



# State of Missouri 2008 Governor's Award for Quality and Productivity Executive Summary

**Team Name:** Asthma Care Training for Missouri's School and Child Care Workforce

**Nominator:** Harold Kirbey, Deputy Div. Dir., Div. of Community & Public Health

**Nominating Department:** Department of Health and Senior Services (DHSS)

**Inter-agency nominations must include names of all agencies:**  
Missouri School Boards Association  
University of Missouri School of Medicine, Department of Child Health  
Southeast Missouri State University, Center for Environmental Analysis  
OpenHealth, LLC

**Category:** Innovation

## Asthma Care Training for Missouri's School and Child Care Workforce

### Partnerships:

The Missouri Asthma Prevention and Control Program (MAPCP) creates "room at the table" for many organizations for planning as well as fostering collaboration. Implementation of MAPCP-led school-based and childcare-based initiatives are achieved through a smaller group of strong partnerships and contractors. This core group includes the University of Missouri-Columbia School of Medicine, Missouri School Boards Association, DHSS School Health Program, DHSS Bureau of Child Care, Southeast Missouri State University Center for Environmental Analysis, and Openhealth, LLC. Each member considers Missouri children with asthma and their families first and collaborates in whatever way their organization or program can to accomplish the best care possible. Each contractor and partner provides discounted services or in-kind contributions and always go above and beyond what is expected. Without this kind of commitment, the program could not have accomplished what it has in such a short time with so little funding.

### Burden of Asthma:

In Missouri, approximately 400,000 adults (9.0%) in 2005 and nearly 111,000 children under 18 (8.0%) in 2004 reported that they were currently living with asthma; 2) Over one third (37.5%) of Missouri adults with asthma reported they were first diagnosed at or under the age of 10; 3) About 4.7% of Missouri adults with asthma reported their asthma was work related; 4) Children account for 40% of all ED visits and 32% of all hospitalizations due to asthma; 5) The current asthma prevalence rate was higher among African Americans (11.0%) than whites (8.6%) in 2005; 6) Age-adjusted asthma ED visit rates were nearly five times higher among African Americans than whites in 2005; 7) African Americans made up 12% of Missouri's population in 2005, but accounted for over 40% of all ED visits, 33% of all hospitalizations, and 22% of all deaths due to asthma; and 8) The highest rate of asthma ED visits (14.5 per 1,000) and hospitalizations (38.3 per 10,000) were among children 1 to 4 years of age.

### Accomplishments to date:

In the last three years, the Missouri Asthma Prevention and Control Program has accomplished the following workforce development: 1) Nearly 500 health professionals have been trained through the Association of Asthma Educator Course "Becoming an Asthma Educator and Manager". More than any other state in the country; 2) The Asthma School Manual has been distributed to nearly 2,000 school nurses in the state; 3) Inservice DVDs on asthma have been distributed to every school nurse and every superintendent in Missouri; 4) Through the Missouri School Health Contract, 96% of children that have medication at school have a school nurse generated asthma action plan. This contract covers nearly 300,000 children in Missouri; 5) A quality improvement project addressing disabling asthma is part of the school health contracts for 2008; 6) Every newly elected school board member in the state of Missouri will receive training that includes asthma; and 7) Asthma interventions have been implemented by 96 School Nursing Award Recipients in 45 counties.



State of Missouri  
2008 Governor's Award for Quality and Productivity

NOMINATION FORM

I. GENERAL INFORMATION

Department: Department of Health and Senior Services (DHSS)

1. Project or team name.

Asthma Care Training for Missouri's School and Child Care Workforce

2. List the name of all team members, job titles, state agency department, and/or community organization.

Peggy Gaddy, RRT, MBA, Coordinator, Missouri Asthma Prevention and Control Program, DHSS

Sherri Homan, NP, PhD, Public Health Epidemiologist, DHSS

Marj Cole, RN, MSN, Nurse Consultant, School Health Program, DHSS

Kathy Penfold, RN, Nurse Consultant, Childcare Services, DHSS

Joel Denney, EdD, Associate Executive Director, Missouri School Boards Association

Ben Francisco, NP, PhD, Assistant Professor, University of Missouri School of Medicine, Department of Child Health

John Kraemer, PhD, Professor, Southeast Missouri State University, Center for Environmental Analysis

Eric S. Armbrrecht, PhD, Principal, OpenHealth, LLC

3. Nomination category.

(Check only one)

☒ INNOVATION

☐ CUSTOMER SERVICE

☐ PROCESS IMPROVEMENT

☐ TECHNOLOGY IN GOVERNMENT

☐ EFFICIENCY

4. Describe why you selected this nomination category.

The MAPCP has limited funding and infrastructure. The program consists of one program coordinator and 20% of an epidemiologist. Innovative strategies that are reliant on implementation through functioning partnerships and outstanding contractors have been key in impacting the burden of childhood asthma in Missouri.

II. BACKGROUND

1. When did the team begin?

November 2003

2. When did the team implement this project?

Project implementation began in March 2004 with the development and distribution of the *Missouri School Asthma Manual* and has grown into a statewide workforce training initiative to address the needs of children with asthma. Project work is ongoing.

3. How long has the project been implemented?

☐ 0 - 3 Months

☐ 4 - 6 Months

☐ 7 - 9 Months

☐ 10 - 12 Months

☐ 12 or more

☒ On-going Project

### III. RESULTS/ACCOMPLISHMENT

1. **What did the team accomplish?** (Use specific data and examples to identify accomplishments and whom benefited: i.e. agency, division, department, citizens, individuals, etc. Information must be included for nomination to be considered for GAQP.)

The MAPCP and its project team have made substantial progress in developing workforce capacity at the community level to address the needs of children with asthma. In collaboration with a committee of practicing school nurses, MAPCP created the nationally recognized *Missouri Asthma School Manual* and coordinated its distribution to approximately 2,000 school nurses in Missouri. The manual provides easy-to-use forms, training materials and other resources for practicing school nurses. Building from the success of the manual, MAPCP coordinated programs for nearly 500 school nurses to attend the *Becoming an Asthma Care Manager and Educator* course, an evidence-based program developed and sponsored by the Association of Asthma Educators. Missouri leads the nation in individuals completing this program. Recognizing that children under age 6 are the most at-risk for hospitalization or ER visits for asthma, MAPCP developed training for childcare providers. From September 2006 through May of 2008 over 2,000 childcare workers received asthma-specific training. To expand the skills of school personnel in dealing with children with asthma or at-risk for asthma, MAPCP developed an in-service DVD program that has allowed schools to efficiently train teachers, coaches, bus drivers, cafeteria workers, etc. on the fundamentals of asthma management and their role in supporting children with asthma. The DVD package includes three other health topics prioritized by school health survey results – head lice, diabetes, and seizure. MAPCP's workforce development work has also addressed the needs of policy-makers at the local level through a partnership with Missouri School Boards Association (MSBA). MSBA has added an asthma module to its mandatory training for all newly elected school board members. The team set forth innovative goals to increase the Missouri's ability to coordinate and manage asthma care for children by training a statewide workforce to do so. Workforce development is an ongoing project and will continue to be a central feature of MAPCP's strategy to improve the well being of children with asthma.

2. **Which of the following describes the benefits of the accomplishment?** (Check all that apply and provide an explanation)

☐ cost reduction

☐ time savings

☐ improved process

☒ other: describe workforce development

### III. RESULTS/ACCOMPLISHMENT (continued)

**Explain how the accomplishments of the team are beyond regular duties and responsibilities (150 words or less).**

The team has taken a collaborative and participatory approach to enhancing the skills of people who are involved in the care and education of children on a daily basis. While collaboration is an expected attribute of a public health service, MAPCP has leveraged relationships and expertise in school administration, school health, childcare, medical care, environmental science, epidemiology, and evaluation to achieve extraordinary results. Much of MAPCP's work has been accomplished by partners working under contracts or providing in-kind services.

### IV. MEASUREMENT/EVALUATION

1. **Explain how the team measured and evaluated this project** (Describe in detail the process and results).

DHSS-sponsored trainings for school nurses on "Asthma and Special Needs" began by partnering with seven local public health agencies in 1999. Between 1999 and 2004, over 900 school nurses received this training program. These training sessions also served as an open forum where school nurses clearly identified the need for relevant information, basic supplies, and additional practical

training. To quantify school nurses concerns about the high level of morbidity due to gaps in care, inadequate policies, difficulty communicating with physicians, and lack of clinician education, DHSS administered the first survey of school nurses focused on asthma management; this assessment project is known as the *GAP Survey*. Analysis of the survey results identified that school nurses needed and wanted (a) clear protocols (including standard, easy-to-use forms) for delivering evidence-based asthma care services, (b) ways to garner support of school staff and administration, (c) information about free or low-cost state and national resources, and (d) a method for providing formal self-management education to children and their families. The effect of training school nurses produces impressive outcomes as measured by the *GAP Survey*. For example nurses who received asthma training increased use of Asthma Action Plans by 44%, increase use of written emergency plans by 41%, and increased access to school-based asthma education services by 59%.

Despite favorable progress, the use of asthma action plans, an evidence-based strategy promoted by CDC and asthma specialists, languished at 52.7% among all students who reported ever having had asthma (as reported by schools funded under the Missouri DHSS School Health Services contract). MAPCP and its partners revised the strategy for using asthma action plans to focus on children using asthma medications at school and promote communication between the school nurse and parents to review asthma action plans. This new model was incorporated into the recommendations and forms outlined in the *Missouri School Asthma Manual*, which was released in 2004. In 2004, after the distribution of the manual, use of asthma action plans increased to 84%. In 2006, the completion percentage was 95.2%. Asthma action plans do not guarantee effective asthma management, but improving the relationship between school nurses and parents seems to be an important contributing factor.

Continuing the efforts focusing on childhood asthma, the MAPCP has formed an important partnership with the DHSS Child Care Health Consultation Program (CCHC). This program provides health and safety consultation and training to childcare providers and parents in addition to health promotion programs for children in childcare. The CCHC Program exists as a cooperative effort between DHSS and LPHAs and contracts with 111 of 114 counties. Due to the success of the School Asthma Program, the MAPCP was approached in 2005 by the CCHC to develop training for 150+ RN and LPN Childcare Health Consultants. Regional trainings were provided and over 150 consultants attended. Training for childcare workers began in late 2006. Approximately 1,800 childcare workers were trained in 2007. It is estimated that approximately 500 workers will be trained each year.

**2. Are the benefits derived from this project: (Check only one.)**

☒ Recurring

☐ One-time

**3. Please explain in 300 to 500 words.**

The DHSS' School Health Program has contracts with over 50% of the school districts in the state that serve approximately 270,000 school-age children. Asthma action plans have been a performance measure in these contracts since 2000. The resources developed in collaboration with the MAPCP have been incorporated into the work plans for the 2007-2008 contract-year. These tools and education provide the school nurse with the ability to work with the family and community to ensure children with persistent asthma have better outcomes. A new asthma performance measure will be to "*Increase the percent of students with persistent asthma who meet or maintain the criteria for adequately controlled asthma*". This performance measure aims to assure that students with persistent asthma have control of their asthma while in the school setting.



The highest rates of emergency room visits and hospitalizations occur in children between the ages of 0-4. The CCHC Program is vital link in reaching this important population through education of parents. In 2007 52 families received asthma education through the efforts of these consultants. Providing CCHC with continued resources will assure that childcare workers and the families of children with asthma will continue to receive the education and support needed to manage childhood asthma in this population.

#### V. RECOGNITION/AWARDS

1. Has this project ever been nominated for the Governor's Award for Quality and Productivity? If yes, when?

NO

2. If yes, for which category was it nominated?

N/A


3. Has this project received any other awards or recognition in the past? If yes, describe.

No

#### VI. NOMINATOR'S INFORMATION

##### NOMINATING DEPARTMENT

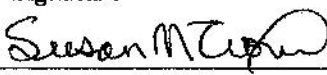
Department of Health and Senior Services

Name Harold Kirbey	Signature <i>Nomination Rec'd Electronically Susan Troxel</i> 	Telephone Number 751-6080	E-Mail Address Harold.Kirbey@dhss.mo.gov
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#### VII. DEPARTMENT COORDINATOR INFORMATION

##### DEPARTMENT

Missouri Department of Health and Senior Services

Name Susan Troxel	Signature 	Telephone Number 573/751-6059	E-Mail Address Susan.Troxel@dhss.mo.gov
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#### VIII. DEPARTMENT DIRECTOR APPROVAL

DEPARTMENT DIRECTOR'S NAME Jane Drummond	DEPARTMENT DIRECTOR'S SIGNATURE* 
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Nomination must be signed ONLY by the Department Director to be eligible for consideration.  
Nominations not signed by the Department Director will be returned.