



Providing Timely and Appropriate Patient/Family Asthma Education for Children With a Primary Diagnosis of Asthma

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Systems Change Project

Purpose: Develop and evaluate a standardized asthma curriculum for staff nurses in two hospital sites via an in person and an online education program.

Goals:

- Ensure that nurses system wide have up-to-date information and resources regarding asthma education.
- Provide consistent and coherent messages about asthma and asthma management to children and their families.



Background

- Asthma is the most common inpatient diagnosis at Children's Hospitals and Clinics of Minnesota.
- Hospitalization provides a prime opportunity for providing asthma education to children and families.
- Need to reduce staff barriers to providing in patient asthma education.



Barriers to delivery of asthma education identified by staff at baseline:

- Perceived lack of time
- Lack of asthma knowledge
- Lack of confidence in providing asthma education
- Variation regarding content received in previous asthma education (e.g., in nursing programs)
- Lack of clarity regarding role responsibility related to asthma education on interdisciplinary team



Planned Asthma Education Outcomes

- Deliver four key education messages to families of children with asthma to ensure consistency
- Deliver these messages throughout the hospital stay
- Document asthma education
- Provide consistent asthma messages in inpatient and ED settings.



4 Key Messages Asthma Curriculum

- Program developed with interdisciplinary input:
 - *Asthma coordinator, Dory Baker*
 - *Registered Nurses*
 - *Pediatric pulmonologists*
 - *Pharmacists*
 - *Respiratory therapists*
- Program based on National Asthma Education and Prevention Program, Asthma Guidelines.
- 4 Key Messages Asthma Curriculum first developed for Emergency Department staff



Four Key Asthma Education Messages

Focus on:

- Asthma pathophysiology and signs and symptoms of asthma
- Asthma medications and how to take them
- Asthma triggers and how to avoid them
- Asthma action plan and follow-up



Strategies for Delivering Key Asthma Messages

- Begin asthma education upon admission, e.g., describe and explain asthma signs and symptoms during assessments to family members.
- Teach about asthma medications while administering asthma medications and provide opportunities for return demonstrations of use of inhalers and nebulizers.
- Identify asthma triggers for the child and ways to avoid triggers in home, child care, and school settings and outdoors.
- Explain the asthma action plan and plan for follow-up after discharge. Share asthma action plan with primary providers and school nurses.



Project Phases

Phase I

- Inservice for nurses on Four Key Asthma Messages
- Pre and post-inservice surveys

Phase II

- Developed and pilot tested online asthma education program
- Pre and post-course evaluation questionnaires developed.
- Developed an asthma binder for each inpatient unit with education tools, asthma handouts, the four asthma messages, and the asthma pathway for staff to use in educating children and families.



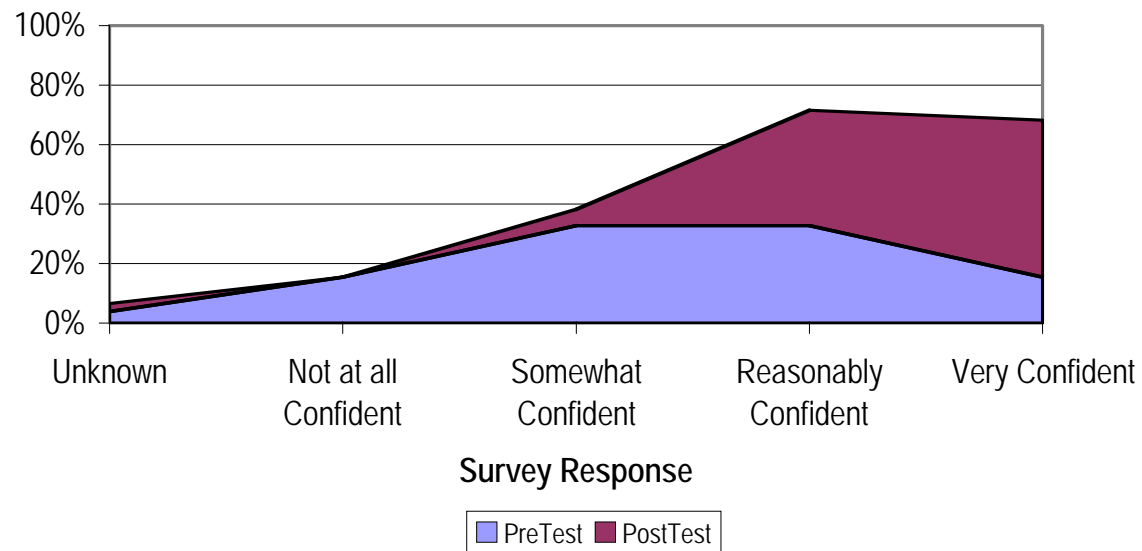
Phase II: Online Asthma Education Program

- The 4 Key Messages Asthma Curriculum was adapted and incorporated into a web-based CHEX program in 2007
- CHEX is short for “Children’s Hospital Knowledge Exchange”
 - *an internet-based learning system developed specifically for pediatric hospitals*
- Participants complete on-line pre and post asthma knowledge and key message questionnaires designed to evaluate asthma CHEX program outcomes.
- Continuing education units are available for participants



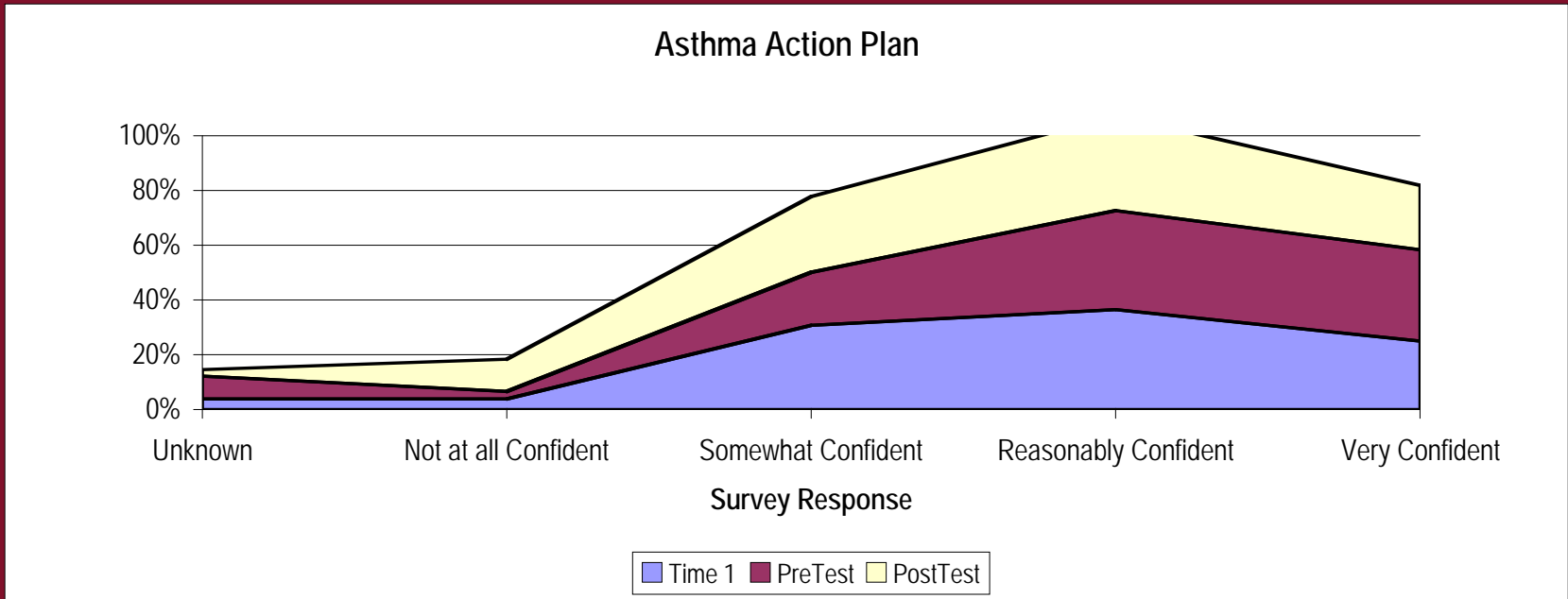
Preliminary pre-post evaluation findings

4 Key Asthma Education Messages



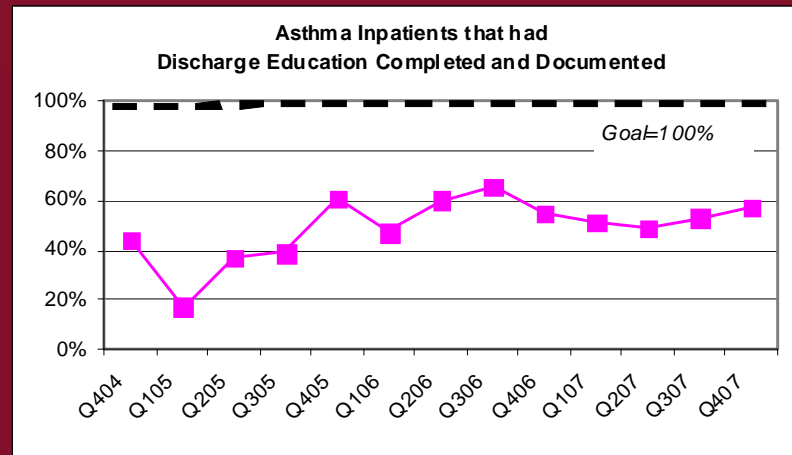


Pre-post and 6 month follow-up pattern





Finding: Documented asthma education





Discussion

- Barriers to On Line Delivery of Asthma Education

- Asthma Education is not required, while other Chex programs are mandatory

Advantages of On Line versus In person inservice programs

- Easily accessible to staff on all shifts
- Can easily contact participants to complete post-evaluations.
- Built in on line evaluations : (a) save data entry time.
(b) provide immediate feedback to participants



Future Plans

- Increase participation of Children's staff in Asthma Chex program.
- Extend the Asthma Chex program to Respiratory Care Practitioners and Pharmacists to increase the consistency of asthma messages provided system wide.
- Continue pre-post evaluation and 6 month follow-ups.
- Plan and target booster asthma education sessions through e-mail alerts to participants.



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