ASTHMA MANAGEMENT FOR OLDER ADULTS

Medical Grand Rounds
Baystate Health
February 18, 2015

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Director NEW READY Asthma Home Visiting Program and the 4C care coordination program
Chair, Pioneer Valley Asthma Coalition
**PIONEER VALLEY ASTHMA COALITION**

Improving the quality of life for individuals, families, and communities affected by asthma in the Pioneer Valley®

- **Activities**
  - Reducing Environmental Triggers for Older Adults with Asthma
  - Healthy Homes
  - Healthy Schools
ASTHMA PREVALENCE IN OLDER ADULTS

- Springfield (Massachusetts): 11.6%
- Massachusetts: 8.4%
- National: 7.5%
DISPARITIES

- Latinos 65 or older in Springfield are 8.8x more likely to be hospitalized for asthma than Whites
PVAC - REDUCING TRIGGERS FOR OLDER ADULTS WITH ASTHMA

- Asthma Home Visiting Program
  - 3 home visits and follow up call
  - Home assessment
  - Supplies (HEPA vacuum, mattress/pillow covers)
- Eligibility
  - Commonwealth Care Alliance-Senior Care Option
  - ER Visit or hospitalization within the last year
  - Diagnosis of asthma/65 or older

- Presentations for Older Adults & their Families
- Grand Rounds

  Funded by Tufts Health Plan Foundation
READY STUDY SPECIFICS

- Massachusetts Department of Public Health – lead agency for study
- Two intervention sites: Boston Medical Center and Baystate Medical Center
- Principal Investigators
  - Lauren Smith, MD, MPH
  - Cheryl Bartlett, RN, MDPH
  - Jean Zotter, JD, MDPH
  - Megan Sandel, MD, MPH, Boston Medical Center
  - Matthew Sadof, MD, Baystate Medical Center
- Funding:
  - American Recovery and Reinvestment Act (ARRA) NIEHS R01 grant ( #5R01ES017407-02)
  - HUD Healthy Homes Technical Studies (#MALHH0227-10)
KEY MEASURES

• Urgent care use
• Number of symptom days
• Use of rescue medication
• Number of exacerbations requiring oral steroids
• Pediatric asthma parent/caregiver quality of life scores
  -- developed by Elizabeth Juniper
• Environmental measures
• Competing Priorities and Parental Expectations for Control
PRELIMINARY DEMOGRAPHICS

• N = 231
• Average age: 6.2 years
• Gender: 57% male
• Insurer
  • 93.1% MassHealth
  • 6.1% Private

• Race/Ethnicity
  – 48.5% Black, Non-Hispanic
  – 48.9% Hispanic
  – 2.6% Other
    *includes White and Asian, Non-Hispanic
PRELIMINARY BASELINE CONTROL

- Asthma Control at Visit 1 based on EPR3 - National Asthma Guidelines (N = 231)
  - 17.3% Well Controlled
  - 47.2% Not Well Controlled
  - 34.6% Very Poorly Controlled
PRELIMINARY RESULTS – ASTHMA CONTROL TREND
PRELIMINARY RESULTS
– ASTHMA CONTROL PRE VS POST (N = 119)

<table>
<thead>
<tr>
<th></th>
<th>Pre</th>
<th>Post</th>
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</thead>
<tbody>
<tr>
<td>ED Visit</td>
<td>61.2</td>
<td></td>
</tr>
<tr>
<td>Hospitalization</td>
<td>27.4</td>
<td>27.6</td>
</tr>
<tr>
<td>Urgent Care Use</td>
<td>4.3</td>
<td></td>
</tr>
<tr>
<td>Oral Steroid Use</td>
<td>78.3</td>
<td>75.2</td>
</tr>
<tr>
<td>Recived AAP</td>
<td>67.5</td>
<td>92.5</td>
</tr>
<tr>
<td>Actually Used</td>
<td>39.5</td>
<td>48.7</td>
</tr>
</tbody>
</table>

11/2013

APHA
ENVIRONMENTAL FACTORS
– PRE VS POST (N = 119)

<table>
<thead>
<tr>
<th>Percentage (%)</th>
<th>Pre</th>
<th>Post</th>
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</thead>
<tbody>
<tr>
<td>Dust</td>
<td>35.3</td>
<td>23.5*</td>
</tr>
<tr>
<td>Mold</td>
<td>27.7</td>
<td>12.6*</td>
</tr>
<tr>
<td>Pests</td>
<td>34.2</td>
<td>25.8</td>
</tr>
<tr>
<td>Pets</td>
<td>29.2</td>
<td>25.8</td>
</tr>
<tr>
<td>Smoke</td>
<td>28.3</td>
<td>28.3</td>
</tr>
<tr>
<td>Chemical</td>
<td>91.7</td>
<td>53.3*</td>
</tr>
</tbody>
</table>

* indicates a significant difference.
Parental expectations of asthma control and medication use are aligned with national guidelines.

Adapted from: Postma et al J Asthma. 2009 Aug;46(6):564-76