

NOAA Earth System Research Laboratory and NCAR Societal Impacts Program *Seminar Series*

NCAR Societal Impacts Program (SIP) and Weather and Society Integrated Studies (WAS*IS)

David Skaggs Research Center (DSRC - NOAA Building)
325 Broadway
Boulder, Colorado 80305-3328
Room GC402 (Multipurpose Room)

Monday, November 10, 2008 2:00 - 3:00pm
discussion following / refreshments will be served

Weather, Climate, and Dengue Fever

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Abstract

Climate change is projected to change current patterns of rainfall and availability of surface water, both of which can alter the transmission dynamics of vector-borne diseases. The geographic range of disease vectors may expand, bringing these vectors into regions where there is no population immunity or where limited public health infrastructure is available to reduce the burden of disease.

Drought or intense rainfall may alter the existing ecosystem and provide suitable habitat for mosquito vectors, particularly human commensals such as *Aedes aegypti*, the vector for yellow fever and dengue fever. During periods of drought in regions where access to piped water is unreliable, householders may store water in non-sealed containers, providing a source for mosquito ovipositing. On the other hand, extreme rainfall may allow containers that have not been properly disposed of to fill and be used as breeding sites for *Aedes aegypti*.

Two ongoing studies will be presented; one from the US-MX border region and the other from Guayaquil, Ecuador, both regions where dengue fever is now considered endemic. The TX-MX study will provide data from an outbreak investigation of the first locally acquired case of dengue hemorrhagic fever in the continental United States. Preliminary data of a pilot study investigating two neighborhoods, one with high incidence and one with low incidence of dengue, during the dry season in Guayaquil, Ecuador will also be presented.



Off-Site Guests Attending

Mention the **WAS*IS Seminar**
when checking in through
DSRC security.

Questions/Problems

Contact Annie Reiser
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WAS*IS

CULTURE CHANGE

weather & society * integrated studies

www.sip.ucar.edu/wasis/



Sponsored by the NCAR Societal Impacts Program

Changing from what **WAS** to what **IS**
the future of integrated weather studies