Asthma Coalition Meeting

LAC+USC Medical Center Breathmobile Program
July 26, 2010

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Department of Pediatrics
COMMUNITY BASED OUTREACH PROGRAM
Integration of Existing Resources for Sustainability

AAFA
Southern California

LA County
Dept of Health Service
LAC+USC Medical Center

LA County
Unified School District

PARTNERSHIP FOR COMMUNITY HEALTH
Program History

- Breathmobile Program- started 1995
- 60,000 patient follow-up visits
- 10,000 patients
- Successful replication of program nationwide
- Original certification by Joint Commission 2002
Pediatric Asthma Disease Management Program

Program building thru partnership

AAFA Southern California

LA County Dept of Health Services LAC+USC

LA Unified School District

National Network

A & I Clinic

Care Coordination Center

Survey at all visits

JCAHO Accreditation

AAFA Data Analysis Center

Case Identification Survey

Collaboration with other sites

AsthmaWatch EMR

AsmaTrax EMR & DM tracking system

Community Outreach

Disease Management

Ongoing evaluation, planning & program improvement

Start-up

Pediatric Asthma Disease Management Program

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Start-up
BARRIERS TO EFFECTIVE ASTHMA CARE

- Engage in long term care
- Burden of asthma
- Appropriate assessment and standard of care
- Patient/Family awareness
- Access to care
- Financial Costs
- Utilizing available care

Asthma health status

Provider awareness
The objectives of this program are to integrate existing community resources with disease management principles order to:

1. Deliver sub-specialty care to underserved children with asthma living in Los Angeles County.

2. Improve public health resource utilization by shifting care emphasis from an acute episodic care to a preventative health care model.

3. Demonstrate cost effective health care through a decrease in utilization of acute care costs related to asthma exacerbations.
COMMUNITY BASED OUTREACH PROGRAM
Integration of Existing Resources To Form A Healthcare Network
COMMUNITY BASED OUTREACH PROGRAM
Integration of Existing Resources To Form A Healthcare Team

Mobile Asthma Clinic
Healthcare Personnel

School Nurse
School Nurse
School Nurse
School Nurse
School Nurse

- Identify students with asthma
- Coordinate scheduling and communication
- Monitor patients status
DISEASE MANAGEMENT PRINCIPLES
Long term care to achieve & maintain control of asthma

THOROUGH EVALUATION
- Disease activity (Day/night Sx, BD use)
- Morbidity (ED/Hosp, OCS bursts)
- Co-morbidities (AR, CS, GER)
- Exposures & triggers
- Targeted physical exam
- Pulmonary function
- Skin testing
- Assess clinical control of asthma
- Assess whether goals are met

THERAPEUTICS
- Environmental Controls
- Daily Management Plan
- Medications (controllers & relievers)
- Patient / Family Education
- Set goals (clinical control of asthma)
- Set goals (patient & family)

ROUTINE FOLLOW-UP
- Regular intervals
- Intensity/frequency of follow-up that is necessary to achieve & maintain control
- Track clinical control carefully
- Track whether goals are being met
- Phone call follow-ups
MODEL FOR ROUTINE CARE TO CONTROL ACTIVE ASTHMA
Application of Disease Management Principles

PATIENT POPULATION

Routine care | No routine care

Identify poorly controlled asthma

Referral & Scheduling for Poorly Controlled Asthma

Specialty Care coordinators-Team Staff

Identify poorly controlled asthma

Primary Care Clinical Encounters – Facilitated Systematic Assessment & Tracking of Asthma

Primary Care Physicians & Staff & Health Risk Assessment Systems

Case Identification, Stratification, & Referral

Referrals

Contact & Schedule

Specialty Care Coordinators-Team Staff

Contact-prior to each visit & for missed visits

Specialty Care Coordinators- Team Staff

Regular follow-up to achieve & maintain control of asthma

Specialty Care Clinical Encounters - Systematic Assessment & Tracking of Asthma Control, Detailed Treatment Plans & Education

Asthma Disease Management Specialty Team & Health Risk Assessment Systems

PATIENT POPULATION

Routine care | No routine care

Identify poorly controlled asthma
Region (Program Name); 11 regions, 6 states, 19 Mobile Asthma Clinics (MAC):

1. Los Angeles, CA (LAC+USC PADMAP, Breathmobile Program)
2. Chicago, IL (Mobile C.A.R.E. Foundation)
3. Phoenix, AZ (Phoenix Children’s Hospital Breathmobile Program)
4. Baltimore, MD (University of Maryland Breathmobile Program)
5. Orange County, CA (CHOC Breathmobile Program)
6. Mobile, AL (University of Southern Alabama Breathmobile Program)
7. San Bernardino County, CA (Arrowhead Regional MC Breathmobile Program)
8. Riverside, CA (Riverside County Regional MC Breathmobile Program)
9. St. Louis, MO (Healthy Kids Asthma Express)
10. Oakland, CA (Prescott-Joseph Center BP)
11. Long Beach, CA (UCLA Mattel Children’s Hospital BP)
National AsmaTrax Network
Data Management, Analysis, & Reporting

1. Data cleaning
2. Routine analysis & reports
   - Evaluation & improvement
   - Disease management
   - JCAHO Accreditation
3. Ad-hoc analysis
   - Project specific
   - Papers & reports
   - Disease management
   - Evaluation & improvement
4. Site specific & Collaborative

AAFA (So Cal)
Analysis & Data Management

Data Transfer

A & I Clinic
CCC

MAC 1
MAC 2
MAC 3
MAC 4

Los Angeles
Orange County
Phoenix
Baltimore
Chicago
South Alabama
Oakland
San Bernardino
Riverside

UCLA
**Morbidity Pre vs. Post Year of Entry**

Among study patients who entered and received ongoing care (>=1 year) in regions operating programs during the 5 year period (2002-2006)

<table>
<thead>
<tr>
<th>Region</th>
<th>% Reduction in patients reporting ED visits*</th>
<th>% Reduction in patients reporting Hospitalizations*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Los Angeles, CA</td>
<td>68%</td>
<td>87%</td>
</tr>
<tr>
<td>Chicago, IL</td>
<td>74%</td>
<td>88%</td>
</tr>
<tr>
<td>Baltimore, MD</td>
<td>56%</td>
<td>78%</td>
</tr>
<tr>
<td>Orange County, CA</td>
<td>68%</td>
<td>83%</td>
</tr>
</tbody>
</table>

* % Reduction = [(pre-post)/pre]
Program Reach: National Level
Collaborative: 11 Regions*, 6 States, 19 Units
~14 year period: November 16th, 1995- December 31st, 2009

National Level: Pediatric Patients:
• N=25,192 Patients Treated (Los Angeles 8,834)
• N= 127,774 Health Encounters (Los Angeles 60,068)
• N= 454 Schools and Centers (Los Angeles 117)

* Los Angeles CA, Chicago IL, Phoenix, AZ, Baltimore MD, Orange County CA, Mobile AL, San Bernardino County CA, Riverside CA, St Louis MS, Oakland CA, Long Beach CA
Outcomes 2009 (Asmatrax)

• Total Patients 1830
  – Average age 10.0 years (SD 4.0)
  – 82.5% Hispanic
  – 843 new, 987 return

• Total visits 5452 (average 1363 visits/mobile/year)
  – 7902 scheduled
  – 69% show rates overall (63% new, 70% return)
  – 87% of follow-up visits <90 days
2009 Outcome Measures
(pre vs. post entry into program for 2008-2009 for patients enrolled ≥1 year)

- Emergency Department Visits - reduction 64% (40% to 14%)

- Hospitalizations - reduction 68% (11.9% to 3.4%)

- Missed School Days ≥5 days - improvement by 84% (36.2% to 5.8%)
Thank You