Successful School-based Asthma Programs

Missouri Asthma Prevention and Control Program
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The title is not accurate. Let’s change it.

Successful School-based Asthma Programs

Nurse

Successful School-led Asthma Programs
Our plan includes schools ...

... and health improvement depends on them.
School-led Asthma Programs

HOW
WE DID IT
What is our role?
(Missouri Asthma Prevention and Control Program)

**YES**
- Encourage and enable local solutions
- Fill gaps in tools
- Develop competent workforce
- Make strategic connections

**NOT**
- Source of funding
- Direct service provider
Guiding Principles
Missouri Asthma Prevention and Control Program

1. Ask, Listen and Act (on what you hear)
School Nurse Manual

Development
Evaluation
Revisions and updates

AN EXAMPLE
2. Cultivate Leadership Among School Nurses
ANNOUNCING

Asthma School Nursing Award
community leaders helping children breathe better

The Missouri Department of Health and Senior Services announces a funding opportunity for 30 Missouri school nurses who lead an asthma care improvement project during the summer of 2009. Award recipients may choose to:

- Train sport coaches on asthma management basics,
- Meet with parents to prepare asthma action plans,
- Develop asthma care recommendations for school officials,
- Provide indoor environment assessments, or
- Implement a custom project.


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- Provide indoor environment assessments,
- Evaluate new health literacy materials, or
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Applications accepted until May 10, 2010.
Visit www.asthmadhere.org for easy application materials.

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Partnering with Parents

Project Goal
Meet with parents/guardians of asthmatic students to renew asthma action plans. The expected reach of this program is 15 or more families per award, but small schools may use 75% of known asthmatic children as a goal. If you have any concerns, please contact Peggy Gaddy to discuss a goal that is reasonable for your school/community.

Preparation
- Identify students who take medicine for asthma.
- Arrange meetings with parents/guardians to review asthma action plans and discuss health concerns. We recommend meeting with parents/guardians at their home or another location convenient for them.
- Select an asthma action plan template to use during parent meetings. While we recommend the Missouri School Asthma Manual template, others are available for download at [http://www.schoolnurseaward.com/projects.htm](http://www.schoolnurseaward.com/projects.htm).

Follow-Up
- Send copy of asthma action plan to child’s medical care provider
- Call family 30 days after meeting to check-in and assess needs
- Send 5 copies of asthma action plan to family for distribution to coaches, caregivers, and others who spend time with the child.

Report Results
- Submit Outcomes Report through the online Asthma School Nursing Award Application and Outcomes Reporting system.
Partnering with Parents

Project Goal
Meet with parents/guardians of asthma students. The expected reach of this program is 15% of the total students. We will invite 75% of the known asthmatic children as participants. This meeting will be facilitated by Peggy Gaddy to discuss a goal that needs to be implemented.

Preparation
- Identify students who take medications
- Arrange meetings with parents/guardians of asthmatic health concerns. We recommend having an asthma action plan and utilising another location convenient for families.
- Select an asthma action plan template that meets state requirements. We recommend the Missouri School Health Index. The template is available for download at [http://www.schoolhealth.com](http://www.schoolhealth.com).

Follow-Up
- Send copy of asthma action plan to families
- Call family 30 days after meeting
- Send 5 copies of asthma action plan to other families who spend time with the child

Report Results
- Submit Outcomes Report through the online Asthma School Nursing Award Application and Outcomes Reporting system

School Asthma Improvement Recommendations

Project Goal
Use School Health Index to develop asthma management recommendations for school board or administration to review and implement.

Preparation
- Review School Health Index materials. Online and paper-based versions are available.
- Invite group of parents, teachers, and administrators to be part of the school health index team. We recommend using your school’s health advisory committee, if one exists.
- Hold 2 to 4 meetings with the team to review school health index results and propose recommendations. Please use your experience and best judgment to determine an appropriate meeting schedule.
- Present final report with results and recommendations to school board or administration.

Report Results
- Submit Outcomes Report through the online Asthma School Nursing Award Application and Outcomes Reporting system.

Due Dates
- August 31, 2011 – complete project activities
- September 30, 2011 – submit Outcomes Report
3. Weave Into Existing Infrastructure
Infrastructure Options

- Physician Offices
- Local Public Health Agencies
- Child Care Centers
- Hospitals
- Schools
Why Schools?
What We Learned about Schools
(beyond the obvious ... that children are located there)

IMPORTANT ATTRIBUTES OF SCHOOLS FOR ASTHMA PROGRAMMING

- huge social service agency
- attendance and safety are priorities
- access to parents (but involvement wanes as the child ages)
- longitudinal access and data (on most kids)
- primarily function as care coordinators (not as care providers)
- schools are community organizers

SECONDARY CONSIDERATIONS

- health status affects educational attainment

Note: Our direct experience comes from partnering with mostly rural and suburban schools statewide.
ENVIROCLINICAL
integrating environmental and clinical approaches to improve asthma care
Behind the plans and interventions are people who share a common vision for asthma care and prevention in Missouri.

The MAPCP team believes that...

- *EPR3* is *the* best evidence available.
- *Evaluation* is a quality improvement strategy.
- *Health disparities* can be reduced.
- *Relationships matter* to develop and sustain successful interventions.
- *Data guides, and innovation drives* impactful work.
- *Return-on-investment* is measureable.

**ENVIROCLINICAL**

*integrating environmental and clinical approaches to improve asthma care*
Framework for Community-based Approaches to Improving Asthma Care for Children

– Simple, to-the-point, one-page summary
– Sets goals and interventions for integrating efforts in five areas:
  • schools,
  • home environment assessments,
  • primary care providers,
  • hospitals/emergency rooms, and
  • child care
Local + Statewide = Sustainable Interventions

Dunklin Co. (Kennett) pop. = 31,039

Asthma hospitalization rates for children younger than 15 years of age, Missouri and Dunklin County, 2002 - 2008

- Dunklin County: 161.3, 114.8, 102.4, 89.4, 78.9, 76.5, 54.1, 34.4
- Missouri: 23.7, 23.1, 22.8, 21.7, 22.1, 21.9, 22.8

Greene Co. (Springfield) pop. = 269,630

Asthma hospitalization rates for children younger than 15 years of age, Missouri and Greene County, 2002 - 2008

- Greene County: 23.7, 23.1, 22.8, 21.7, 22.1, 21.9, 22.6
- Missouri: 16.0, 12.8, 14.8, 12.8, 11.9, 12.6, 6.0
Prevalence
- 9.5% MO adults current asthma (2009)
  - up from 7.2% (2000)
- 10.1% MO children current asthma

Disease Severity (Health Service Utilization)
- Highest hospitalization rates: ages 1-4
- Elevated rates until age 14, lower between age 15-44
- Significantly for African-Americans

Rural vs. Urban
- ER visits for children: 41%(rural) v. 59%(urban)
- High hospitalization rates in rural counties

Medicaid (aka, MOHealthNet)
- $1,589 paid per asthmatic (2007)
- 35% receive appropriate long-term medications (children 0-14)
- ↓7.4% ER visits for asthma
  ... while total volume was up ↑23%
  (2000 to 2008)

Putting Excellent Asthma Care Within Reach
SUCCESS FACTORS

School Level

1. School nurse leadership
2. Proactive, objective measurement of asthma status
3. Direct and actionable communication for health care providers
4. Focus education on medication administration and adherence
SUCCESS FACTORS

Statewide

1. Reliable surveillance data
2. Create opportunities to collaborate with school nurses
   (even if doing it alone would be faster)
3. Become a advocate for school nurses
4. Measure and appreciate the value of school nurses
5. Cultivate leadership among school nurses and other school staff
6. Adopt Coordinated School Health Program approach
7. Nontraditional partners to influence schools
   (e.g., Missouri School Boards Association)
8. Alliance with CDC
Core Priorities

1. Reduce barriers to evidence-based care
2. Build capacity to deliver integrated, comprehensive asthma care
3. Identify the children most impacted by asthma disparities
4. Accelerate testing and implementation of prevention strategies among ethnic and racial minority children
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2. **Build capacity to deliver integrated, comprehensive asthma care**
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4. **Accelerate testing and implementation of prevention strategies among ethnic and racial minority children**

**some examples from Missouri**

- Teaming Up for Asthma Control
- Asthma Ready® Clinics
- Asthma Ready® Schools
- School Nurse Manual

*under development*

Drug Utilization Review
Connected to National Priorities

1. Reduce barriers to evidence-based care
2. Build capacity to deliver integrated, comprehensive asthma care
3. Identify the children most impacted by asthma disparities
4. Accelerate testing and implementation of prevention strategies among ethnic and racial minority children

some examples from Missouri

Workforce Development Initiative (AAE Becoming an Asthma Care Manager)
Pharmacist Training and Reimbursement System
School Nurse Manual
Missouri Asthma Coalition

under development
Home Environment Assessment Network
Counseling for Asthma Risk Reduction (CARR)
1. Reduce barriers to evidence-based care
2. Build capacity to deliver integrated, comprehensive asthma care
3. Identify the children most impacted by asthma disparities
4. Accelerate testing and implementation of prevention strategies among ethnic and racial minority children

some examples from Missouri

Public Health Surveillance Systems (MICA, Essence)
Analysis of Medicaid Claims Data
School Nurse Asthma Status Assessments

under development
Managed Medicaid Health Plan Case Management
Connected to National Priorities

1. Reduce barriers to evidence-based care
2. Build capacity to deliver integrated, comprehensive asthma care
3. Identify the children most impacted by asthma disparities
4. Accelerate testing and implementation of prevention strategies among ethnic and racial minority children

some examples from Missouri

Asthma School Nurse Award
   (Partnering with Parents, Coaches Training)
Teaming Up for Asthma Control
Early Childhood Asthma Initiative

under development
Counseling for Asthma Risk Reduction (CARR)
Nothing Measured, Nothing Gained
Evaluation is a Way of Doing... Not Just Something Done.

Note: Confucius did not really say this.
Five Point Model: Asthma Program Outcomes

- Clinical
- Quality of Life
- Academic Performance
- Parent Engagement
- Self-management
Why Five Domains?

- Multi-pronged interventions ... … often produce multiple benefits.
- Not all children are the same ... … so goals should be tailored too.
- Hedge your bet... … by increasing the probability of measuring the benefit you can *feel*.
Five Point Model: Asthma Program Outcomes

- FEV1
- ACT Score
- ICS Rx
- Guideline-based Rx Assessment (EPR3)
- Result of Communication with Child’s Physician
- ER Visit
- Peak Flow
- Peak Flow Ratio

Clinical

- Standard
- Advanced
Five Point Model: Asthma Program Outcomes

- Knowledge
- Inhalation Technique
- Controller Medication Adherence
- Diary Use
- Exacerbation Management

Self-management

Standard
Advanced
Five Point Model: Asthma Program Outcomes

- Absenteeism Any Cause
- Teacher Assessment of Asthma Control
- Classroom Participation Factors
- In-classroom Time
- Improvement in Grades

Academic Performance

- Absenteeism Asthma-specific
- Standard
- Advanced
Five Point Model: Asthma Program Outcomes

- Inhibited Participation in Physical Activity
- Social Inclusion
- Fear or Frustration
- Sleep Disruption
- Perception of Risk
- Perceived Support
- QoL Questionnaire

Quality of Life

- Standard
- Advanced
Five Point Model: Asthma Program Outcomes

- Parent Engagement
  - Knowledge
  - Parent-Child Communication
  - Relationship with School Nurse
  - Asthma Action Plan Filed
  - Rx Refills
  - Routine Physician Visits

- Standard
- Advanced
The goal is to achieve success ...  
... not just measure it.
Partnerships
coordinating activity ... and much more
Do Partnerships Really Help?
Missouri Asthma Prevention and Control Program

MAPCP’s Role: Link statewide and local partners
*Our Little Secret*: Everyone is welcome, but MAPCP strategically builds partnerships to reach target population
*Our Purpose for Partnership*: Leverage resources ... to the max.

**HOW DOES PARTNERSHIP IMPROVE ASTHMA CARE?**

- *Interdisciplinary Sharing*: Expertise and resources
- *Coordination*: Activities are planned and implemented together
- *Innovation*: New ideas and collaborations are fostered between stakeholders
- *Priorities*: Partners set priorities for surveillance and interventions
- *Relevance*: Key asthma issues move to forefront of systems-based strategies and public health planning
Missouri Asthma Prevention and Control Program interventions are designed to support sustainable asthma care improvements by focusing* on **workforce development** and community-based **leadership**.

* but not exclusively, of course
Thank You.