

Title of Intervention: Community-based Asthma Management Program

Intervention Strategies: Provider Education, Group Education, Individual Education

Purpose of the Intervention: To increase knowledge of asthma and improve quality of life for children with asthma and their families

Population: Hawaiian children ages 3-14 who have asthma and their parents

Setting: Participants' homes and community health centers; home-based, health care facility-based

Partners: Health care providers, consultants

Intervention Description:

- **Provider Education:** Community health workers were trained in the areas of anatomy and physiology of asthma, symptoms and triggers, severity classifications, asthma medications, peak flow meter, inhaler and spacer use and care and relaxation and strengthening exercises.
- **Group Education:** Families received educational home visits from the community health workers. Additional educational tools to augment asthma education included a set of diseased lungs, a year's supply of cigarette tar in a bottle, medical complication flip charts and an interactive asthma education CD. The program was adapted to be culturally sensitive.
- **Individual Education:** Based on information gathered on the first home visit (family and social supports, environmental triggers, barriers to regular medical care, treatment, compliance and quality of life), the health workers collaborated with the asthma treatment team (physician, project coordinator, consultant, and participants) to develop an asthma intervention plan, with particular emphasis placed on medication management.

Theory: Not mentioned

Resources Required:

- **Staff/Volunteers:** Community health workers
- **Training:** Community health workers received specialized education on asthma and treatments
- **Technology:** Not mentioned
- **Space:** Participants' homes, meeting space for provider training
- **Budget:** Not mentioned
- **Intervention:** Diseased lungs, cigarette tar in bottle, medical flip charts, educational CD, peak flow meters, inhalers and spacers, action plans, assessment forms
- **Evaluation:** Questionnaires

Evaluation:

- **Design:** Cohort
- **Methods and Measures:**
 - Asthma Management Education and Assessment Summary Report: were used to keep track of patients.
 - Quality of Life was evaluated.
 - Visit results were recorded in progress notes and encounter forms were printed for each subsequent visit to facilitate tracking of utilization.

Outcomes:

- **Short Term Impact:** There was a significant decrease in both expenditures and asthma-related visits after community health worker intervention.
- **Long Term Impact:** Emergency room visits decreased and the overall asthma related visits decreased after the initial community health worker encounter. Quality of life also improved.

Maintenance: Not mentioned

Lessons Learned: The community-based asthma management program demonstrated success in improving utilization patterns and reducing asthma-related expense among program participants. Improvement was also noted in quality of life as expressed through frequency and time of asthma symptoms. Other health care institutions may also be positively impacted by developing multidisciplinary team implemented, culturally-adapted and scientifically-based disease management programs.

Citation(s):

Beckham, S., D. Kaahaaina, et al. (2004). "A community-based asthma management program: effects on resource utilization and quality of life." *Hawaii Med J* 63(4): 121-6.