PATIENT EDUCATION:
ASTHMA RESOURCES & COMMUNITY PARTNERSHIPS

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Objectives

At the conclusion of this presentation the participant will be able to:

• Discuss resources for patient/family education

• Identify programs and tools for providers (asthma registry, quick guides, websites, webinars)

• Describe community partnerships- Data, Research, Education, Schools, Environmental Trigger management and Policy Action that promote an atmosphere for an Asthma Center of Excellence
Working Definition of Asthma

Asthma is a chronic inflammatory disorder of the airways in which many cells and cellular elements play a role:

- in particular mast cells, eosinophils, neutrophils (especially in sudden onset, fatal exacerbations, occupational asthma, and patients who smoke), T lymphocytes, macrophages, and epithelial cells.

In susceptible individuals, this inflammation causes recurrent episodes of coughing (particularly at night or early in the morning), wheezing, breathlessness, and chest tightness.

These episodes are usually associated with widespread but variable airflow obstruction that is often reversible either spontaneously or with treatment.

Source: Utah Department of Health – Asthma Program
PACE definition- Tip of the ICEBERG

A Lot Going On Beneath The Surface

Symptoms

Airflow obstruction

Bronchial hyperresponsiveness

Airway inflammation
Background Information

**Incidence**- U.S.-25.7 mil total- 9.4% of children (7.1 mil) Utah-Children 6.7% (59,000), **Adults**–8.6% (167,000) 2011

**Prevalence**-only chronic illness-across the age spectrum

**Best Practices** –NAEPP Guideline- *Education for a Partnership in Asthma Care*

**Costs**- U.S.  **Total**-20.7 billion annually

25% or 5 billion preventable by managing symptoms

**Direct costs**-Utah-Adults-802, Children-810, hospitalized (2011)

1612 total patients  x $3,371/visit = **$5,434,052**

ED-Adults-3,813 ,Children-2,491=6,304  x $523= **$3,296,992**

**Utah Asthma Deaths** in 2011- 41

**Indirect cost**- absenteeism, presenteeism at work/school

Source: Utah Department of Health (UDOH) 2010, 2011
NAEPP Guidelines - Education for a Partnership in Asthma Care

• **Key educational messages**: teach and reinforce at every opportunity (do a needs assessment, use adult learning principles)
  - Basic facts about asthma
  - Role of medications, understand the difference between quick-relief and controller medications
• **Patient skills**: (demonstration, return demonstration)
  - Take medications correctly
  - Self-monitoring
  - Using an asthma action plan—provide families, school, PCP with Action Plan
  - Self-management skills
• **Develop an active partnership with the patient and family**
• Encourage adherence by reviewing action plan at each visit and addressing concerns (identify barriers to compliance)
• Integrate asthma self-management education into asthma care (tools for monitoring—e-asthma tracker, asthma symptom diary)
Patient/Family Educational Resources

Centers for Disease Control and Prevention (CDC)
http://www.cdc.gov/asthma/ comprehensive

Environmental Protection Agency (EPA)
www.epa.gov/asthma basic facts and triggers

Intermountain Healthcare – Education, Data, Quality Improvement
www.intermountainhealthcare.org/asthma/

• Breathing Easier with Asthma Booklet
• Fact sheet-nebs, Let’s Talk About-Inhaled Corticosteroids
• Asthma Control Test, Asthma Action Plan
• Kids Health – parents, kids, teens
• PCMC Asthma Video
• Interactive flip-charts
• Handouts- crossword puzzles, word searches, coloring books
• Quit Tobacco-Journey to Freedom Booklet
Background: PCMC CPM Outcome

The Joint Commission Children's Asthma Care Quality Measures and Asthma Readmissions
Bernhard A. Fassl, Flory L. Nkoy, Bryan L. Stone, Rajendu Srivastava, Tamara D. Simon, Derek A. Uchida, Karmella Koopmeiners, Tom Greene, Lawrence J. Cook and Christopher G. Maloney

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**Figure 3**
Quarterly percentage of patients readmitted within 6 months. A, Postimplementation period: initial analysis. B, Postimplementation period: second analysis.

Impressive Asthma Readmission Rate Reduction at Primary Children’s and Nationally

2010 Asthma Inpatient Encounter (APR-DRG 141) Returns to Hospital within 180 Days – Same APR-DRG

Source: Child Health Corporation of America’s Pediatric Health Information System database
Patient and Family Educational Resources (continued)

**National Institute for Health** - Tutorials

**National Asthma Education Prevention Program** comprehensive

Schools and Childcare Centers – asthma friendly?

**University of Utah** - Research, Data, Quality Improvement
- E-Asthma Tracker [https://asthmatracker.utah.edu/](https://asthmatracker.utah.edu/)

**Utah Department of Health** - Utah Asthma Program
[www.health.utah.gov/asthma](http://www.health.utah.gov/asthma) comprehensive, data, partnerships

Little Breathers, Genetics, Air Quality, Turn the Key-idle free, Rx Assistance, Schools, Winning With Asthma for coaches- 25 min. online education

**American Lung Association** – [www.lung.org](http://www.lung.org) 1-801-484-4456
Open Airways ages 8-11 years- 40 minute - 6 interactive sessions
Camp Wyatt: Summer Camp for Children ages 7-12 years
Learning Resources for Kids- Make it Fun!

- Kids Health [www.kidshealth.org](http://www.kidshealth.org)
- Starlight Children’s Foundation [www.starlight.org/asthma](http://www.starlight.org/asthma)
- National Jewish Center [http://www.nationaljewish.org/healthinfo/pediatric/asthma/asthma-wizard/wizard/](http://www.nationaljewish.org/healthinfo/pediatric/asthma/asthma-wizard/wizard/)
- CDC [http://www.cdc.gov/asthma/](http://www.cdc.gov/asthma/)
- EPA [www.epa.gov/asthma](http://www.epa.gov/asthma)

Instructions for spacers, peak flow meters, one-minute asthma booklet
Provider Resources – Asthma Registry

• National Asthma Education and Prevention Program (NAEPP) Guidelines for the Diagnosis and Management of Asthma EPR 3

• NHLBI-Asthma Care Quick Reference Guide (Revised 2012)
  http://www.nhlbi.nih.gov/guidelines/asthma/asthma_qrg.pdf

• American College of Chest Physicians http://www.chestnet.org/

• Intermountain Healthcare
  www.intermountainhealthcare.org/asthma/ (need provider portal)
  Primary and Acute care process models, Asthma Quick Guide

• Utah Department of Health – Asthma Program
  www.health.utah.gov/asthma
  Provider manual and Provider medication manual
Goals: Asthma Control

- **Reduce Impairment**
  - Prevent chronic symptoms
  - Require infrequent use of short-acting beta2 agonists (SABA)
  - Maintain (near) normal lung function and normal activity levels

- **Reduce Risk**
  - Prevent exacerbations
  - Minimize need for emergency care, hospitalization
  - Prevent the loss of lung function (or for children lung growth)
  - Minimize adverse effects of therapy
    - Questions about ICS-most effective, taken every day, rinse mouth, use spacer, may slow growth slightly, not addictive or anabolic
    - Long-acting beta2 agonists- (LABA)

Source: NIH- NHLBI- NAEPP Asthma Care Quick Reference
Practice Pearls

Myth- Children often outgrow their asthma
• Fact- Asthma is a chronic, life long illness

New diagnosis- Assess asthma severity to initiate treatment
• May confuse controller and reliever medication (inhalers)
  • If using reliever more than 3x a week, need to increase controller

Repeat visits- Assess asthma control to determine therapy adjustment (step-up, maintain, step-down), PFTs every 1-2 years

Teach Behavioral Interventions (survival skills):
• I- Inhaler Technique
• C- Compliance (identify barriers)
• E- Environmental Triggers

Use Asthma Control Test (ACT) or peak flow to monitor symptoms

Provide an individualized Asthma Action Plan to escalate care

Schedule- Follow up Care based on asthma control every 2-6 wks while gaining, 1-6 mos. monitoring, 3 mos.- if stepping down therapy
Community Partnerships

Five Ts’-Teachers Teaching in Teams using Tools and Technology
- Education as multidisciplinary team (MD/LIP, RN, RT, MA)
  - Provide structure, clear roles and responsibilities, clear process
- Interactive iPads- downloading games and Kids Health
  - Websites e-Asthma tracker for monitoring ACT
- Be creative!

Green and Health Homes - Randy Jepperson - rjepperson@slco.org
- Ways to Clean Green
- Wooden blocks and lungs
- Blocks and Volcano/ICE concept

Utah Department of Health
- Evaluation and Feedback
- Data, surveys, outcome measures
• Utah Pediatric Partnership to Improve Healthcare Quality (UPIQ) has a 9-month Asthma Learning Collaborative that involve 8-16 practice teams. Mission is: To engage, lead and support practices in transforming the delivery of children’s healthcare.

It takes a community of research, education, data, quality improvement, resource support and practice teams that provide continuity of care across the continuum of care to patients with asthma and their families.

This takes leadership, innovation and collaboration in sharing resources and best practices, partnering with schools and legislation that promotes public health policy action. Together we can embrace a journey that challenges our community to be an Asthma Center of Excellence.
Thank-you!