SHORT TERM HEALTH EFFECTS RELATED TO DUST STORMS (PM)

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Abstract
Recent studies overseas have found that daily air pollution concentrations are associated with daily deaths and hospital admissions. However there is very little data exist on the effect of dust storm that are common in the Arabian Gulf regions due to desert weather.
In this presentation we deal with the effect of dust storms measured as PM10 levels on the cause specific hospital admissions such as asthma, respiratory and cardiovascular admissions. This paper is part of the broader study with the aim investigating the short-term effects of ambient air pollution on health both morbidity and mortality in Kuwait, in particular the effects of dust storms.

This study was an ecological one with an epidemiological time series approach to explore the relationship between daily counts on cause specific hospital admission. Daily Air pollution, dust levels, weather, morbidity data for the last 5 years were collected from EPA and Ministry of Health, Kuwait for this purpose. Generalized additive models within the time series framework were employed to obtain the relative risk associated with pollutant effect on morbidity. The data analysis was carried out using R software and STATA.
Significant association between daily dust levels and respiratory causes of morbidity were found. The levels that are detrimental to the health are quantified. Data from overseas were compared to the Kuwaiti findings and clinical implications were discussed.