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Asthma and Air Quality in Northern Thailand

Background: The prevalence of asthma is rising worldwide. Common environmental triggers of asthma include dust, chemicals in the air, and tobacco smoke. Because environmental factors play a large part in triggering asthma symptoms the quality of air is important. Northern Thailand contains both agricultural and urban areas and Thailand is considered a developing country. The specific aims of this research were to describe the epidemiological characteristics of asthma in northern Thailand and to describe the state of air quality in northern Thailand. Methods: This project used a multi-method approach to address project aims beginning with an interview from the perspective of descriptive phenomenology to identify trends of asthma, air quality in northern Thailand, and available data sources, followed by library research and inquiry into available surveillance data. Findings: In northern Thailand three contribution factors effect air quality: source, meteorological, and geographical. Air quality in northern Thailand appears to be influenced by open burnings, traffic, and industry. Traffic and industry's contribution to poor air quality appear least significant, but air quality does seem to vary by season. Data in Thailand appears to be lacking regarding asthma treatment, surveillance, and the potential linkages between disease and air quality. Implications: Comprehensive surveillance data on the epidemiology of asthma in northern Thailand is currently lacking because data is not collected yearly. In order to draw better conclusions on the current prevalence of asthma in northern Thailand further information is required. Future work includes collecting yearly data on asthma and other health problems in Thailand as well as studying the impact environmental factors have on such illnesses.