



Evaluation of climate variability and temperature extremes in Colombia: Opportunities for the outlining of climate change and human health adaptive strategies.

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Climate change acts as a multiplier of existing human health problems. Therefore, the need arises to create measures to improve the population's adaptive capacity to deal with human health risk associated to extreme meteorological events. Colombia already has public policies aiming to develop climate change adaptation plans. However, these policies do not include the need to outline specific adaptive strategies for the public health sector. The approach described in this paper, applies an objective method that allows the assessment and planning of adaptive measures to diminish the health risks associated to extreme thermal sensations in Colombia. We analyzed daily extreme air temperatures considering a period of 30 years, with data of almost 200 weather stations, representative of the thermal regime of the natural regions of the country. The analyses showed the definition of predominant intervals of daytime and nighttime temperatures and the frequency of thermal comfort intervals and extreme thermal sensations, as well as changes of the thermal regime with altitude and seasonal variations in Colombia. This definition of the thermal regime for the country will be contrasted with a social vulnerability analysis to obtain a wide set of observations that can contribute with the planning of climate change adaptation initiatives implemented by governmental institutions at the municipal level. This paper presents arguments for potential development of climate change adaptation strategies at the national level, aimed to improve public health care based on peculiarities of the country's thermal regime and population. It constitutes a novel approach in support of national development policies, due to potential improvement of health care strategies centered on the effects of extreme climate variation. It also promotes nationwide risk management measures based on the climate diversity of the country.