Addressing Asthma Disparities

A Community Based Approach

Disclosures

Advisor

- *Merck*
- *Teva Specialty*

Speakers Bureau

- *Merck*
- *Teva Specialty*

Grant Support

- *Merck*
- *Novartis*

33 million Americans with a diagnosis of asthma in their lifetime

22.2 million Americans with a current diagnosis of asthma

12.2 million Americans suffer at least one asthma attack annually
4.1 million children (55% of children with asthma)

Approximately 4000 asthma-related deaths annually

11 people die of asthma each day

CDC, NHIS, 2006

Ethnic Disparities in Asthma

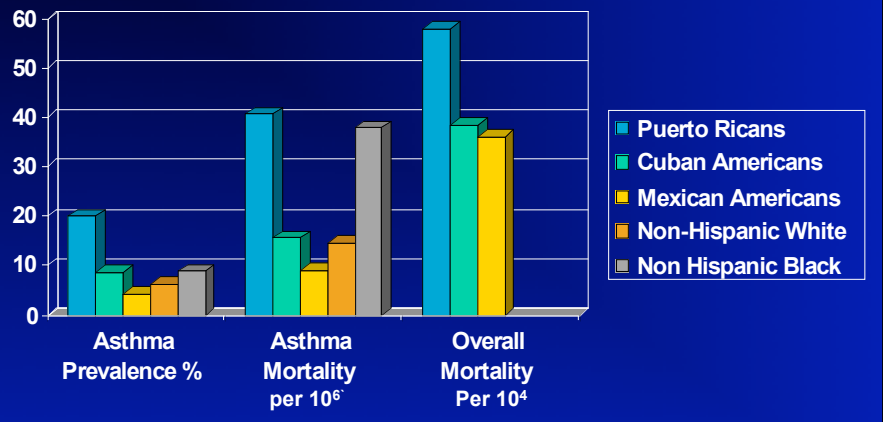
- Prevalence of asthma among African Americans is 30-40% higher than in White Americans
- African American females have the highest asthma prevalence of any racial/ gender group
- African Americans are hospitalized for asthma more than three times as often as White Americans

Ethnic Disparities In Asthma

- The age-adjusted asthma death rate in African Americans is three times that of White Americans
- African Americans represent 12.7% of the US population but account for 26% of all asthma deaths

Lung Disease Data in Culturally Diverse Communities ALA, 2005

Ethnic Disparities in Asthma
Heterogeneity among Hispanic Americans



NCHS:NHIS, 2001 and 2002

Develop Effective Community Coalitions & Avoid "Missionary" Thinking and Care

- Utilize Resident Community Resources
  - a renewable community asset
  - validated interest, commitment to the community
  - e.g. churches, co-operatives, recreation program, community organizations, resident organization, parent support groups
- Stress Empowerment Concept
  - define shared goals, expected outcomes
  - transactional vs.paternal relationships
  - conceptualize asthma control as emancipation

"Not One More Life"

Hypothesis

Partnerships with 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

Not One More Life Team

- LeRoy M. Graham MD, FCCP –Founder & Medical Director
- Melvin Butler – Program Director
- Margaret Clark RT, RN, MS – Outcome Manager & Clinic Director
- Mike Stader RT – Staff RT & Education Director
- Samuel Lindo RT, Staff RT & IT Director
- Jenese Weddington , RT Resource Coordinator

What We Believe……

- **Good Health is one of the many gifts of the Spirit**
- **Our God expects us to be good stewards of His many gifts**
- **Learning about our health and becoming empowered to maintain it is a form of good stewardship**

Not One More Life
Asthma Screening

Our Model

How we do it!

Our Methods Are Novel

NOML programs scheduled at local churches through health ministers:

- Short didactic presentation on asthma followed by Q and A
- Participants screened by validated (Juniper) questionnaire and spirometry
- Pulmonologist/Allergist/PCP reviews and discusses results with participants
- Information relayed to PCP or specialty follow up arranged
- Telephone follow up at 1, 3, 6 and 12 months

Our Partners – Communities of Faith

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

Not One More Life
Typical Program

- **Didactic Presentation**
  - **20 minutes**
- **PFT Demonstration**
  - **5 to 10 minutes**
- **Screening Questionnaire**
  - **3-5 minutes/participant**
- **Pulmonary Function Testing**
  - **3-5 minutes/participants**
- **MD Interpretation and Counseling**
  - **Written report to PCP or clinic**

Not One More Life

Typical Program Staffing

- Program Coordinator
- 1-2 Physicians
- 2-3 Respiratory Therapists
- 2-3 Asthma Educators/Program Assistants

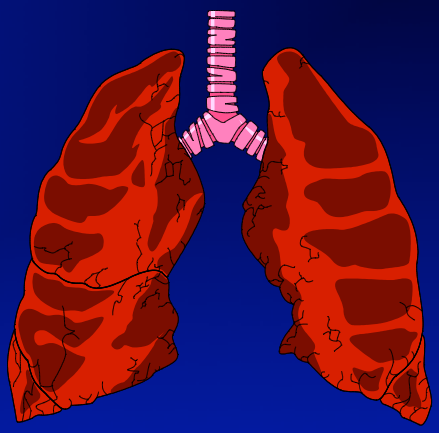
Your Lungs Provide the Breath of Life

- Your lungs bring air into the body–

  Providing oxygen to the blood.

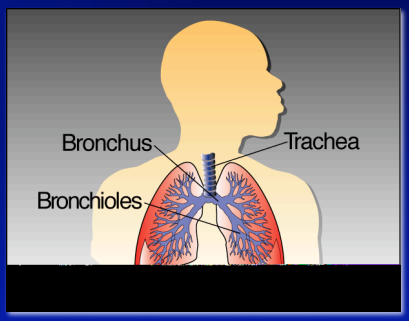
- Your lungs breathe air out of the body–

  Taking carbon dioxide away from the blood as waste gas.



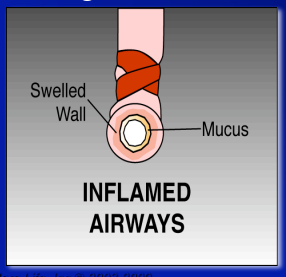
Your Airways

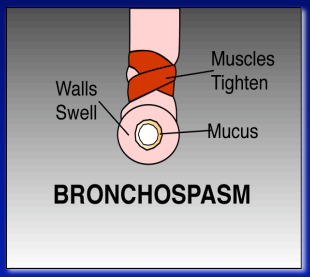
- **Breathing tubes carry air in and out of your lungs.**



Asthma is a Lung Disease that Narrows Your Airways

- Airways narrow
  - By swelling
  - Tightening of airway muscles
  - Filling with mucus





Asthma is a Chronic Disease

Airways are often
swollen, inflamed and clogged with Mucus

Colds, Smoke, Pollen, Dust, etc.
lead to
Airway Narrowing or Blockage

Coughing + Wheezing + Chest Tightness
are the
Symptoms of Asthma

Illustration: Green Island Graphics

Asthma Care-Bottom Line

- Take daily **CONTROLLER** medications to prevent asthma attacks
  - QVAR, SINGULAIR, FLOVENT, PULMICORT, SYMBICORT, ADVAIR, DULERA
- Add **RESCUE** **treatments** when symptoms start
  - Albuterol, Pro-Air, Maxair, Proventil, Ventolin,Xopenex
- **Avoid** things that trigger attacks or make your asthma worse
  - Dust, pollen, pollution, certain foods, strong odors, cigarettes

What To Expect from Good Asthma Care

TAKING RESPONSIBILITY

- Full Activity!!!!
- No missed work, school or play due to asthma
- Sleeping well through the night
- No Emergency Room or Urgent Care visits
- No hospitalization
- No side effects from medication

If this is not the case,

ask your doctor or

find another doctor!!!!

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

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!!!!!!

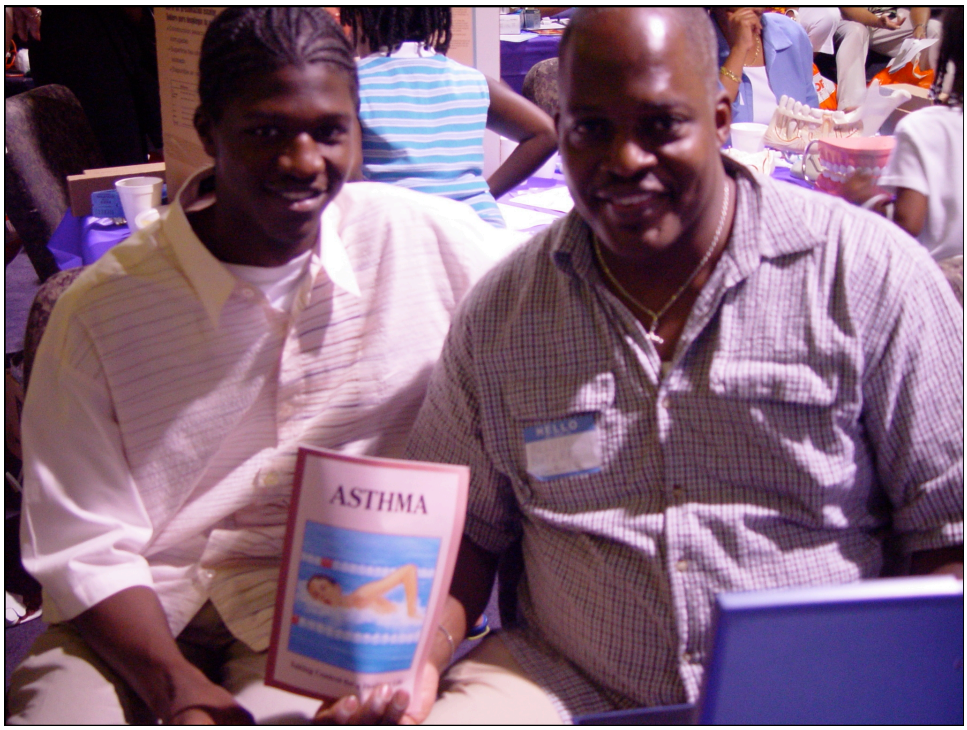
List and Then Share Your Thoughts and Concerns With Your Doctor

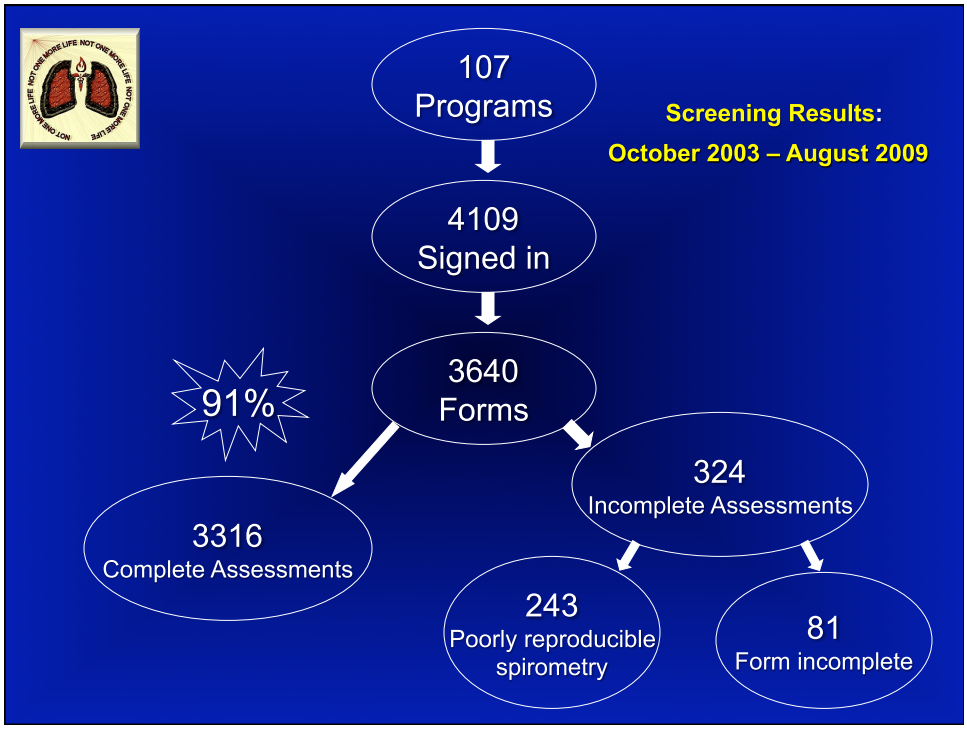
- What you would like to get from your visit or why you decided to see the doctor.
- When and where you had your symptoms.
- Your concerns about the symptoms.
- The questions you want answered.

Health Belief Model

- These beliefs influence willingness to follow preventive or therapeutic recommendations
  - I am **susceptible** to this health problem
  - The threat to my health is **serious**
  - The **benefits** of the recommendation outweigh the **costs**
  - I am **confident** that I can carry out the recommended actions successfully

Each Visit Should Leave a Legacy of Empowerment Sustained by Partnership



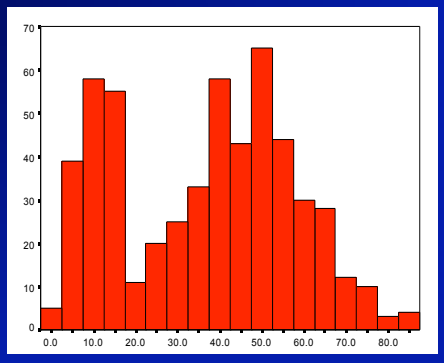


Screen Results and Demographics of 2944 Partcpants a NOML Events 2003-2008

Screen Results	
Few Symptoms and Normal Lung Function	48.4%
Increased Symptoms and Normal Lung Function	21.6%
Few Symptoms and Decreased Lung Function	13.4%
Increased Symptoms and Decreased Lung Function	16.6%

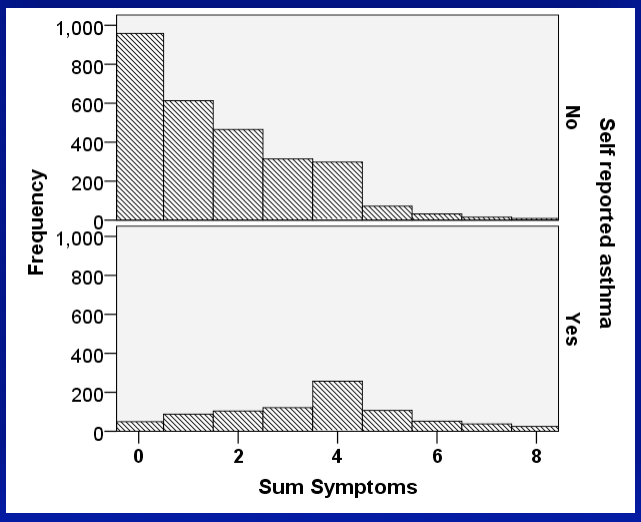
60.4% Female
91% African American
38% BMI> 30 kg/m^2 (obese)
24% Ever smoked
8.5% Current Smokers

Only 23.7% self-reported asthma yet nearly 52% have increased symptoms Or abnormal lung function

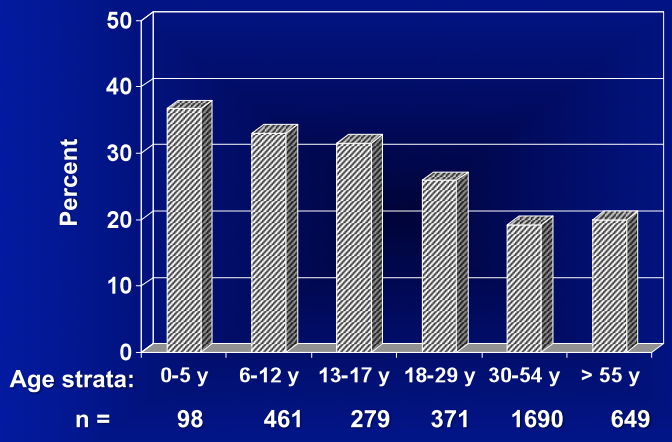


Age Distribution (yrs)

Distribution of Total Symptom Scores in NOML Attendees with and without Asthma

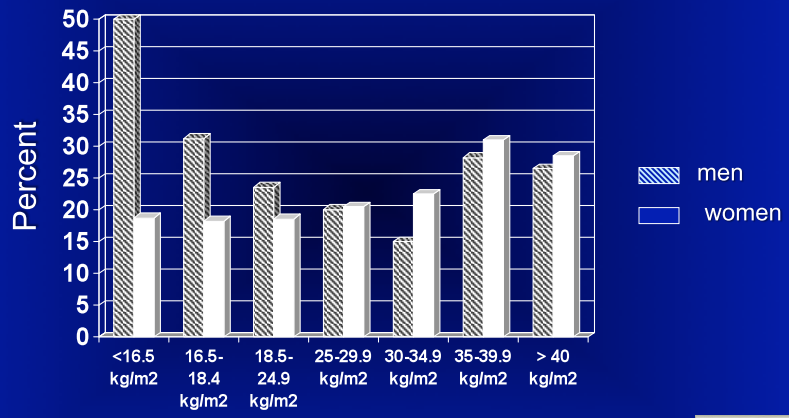


Prevalence of Physician-Diagnosed Asthma by Age *



Attendees at 107 NOML programs 10/03 – 08/09

Physician-diagnosed Asthma by WHO BMI Classification and Gender in NOML Participants ≥ 12 years



Sample (n)	22	49	724	858	527	258	220
Chi square p	ns	ns	ns	ns	0.04	0.05	ns
		(men vs women)					

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

High Prevalence of Under-Treatment and Hospitalization among Asthmatics

No current asthma treatment: 38 %

Bronchodilator only: 27%

Inhaled corticosteriods:19%

Ever hospitalized for asthma: 21%

Our Data

Features of NOML attendees:

91%	African American
66%	Women
8.5%	currently smoke
29%	have abnormal lung function
22%	**report current asthma**
38%	are obese
57%	have a personal physician
14%	poorly perceive respiratory symptoms

90% of participants with abnormal lung function report seeing a physician as a result of their NOML session!!!!!!

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
- Continued expansion of referral and case management initiatives offers a unique opportunity to alter patterns of disparate asthma morbidity in urban communities
- NOML is being expanded into up to 20 cities around the US from its Atlanta base. The NOML model has already been replicated and is operative in Norfolk/Hampton Roads, VA, Detroit, St. Louis, Flint, MI, Chattanooga, and Long Island, NY, Lansing, MI. Orlando, FL and Chicago, ILL
- Further expansion being planned for Brooklyn, Bronx, NY, Newark and Trenton, NJ, Jackson, MS, Oakland, CA, Greenville, SC and Grand Rapids, MI

The Future

- **Development of an ACCP/NOML Partnership**
  - **Continued Expansion to 30 cities by the end of 2012**
  - **Development of an online CME to provide cultural competency training for providers**
  - **Development of an online social networking platform for empowering patient education**
  - **Development of a clinical trials registry on the back bone of NOML expansion to increase both minority investigators and subjects**

IN MEMORY OF
Kellen

February 9, 1990 -January 11, 2001

"Not One More Child"

NOT ONE MORE LIFE

www.notonemorelife.org

A 501c3 not for profit

891 Byrnwyck Road
Atlanta, GA 30319
404-547-1463