Improving Pediatric Asthma Outcomes in Memphis and West Tennessee: What Would Elvis (and Danny) Do?

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Asthma at Le Bonheur Children’s Medical Center

- 225 bed NFP children’s medical center
- 4000 children with asthma seen in the ED yearly
  - Nearly 1000 of those seen in the ED stayed for a 23 hour observation period
  - Approximately 1300 per year admitted
- Length of stay for asthma is slightly above the national average at about 2.17 days
When the new hospital opens in 2010 it will feature:

- A campus that is 50 percent larger than the current facility and covers more than one million square feet.
- 12 patient care floors with the capacity for 255 inpatient beds and ability to expand.
- Dedicated units for pediatric intensive care, cardiovascular intensive care and neonatal intensive care.
- An Emergency Department with 64 patient treatment rooms; more than double the current size.
- New diagnostic and treatment services including a 14-room surgical suite, a two-room cardiac catheterization laboratory, an interventional radiology suite and an endoscopy suite.
- Private patient rooms designed to accommodate comfortable sleeping space for two parents.
- Playrooms and space for families to gather on every inpatient floor.
- Diversionary settings for inpatients, outpatients and siblings including a reading room, a mini-movie theater and play areas.
- A parent stay unit for family members who want to remain close by their children in critical care.
- Le Bonheur Club Family Resource Center, a resource providing families with the access to learning materials, Internet and patient educators.
The burden of asthma in Tennessee
<table>
<thead>
<tr>
<th>2009 Rank</th>
<th>Total Score</th>
<th>Metro area</th>
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<th>Risk Factors</th>
<th>Medical Factors</th>
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<td>Estimated asthma prevalence</td>
<td>Self-reported asthma prevalence</td>
<td>Crude death rate for asthma</td>
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<td>1</td>
<td>100.00</td>
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Supported by a grant from AstraZeneca
Tennessee Asthma Prevalence

- State-specific asthma prevalence rates for children (0-17 years) not available.
- Tennessee launched a coordinated school health program in 2006 and is collecting information on a variety of health conditions of school age children. In the 2008 Annual School Health Data & Compliance Report, the number of students diagnosed with asthma in Local Education Agencies (LEA’s) increased from 47,035 in 2005-2006 to 48,902 in 2007-2008 confirming that asthma is a significant problem for Tennessee’s school age children.

*The Burden of Asthma in Tennessee (2008)*
The above map depicts the Tennessee counties with the highest rates for Hospitalizations and Emergency Department visits for asthma.

- **Red Counties** (Scott, Shelby, Meigs, and Houston) have the highest emergency department visit rates
- **Gray Counties** (Lauderdale, Lawrence, Polk, and Fentress) have the highest hospitalization rates.
- **Orange Counties** (Haywood, Hardeman, Coffee, Campbell, Cocke, and Trousdale) have the highest rates for both emergency department visits and hospitalizations.
The Burden of Asthma in Tennessee (2008)

Age-adjusted per visit charges for in- or outpatient hospitalizations for primary asthma by gender, Tennessee, 2006 (HDDS)

Age-specific inpatient hospitalization rate for primary asthma by race, Tennessee, 2002-2006 average (HDDS)
Age-specific inpatient hospitalization rate for primary asthma by gender, Tennessee, 2002-2006 average (HDDS)

The counties with the highest asthma hospitalization rates per 100,000 were: Fentress (414), Polk (347), Coffee (279), Campbell (271) Lawrence (268), Trousdale (261), Haywood (255), Hardeman (251), Lauderdale (230), and Cocke (222). (Appendix 1).

The Burden of Asthma in Tennessee (2008)

Age-specific ED visit rate for primary asthma by race, Tennessee, 2002-2006 average (HDDS)
The ten counties in Tennessee with the highest emergency department usage per 100,000 are Scott (984), Haywood (880), Cocke (878), Shelby (854), Hardeman (809), Coffee (793), Meigs (750), Campbell (746), Trousdale (738) and Houston (736). (Appendix 1).
TennCare Asthma

- Between 1995 and 2006, statistically significant increase in the prevalence of asthma among TennCare enrollees. At least one reimbursement claim with asthma listed for the diagnosis was submitted for over 205,100 TennCare enrollees.
- For those under age 18, asthma prevalence was highest among young children age 1-4 (12.4%).
- There were 5,126 inpatient hospitalizations for a primary diagnosis of asthma and the hospitalization rate was 368/100,000.
- Between 1995 and 2006, hospitalization for any asthma diagnosis almost doubled.
- Even though asthma prevalence is higher for whites, hospitalization rates for both primary and any asthma diagnosis were higher for AA (1,319/100,000).
- There were 19,383 emergency department visits in 2006 for a visit rate of 1,255/100,000.
- Between 1995 and 2006 there were statistically significant increases in emergency department visits by TennCare enrollees.
- Forty (40) percent of emergency department visits were for children under the age of 10.

The Burden of Asthma in Tennessee (2008)
The burden of asthma in Memphis
Asthma Encounters
ED, Inpatient, and Observation
July 2008 through June 2009

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<th>Patient Type</th>
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<td>Observation</td>
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<tr>
<td>Without ED Charge</td>
<td>9</td>
<td>13</td>
<td>22</td>
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</table>

Based on Encounters with a discharge between 1 July 2008 and 30 June 2009
Emergency encounters here were discharged as ED encounters from the ED
Total encounters coming through the ED 5055
Le Bonheur Children’s Medical Center asthma care improvement

- Asthma coordinator (RT)
- Standardized asthma pathways, educational materials
- Asthma Clinic: staffed by allergy fellows: 30-40 patients per week; other asthma patients in daily allergy and pulmonary clinics
- Asthma QI projects
  - 2005: Changed albuterol from nebulizer treatments to primarily MDI “puffer” treatments
  - 2005: Increased use of inhaled steroids for discharged patients
  - 2006: Improved timeliness of treatment
  - 2008-9: Moving toward CPOE and RT-driven treatments
  - 2009: Asthma Steering Committee
- Yearly asthma camp: Camp Wezbegon funded by the Seabrook family of Memphis
STAT Plan to Reduce Asthma in Tennessee
2009
STAT Asthma Plan

• Based on data from *The Burden of Asthma in Tennessee* (2008), the Tennessee Asthma Plan targets specific age groups to reduce asthma episodes, emergency department visits and hospitalizations.

• The targets are:
  1. Children 0-5 years old and their caregivers and families
  2. School age children 10 years and younger including their parents and the school environment and
  3. Tennesseans age 30 and older
Asthma and preschool children

- Children under five were identified as first priority because of data and access to families with young children through several statewide programs managed by the Departments of Health, Education and Bureau of TennCare:
  - Home visiting services
  - Women, Infant and Children (WIC) services
  - Head Start
  - Pre-kindergarten programs offered by local education agencies
  - Well child health exams at local health departments and through TennCare MCOs,
  - Collaborative services offered to the early child care network through the Early Childhood Comprehensive Systems (ECCS) initiative.
    - ECCS provides continuing education for licensed child care providers through regional Child Care Resource and Referral Centers. ECCS also has a strong partnership with the state child care training and certificate program offered for individuals seeking certification or an associate’s degree prior to being hired by child care facilities.

2009 STAT Plan to Reduce Asthma in Tennessee
Asthma and school age children

- Asthma is one of the most common causes of school absenteeism and affects approximately 1 in 10 children in the United States. Good asthma control for children means reduced school absenteeism, full participation in school and other activities, and uninterrupted sleep at night—leading to improved school performance. Asthma in school age children is one of many important issues being addressed through the activities of the Tennessee Coordinated School Health (CSH) Program.

- CSH was funded in 2006 and the Department of Education was charged with the responsibility of instituting coordinated school health in all Local Education Agencies (LEAs) statewide.

- Each school system hired a school health coordinator to work with local administrators, teachers, school personnel, interested parents and community members to implement the eight components of a comprehensive school health system.

2009 STAT Plan to Reduce Asthma in Tennessee
Memphis area schools and asthma

- 2006: County Schools reported 2300 children with asthma attending school; only 900 kept medicines at school
- 2006: Memphis City Schools reported 8800 children with asthma in their school system
  - The Coordinated School Health Program educated and managed students with asthma in 25 Memphis City Schools each year
Memphis City Schools Asthma Case Manager Proposal

Staff:
• Employ 3 RN Case Managers to work with Memphis City Schools-One Case manager in a Lead position

Program:
• Target 4 elementary & middle schools/ nurse starting Sept.
• Teach Open Airways for 6 weeks in one elementary grade (3rd)
• Teach asthma curriculum for 6 weeks in one middle school grade (6th)
• Teach classes Mon-Thurs. –Utilize Fridays for phone calls, follow-ups etc.
• Teach asthma curriculum to high school wellness teachers to use in their classes—serve as guest speaker upon request.
• Identify those students with diagnosis of asthma/ asthma related symptoms
• Present program goals & objectives to parents-obtain consent
• Assure primary healthcare provider (medical home)
• Utilize asthma experts at Le Bonheur-Asthma Clinic/community for continued care when appropriate
• Monitor absences and discuss with parents

Evaluation:
• Pre and post tests
• Absences/ hospital admissions/ readmissions

Courtesy Dr. William Phillips, VP Community Outreach, Le Bonheur
Coordinated School Health

- The Tennessee Department of Education defines Coordinated School Health (CSH) as a system designed to integrate physical, emotional and social aspects of health with learning.
- The eight components for a comprehensive school health program are as follows:
  - 1) Comprehensive Health Education – Health education is a sequential program for pre-K-12 addressing the physical, mental and emotional, and social aspects of health.
  - 2) Health Services – Health Services are provided and/or supervised by school health nurses to assess and promote student health.
  - 3) Nutrition Services - Nutrition services assures access to a variety or nutrition meals accommodating the health and nutrition needs of all students.
  - 4) Physical Education/Physical Activity - Physical education is a sequential pre-k -12 curriculum program that follows national standards in providing developmentally appropriate, cognitive content and learning experiences in a variety of physical activity areas such as basic movement skills; physical fitness; rhythm and dance; cooperative games; team, dual, and individual sports; tumbling and gymnastics; and aquatics.
  - 5) Healthy School Environment - Healthy school environment concerns the quality of the physical and aesthetic surroundings; the psychosocial climate, safety, and culture of the school; the school safety and emergency plans; and the periodic review and testing of the factors and conditions that influence the environment.
  - 6) School Counseling, Psychological and Social Services - Counseling, mental health, and social services are provided to assess and improve the mental, emotional, and social health of every student.
  - 7) Student, Family and Community Involvement - Involvement of students, parents, community representatives, health specialists, and volunteers in schools provides an integrated approach for enhancing the health and well being of students both at school and in the community.
  - 8) School-Site Health Promotion for Staff - Wellness opportunities such as health assessments, health education and physical fitness activities are provided to all school staff, including the administrators, teachers and support personnel, to improve their health status.
Coordinated School Health

- The Tennessee Coordinated School Health Report of 2007 states that 135 of the 136 school systems have implemented a CSH Initiative. Approximately 115,965 students have a chronic illness or disability and 48,902 or 42.1% have a primary diagnosis of asthma.

- School health data and compliance highlights include:
  - 50% of all school systems have used the EPA Indoor Air Quality Tools for Schools Kit to assess and plan at the school level
  - 63,574 students self-administer medications at school. Of the total number of students self-administering medications, 17,747, or 28%, of students self-administered inhalants.
  - 72,339 students received medications at school, administered by a health care professional.
  - 6,823 students received a health care procedure on a daily or routine basis at school from a licensed health care professional.
  - School personnel are trained to handle medications and record keeping, including 921 principals/assistant principals (9.6%), 4,782 educators (47%), 241 counselors (2.3%), 2,361 secretaries (23%), nurses (11%), and 701 other staff (6.9%).

- Of the 140 school systems, 126 have developed an individual health plan (IHP) for all students with chronic or long-term illnesses including asthma.

- In June of 2008, the state of Tennessee passed a bill (Public Chapter 1154) mandating that the Department of Health collaborate on the problem of asthma with both the Department of Education and the Bureau of TennCare, in order to coordinate plans for reducing the burden of asthma on the state’s school children.
2009 STAT Goals and objectives
Surveillance and Epidemiology

GOAL: Identify and continuously monitor populations at risk for asthma in Tennessee.

• Objective 1. At least every three years, review the current data on asthma prevalence and health care costs to update the Burden of Asthma in Tennessee, 2008 and disseminate information to asthma stakeholders and members of the State of Tennessee Taskforce (STAT).

• Objective 2. By July 2010, develop and implement an asthma data surveillance and evaluation plan to continuously track data elements and evaluate the impact of STAT activities.
Public Awareness and Education

Goal: Increase public awareness and education for all Tennesseans and specifically those affected by asthma.

- Objective 1. By December 2010, launch an asthma education and awareness plan to educate all Tennesseans about asthma incidence in Tennessee emphasizing the counties with the highest hospitalization and emergency room visits.
- Objective 2. By July 2010, increase the opportunities for training and the number of child care providers trained in asthma education and asthma management.
- Objective 3. By June 2011, increase the opportunities for training and the number of students, staff, faculty, administration, coaches and school health professionals trained in asthma education and asthma management.
- Objective 4. By June 2010, disseminate age appropriate asthma management education programs to Tennesseans with emphasis on children and their families that includes asthma facts, asthma triggers, appropriate use of medications and the importance of self monitoring.
- Objective 5. By June 2011, increase public awareness about modifiable, environmental asthma triggers emphasizing second-hand smoke and its relationship to asthma.
- Objective 6. By December 2012, promote the 100% tobacco free schools policy and enforcement which follows the Centers for Disease Control and Prevention guidelines that all school buildings and school grounds are 100% tobacco free at all times.
2009 STAT Goals and objectives-3

Medical Management
GOAL: Promote the use of best practices, guidelines and evidence from the literature regarding the diagnosis and management of asthma.

- Objective 1. By December 2011, promote asthma continuing education and web-based programs for health professionals to increase knowledge and adherence to national guidelines for asthma diagnosis and management.
- Objective 2. Continuously promote the federally recognized standard of one nurse per 750 students in grade K through 12 to improve school attendance and assist students with asthma in episode management.
- Objective 3. Continuously improve group and educational settings for children and adults with asthma by reducing environmental triggers and increasing asthma management skills, through training, monitoring, technical assistance and evaluation.
- Objective 4. In partnership with the Department of Education Coordinated School Health Program, develop and implement an emergency action plan for schools in the event of an acute asthma exacerbation by September 2010.
- Objective 5. By December 2014, all children with an asthma diagnosis will have an individualized asthma plan from the patient’s medical home on file in the school, child care facility or other out-of-home group care setting and used in the home for asthma management.
- Objective 6. By December 2010, develop partnerships to educate parents to the signs and symptoms of asthma and the details of asthma management for children ages 1 through 4.
Environmental Management

Goal: Ensure that all community settings for children and adults with asthma are safe and healthy environments.

• Objective 1. By July 2011, ensure that the annual monitoring visits to licensed child care facilities conducted by DHS include an assessment of asthma triggers and asthma action plans for children with asthma.
• Objective 2. By December 2014, increase public awareness about second hand smoke exposure and other environmental triggers (e.g. cockroaches, pet dander, mold, dust mites) in the home, child care setting or school through a community wide campaign.
• Objective 3. By December 2014, at least 70 percent of the school systems will use the Indoor Air Quality- Tools for Schools program developed by EPA to improve indoor air quality.
Asthma care improvement
Improving care outcomes for pediatric asthma

- Continuing to do the same thing and expecting a different result = insanity
- *Better*, Atul Gawande
  - “Count something, write something, change”
- Change
  - Models for change/improvement:
    - IHI Breakthrough Series
      - Based on achieving best outcomes using the Improvement Model (What are you trying to change?, how will you know a change is an improvement (measurement)?, PDSA (plan-do-study-act) rapid cycles of change)
    - Chronic Care Model
      - Wagner
    - Dartmouth Microsystem Improvement model (www.clinicalmicrosystems.org)
      - Batalden, Nelson, Godfrey
      - Focus on frontline care teams (5 P’s: purpose, patients, professionals, processes, patterns)
      - Successfully adapted by the Cystic Fibrosis Foundation to improve CF care outcomes
        - Learning and Leadership Collaboratives
- “Steal shamelessly, share graciously”
  - Chicago Asthma Consortium
  - Proceedings of a national workshop to reduce asthma disparities
    - Chest 132:751, 2007
  - New England Asthma Regional Council
  - Asthma Community Networks
Asthma disparities

- Hospitalization rates for African-Americans: 1.4-4.0 times greater
- Mortality: 1.3-5.5 times greater
- Multiple factors: socioeconomic, financial barriers
- Even with equal access, outcomes are poorer
  - Health systems
  - Health-care providers: bias, stereotyping, prejudice, poor communication skills
  - Patient factors: health literacy, beliefs, adherence
Differences, Disparities, and Discrimination: Populations with Equal Access to Health Care

- Clinical Appropriateness and Need
- Patient Preferences
- The Operation of Healthcare Systems and the Legal and Regulatory Climate
- Discrimination: Biases and Prejudice, Stereotyping, and Uncertainty

Populations with Equal Access to Health Care
The IOM Quality report: *A New Health System for the 21st Century*

- “The current care systems *cannot* do the job”
- “Trying harder will not work”
- “Changing care systems will”
How to Improve

Asthma

Achieving breakthrough levels of improvement for people with chronic conditions requires that an organization make changes to improve six fundamental areas in parallel:

- **Self-Management:** Effective self-management is very different from telling patients what to do. Patients have a central role in determining their care, one that fosters a sense of responsibility for their own health.
- **Decision Support:** Treatment decisions need to be based on explicit, proven guidelines supported by at least one defining study.
- **Clinical Information System:** A registry — an information system that can track individual patients as well as populations of patients — is a necessity when managing chronic illness or preventive care.
- **Delivery System Design:** The delivery of patient care requires not only determining what care is needed, but clarifying roles and tasks to ensure the patient gets the care, making sure that all the clinicians who take care of a patient have centralized, up-to-date information about the patient’s status, and making follow-up a part of standard procedure.
- **Organization of Health Care:** The effort to improve care should be woven into the fabric of the organization and aligned with a quality improvement system.
- **Community:** Community programs and organizations that can support or expand a health system’s care for chronically ill patients and prevention strategies are often overlooked.

Many healthcare organizations in several countries have used the Model for Improvement™ very successfully to improve chronic illness care. Using the key elements of the model, especially testing changes on a small scale with Plan-Do-Study-Act (PDSA) cycles, has helped organizations improve care for their patients with chronic conditions.

Improvement efforts should be led by a multidisciplinary core team: Forming the Team

- Setting Aims
  Improvement requires setting aims. The aim should be time-specific and measurable; it should also define the specific population of patients that will be affected.

- Establishing Measures
  Teams use quantitative measures to determine if a specific change actually leads to an improvement.

- Selecting Changes
  All improvement requires making changes, but not all changes result in improvement. Organizations therefore must identify the changes that are most likely to result in improvement.

- Testing Changes
  The Plan-Do-Study-Act (PDSA) cycle is shorthand for testing a change in the real work setting — by planning it, trying it, observing the results, and acting on what is learned. This is the scientific method used for action-oriented learning.

Sources:
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

Informed, Activated Patient
Productive Interactions
Prepared, Proactive Practice Team

Improved Outcomes


Developed by The MacColl Institute
® ACP-ASIM Journals and Books
Chronic Care Model

Improved Outcomes

- Informed, Activated Patient
- Productive Interactions
- Prepared, Proactive Practice Team

Patient-Centered Care

- Community
- Health System
- Health Care Organization
- Clinical Information Systems

Resources & Policies
- Self-management Support
- Delivery System Design
- Decision Support
To Change Outcomes Requires Fundamental Practice Change

Reviews of interventions in several conditions show that effective practice changes are similar across conditions.

Integrated changes with components directed at:
• influencing physician behavior,
• better use of non-physician team members,
• enhancements to information systems,
• planned encounters
• modern self-management support, and
• care management for high risk patients

Adapted from the MacColl Institute website:
http://www.improvingchroniccare.org
Chicago Asthma Consortium

http://www.chicagoasthma.org/
New England Asthma Regional Council

Leadership through Action for New England’s Children

The New England Asthma Regional Council Mission:
To reduce the impact of asthma across New England, through collaborations of health, housing, education, and environmental organizations with particular focus on the contribution of schools, homes, and communities to the disease and with attention to its disproportionate impact on populations at greatest risk.

Upcoming Past Control Conference
“Getting the Bugs Out: Pest Control Strategies for Affordable Housing”
April 16-17th, 2008
Information
Register Now!

Focus Areas
Asthma Surveillance
Clean Homes
Environmental Investments
Healthy Housing
Healthy Schools
Integrated Pest Management
New England State Asthma Plans
Occupational Health

ARC Highlights
See ARC’s New Roadmap to the Future 12/10/07 Strategic Plan
New: A Case for SmokeFree Housing
Environmental Investments
Enhancing Asthma Management Using In Home Environmental Interventions: A Review of Public Health Department Programs

http://www.asthmaregionalcouncil.org/
NEW ENGLAND ASTHMA ACTION PLAN 12/07

• **Action Area 1: Promote Best Practices and Policies which Foster Excellence in Environmental and Clinical Asthma Management:**
  - **Focus Area 1:** Proactively disseminate guidance, models and resources for providers to adopt quality care that integrates clinical, educational and environmental components
  - **Focus Area 2:** Promote a public health approach to asthma, working with state and local health departments to increase states’ capacity to supplement clinical care with community-based and home-based services
  - **Focus Area 3:** Promote updated national NAEPP asthma care guidelines, and advocate for alignment of health care reimbursement of quality standards
  - **Focus Area 4:** Promote the “business case” to health care payers for educational and home-based environmental services to improve asthma outcomes
  - **Focus Area 5:** Promote integration of asthma services with other chronic disease management programs, to improve efficiency and effectiveness

• **Action Area 2: Promote an Integrated and Broad-based Healthy Homes Agenda**
  - **Focus Area 1:** Promote policies, programs, and education that foster asthma-friendly environments and reduce exposure to ETS, mold, pests and chemicals
  - **Focus Area 2:** Work with state agencies and community organizations to encourage the integration and coordination of their Healthy Homes programs (asthma, lead, injury protection, radon, CO, weatherization programs)
  - **Focus Area 3:** Continue promoting adoption of ARC’s updated Healthy Homes Building and Property Maintenance Guidance.

• **Action Area 3: Increase Access to, as well as Analysis and Application of, High-quality Health Data:**
  - **Focus Area 1:** Collaborate with states to continue periodic asthma surveillance on a regional basis- using the best data available, including school data-- and produce reports of findings and recommendations for action
  - **Focus Area 2:** Strive to produce periodic “Environmental Health Integration Reports” on the status of chronic diseases (including asthma) in the region that are influenced by environmental factors, helping to put asthma in a chronic disease context, while highlighting shared risk factors such as tobacco, particulates, and toxic chemicals.
  - **Focus Area 3:** Promote the availability of comprehensive health information repositories in states to foster access to, and analysis of, the best data available (both public and proprietary) on a timely basis, and ensure that this data is used to promote the public’s health

• **Action Area 4: Support Improvement of Indoor and Ambient Air Quality**
  - **Focus Area 1:** Promote reduction of exposure to pests and rodents, mold, wood and environmental tobacco smoke, and toxic chemicals in residences, schools, buildings, and workplaces
  - **Focus Area 2:** Develop and disseminate guidance document for planners on near roadway residences and buildings which house children (e.g., schools and daycare facilities)
  - **Focus Area 3:** Support the work of ASTHO and its state environmental health directors to develop and promote model indoor air codes
Keeping children with asthma well: Asthma Community Network

- Network is supported by the EPA in partnership with Allies Against Asthma, a program of the Robert Wood Johnson Foundation
- 219 communities (None in Tennessee)
- Five Tested Strategies for Improving Health Outcomes*
  - Committed leaders and champions
  - Strong community ties
  - High-performing collaborations and partnerships
  - Integrated health care services
  - Tailored environmental interventions

* Communities in Action for Asthma-Friendly Environments Change Package

http://www.asthmacommunitynetwork.org/
10 High performing community asthma programs

- 1) Asthma Network of West Michigan
- 2) Boston Public Health Commission
- 3) Cambridge Health Alliance.
- 4) Children’s Mercy Hospitals and Clinics
- 5) Children’s Hospital of Philadelphia’s Community Asthma Prevention Program
- 6) IMPACT DC
- 7) Monroe Plan
- 8) New York City Asthma Initiative
- 9) Urban Health Plan
- 10) WellPoint’s State Sponsored Business Comprehensive Asthma Intervention Program

http://www.asthmacommunitynetwork.org/
Potential state and local policies to reduce asthma disparities

- **Health policy access and financing**
  - Extending coverage to all children
  - Develop model benefit packages for essential asthma services

- **Quality of health care**
  - Develop and implement quality measures
  - Provide case management to high risk patients

- **Health care workforce**
  - Support use of community workers
  - Implement multidisciplinary teams

- **Healthcare workforce cultural competency**
  - Integrate cross-cultural training for all health professionals

- **Public health infrastructure and leadership**
  - Public health grants to foster asthma-friendly communities

Improving outcomes in children’s asthma: the role of state government

• Maintain and expand legislation to restrict smoking in public places
  – Direct protection of children with asthma
  – Encourages parents to quit smoking, reducing exposure at home
• Support for training and implementation of community peer asthma educators
• Mandate payments for asthma education and preventive services ("well asthma visit")
• Support for local asthma coalitions ("all improvement is local") AND a statewide asthma collaborative to disseminate innovations, promote best practices
• Implementation of STAT recommendations
My asthma “to do” list

• Working toward coordinated asthma care from ED to PICU/inpatient and back to primary care medical home/asthma specialist
  – Benchmarks: LOS, readmission rates
• Multidisciplinary asthma center (CF Care Center model): SW, RT, nutrition, research, QI, allergy and pulmonary
• High(est) Risk Asthma Clinic and registry
• Memphis area community forum/collaborative
  – MCO’s, LeB, community resources, schools, community and University asthma specialists
• Supporting local implementation of STAT recommendations
What might Elvis and Danny do to improve pediatric asthma outcomes?
Elvis Presley Memorial Trauma Center Memphis

- The MED – Memphis
- Covers west Tennessee, eastern Arkansas, northern Mississippi, boot heel of Missouri and parts of Alabama and Kentucky
- Treats approximately 5,000 cases annually; 20-25 percent penetrating injuries; 75-80 percent blunt trauma
- Eight trauma surgeons
- Four dedicated trauma operating rooms
- One recovery room
- 23 trauma ICU rooms plus eight neurosurgery ICU rooms
- Dedicated radiology suite
- Four helicopters
Elvis Presley Memorial Trauma Center

Elvis still occasionally drops by…
St. Jude Children’s Research Hospital
Improve pediatric asthma outcomes in Memphis and West Tennessee

What would you do?
Comments and questions