Development of a surveillance case definition for heat-related illness using 911 medical dispatch data

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Abstract: Objectives: The adverse effects of hot weather on public health are of increasing concern. A surveillance system using 911 medical dispatch data for the detection of heat-related illness (HRI) could provide new information on the impact of excessive heat on the population. This paper describes how we identified medical dispatch call codes, called "determinants", that could represent HRI events. Methods: Approximately 500 medical dispatch determinants were reviewed in focus groups composed of Emergency Medical Services (EMS) paramedics, dispatchers, physicians, and public health epidemiologists. Each group was asked to select those determinants that might adequately represent HRI. Selections were then assessed empirically using correlations with daily mean temperature over the study period (June 1 - August 31, 2005). Results: The focus groups identified 12 determinant groupings and ranked them according to specificity for HRI. Of these, "Heat/cold exposure" was deemed the most specific. The call determinant groupings with the clearest positive associations with daily mean temperature empirically were "Heat/cold exposure" (Spearman's correlation coefficient (SCC) 0.71, p

Resource Description

Exposure
  Temperature
    Temperature: Cold, Heat

Geographic Feature
  General Geographic Feature
Geographic Location
   United States

Health Impact
   Injury, Other Health Impact, Specify
     • Other Health Impact: heat related morbidity and mortality

Resource Type
   Research Article

Special Topic
   Adaptation, Communication, Health Sector Influence
     • Adaptation: Adaptation Co-Benefit/Co-Harm, Early Warning System, Vulnerability Assessment
     • Communication: Health Professional