Not One More Life
A Community Based Approach to Asthma Disparities

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Asthma Prevalence

In the last 10 years.........

- Overall prevalence has increased by 12.3% to 8.2%, most notably in:
  - Children – 9.6%
    - Poor children – 13.5%
    - African American male children – 17.0%
  - Adults
    - Women – 9.3%
    - Poor adults – 13.5%

CDC, NHIS 2011
Asthma Burden

Note: A rate ratio of 1.0 (dashed line) indicates equal rates between the groups being compared. SOURCES: CDC/NCHS, National Ambulatory Medical Care Survey, National Hospital Ambulatory Medical Care Survey, National Hospital Discharge Survey, Mortality component of the National Vital Statistics System, and National Health Interview Survey (population with current asthma).
Insured vs. Uninsured
% of Patients with Asthma

Seen by a Specialist

Seen by a PCP

Ability to Buy Prescribed Medication

CDC, NHIS 2011
Racial and Ethnic Disparities in Asthma Medication Usage and Health-Care Usage


- National Asthma Survey Database
- 1485 children surveyed (55% white, 25% Hispanic, 20% black)
- Black children had twice as many ED visits (39% vs. 19%) and hospitalizations (12% vs. 5%) than white children
- Black and Hispanic were less likely to have used ICS (21% and 22%) than white children (33%) in the preceding 3 months
- Black and Hispanic children were more likely receive daily SABA (26% and 19%) than white children (12%)
- ED visits positively correlated with SABA use and negatively correlated with ICS use when stratified for race and ethnicity
HMO STUDY
Cleveland Clinic

- African American and Caucasian Patients
- 18-50 Years of Age
- 124 African Americans and 67 Caucasians
Ethnic Disparities in Asthma

- Prevalence of asthma among African Americans is 42% higher than in White Americans
- African American females have the highest asthma prevalence and morbidity of any racial/gender group
- African Americans are hospitalized for and die from asthma at twice the rate of White Americans

NCHS/CDC 2011
Ethnic Disparities in Asthma: Diversity Among Hispanic Americans

- Puerto Ricans have higher asthma prevalence and mortality than African Americans
- This disparity is most notable among Puerto Ricans living in the Northeastern United States
- Mexican Americans have lower asthma prevalence, morbidity and mortality than White Americans, African Americans and Puerto Ricans
- Considerable diversity with respect to asthma epidemiology exists among “Hispanic Americans” and has been inadequately studied

NCHS/CDC 2011
A New Management Paradigm

Engagement

Education

Empowerment

Hypothesis

Partnerships with minority communities of faith and their well organized Health Ministries offer the best vehicle for the systematic community-based education and individual empowerment needed to control Asthma in Our Communities

An Atlanta Based Model Now Being Expanded Across the US
Not One More Life

The Team of The Willing

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Why Communities of Faith?

- Enduring bases of leadership
- Roles in fostering community well-being
- Strong visions for spiritual and physical health of their faith communities
- Well-developed Health Ministries staffed by members committed to fostering health in their congregations
Our Methods Are Novel

NOML programs scheduled at local communities of faith through health ministries:

- short didactic presentation on asthma followed by Q and A
- participants screened by validated (Juniper) questionnaire and spirometry
- Pulmonologist/allergist reviews and discusses results with participants
- Information relayed to PCP and/or specialty follow up arranged
- serial telephone follow up at 1, 3, 6 and 12 months
- Individual case management
Straight Talk – No Chaser!!

- Blunt talk about disparities and high risk status
- Elimination of Victim Mentality
- Ownership and Accountability
- Successful Health Care results from Radical Consumerism
- INDIVIDUAL EMPOWERMENT = The Ultimate Healthcare Reform
ASTHMA CARE

- Care must be long term; there is no cure
- See a doctor at least every 1 - 6 months
- Take daily medicines to prevent attacks as your doctor tells you
- Add short-term treatment when symptoms start
- Stay away from things that make your asthma worse
ASTHMA

“Nuts, Bolts and Nuggets”

- The problem is not getting air in, it’s getting air out!
- Your airways are inflamed aka “hot, sore and irritable”
- Your controller soothes your airways
- Your rescue medication can get you out of trouble but only for a while
- Your medications don’t work unless you take them right... learn how to inhale!
List and Then Share Your Thoughts and Concerns With Your Doctor

- What you would like to get from your visit or why you decided to see the doctor.
- When and where you had your symptoms.
- Your concerns about the symptoms and your medicines.
- The questions you want answered.
- You get out of the visit just what you put in!
- There are no dumb questions.
What to Expect from Asthma Care

- Attend school or work with no time off due to your asthma
- No need for ER or hospital visits
- No symptoms during the day or night
- Few or no side effects from medications

Ask your doctor to change your treatment plan if these goals are not met! ......

or, find another doctor!!!!!!!
Case Management

- Telephone follow-up at 1, 3, 6, and 12 months
- Referral to existing clinics/community hospitals
- Follow-up in our free pulmonary clinic in Atlanta
- Medication assistance
- Access to pulmonologists and allergists
- Determining eligibility for CMS
- Utilizing patient assistance programs
133 Programs

5135 Signed in

4637 Forms

4219 Complete Assessments

418 Incomplete Assessments

302 Poorly reproducible spirometry

116 Form incomplete

Screening Results:
October 2003 – August 2011

91%
<table>
<thead>
<tr>
<th>Category</th>
<th>Asymptomatic/Normal Lung Function n (%)</th>
<th>Symptomatic/Normal Lung Function n (%)</th>
<th>Asymptomatic/Abnormal Lung Function n (%)</th>
<th>Symptomatic/Abnormal Lung Function n (%)</th>
<th>Missing n (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sample</td>
<td>1654 (45.4)</td>
<td>691 (19.0)</td>
<td>445 (12.2)</td>
<td>526 (14.5)</td>
<td>324 (8.9)</td>
</tr>
<tr>
<td>Men</td>
<td>534 (48.2)</td>
<td>155 (14.0)</td>
<td>160 (14.4)</td>
<td>161 (14.5)</td>
<td>98 (8.8)</td>
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<tr>
<td>Women</td>
<td>1119 (44.4)</td>
<td>534 (21.2)</td>
<td>285 (11.3)</td>
<td>361 (14.3)</td>
<td>221 (8.8)</td>
</tr>
<tr>
<td>0-17 yr</td>
<td>301 (35.9)</td>
<td>195 (23.3)</td>
<td>83 (9.9)</td>
<td>135 (16.1)</td>
<td>124 (14.8)</td>
</tr>
<tr>
<td>18 &gt; yr</td>
<td>1341 (48.5)</td>
<td>491 (17.8)</td>
<td>357 (12.9)</td>
<td>386 (14.0)</td>
<td>190 (6.9)</td>
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<tr>
<td>NL BMI</td>
<td>923 (46.8)</td>
<td>361 (18.3)</td>
<td>250 (12.7)</td>
<td>277 (14.0)</td>
<td>162 (8.2)</td>
</tr>
<tr>
<td>Obese</td>
<td>427 (42.7)</td>
<td>230 (23.0)</td>
<td>114 (11.4)</td>
<td>169 (16.9)</td>
<td>60 (6.0)</td>
</tr>
<tr>
<td>Asthma</td>
<td>149 (17.7)</td>
<td>266 (31.6)</td>
<td>80 (9.5)</td>
<td>277 (32.9)</td>
<td>70 (8.3)</td>
</tr>
<tr>
<td>Smoker</td>
<td>104 (32.4)</td>
<td>84 (26.2)</td>
<td>45 (14.0)</td>
<td>71 (22.1)</td>
<td>17 (5.3)</td>
</tr>
</tbody>
</table>
Screen Results and Demographics of 4637 Participants at NOML Events 2003-2011

Screen Results

| Few Symptoms and Normal Lung Function | 50.4% |
| Increased Symptoms and Normal Lung Function | 18.9% |
| Few Symptoms and Decreased Lung Function | 12.9% |
| Increased Symptoms and Decreased Lung Function | 15.2% |

66.7% Female
73.6% African American
33.6% BMI > 30 kg/m² (obese)
23.7% Ever smoked
7.1% Current Smokers

Only 23.7% self-reported asthma yet nearly 50% have increased symptoms or abnormal lung function.
## Screening Results for Asthmatics:
Only 17% asymptomatic with normal lung function!

<table>
<thead>
<tr>
<th>Low Symptom Score and Normal Lung Function</th>
<th>High Symptom Score and Normal Lung Function</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>17%</strong></td>
<td><strong>35.6%</strong></td>
</tr>
<tr>
<td>Low Symptom Score and Abnormal Lung Function</td>
<td>High Symptom Score and Abnormal Lung Function</td>
</tr>
<tr>
<td><strong>8.9%</strong></td>
<td><strong>38.5%</strong></td>
</tr>
</tbody>
</table>

*poor perceivers?  Poorly controlled*
High Prevalence of Under-Treatment and Hospitalization among Asthmatics

No current asthma treatment: 38%
Bronchodilator only: 27%
Inhaled corticosteroids: 19%
Ever hospitalized for asthma: 21%
**Access to a Personal Physician**

All participants:
- have physician - 58.5%

Participants with self-reported asthma:
- no physician – 23%*
- primary care physician – 59%
- specialty physician – 18%

* P < 0.001 versus participants without self-reported asthma
How many people walk into programs without a diagnosis of asthma but likely have asthma or some other lung disease?

N = 844 complete screenings without a diagnosis of asthma

Strong evidence for lung disease 12%
(symptoms present and abnormal lung function)

Good evidence for lung disease 16%
(abnormal lung function only)

Weak evidence for lung disease 20%
(symptoms present only)

90% of participants with abnormal lung function report seeing a physician after a NOML session

48%
NOML EXPANSION CITIES

- Chicago, IL
- Lansing, MI
- Brooklyn, NY
- Flint, MI
- Mt. Vernon, NY
- Chattanooga, TN
- St. Louis, MO
- Hartford, CT
- Grand Rapids, MI
- Norfolk, VA
- Long Island, NY
- Detroit, MI

- Memphis, TN
- Jackson, MI
- Hattiesburg, MI
- Houston, TX
- Dallas, TX
- Washington, DC
- New Orleans, LA
- Oakland, CA
- Bronx, NY
- Los Angeles, CA
The Inner-City Respiratory Alliance

ENGAGE ......EDUCATE......EMPOWER

- On line Patient Education and Resources
- On line Provider CME focused on High Risk populations
- Network of 20 NOML Expansion Cities
  - Live Patient and Provider Education
  - Centralized data collection (ACCESS)
- Nascent Research Network

www.notonemorelife.org
Strategies to Change the Paradigm

- Actionable education of PCPs on evidence based guidelines
  - Identify and treat persistent asthma
  - Increased use of spirometry
  - Simplified Asthma Management Plans
    - Emphasize individualized symptom recognition

- Functional cultural competency

- Enhanced provider-patient communication
  - Straight talk
  - Eliminate the victim mentality and the missionary approach
Strategies to Change the Paradigm

- Patient Centric Education to Engage, Educate and Empower
  - Increased use of Ethnically Oriented Broadcast Media
    - TV, Radio, Blogosphere
  - Asthma Champions
  - Corporate buy in for the “value-added” concept
    - Increasing “Presenteeism”
Strategies to Change the Paradigm

- Increase Adherence
  - Effectively inquire about adherence
  - Discover the barriers
    - Ambivalence
    - Fear and misinformation
    - Cost
    - Hassle factor – KISS
  - Address the barriers
    - Strait talk
    - Education
    - Samples, patient assistance programs, formulary awareness
Strategies to Change the Paradigm

- Relevant Research where the signal/noise ratio is the greatest
  - Adequate representation of members of high risk populations and minority investigators
  - Cluster studies, multivariate and regression analyses
  - Community based studies utilizing community resources for validation
  - Translational studies
  - Increased focus on validating effective models of community based education and care
  - No more “quick projects” that study only epiphenomena and leave no resources for change
In the fall of 2009, NOML partnered with the City of Refuge Shelter and the Healing Community Center Clinic in Atlanta to start a free clinic to provide access to pulmonary physicians for the individuals who otherwise lack access to care.
Conclusions

- NOML is a novel asthma screening and education program that is highly effective at reaching and teaching diverse populations at programs conducted at communities of faith.

- NOML is now the central component of the *Inner City Asthma Alliance* networking asthma champions across the country to address asthma disparities through novel online and live education for both providers and community members.

- NOML is currently being expanded into up to 20 cities around the US from its Atlanta base.
IN MEMORY OF
Kellen

February 9, 1990 - January 11, 2001

“Not One More Child”