

Health of the Homeless and Climate Change

What you need to know

The most common definition of homelessness refers to individuals who sleep in shelters as well as the “absolute homeless” which describes individuals who sleep outdoors or in other places not intended for human habitation. It is estimated that 1% of Toronto’s population use a shelter each year. Homeless people are amongst the most vulnerable groups in developed regions, and suffer from higher rates of chronic disease than the general population. Homeless people carry a disproportionate burden of the effects associated with climate change.

What is this research about?

This research studies the impacts of climate change on the health of the homeless population in developed regions and provides an understanding of the nature of such impacts. It also highlights the health disparities between homeless people and the general population due to climate change.



What did the researchers do?

The researchers reviewed four pathways in which climate change affects the homeless population: increased heat waves, increased air pollution, increased severity of floods and storms, and the distribution of the West Nile Virus. These pathways

were then cross-referenced with vulnerabilities associated with being homeless (living outdoors, respiratory problems, poverty, substance use and mental illness) in order to identify the potential negative health impacts on homeless people.

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HOW CAN YOU USE THIS RESEARCH?

The information from this research can be used to express the need for policy change to both adapt to climate change and to try to mitigate the causes of climate change.

Toronto Public Health has already begun to identify extreme weather trends to inform outreach services such that they can adapt their services to help more people living on the street.

As far as mitigating the impacts that climate change has on homeless people, policy makers could use this research to advocate for reductions in air pollutants and greenhouse gas emissions.

Alternative energy policies, improved transportation systems and improved urban planning are ways in which climate change impacts on the homeless population can be lessened.



What did the researchers find?

The researchers found that the amount of time homeless people spend outdoors leaves them much more vulnerable to the negative effects of climate change compared to the general population.

They indicated that the mortality (life expectancy) and morbidity (quality of life) of homeless people are affected by heat and cold exposure, which has intensified as a result of climate change. Air pollution-related mortality could increase by 20-30% by 2050, affecting homeless people significantly because of their high prevalence of respiratory and cardiovascular conditions and the amount of time they spend outdoors.

The researchers also found that mental illness and substance use were factors that affected decisions to seek shelter from extreme weather, increasing mortality for homeless people.

Climate change is also expected to result in increased frequency and intensity of natural disasters.

Spending large amounts of time outdoors makes homeless people vulnerable to the impacts of floods and storms. Drowning, infectious disease outbreaks and incidences of anxiety and depression following flood and storm disasters were found to increase. Furthermore, early onset of spring, as a result of climate change, has increased the range and strength of the West Nile Virus. This virus thrives in warm, dry weather and individuals who sleep outside are more likely to be bitten by mosquitoes that carry the virus.



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