Successful Approaches to Implement SAMPRO in School Districts in Wisconsin

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Outline

• School-based Asthma Management Program (SAMPRO™) overview
• Provider-to-clinic role detail
  – What can the asthma educator do?
  – What can the nurse/school do?
• Current initiatives and outcomes
SAMPRO™ OVERVIEW
AAAIAI SAMPRO™

- Summit held in October 2015
- Discussed the problems, concerns, and steps needed to help improve school asthma care
SAMPRO™ representation

- Allergy & Asthma Network
- American Academy of Family Physicians (AAFP)
- American Academy of Pediatrics (AAP)
- American Association of School Administrators
- American College of Allergy, Asthma and Immunology
- American Lung Association (ALA)
- American Public Health Association
- American Thoracic Society (ATS)
- Asthma and Allergy Foundation of America
- Asthma Initiative of Michigan
- Boston Children’s Hospital
- Centers for Disease Control and Prevention
- Children’s Health Alliance of Wisconsin (Wisconsin Asthma Coalition)
- Children’s Hospital of Colorado Breathing Institute
- Children’s Hospital of Wisconsin
- Connecticut Children’s Asthma Center
- Denver Public Schools, Department of Nursing & Student Health Services
- Harvard Medical School
- Kennett Public Schools, Missouri
- Minnesota Public Schools
SAMPRO™ representation

- Montgomery County Department of Health and Human Services
- National Association of Chronic Disease Directors
- National Association for the Advancement of Colored People (NAACP)
- National Association of School Nurses (NASN)
- National Education Association
- National Heart, Lung and Blood Institute (NHLBI)
- National Institute of Allergy and Infectious Disease
- Olmstead County Public Health Services
- St. Louis Children’s Hospital
- St. Louis University
- State of Wisconsin, Department of Public Instruction
- The Rush University Prevention Center
- The University of Texas at Austin, School of Nursing
- University of Connecticut
- University of Rochester, New York
- University of Wisconsin School of Medicine and Public Health
- University of Wisconsin School of Pharmacy
- U.S. Environmental Protection Agency
Goals of AAAAI SAMPRO™

- Create a central resource sponsored by the AAAAI and developed in collaboration with NASN
- Provide education for children, families, clinicians, and school-based personnel
- National SAMPRO™ resources available at the SAMPRO™ website
- Recommendations published in the September 2016 issue of The Journal of Allergy and Clinical Immunology
Creation and implementation of SAMPRO™:
A school-based asthma management program

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Spring, Md, Boston, Mass, Aurora, Colo, and Seattle, Wash

Clinicians who care for children with asthma have an obligation to coordinate asthma care with the schools. Aside from routine clinical care of asthmatic children, providers must educate the family and child about the need for an asthma treatment plan in school and support the school nurse meeting the needs of the student requiring school-based asthma care. The following article was developed by multiple stakeholders to address this need. It describes the 4 components of the School-based Asthma Management Program (SAMPRO™). SAMPRO™ details elements necessary for the education of children, families, clinicians, and school-based personnel based on a “circle of care” that would improve multi-disciplinary asthma management.
Overall goals

• Focused on four essential components
  1. Circle of support
  2. Provider to school communication
     • Asthma management plan
  3. School personnel education
  4. Environmental assessment and remediation
CIRCLE of SUPPORT

School Nurse

Child

Clinician

Community

Family
School nurses

- Front line care for students
  - Give the majority of rescue medications
  - Actually see how controlled the kids are
- With school nurses in place\(^1\):
  - Asthma control improves
  - Less missed school days
- Despite this, they have little to no direct support from asthma providers

NASN asthma care care checklist

• SAMPRO Toolkit includes a School Nurse checklist with recommendations for:
  – Assessment
  – Diagnosis
  – Outcome
  – Planning
  – Implementation
  – Evaluation
School nurse

- NASN definition:
  - Specialized practice of professional RN that advances the well-being, academic success, and lifelong achievement of students

- Acute asthma care
  - Recognize symptoms
  - Give medications
  - Recognize lack of asthma control
SO MUCH MORE THAN ACUTE CARE NURSES…

Health education
Component 3: Education

Circle of support figures pending publication, property of AAAAI
School nurses as asthma educators

• Unique teachable moments
  – “Maybe you would feel better if you took your albuterol before gym...”

• Uniquely placed to identify:
  – Gaps in knowledge
  – Inconsistency in care
  – Uncontrolled asthma

• See children regularly

• Ensure plan is part of IEP
School nurses are not everywhere

• Asthma education essential for all school staff
• Critical components:
  – Recognizing worsening asthma symptoms
  – Warning signs and when/where to get help
  – Knowledge of asthma care plans (AAP or AEP)
  – Lack of asthma control
• Basic knowledge of MDIs and epi-pens
• Requires time and resources
Student/family asthma education

• Educational programs for students & families
  – Integrated into all points of care, including school
  – Address health literacy & multicultural beliefs
  – School nurses can identify children with known low knowledge or at high risk for poor asthma control

• Multiple programs are available
• Buy-in from administration is essential

NAEPP 2007 NHLBI Asthma Guidelines
Student and family asthma education programs

- Self-management education
- Home environmental walkthrough
- Located in
  - Kenosha County
  - Milwaukee County
  - Rock County
  - Sawyer County
  - Others?
Environment
Component 4: Environmental factors

- School is the first and frequent site of exposure to allergens for many kids
- Poor indoor air quality adversely affects asthmatic kids\(^1\) and staff
- Reducing exposures reduces the frequency and severity of exacerbations\(^2\)

Asthma triggers

- Tobacco smoke
- Dust/dust mites
- Pet dander
- Mold
- Cockroach and other pests
- Pollen
- Emotions
- Respiratory infections
- Odors
Asthma triggers

- Evidence of pests are found commonly in schools & school cafeterias
  - Possibly more new exposures than at home

Pest Control

- Integrated pest management (IPM)
  - Identify and monitor progress
  - Set action thresholds
  - Prevent pests
  - Control pests
TAKING CONTROL OF ASTHMA

SCHOOL WALKTHROUGH GUIDEBOOK

A healthier environment for students and staff.

Wisconsin Asthma Coalition
Children's Health Alliance of Wisconsin
School walkthrough guidebook

• Now available for FREE download: www.chawisconsin.org/wac

• Everything you need to complete a walkthrough
  – Three-phase process
  – Simple steps to do-it-yourself

• WAC available for technical assistance
School walkthrough program

- Identifies common asthma triggers
  - Animals
  - Dust and dust mites
  - Mold, mildew and moisture
  - Odors
  - Pests and vermin
- Provides low- and no-cost solutions
- One-two hours to complete
- School champions
  - School nurse
  - Janitor
School walkthrough program

• Common triggers found in Wisconsin schools
  – Dust/dust mites
  – Mold, moisture and mildew
  – Odors
School walkthrough program

• 123 walkthroughs completed since 2013
• Implemented by staff, HealthCorps members and WAC mini-grantees
• Schedule your walkthrough today
School walkthrough program

• 87% make at least one change
• Most common changes
  1. Limited use of air fresheners and fragrances
  2. Reduced clutter and disorganization
  3. Placed walk-off mats at entrances
  4. Removed or limited upholstered furniture
EPA Tools for Schools

- Environmental Protection Agency (EPA)
  - [www.epa.gov/iaq-schools](http://www.epa.gov/iaq-schools)
- School IAQ assessment mobile app
- Best practices
- Industry guidelines
- Sample policies
- Sample IAQ management plan
EPA school flag program

• American Lung Association in Wisconsin
  – Katie Halverson, Katie.Halverson@lung.org

• Community education on outdoor air quality alerts

• Free flags sets available for school to alert community on poor air quality days
Environmental education

• Providers’ role:
  – Educate family on potential exposures
  – Clearly list the triggers
    • For patient and for the school nurse

• School nurse role:
  – Educate student
  – Advocate for change
LEGISLATION
National SAMPRO™ initiatives

• School-Based Asthma Management Program Act (H.R. 4662) introduced in 2016
  • Steny Hoyer (MD)
  • Phil Roe, M.D. (TN)
• Comprehensive asthma management program
• Maintain supply of asthma related rescue medications
• Permit trained personnel to administer life saving medications in an emergency
• Incentives for school districts with:
  – Asthma management plans in place
  – Stocked rescue medications
Clinic to School Communication
The asthma provider

• There are six specific things every asthma team should do
• As the asthma educator, you are not only the educator for the family but advocate for the asthmatic as well
Asthma provider roles

1. Discuss school at all asthma visits
School asthma in clinic

- Ask about schools and school needs at every visit
- Review control and adjust medications
- Educate family and students about asthma control, triggers, medication usage
  - And how this applies to school
Asthma provider roles

1. Discuss school at all asthma visits

2. Consider the school nurse part of the asthma team
Consider yourself part of the family...

• Ultimately we would like the nurses to be an active part of the asthma team
• You know that you are, but asthma providers don’t always (yet)
• Feel free to contact clinicians with concerns
Current communication

• Right now, we’re more distant family

• The only way we generally communicate is via asthma orders
Children's Health Alliance of Wisconsin

Orders

School Authorization Forms

Permission Forms

Asthma Action Plans
Asthma provider roles

1. Discuss school at all asthma visits
2. Consider the school nurse part of the asthma team
3. Get an asthma order into the school
4.
5.
6.
Asthma orders

• “Orders” are generally the only way we talk to schools
Asthma orders

- See in clinic →
- Sign whatever forms are provided →
- Give back to the family →
- Hope it gets to school
Percent of Asthmatics with Orders in MPS Elementary Schools, Grouped by Zip Code

Only 23%, overall
Barriers to School Nurse Communication

School nurses

- Difficult to ID main provider
- Workload

Materials

- Wide range of forms
- No standard definition of orders

No Asthma Orders

EHR

- Different computer systems
- Varying processes

Socioeconomic issues

- Inconsistent ID of provider

Parents

- No clear way of communication
- Wide range of forms/orders

Asthma providers

- Data in preparation for publication. Antos et al. 2017
Improving asthma orders

• Clinicians already should be providing Asthma Action Plans
• Providing Asthma action plans to schools:
  ▪ Easy to read
  ▪ Get you the most important information
  ▪ Already a part of clinic flow and updated consistently
• An ideal process would combine the AAP and School Form into a standardized plan
Asthma plan for home and school

Please visit aaaaai.org/SAMPRO to view and download
# Asthma Action Plan for Home & School

## Name: __________________________  Birthdate: _______________________

### Severity
- **Asthma Severity:**
  - □ Intermittent
  - □ Mild Persistent
  - □ Moderate Persistent
  - □ Severe Persistent
  - □ He/she has had many or severe asthma attacks/exacerbations

## Green Zone
- Have the child take these medicines every day, even when the child feels well.
- Always use a spacer with inhalers as directed.
- **Controller Medicine(s):** ______________

- **Controller Medicine(s) Given in School:** ______________
- **Rescue Medicine:** Albuterol/Levalbuterol __________ puffs every four hours as needed
- **Exercise Medicine:** Albuterol/Levalbuterol __________ puffs 15 minutes before activity as needed

## Yellow Zone
- Begin the sick treatment plan if the child has a cough, wheeze, shortness of breath, or tight chest. Have the child take all of these medicines when sick.
- **Rescue Medicine:** Albuterol/Levalbuterol __________ puffs every 4 hours as needed
- **Controller Medicine(s):**
  - □ Continue Green Zone medicines: ______________
  - □ Add: ______________
  - □ Change: ______________

- If the child is in the yellow zone more than 24 hours or is getting worse, follow red zone and call the doctor right away!

## Red Zone
- If breathing is hard and fast, ribs sticking out, trouble walking, talking, or sleeping.
  - **Get Help Now**
- **Take rescue medicine(s) now**
  - **Rescue Medicine:** Albuterol/Levalbuterol __________ puffs every ______________
  - **Take:** ______________

- If the child is not better right away, call 911
  - Please call the doctor any time the child is in the red zone.

## Asthma Triggers:
- (List)
# School Supplementary Treatment Orders

(To be Sent with the Asthma Action Plan)

**Student Name:**

**Asthma Rescue Medications:**

- See attached Asthma Action Plan.
- Please follow the treatment plan detailed in the Green zone for activity/exercise treatment and rescue medication plan for Green, Yellow & Red zones, according to asthma symptoms.
- Common side effects of albuterol/salbutamol include increased heart and respiratory rate and flushness.

- The student may carry and self-administer their inhalers.
- Pre-activity treatment, including before physical education/recess, should be given:
  - With all activity
  - Only when the child or school staff feels he/she needs it
- If a Student is in the Red Zone, immediately give their rescue treatment and call 911.
- Please follow school emergency plans, according to school/school system policy.

**Controller Medications:**

- Only the following controller or steroid medications should be administered in school:

<table>
<thead>
<tr>
<th>AM Dose</th>
<th>PM Dose</th>
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**If not listed on the Asthma Action Plan:**

- **Triggers:**
  - School specific triggers include:

- **Asthma Severity:**
  - Intermittent
  - MILD Persistent
  - Moderate Persistent
  - Severe Persistent
  - He/she has had many or severe asthma attacks/exacerbations

- Please contact the Asthma Provider listed here with any questions or concerns regarding these orders, or if the student does not have adequate/correct medications in the school.

**Asthma Provider Printed Name & Contact Information:**

**Asthma Provider Signature:**

**Date:**

**Parent/Guardian Permission:**

I give permission for the medications listed in the Asthma Action Plan to be administered in the school by the nurse or other school members in accordance with school policy. I consent to sharing health information between the prescribing health care provider/clinic, the school nurse, and the school medical advisor necessary for asthma management and administration of this medication.

**Parent/guardian signature:**

**Date:**

**For School Use:**

- School nurse agrees with student self-administering the inhalers
- School nurse received/Signature:
- Date:

Please send a signed copy back to the provider or the contact listed above.

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Please visit [aaaai.org/SAMPRO](http://aaaai.org/SAMPRO) to view and download
HEALTHCARE PROVIDER AUTHORIZATION TO ADMINISTER MEDICATION AT SCHOOL

Attention School Nurse or Administrator:

Benjamin has Mild Persistent Asthma.
Please see the attached Asthma Action Plan.

Benjamin MAY self-administer the medications listed in the attached.
Please follow the treatment plan detailed in the Green Zone for treatment prior to activity/exercise or exposure to triggers. Please also follow the rescue medication plan in the yellow and Red zones according to symptoms and clinical assessment.

If Benjamin is in the Red Zone, immediately give their rescue treatment and call 911. Please follow school emergency plans, as clinically appropriate.

Common side effects of Albuterol / Levalbuterol can include: increased heart rate, increased respiratory rate, and transient hypoxia.

Provider Name/Contact: Darth S. Vader, MD
050416 Death Star Drive, Milwaukee, WI

Asthma Provider Signature: Date:

Parent/Guardian to complete this section: I give permission to the school nurse to administer and delegate the administration of the medications provided to the school as noted above. I furthermore give permission to the nurse and/or the school-based health clinic to otherwise assist in the asthma management of my child. I also authorize communication between the prescribing health care provider, the school nurse, the school medical advisor and school-based health clinic providers necessary for asthma management and administration of this medication.

Parent/Guardian Signature: Date:

For School Use: School nurse agrees with student self-administering the inhalers (Yes / No)
School Nurse Signature: Date:

**Please send a completed copy back to the provider listed above**
Standardization

• Consider making this form the standard Asthma form for you school
  – Or at least try to accept it
• If Providers could pull a form off the shelf, it could dramatically increase compliance with orders
  – And improve the quality of our communication
NURSING BASED INTERVENTIONS
Nursing Based Interventions

• Created letter to be sent by CHW School Nurse Program School Nurses

• Includes information on student and option to:
  a) Sign and send Action Plan or
  b) Fill in included action plan
  c) Send back if you are not the Provider

• Included signature line to be sent no matter which option
Patient: @NAME@
Date of birth: @DOB@
MRN: @MRN@

Dear @PCP@,

This letter is to inform you that @NAME@ is currently enrolled in @THISENCDEPT@.

In order to ensure care coordination and prompt asthma care, I would like to request a copy of @NAME@’s asthma medication instructions.

Of note, we have @NAME@’s primary care physician listed as: @PCP@, phone number: @PCPPH@. Please update us if you know this information is wrong or outdated.

If you don’t recognize @NAME@ as one of your patients, please mark here: 

Please fax or mail this completed form back to @MEMD@ at ***

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HEALTHCARE PROVIDER AUTHORIZATION TO ADMINISTER MEDICATION AT SCHOOL

☐ @NAME@ may self-administer the medication

@NAME@ should receive his asthma medications as indicated below:

---

Green zone:

Breathing is good, no cough or wheeze, can do normal activities.

☐ @NAME@ is on a controller medication:

Prophylactic medication:

☐ Albuterol/Xopenex inhaler, 2 puffs with a spacer, 15-30 minutes before activity
☐ Albuterol/Xopenex inhaler, ___ puffs with a spacer, ___ minutes before activity
☐ Other:

Yellow zone:

Cough, wheeze, tight chest, cold symptoms

If the patient is in the yellow zone for more than 24 hours, proceed to the red zone and have the caregiver call @NAME@’s medical provider.

Rescue medication:

☐ Albuterol/Xopenex inhaler, 4 puffs with a spacer, every 4 hours as needed
☐ Albuterol/Xopenex inhaler, ___ puffs with a spacer, every ___ hours ___
☐ Albuterol/Xopenex nebulizer, ___ vial(s), Every ___ to ___ hours as needed
☐ Other:

Red zone:

Breathing hard and fast, nose opens wider, ribs sticking out. Trouble walking or talking. Have the caregiver call @NAME@’s medical provider.

☐ Albuterol/Xopenex inhaler, 8 puffs with a spacer, every 20 minutes for 3 treatments as needed
☐ Albuterol/Xopenex inhaler, ___ puffs with a spacer, every ___ minutes for 3 treatments
☐ Albuterol/Xopenex nebulizer, ___ vial(s), Every ___ to ___ hours
☐ Other:

---

Please mark the correct orders for the student:

☐ See attached Asthma Management Plan.

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Side effects of bronchodilators include: increased heart rate, increased respiratory rate.
Orders on File at Large MPS Schools (Sep 2014 to Jun 2016)

2014-2015 Academic Year (Pre-Intervention)
Orders on File at Large MPS Schools (Sep 2014 to Jun 2016)

2014-2015 Academic Year (Pre-Intervention)

2015-2016 Academic Year (Post Intervention)
Orders on File at Large MPS Schools (Sep 2014 to Jun 2016)

2014-2015 Academic Year (Pre-Intervention)

2015-2016 Academic Year (Post Intervention)
Let the providers know

• We feel like we do school forms all of summer
• Feel free to contact a provider if you’re missing something
  – Consider asking for or at least accepting Asthma Action Plans
• Admittedly it often takes time for us to get to these requests
Asthma provider roles

1. Discuss school at all asthma visits
2. Consider the School Nurse part of the Asthma Team
3. Get an Asthma Order into the school
4. Get a bronchodilator and spacer into school
Bronchodilators in MPS Elementary Schools, Averaged by Zip Code

Only ~19%, overall
Bronchodilator in school

- Compliance is generally similar to orders
- Make sure to prescribe enough MDI and spacers
- Encourage schools to stock bronchodilators
Asthma provider roles

1. Discuss school at all asthma visits
2. Consider the school nurse part of the asthma team
3. Get an asthma order into the school
4. Get a bronchodilator and spacer into the school
5. Partner and collaborate with schools
6.
School and Clinic Partnership

• For better or worse, I know you know the Providers in your Area
• I encourage all providers to at least get to know local nurses
  – Assess local schools’ needs and concerns
  – Participate in programs/collaborations with community schools
  – Assist with education in the schools
School and Clinic Partnership

- SAMPRO and SE Wisconsin SAMPRO are working specifically to foster and increase these partnerships.
- Toolkit at aaaaai.org/SAMPRO includes tools, programs, and resources for all level of asthma and school team members.
Asthma provider roles

1. Discuss school at all asthma visits
2. Consider the school nurse part of the asthma team
3. Get an asthma order into the school
4. Get a bronchodilator and spacer into the school
5. Partner and collaborate with schools
6. **Champion and lead the Circle of Support**
In Summary

• SAMPRO provides a toolkit and framework to help us work together
  – Ultimately we are all part of the same asthma care team

• Getting providers and schools to work together is challenging

• Try to accept and embrace action plans
  – Standardizing an AAP/School form could go a long way

• Get to know your asthma providers, and make sure they know you
Questions and thank you