

US EPA ARCHIVE DOCUMENT

# U.S.-Mexico Asthma Surveillance Demonstration Projects

**Start Date:** October, 1999

**Completion Date:** September, 2001

**Project Purpose:** The purpose of the project was to (1) determine the availability and quality of asthma data (including school absenteeism, school medication records, asthma hospitalizations and morbidity) in the California/Baja California region; (2) determine the cultural and region-specific beliefs and attitudes regarding asthma; (3) pilot-test an asthma self-management program; and (4) conduct a pilot study of asthma prevalence among schoolchildren in the Imperial Valley, CA, and in Mexicali, B.C.

**Project Description:** To achieve the goals of the project, a number of specific activities were undertaken. Under data assessment activities, we conducted a number of interviews and assessments on both sides of the border regarding the availability and quality of asthma data and pilot-tested the ISAAC (International Survey of Asthma and Allergies in Children) in schools in the Imperial and Mexicali Valleys. Under determining the cultural and region-specific context for asthma, we conducted focus groups of parents of children who had been diagnosed with asthma in both the Imperial and Mexicali Valleys and conducted a survey of school administrators and health workers on knowledge levels and beliefs regarding asthma. For potential interventions of the problem, we developed an asthma self-management curriculum and trained promotoras (lay health workers) in communication and educational module content; conducted home visitations to assess environmental triggers; and tested and evaluated the curriculum.

## **Accomplishments:**

### Data assessment:

- Results of our assessment of the magnitude of the asthma problem at the California/Baja California border showed that the prevalence of physician-diagnosed asthma in a small sample of 6-7 year olds in Calexico, CA was 15.1% and in 13-14 year olds was 26.5%. In Mexicali, B.C., the corresponding estimates were 6.6% and 5.8%, respectively.

### Cultural and Region-specific context for asthma:

- Focus groups of parents of children with asthma in Calexico and Mexicali showed some interesting similarities and differences. On both sides of the border, we found that there was not much understanding or discussion of the triggers of asthma. While there were many words for symptoms of asthma (although differing on either sides of the border), there does not seem to be a word for "trigger."
- The survey of school administrators and health workers in Mexicali indicated that

although their knowledge of asthma contains some myths, their practical approach to the care and management of the asthmatic student is generally appropriate.

#### Interventions

- We developed a six module curriculum for parents of children with asthma which included modules on asthma signs and symptoms; asthma triggers and control; measurement of lung function; medication use; and asthma action plans. Participants showed significant improvement of their asthma knowledge after completing the curriculum as measured by pre/post tests.

#### **Expected Outcome(s):**

- Conducting the asthma school survey and training promotoras in conducting an asthma self-management curriculum raised the educational level and awareness of the asthma problem in the Imperial Valley. If implemented widely, the curriculum would ultimately decrease asthma morbidity and increase asthma management skills among the underserved Latino population living along the border.
- Results of the pilot data were used to successfully obtain a grant from the CDC to study the asthma problem in more detail in the Imperial Valley (Centers for Disease Control and Prevention, "Childhood Asthma Prevalence and Risk Factors at the Border," Lipsett, M. (P.I.). Environmental Health Investigations Branch, California Department of Health Services, Oakland, CA).

#### **Presentations or Publications:**

Asthma self-management curriculum (6 modules) In English and Spanish.

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