Asthma is estimated to occur in 7% of school-age children nationally. In Rochester, MN, it is estimated to occur in 12% of school-aged children.


Poorly controlled asthma can affect:
- a child’s ability to exercise,
- self-esteem,
- school performance,
- to poor school attendance.

Asthma action plans can decrease preventable illness.

Beacon Proposal

Extend the asthma action plan model to the 11-county region, augmented with standards-based HIE.

Sharing action plans for children with asthma can:
1. Reduce healthcare utilization
2. Improve school attendance
3. Reduce time parent misses work.

Asthma Measures

Baseline Measures
(Meaningful Use 5-40)
- % patients age 5-18
- % w/documented Action Plan
- % w/influenza Vaccine
- % w/pneumonia Vaccine
- % of total ED Visits

Future/Advanced Measures
- Preventative Care Utilization
- Appropriate Med Usage
- Inpatient/ED Utilization
- Acute attacks in school
- School Absenteeism

R&D Measures
- % electronic exchange (school/provider)
- PROs
- Others - TBD

COST – QUALITY – POPULATION HEALTH

AAP Expansion Project

Leverage lessons learned and tools developed in Olmsted County Asthma Action Plan Task Force providing patient-centered care to ensure anyone who cares for a child with asthma has access to and understands that child’s AAP:
- Develop a consent process
- Approved by schools and state
- Templates are available
- Process flow sheets created

SE MN Beacon will expand to ALL school districts:
- School System AAP FAQs
- Consent Form to Share
- Asthma Action Plan Template
- Consent Form Process
- Flowsheet Template

School Personnel Education:
- Access and understanding of AAPS for ALL personnel
- When to Consider communication with the Provider & Parent

AAP Expansion Project

11 – Counties; 47 School Districts

Beacon – School Project Prioritization:
- Willingness to collaborate
- Existing relationships
- Asthmatic student impact

Expansion Numbers

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<tr>
<th>Intervention</th>
<th>County (city)</th>
<th>Student Population</th>
<th>Estimated Asthmatics</th>
<th>Year 1 Target AAPS</th>
<th>Year 2 Target AAPS</th>
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AAP # school aged patients calculated by 2000 Census data; state demographics; project 11% asthma population projection.
Practice Deep Dive
Mayo Clinic

2583 "confirmed asthmatics"
administrative and medical record review
25% followed by asthma care manager

additional 511 "likely asthmatics" from administrative data

Total = 3094 (an estimated prevalence 12% = 3188 pts).

40% have an electronic Asthma Action Plan in CDM Reports,
73% live in Olmsted County.
29% of all primary care kids have triggered reporting rules (i.e., MN
Community metric, includes AAP done on/after July 1, 2010). Of these, still
need an "up-to-date" Asthma Action Plan on 380 (42%) ... by 6/30/11

Technology Pilots

- Technology specifications created by the Asthma Action
  Plan Task Force Data Base pilot program
  - Resources to scale the infrastructure into the Beacon region
- Widespread implementation of a technology solution will take time
  - the magnitude of issues
  - proposed technology solutions
  - a strong emphasis on protecting the confidentiality and best interests
    of patients
- The Pilot approach aims to generalize the technology
  approach through targeted school participation and lessons learned

R&D – Assessment Tools

Explore a standard measure and electronic format to allow for guidelines based
assessment and intervention improving control for patients with asthma.

- APGAR
- ACT

Pilot Interventions

Focus Groups
AAP Technology Pilots (exact locations TBD)
R&D Pilots (APGAR) (exact locations TBD)

AAP Expansion Timelines

Qualitative Study / Focus Groups

Identify perceived needs,
and barriers and facilitators
related to the wide spread
use of asthma action plans
for school children.

Groups of interest:
- Parents of school aged children w/ asthma
- School nurses & others that care for
  children with asthma in schools
- School aged adolescents with asthma
- Physicians / nurses who provide health
care for children with asthma
Focus Group Prelim Results
Clinic 1 nurses and physicians

- "AAP is important but one for school and home may be different."
- "It would be good to have feedback from the schools to know about students how are having frequent problems."
- "Parents must be part of the loop on interchange."
- "AAPs must be updated yearly."
- "A system to routinely get to schools in way that is useable to schools is nice—paper, email, pdf, etc."
- "AAPs must reflect correct practice not inappropriate local interpretations of guidelines."
- "Caring for student with asthma could be much improved if three way communication could be developed."
- "Will need to develop system to get information from schools and parents to correct people in clinic."

Survey Prelim Results
Clinic 2 nurses and physicians

- AAPs are an important tool for schools and families
- It is important to evaluate whether AAPs make a difference in the care of asthma in schools
- It would be helpful to the care of patients with asthma to have communications with schools (missed PE, sent home, child’s technique and understanding of disease)
- 90% agree with the concept that consistency in adhering to guidelines is needed
- Time to create the AAP is a constraint for physicians and nurse practitioners (80% no more than 3 minutes of time – preference to review, not create)
- Would like to know more about how the AAP is used at school and the training within the schools of those with access to the AAP

Focus Groups-School Sites
(School Nurse, Health office, Teachers & Coaches)

- Knowing what to do with Student is Important
  - Asthma Action Plans are useful to Health Office staff
  - Coaches rely on 1st Aid Training to know what to do
- Issues
  - Inhalers are kept in Health Office
  - Communication of Changes in med order or plan
- Suggestions
  - Access to electronic information would help

Parent Input

- Supportive of Improved Communication with Schools
- Want Paperwork Process simplified
- Asthma Action Plans are useful tools
- Not concerned about confidentiality & communication between provider & school as long as parent in the loop

Barriers / TA Team Discuss
Problem: Despite it’s name, the MN “Community Metric” for asthma (ages 5-50) is not really a “community” metric.

Specific example: Of the 2385 total Mayo patients that had a visit that would mean they are reported to the “community metric” for last portion of 2010, only 1662 had continuity care at Mayo.

Proposal by rejected solution: Exclude all asthma patients with addresses outside of the state and consider splitting those with medical home in the reporting site and outside of the reporting site.

Barriers / TA Team Discuss
Problem: Quality metrics should be based on innovation and research that demonstrates their value and validity and not be biased by local “experts”.

Specific example: The Minnesota Community Measurement Board has publicly stated its refusal to provide waivers for Federally funded research. (MN Med Feb 2011)

Solution: The MN Community Measurement Group needs to provide waivers for federally funded research programs dealing with quality improvement, metric development and testing and translational and dissemination work. These waivers need to be announced publicly.
- The waivers need to be broadly announced to patients, policy makers, payers and providers.
Using our experience with uni-directional sharing of AAP with schools and the community’s expertise in community based participatory work, we will design and develop a program to provide the child with asthma a “cocoon of care” at school, in organized activities and home, based on the healthcare home’s generated asthma action plan.