High temperatures and cardiovascular-related morbidity: A scoping review

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BACKGROUND

- Extreme heat events and heat waves are expected to become more common and intense in Canada
- Communities experiencing extreme heat events may be at greater risk of health impacts like heat stroke, and acute cardiovascular disease (CVD)
- There has been lots of research about the impacts of high temperature on death rates, but little is known about the relationship between high temperatures and the risk of CVD
- The purpose of this study was to review research studies that looked at the relationship between high temperatures and CVD-related emergency department (ED) visits and hospitalizations in urban areas

STUDY FINDINGS

- There were 22 papers found
- The findings from the papers suggested that ED visits and hospitalizations for total CVD, acute myocardial infarction, hyper/hypotension, and ischemic stroke may be influenced by high temperatures
- Studies found that there were some differences in the effect of high temperatures on CVD-related ED visits and hospitalizations, which were likely due to the differences in definition of exposure to high temperatures, delayed effects of the high temperatures, and age
- The results on the relationship between high temperatures and ischemic heart disease-, heart failure-, dysrhythmia-, and other stroke-related hospital encounters, were inconsistent
- Possible risk factors for CVD-related ED visits and hospitalizations may include age, sex/gender, and the intensity and duration of exposure to high temperatures

NEXT STEPS

- More research conducted in Canada is necessary to help plan for future adaptation measures
- More research is also needed to explore the impacts of high temperatures on certain populations, such as those with risk factors of CVD and specific groups of CVDs, such as people with heart failure

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