In 2011, the New Mexico Asthma Control Program (NMACP) partnered with Nor-Lea General Hospital (NLGH) in Lovington, NM to develop a program of patient self-management education for people with asthma. A pilot program (March-April 2011) was followed by a year (September 2011-August 2012) of program services being offered. The University of New Mexico (UNM) Project ECHO (Extension for Community Healthcare Outcomes) provided training and technical assistance to the pilot program staff. Due to budget and staffing issues, the program was discontinued in 2012. However, strong support among program stakeholders and evidence of how well it worked resulted in its renewal in the fall of 2013, with funding from the NMACP.

Three NLGH staff members (two respiratory therapists and a nurse) in the Cardio-Pulmonary Rehabilitation Unit provide asthma self-management education (ASME) in English and Spanish for patients and caregivers (the mothers, fathers, grandmothers, grandfathers, aunts or uncles who take care of a child who has asthma). Asthma patients are usually identified and referred for self-management education by NLGH staff at the hospital’s clinics or their emergency department, although they may be referred by someone else, for example, the doctors who see asthma patients through Children’s Medical Services (CMS) asthma clinics.

The asthma educators at NLGH contact and schedule visits with patients. An initial session with the asthma educator lasts 90 minutes. Second visits are usually scheduled two to four weeks after the initial visit, with a third follow-up visit three months afterwards. However, scheduling is flexible to accommodate patients’ needs.

During 2014-15, patients and their caregivers participated in 104 ASME sessions, and Spanish language translation was provided for 43% of them. Seventy-one patients were scheduled and 64 patients met with an asthma educator: 55 patients completed their first ASME session; 30 returned for a second session, 14 for a third, and 5 for a fourth session (some patients had started their ASME in 2013-14). Over 95 percent of referrals came from NLGH clinics, with many patients referred by Dr. Sonia Murillo, the NLGH pediatrician who has championed the program since it began. Most patients (83%) were between the ages of four and eleven. There were more male patients than female ones (62% vs 38%) and the majority of patients were Hispanic (83%).

**Asthma Self-Management Education: Content and Delivery**

The content and delivery of the ASME sessions follow the 2007 National Asthma Education and Prevention Program (NAEPP) Guidelines by having ASME taught by health professionals trained in asthma self-management, being clinic-based, using an Asthma Action Plan (AAP), developing partnerships with patients and families, and by introducing key messages and essential skills at the very first session.

When someone’s asthma isn’t under control, they can struggle to breathe and have trouble with daily activities like walking up a flight of stairs or sleeping through the night. But with the right management, people with asthma can be fully active.

Asthma self-management education (ASME) helps people with asthma understand how asthma affects them and what they can do to keep their asthma under control. This may be recognizing things that can trigger their asthma (like dust or pollen) or remembering to take their asthma control medication regularly, every day.

An Asthma Action Plan (AAP) helps everyone remember what to do to take care of their asthma at work and at school; especially when asthma symptoms flare up, for example when to use a fast-acting ("rescue") inhaler. It can also tell healthcare providers about medications.
At the beginning of their first session, only a small number of patients and caregivers were confident and competent in demonstrating important asthma self-management knowledge and skills, such as using their inhaler properly, understanding when they should take different medicines, how to follow their Asthma Action Plan (AAP), and how to recognize and avoid triggers that cause their asthma to get worse.

**Percent of Patients & Caregivers Demonstrating Proper Technique Using Spacers/Inhalers before (pre) and after (post) ASME Sessions**

After participating in ASME, many more patients and their caregivers understood these things and felt more confident about managing their own asthma, or their child’s asthma.

**Patient Physical Health: The Asthma Control Test**

Asthma educators in the NLGH program use the Asthma Control Test (ACT), a short list of multiple-choice questions, to measure how much asthma is affecting their patients’ lives. Scores at or above 20 mean the patient’s asthma is “well controlled,” allowing the patient to do everything they need and want to do (for example, sleep through the night or play sports). For younger children (ages 4 to 11 years) the asthma educators use the Childhood Asthma Control Test (C-ACT) which combines questions for the patient with questions for their adult caregiver.

Measuring the ACT score for all patients at each visit shows that the average score improved from 18 (not well-controlled asthma) for first visits to 23 for third visits and 26 for fourth visits. Statistical analysis shows that the difference between first visit and the third and fourth visit scores for returning patients is significantly improved (meaning it is not likely this just happened by chance).

**Patient Well Being: Changes in Quality of Life (QoL)**

Another important consideration is how patients and their families feel about their self-management education sessions. A majority of participants (60%) feel that ASME improved their QoL a lot.

**Patient Perceptions: Has ASME Improved Your Quality of Life?**

Patients participating in the ASME program at NLGH report being able to reduce the number of urgent care and emergency room visits they have to make due to asthma. They also report specific differences in their daily lives, like being able to play sports without being short of breath or needing to sit out.

To learn more about NLGH, its mission and programs, visit www.nor-lea.org. To read a fuller report about this program or find out more about the NMACP, visit http://nmhealth.org/about/erd/eheb/ap/publications