

SUMMARY BRIEF**BACKGROUND STATEMENT**

The Texas Asthma Control Project (TACP) and the Environmental Protection Agency (EPA) provided funding to the Texas A&M School of Public Health for Integrated Educational Interventions (IEI), a program offering hospital-based asthma education and follow-up home visits with a Promotora. IEI was implemented in Hidalgo County in the Rio Grande Valley near the Texas-Mexico border.



SCHOOL OF PUBLIC HEALTH

EVALUATION OVERVIEW

The evaluation of IEI spanned 18 months between 2013 and 2014 and included activities to build evaluation capacity and strengthen outcome assessment. Capacity was improved through the restructuring of assessment tools designed to reduce the documentation burden on families, limit socially desirable responses, and measure changes in asthma management behaviors. The evaluation of program outcomes showed improvements in health care utilization, recognition of asthma symptoms, quality of life, general knowledge of asthma, and asthma management strategies. Evaluation tools included: the Children's Health Survey on Asthma (American Academy of Pediatrics), the Asthma Home Environment and Trigger checklist (AHEAT), Healthy Homes pre- and post-test knowledge surveys, and an exit survey.

SUMMARY OF IEI OUTCOMES

The IEI outcome evaluation was guided by the following question: To what extent do IEI participating families demonstrate improvements in knowledge, asthma symptoms, asthma management, quality of life, general knowledge of asthma, and health care utilization?

| Outcomes | Data Sources | Analytic Focus | Evaluation Findings |
|-------------------------------|---|---|---|
| Health Care Utilization | <ul style="list-style-type: none"> • CHSA • Exit Survey | Item-by-item analysis of the following areas: self-reported hospitalizations, emergency department and doctor visits associated with asthma problems | <ol style="list-style-type: none"> 1. No change was observed in the emergency department utilizations, but the overnight hospital stays dropped from 6% at baseline to 1% at follow-up. 2. A significant change was observed in the percent of families reporting that their child required a clinic or doctor visit in the prior 4 weeks due to problems with asthma. The percent of families reporting a clinic or a doctor visit dropped from 50% at baseline to 31% at follow-up. |
| Asthma Symptoms | <ul style="list-style-type: none"> • CHSA • Exit Survey | Item by item analysis in the following areas: asthma attack frequency, presence of symptoms | <ol style="list-style-type: none"> 1. The percent of families reporting asthma attack incidents decreased by 30% between the first and last visits and those reporting symptoms of wheezing or whistling while breathing declined by 23%. These differences are statistically significant. 2. On the exit survey, 89% of families reported a decrease in the frequency of asthma attacks. |
| Quality of Life | <ul style="list-style-type: none"> • CHSA • Exit Survey | CHSA subscale scores and item by item analysis associated with physical health, activities, and emotional health for children and families | <ol style="list-style-type: none"> 1. Significant improvements were observed in children's physical health, families' activities, and families' emotional health. 2. IEI parents and their children demonstrated a reduction in the negative effects of asthma related to sleep. |
| Asthma Knowledge & Management | <ul style="list-style-type: none"> • Exit Survey • AHEAT • Healthy Homes Pre - Post Survey | Item by item analysis of the following areas: use of asthma medication, reports of behavioral changes to improve the home environment; Pre and post-test total scores; Item -by -item analysis of perceived asthma triggers | <ol style="list-style-type: none"> 1. The vast majority (89%) of parents indicated they had made a change in their home environment in the prior 4 weeks. Among the 32 healthy homes strategies identified, IEI participants reported using an average of 19 to improve the safety and health of their homes. 2. Post-training scores on the Healthy Homes survey were significantly higher than the pre-training scores indicating an improvement the participants' knowledge of asthma. |