



Climate Change and Child Health: The Relationship between Climatic Variables, Child Health Indicators and Social Determinants of Health in Iran

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ABSTRACT

Children living in slums and suburban areas will face more challenges of climate change and a few of these research studies have investigated the vulnerability of different socioeconomic groups in this regard. This study examines the relationship between climatic variables and child health indicators with the mediation of the socioeconomic status of households in Iran.

Design : The present study is a secondary analysis with correlation and structural equation modeling method. Maximum temperature as an independent variable and health of children under five years (height and weight) as outcome variables were investigated. The mediating variables in this study were social determinants of health. Stata and Smart PLS software have been used to analyze the data. The results of this study showed that the maximum temperature variable is related to low weight and stunting in children less than 5 years of age and the maximum temperature and socioeconomic status in total explain 69% of the variance of stunting variable in Iran. The maximum temperature of 57% of the variance of the low weight variable also explains the variable of being underweight. There was meaningful relationship between maximum temperature, underweight and stunting of children under 5 years and socioeconomic mediator variable (ratio of illiterate mothers with children under 5 years of age to all mothers with children under 5 years, proportion of illiterate fathers with children under 5 years of age, between all mothers with children under 5 years of age and the proportion of households that do not have access to sanitary toilets to all households in Iran provinces). According to the findings of this study, children with lower socioeconomic status are more affected by the consequences of climate change. As a result, risk adaptation

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measures such as inter-sectoral activities and promotion of long-term approach to reduce health risks of increasing maximum temperature in Iran, measures such as paying attention to the health consequences of maximum temperature increase in disease management and control sections and expanding expert training in the field of health outcomes of temperature rising among vulnerable groups are suggested.

Keywords: maximum temperature, socioeconomic status of households, low weight and stunting, access to sanitary toilets