Clinical Concerns Addressed:
1. Annually 3000 children visit the Vanderbilt Children’s Hospital Emergency Department (ED) due to asthma exacerbation.
2. Many children with asthma have complex needs related to their chronic, disease and need additional support to promote a successful transition from hospital to home.
3. Home interventions programs for pediatric asthma are successful yet difficult to fund and sustain in the present healthcare environment.

Educational Concerns Addressed:
1. Clinical sites available to community health nursing students often do not provide practical opportunities to develop the skills and experiences for nursing students.
2. Many children with asthma have complex needs related to their chronic disease and need additional support to promote a successful transition from hospital to home.
3. Home visits and telephone follow up are critical for managing patients with complex chronic disease.

Objectives
1. Provide student nurses with a ‘real world’ clinical experience in the homes of pediatric asthma patients who are identified to be at high risk for an ED visit or admission.
2. Reduce the number of ED visits and admissions as compared to the previous 12 months.
3. Reduce healthcare expenditures.

Home Visits Using Nursing Students: A Low Cost Approach for Controlling Pediatric Asthma

References
1. Pearson WS et al. State-Based Medical Costs for Pediatric Asthma Emergency Department Visits. Prev Chronic Dis 2014;11:140139. DOI: http://dx.doi.org/10.5888/pcd11.140139

Outcomes
2. Identified barriers to asthma control and developed a multimodal approach for interventions to help patients overcome barriers to effective asthma control.
3. Adapted an existing home environmental assessment tool to use for identifying asthma triggers in the home.
4. Delivered individualized interventions to children and families that included education about asthma pathophysiology and management, medication reconciliation, spacer technique, and environmental concerns.
5. Utilized a small grant provided by the Medical Center Staff Advisory Council to purchase items recommended by national asthma guidelines to reduce or eliminate environmental triggers identified in the home (e.g., vacuum cleaners with HEPA filters, dust mite encasements for pillows, high quality HVAC filters, and cockroach gel bait when indicated).

Recommendations
1. Improving pediatric asthma control requires a multimodal approach that includes home intervention and will result in reducing ED visits and admissions.
2. Academic clinical partnerships should be utilized to provide an opportunity to improve practice readiness in graduate nurses while providing a low-cost extension of clinic services to improve outcomes.
3. When available, this novel approach should be considered as a potential model for any pediatric or adult complex chronic illness in which non-adherence to treatment regimens or psychosocial issues are suspected to contribute to poor patient outcomes.
4. Creating a partnership between a nursing school and a pediatric pulmonary outpatient clinic is a novel way to extend clinic resources to improve asthma control. This results in decreased ED visits and admissions while also providing the benefit of ‘real world’ community health clinical experiences for nursing students.