

Prevalence of Physician Diagnosed Asthma in Calexico/Mexicali Figure 10		Type of indicator Effect
		Goal and Objective: 4.1
Description of the INDICATOR		
<i>Definition</i>	Prevalence of physician diagnosed asthma (2001) in children (6-7 and 13-14 years) in a limited study for one sister city pair: Calexico, CA and Mexicali, B.C., 2001	
<i>Importance of the indicator/purpose</i>	While air quality standards provide a platform to understand current air quality conditions, it is important to understand the <u>possible</u> impact of air pollution on human health. Long-term exposure to elevated air pollution is associated with diminished lung function and cardiovascular disease. Vulnerable groups (children, the sick and elderly) are more likely to suffer ill effects. A number of epidemiologic studies have linked changes in air pollutant concentrations with increased risk of pneumonia, respiratory infections, and exacerbation of asthma. For example, evidence indicates that exposure to vehicle emissions aggravates or triggers asthmatic symptoms and airway reactivity.	
<i>Units of measure</i>	Percentage	
<i>Concepts and definitions</i>	Prevalence - the proportion of persons in a given population that has a particular disease at a point or interval of time. (Prevalence = number of cases (or affected individuals) / number of people in the population).	
<i>Coverage</i>	2001. Calexico, CA and Mexicali, B.C. Small sample study of school aged children 6-7 and 13-14 year olds with a total sample size of 37 children.	
<i>Calculation</i>	Plot data as presented from study results.	
<i>Sources of information</i>	Department of Health and Human Services. 2001. <i>U.S.-Mexico Border Environmental Health Surveillance Demonstrations Phase Two</i> . September 2001. http://www.epa.gov/ehwg/projects_publications/usmexico_asthma_surveillance_demonstration.html	
<i>References (additional information)</i>	For more information on U.S.-Mexico air quality see http://www.epa.gov/usmexicoborder/org.htm#air For Environmental Health information see http://www.epa.gov/ehwg/projects_publications.html .	
<i>Limitations of the indicator</i>	Asthma is a complex disease and multiple factors are implicated in the development and exasperation of this disease, thus at this time it is not possible to directly relate air pollution to the onset of asthma. Despite a surplus of information regarding asthma prevalence, data are not reported in a standardized format. Reporting mechanisms and disease definitions vary considerably between border states and countries, limiting the ability to make comparisons. The data presented in this study includes a very small sample size, and may not be representative of the larger population.	