and document shared management goals: short-term (impairment) and long-term (risk).</td>
<td>Embed evidence-based guidelines into structured encounter forms/EMR prompts to guide decision-making, ensure compliance with documentation and support performance tracking.</td>
<td>Establish a registry/database of asthma patients for which the health care system assumes responsibility.</td>
<td>Establish multi-disciplinary clinical teams for planned care (i.e., identify provider champion, nurse champion and asthma team).</td>
<td>Make improving chronic care a part of the organization's vision, mission, and performance improvement and business plans.</td>
<td>Establish linkages with community organizations to develop support programs and policies.</td>
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<td>Use self-management education and tools that are based on evidence of effectiveness, such as the Asthma Action Plan.</td>
<td>Promote the use of inhaled corticosteroids as the first-line of long-term controller therapy for patients of all ages with &quot;persistent&quot; asthma.</td>
<td>Designate staff for data entry.</td>
<td>Define roles/delegate tasks to optimize staff efficiency (i.e., train/cross-train office staff to assist clinicians in maintaining the demands of quality planned care visits).</td>
<td>Ensure that senior leadership and staff visibly support and promote the effort to improve the delivery of quality asthma care.</td>
<td>Raise community awareness through networking, outreach, and education (i.e., health fairs, PTA meetings).</td>
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<td>Emphasize the patient/family's central role in managing their health and communicating with providers (i.e., symptom diaries, questions).</td>
<td>Invite providers to participate in interactive workshops that promote evidence-based practices and communication strategies that enhance self-management skills.</td>
<td>Develop processes for use of the registry (i.e., reminders for seasonal influenza vaccine and pro-active care-planning).</td>
<td>Promote planned care interactions that support evidence-based care (i.e., assessing severity/control, frequent monitoring of impairment/risk, stepwise therapy).</td>
<td>Promote effective improvement strategies for comprehensive system change; provide report cards and performance incentives.</td>
<td>Partner with schools, workplaces, faith-based organizations, and other community organizations to promote awareness and encourage coordination.</td>
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<td>Provide patients with literacy-appropriate tools and materials that equip them with the skills that change behavior and encourage self-advocacy.</td>
<td>Educate patients about EPR-3 recommendations and GIP priority messages to empower them to participate in their care and be pro-active consumers of the health care system.</td>
<td>Delineate an &quot;Asthma Care Map&quot; to code for prompts and ensure comprehensive entry-to-exit asthma care and documentation.</td>
<td>Provide clinical case management services for complex patients; mental health support/referral when needed.</td>
<td>Embed measurement and monitoring in workflow in order to track quality and provide feedback to providers and leadership.</td>
<td>Provide a list of community resources to patients, families, and staff.</td>
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<td>Use group visits to teach self-management skills and facilitate peer support.</td>
<td>Establish linkages to assure that primary care providers have access to expert consultation and specialty support (allergy skin testing, spirometry).</td>
<td>Monitor provider compliance with documentation of defined quality asthma care indicators.</td>
<td>Promote the patient-provider partnership to ensure scheduled follow-up that supports planned care visits.</td>
<td>Facilitate care coordination within and across partnering organizations.</td>
<td>Facilitate the linkage of potential community resources with providers (specialists, smoking cessation programs).</td>
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<td>Spend time dispelling myths and addressing cultural health beliefs and readiness-to-change.</td>
<td>Help patients identify potential allergens and irritant triggers and provide specific guidance on reducing exposure.</td>
<td>Use the registry to provide feedback to providers and leaders about results and outcomes over time.</td>
<td>Provide literacy and linguistically appropriate care that fits with their cultural background.</td>
<td>Maintain linkages with leadership of local health plans (i.e., data collection and client services).</td>
<td>Recruit student volunteers/summer interns to research community asthma resources.</td>
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BRONX-LEBANON HOSPITAL CENTER (BLHC) / SOUTH BRONX ASTHMA PARTNERSHIP (SOBRAP)
### Using the “Chronic Care Model” to Redesign Practice Delivery Systems

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DATA MANAGEMENT AND COLLECTION SHEET

Project Aim:

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<th>Type of Measure</th>
<th>Name of Measure</th>
<th>Definition</th>
<th>Numerator</th>
<th>Denominator</th>
<th>Data Collection Strategy</th>
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The Model For Improvement
Three Fundamental Questions

Model for Improvement

- What are we trying to accomplish?
- How will we know that a change is an improvement?
- What change can we make that will result in improvement?

Aim Statement
Measures
PDSA

Act
Plan
Study
Do
MODEL FOR IMPROVEMENT

Objective for this PDSA Cycle

PLAN
Questions

Predictions

Plan for change or test: who, what, when, where - who is responsible

DO - Carry out the change or test; collect data and begin analysis.

STUDY - Complete analysis of data: summarize what was learned.

ACT - Are you ready to make a change? Plan for the next cycle.
Change Projects

- Embedding guidelines into routine care
- Using non-clinical team members more effectively
- Planned pro-active encounters for preventive asthma care
- Using brief educational encounters to provide structured self-management support
- Coordinating case management for high risk patients
- Linkages to effective community resources
- Enhancements to clinical information systems (registries)
## Change Project Proposal Worksheet

<table>
<thead>
<tr>
<th></th>
<th>Discussion</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Project Name</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Problem</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Team Members</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Who is Affected</strong></td>
<td></td>
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<tr>
<td><strong>Target Population</strong></td>
<td></td>
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<tr>
<td><strong>Aim</strong></td>
<td></td>
</tr>
<tr>
<td>List of Measures</td>
<td>1.</td>
</tr>
<tr>
<td></td>
<td>2.</td>
</tr>
<tr>
<td></td>
<td>3.</td>
</tr>
<tr>
<td><strong>PDSA.s Planned</strong></td>
<td>1.</td>
</tr>
<tr>
<td></td>
<td>2.</td>
</tr>
</tbody>
</table>
The Chronic Care Model: Assessment of Chronic Illness Care Survey

Component 1: Health Care Organization (HCO)
Definition: Facilitate care coordination within and across organizations by creating ongoing linkages and interventions between providers of health care, caregivers for children and their families.

Component 2: Clinical Information System (CIS)
Definition: Enhance the organization and coordination of patient and population data to facilitate efficient communication and effective care.

Component 3: Decision Support (DS)
Definition: Promote clinical care that is consistent with scientific evidence (NAPPC guidelines) and patient preferences.

Component 4: Delivery System Design (DSD)
Definition: Support the delivery of effective and efficient clinical care and self-management, including case management services for high-risk children and families.

Component 5: Self-Management Support
Definition: Empower and prepare children and their families to improve knowledge, skill and confidence in managing their asthma.

Component 6: Community Linkages
Definition: Mobilize community resources to fill gaps in needed services for children and families with asthma.
Asthma Champions - Model for Improvement

<table>
<thead>
<tr>
<th>Service Area</th>
<th>Average Score Before Session</th>
<th>Average Score After Session</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health Care Organization</td>
<td>7.364</td>
<td>7.455</td>
</tr>
<tr>
<td>Clinical Information Systems</td>
<td>7.455</td>
<td>7.727</td>
</tr>
<tr>
<td>Decision Support</td>
<td>5.781</td>
<td>7.182</td>
</tr>
<tr>
<td>Delivery System Design</td>
<td>4.184</td>
<td>4.403</td>
</tr>
<tr>
<td>Self-Management Support</td>
<td>4.403</td>
<td>7.455</td>
</tr>
<tr>
<td>Community Linkages</td>
<td>3.859</td>
<td>7</td>
</tr>
<tr>
<td>Overall Mean Score</td>
<td>4.677</td>
<td>7.364</td>
</tr>
</tbody>
</table>
Asthma Champions: Defining the system and implementing a "change project" proposal
N Kolaru, T Jimenez, M Reddy, MD; D Strom, LCSW; L Krinsky; J Jacobs, LMSW; L Brown; R Kairam, MD; Y Persaud, MD, MPH; P Neugebauer, PhD.
Bronx-Lebanon Hospital Center, Department of Pediatrics, Bronx, New York
affiliated with the Albert Einstein College of Medicine

BACKGROUND
Funded by the National Asthma Control Initiative (NIH/NHLBI), this project implemented interactive, allergist-delivered workshops to cultivate "Asthma Champions" to lead guideline-based, practice delivery improvement within their health care organization (HCO).

METHODS
- National recruitment targeted 32 early career physicians (27 practice teams) caring for children with asthma in medically underserved populations. [Figure 1]
- Champions traveled to the Bronx in NY to attend one of five 1-1/2 day workshops in the fall of 2011. [Figure 2]
- A major component of the workshop trained Champions on developing, testing and implementing a system change within their HCO. [Figure 3]
- Based on current NAEPP recommendations, the curriculum focused on elements of the Chronic Care Model and the Model for Improvement.1,2
- The Assessment of Chronic Illness Care Survey (ACIC)3 is organized such that the highest score of "11" on any individual item/subscale or the overall score (an average of the six ACIC subscale scales) indicates "optimal support for chronic illness"; the lowest possible score on any item/subscale or of "0" corresponds to "limited support for chronic illness care." [Figure 4]
- The ACIC was completed by 11 national practice teams at baseline and six months later.
- Bronx-Lebanon Hospital Center's IRB approved this study.

RESULTS
- All Champions were recruited from areas with high childhood asthma prevalence: 56% reported practicing in an urban setting and 70% supervise residents-in-training.
- The difference in Champions' mean ACIC subscale scores from baseline to six months were:
  1) Health Care Organization: 2.167 (p<.023); 2) Clinical Information Systems: 2.630 (p<.007); 3) Decision Support (DS): 1.685 (p<.102); 4) Delivery System Design: 2.833 (p<.132); 5) Self-Management Support: 2.704 (p<.004); and 6) Community Linkages: 2.408 (p<.044). [Figure 5]
- The DS component was the only component that did not show a significant improvement.
- The average difference between overall mean scores from baseline to six months showed an improvement of 2.405 (p<.006), suggesting a significant improvement in overall support for chronic illness care.

CONCLUSION
- This initiative demonstrates the importance of professional development opportunities in preparing future physician leaders to take on the critical work of redesigning practice delivery systems to improve the quality of care for patients with asthma.
- Furthermore, there is evidence that additional work is needed in improving "decision support" for providers in understanding and applying the NAEPP guidelines to clinical care.

DISCUSSION
Interactive workshops utilizing the Chronic Care Model and the Model for Improvement can facilitate improvement in systems that support quality-focused, guideline-based asthma care.

REFERENCES
3. "Robert Wood Johnson Foundation's Improving Chronic Illness Care" program.
Professional development opportunities are important in preparing future physician leaders to take on the critical work of redesigning their practice delivery systems.

Additional work is needed in improving “decision support” for providers in understanding and applying the NAEPP guidelines to clinical care.
Workshop Overview

Part 1: Friday Morning

- Stepwise approach for long-term asthma management
- Communication strategies that promote asthma self-management

Part 2: Friday Afternoon

- Defining the current systems
- Developing, implementing and testing a change

Part 3: Saturday Morning

- Your change project proposal
- Making the business case
```
Date:__________  4-Digit ID:__________

“NOW vs BEFORE” SURVEY
Making the Business Case

We would like to know your opinions on a variety of business and reimbursement strategies that could have an impact on improving asthma outcomes. Please tell us how confident you are in your understanding of or ability to:

<table>
<thead>
<tr>
<th>NOW</th>
<th>STRATEGIES</th>
<th>BEFORE TODAY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not at all confident</td>
<td>Slightly confident</td>
<td>Somewhat confident</td>
</tr>
<tr>
<td></td>
<td>Make the business case to your clinical director that justifies how you will utilize your administrative time</td>
<td></td>
</tr>
<tr>
<td></td>
<td>List the evolution of 20th century healthcare financing</td>
<td></td>
</tr>
<tr>
<td></td>
<td>List facts about the cost of healthcare in the United States</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Discuss the goals of pay-for-performance methodologies</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Start a pay for performance project</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Discuss the advantages of electronic health record</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Differentiate between the elements of undercoding and overcoding</td>
<td></td>
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<tr>
<td></td>
<td>Apply the criteria for billing based on time spent with the patient</td>
<td></td>
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<tr>
<td></td>
<td>Discuss how driving systems changes at the provider level will lead to improvements in patient outcomes</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>NOW</th>
<th>OTHER QUESTIONS</th>
<th>BEFORE TODAY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not at all</td>
<td>Slightly</td>
<td>Somewhat</td>
</tr>
<tr>
<td></td>
<td>How knowledgeable concerning the business aspect of your practice would you rate yourself</td>
<td></td>
</tr>
<tr>
<td></td>
<td>How knowledgeable about pay for performance would you rate yourself</td>
<td></td>
</tr>
</tbody>
</table>
```
### "Now vs Before" Making the Business Case - Total Improvement per Subject

<table>
<thead>
<tr>
<th>Task</th>
<th>Improvement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Make Case to Director</td>
<td>33.6%</td>
</tr>
<tr>
<td>List Evolution of Healthcare Financing</td>
<td>39.8%</td>
</tr>
<tr>
<td>List US Healthcare Facts</td>
<td>33.6%</td>
</tr>
<tr>
<td>Discuss Pay for Perform Goals</td>
<td>36.7%</td>
</tr>
<tr>
<td>Start Pay for Performance Project</td>
<td>31.3%</td>
</tr>
<tr>
<td>Discuss Benefit EMR</td>
<td>20.3%</td>
</tr>
<tr>
<td>Differentiate Btwn Under/Over Coding</td>
<td>14.8%</td>
</tr>
<tr>
<td>Apply Billing Criteria: Time w/ Patient</td>
<td>20.3%</td>
</tr>
<tr>
<td>Discuss Driving System Changes</td>
<td>25.8%</td>
</tr>
<tr>
<td>Rate Self Knowledge: Business Practice</td>
<td>20.3%</td>
</tr>
<tr>
<td>Rate Self Knowledge: Pay for Perform</td>
<td>25%</td>
</tr>
</tbody>
</table>
How related is "Making the Business Case" to your practice?

- Very Related: 67%
- Somewhat Related: 26%
- Slightly Related: 7%
Making the Business Case: Importance of educating physicians about future healthcare models

BACKGROUND:
Funded by the National Asthma Control Initiative (NIH/NHLBI), this project implemented interactive, allergist-delivered workshops to cultivate "Asthma Champions" to lead guideline-based, practice delivery improvement within their health care organization (HCO).

EDUCATIONAL OBJECTIVES:
Upon completion of this session, participants should be able to:
1) discuss the importance of understanding various evolving health care models;
2) summarize strategies for "making the business case" in support of engaging in activities related to systems improvement.

METHODS:
• National recruitment targeted early-career physicians who care for asthma in medically underserved populations.
• Champions (n=32) traveled to the Bronx in New York to attend one of five 1-1/2 day workshops on developing, testing and implementing systems changes within their HCO.
• A segment of the curriculum focused on "making the business case" in support of such activities related to fostering systems improvement.
• Champions self-reported their confidence and knowledge on a retrospective-before-and-after survey related to future healthcare models, based on a 5-point Likert-scale. (Figure 1)
• This study was approved by Bronx-Lebanon Hospital Center's Institutional Review Board.

RESULTS:
• Nine business strategies covered included:
  1) "Make the business case to your clinical director justifying how you will utilize your administrative time" (p<.003);
  2) "List the evolution of 20th century healthcare financing" (p=.01);
  3) "List facts about U.S. healthcare costs" (p=.02);
  4) "Discuss the goals of pay-for-performance methodologies" (p=.00);
  5) "Start a pay-for-performance project" (p=.00);
  6) "Discuss the advantages of electronic health record" (p=.04);
  7) "Differentiate between the elements of under-coding and over-coding" (p=.03);
  8) "Apply the criteria for billing based on time spent with the patient" (p=.02); and
  9) "Discuss how driving systems changes at the provider level will lead to improvements in patient outcomes" (p=.01). (Figure 2)
• Additionally, Champions were asked how knowledgeable they felt they were regarding:
  1) "the business aspect" (p=.002) of their practice; and
  2) "pay for performance" (p=.01). (Figure 2)
• This figure displays variances in levels of improved confidence in the above topics, and in their personal knowledge.

CONCLUSION:
• Allergists are recognized as experts in the field of asthma and should take the lead in helping physicians make this important transition with evolving health care models.
• More focused small groups like those in this initiative can improve the future of asthma care delivery, from both a clinical as well as a business perspective.

DISCUSSION:
• Engaging senior leadership and hospital administrators is an important step in successfully transforming the health care system.
• In order to increase the likelihood of achieving project goals, participating Champions were equipped with a convincing business case to present to their institution, particularly to their non-clinical leadership.
• This plan emphasized the bottom-line benefits of allocating resources toward improvement efforts and practice delivery redesign, including:
  1) Reducing uncompensated care
  2) Improving outpatient care
  3) Streamlining practice delivery systems
  4) Achieving prominence in the medical field
  5) Achieving prominence in the public sphere
  6) Developing leadership in health care change
  7) Generating performance indicators
  8) Adapting to evolving reimbursement methodologies.

REFERENCES:
More efforts should be directed at fostering improved understanding of evolving health care models among clinicians.

More focused small groups like those in this initiative can improve the future of asthma care delivery, from both a clinical as well as a business perspective.
Champion Toolkit Flash Drive Contents

TOOLKIT FLASH DRIVE Contents

- NALPI/EFR-3: Guidelines for the Diagnosis and Management of Asthma
  - Full Report (410 pages)
  - Summary Report (90 pages)
  - Journal of Allergy and Clinical Immunology, Vol. 129, No. 6 (45 pages)
  - City Health Information “Managing Asthma” (17 pages)
  - WHO Expert Panel Decision Support Pocket Guide (14 pages)
  - Power Point of EFR-3 Tables

- Provider Education Tools
  - Order Form for RTS Asthma Materials
  - Signs in Sheet for Presenter Education Sessions
  - IPFR link for DVD tutorial
  - IPFR 2011-2013 CMS Forms for DVD
  - Evolutions
    - Self-Assessment (word bank)
    - Pre-Test (8–9–Q)
    - Post Test (9–Q)
  - Post-Wave Survey
  - Power Point Template for Pre-Test vs Post-Test Feedback

- Coaching Providers on how to Promote Patient Self-Management
  - Role Play Scenario Cards
  - Narrative Power Point for Role Play Scenarios
  - 8-Minute Asthma Visit
  - 5-Minute Asthma Visit
  - 5-Minute Influenza Counseling Visit
  - 1514 Form/Wall Chart of EFR-3 Tables
  - PACE Binder & Power Point
  - The Planned Asthma Visit Checklist
  - AAMA Asthma IQ

- Behavior Theory
  - The Health Belief Model
  - The Stages of Change
  - Health Literacy
  - Training on Tobacco Cessation Counseling (Theory/Stages of Change)
  - Communication Strategies (PACE)

- Performance Improvement Theory and Tools
  - The Chronic Care Model
  - Evidence-Based Change Gage Chart
  - The Model for Improvement
  - Data tracking tools
  - Asthma Care Map
  - Asthma Documentation Tracker/Template
  - Performance Improvement Indicators
  - Structured Encounter Form
  - G Chart Review Example

- Presenting a PI Project
  - Presenting a PI Project (int)
  - PI Info

- Patient Education Tools
  - Priority Messages & Patient Education (PACE)
  - Key Educational Messages (3)
  - Asthma Literacy Project Tools
    - Understanding Asthma Medicines (English, Spanish)
    - How to use a Spacer or a Spacer with Foremark (English, Spanish)

- Keeping a Symptom Diary Child/Adult (English, Spanish)
- Understanding Asthma Triggers (English, Spanish)
- Asthma Friendly Bedrooms (Capital Region, NY)
- The Asthma Passport
  - Asthma Passport Power Point
  - The Asthma Passport (English)
  - The Asthma Passport Script (English)
  - The Asthma Passport (Spanish)
  - The Asthma Passport Script (Spanish)
- The Asthma Action Plan
  - Electronic Asthma Action Plan
  - Interactive Asthma Action Plan (EAP)
  - Sample Action Plan (PACE)
- Asthma Medication Techniques
- Link to Asthma website for pictures of inhalers (inhaled corticosteroids and bronchodilators)
- Link to AAP website to order posters of inhalers and other asthma tools

- Asthma Literacy Training for Volunteers and Lay Staff
  - Health Literacy
  - Asthma Basics

- Asthma Literacy Assessment Tools
  - BEFORE/AN After Survey for staff assessment of patients
  - Patient Survey and Patient follow-up

- Making the Business Case
  - Documentation and Coding (PACE)
  - NCQA Patient-Centered Medical Home
  - Integrating Chronic Care and Business Strategies to the Safety Net
  - Integrating Chronic Care Practice Coaching Manual
  - The Healthcare of Business/Making the Business Case

- Asthma Screening Forms
  - ACDAS (7 and under: B-14, 15+)
  - Brief Respiratory Questionnaire (Bronx Article, Validation)

- Pre-Workshop Learning Materials
  - MANAGING ASTHMA & CHE: Nov-Dec 2008
  - The Improvement Guide (Table of Contents, Chapter One)
  - Evidence-based change concepts of the Chronic Care Model (Chart)
  - Integrating the Chronic Care Model (Paris Simone Boyce)

- Upcoming Site Dates
  - Change Project Proposal (Example)
  - Leagues Roadmap
  - Upcoming Site Dates
  - Project Proposal Workshop (Due Oct 4th)
  - Chronic Care Model Compassion Workshop (Due Oct 4th)
  - ACCU Survey Modified (Due Oct 4th)
  - Monthly Reporting Template (First Report due Oct 15th for Sep Activities)
Collective Impact of these 32 Champions

- 1,286 providers over the past six months
- 1,676 providers over the coming 12 months.
Redesigning the Practice Delivery System

- Clinical Strategies
- Communication Strategies
- Systems-Improvement Strategies
Model NHLBI funded NACI programs addressing disparities

Redesigning the Practice Delivery System

Asthma Passport

Clinical Asthma Champions Leadership Training Program