Climate Change, Older Adults and Immigrants: Exploring Community Vulnerability and Resilience

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BACKGROUND

Canada continues to experience warming at a greater rate than the global average (1). Climate change is projected increase the number of warm nights and hot days in Edmonton, Alberta, Canada (2,3).

Climate change is having critical impacts on health. Two pathways include extreme weather and air pollution. Groups such as older adults and some immigrant communities may be at higher risk due to underlying conditions, social isolation, and limited access to services (4-6).

PROJECT

Our aim was to explore community-level impacts of weather and air pollution in Edmonton, with a focus on older adult and immigrant populations (Figure 1).

METHODS

- Model and map the relationship between community-level socio-demographic factors (sensitivity), environmental factors (exposure), adaptation (adaptive capacity), and health outcomes (cardiovascular, respiratory, mental health, and injuries) using available information

- Explore the knowledge, attitudes, practices, perceptions, and resiliency of both older and immigrant populations through focus group discussions

(1) Environment Canada 2014, (2), City of Edmonton, (3) Smoyer-Tomic et al. 2003
(4) Health Canada 2012, (5) Hansen et al. 2013, (6) Cheng et al. 2010

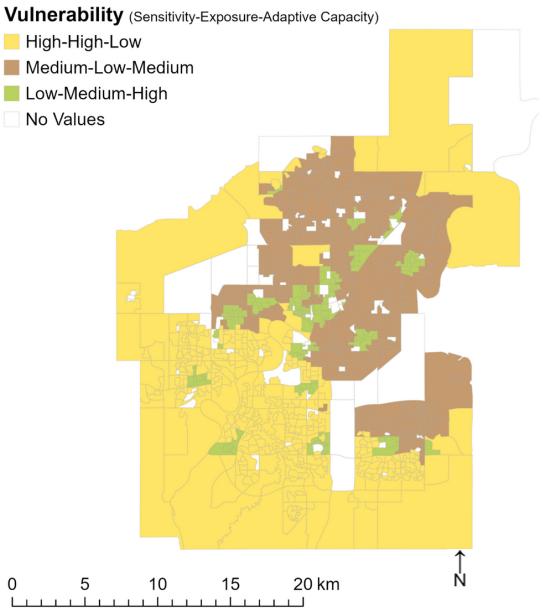

Figure 1: Vulnerability index map of Edmonton for older adults and immigrants

- Yellow: high sensitivity, high exposure, low adaptive capacity
- Brown: medium sensitivity, low exposure, medium adaptive capacity
- Green: low sensitivity, medium exposure, high adaptive capacity
- White: no values

KEY FINDINGS

Older adults are at higher risk of adverse health events from weather and air pollution exposures

Refugees are at higher risk of adverse health events from weather and air pollution

Air pollution and weather monitoring limitations are hindering efforts to measure health impacts

There is room to foster adaptive capacity in our neighborhoods and populations