CLIMATE CHANGE AND HOMELESSNESS:
CONSIDERATIONS OF INTERSECTIONS AND THE COST OF LIVING CRISIS

The consequences of the cost of living crisis are far-reaching, and, when coupled with the climate crisis, they increase exponentially. This is precisely what this research paper focuses on: just how detrimental the climate crisis can be when the cost of living crisis is already hitting the most vulnerable members of society the hardest. Extreme temperatures, difficulties to heat or cool homes, as well as dangerous health consequences from exposure to weather conditions when experiencing homelessness are some of the subjects this article focuses on. It also outlines possible actions that could be taken to respond to these crises.


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Climate change is increasingly understood to be a 'threat multiplier.' This refers to how the effects of the global climate crisis compound existing vulnerabilities such as poverty, poor health, and social inequity. There is arguably no clearer example of this phenomenon than the impacts of weather extremes upon inadequately housed and unhoused individuals in Europe and worldwide.

The implications of climate change for populations experiencing housing precarity and homelessness take several forms. One key component involves climate-driven migration. While this is a well-documented phenomenon, particularly in low- and middle-income countries, there is much less discourse around the pivotal role of housing in these migration trajectories. People driven from their homes by rising water levels, storms, food and water insecurity, and devastated livelihoods, often face increased housing precarity if not a total lack of shelter. The largest slums in the world, in places such as Nairobi, bear witness to this phenomenon. The more obvious implication of climate change for homelessness involves exposure. People lacking adequate shelter are far more exposed to temperature variations and extremes of heat and cold, flooding and storms, along with an array of associated threats, such as vector and water-borne diseases and air pollution. These marginalised circumstances also involve barriers concerning access to adequate support and seldom is there a consideration of homeless populations in disaster response planning. In this article, we concentrate on two issues with particular salience for Europe – the cost of living crisis and exposure as they relate to health, housing, and climate change.

COST OF LIVING CRISIS

An additional facet of the climate-health-housing connection involves the recent sharp increases in the cost of living globally. The rising cost of living has a pronounced effect on precariously housed individuals. One of the key contributing factors is energy insecurity, sometimes referred to as energy poverty, whereby households are struggling or unable to cover increased rent prices or energy bills. The energy pricing in Europe is of particular concern, given the inflation rates, most of which can be attributed to the Russian invasion of Ukraine. For example, as of September 2022, the Harmonized Index of Consumer Prices in the European Union indicates that the inflation rate for liquid fuels is 79.1% and 70.9% for gas[1]. This problem is exacerbated for those living in manufactured or subsidised units. Without further subsidies from governments, many precariously housed individuals are at risk of being unable to cover their heating bills this winter, which may result in a utility shut-off. These shut-offs have been noted as the precursor to evictions[2]. For instance, a study in Hungary found that

1 Statista. Harmonized index of consumer prices (HICP) energy inflation rate in the European Union from January 2019 to September 2022, by commodity. https://www.statista.com/statistics/1328128/eu-energy-inflation-rate-by-commodity/

2 Jessel, S.; Sawyer, S.; Hernández, D. Energy, Poverty, and Health in Climate Change: A Comprehensive Review of an Emerging Literature. *Public Health* **2019**, 7, 357.

the main risk factors for eviction are inability to pay rent and utilities[3]. Although the link is not always immediate, evictions tend to trigger the 'housing slope', whereby the evictees face increasingly insecure housing conditions, from staying with family and friends to shelters and homelessness.

In this context, climate change is worsening the energy insecurity. The changing climate leads to more temperature extremes, which means hotter summers, more heatwaves, and colder winters in some areas. During such events, increasing energy consumption to adapt to weather extremes is often not an option for those experiencing energy poverty. For instance, data from neighbourhood surveys in four European cities (Budapest, Gdansk, Prague, and Skopje) indicate that households struggle both with cooling and warming, with cooling being the more prevalent issue, especially in Budapest and Prague, where about 40% of respondents were unable to keep their homes cool during the summer[4]. Thus, climatic events, combined with the energy insecurity, will continue to present challenges for households in the form of eviction risk and the health and quality of life implications of not being able to sufficiently cool or heat homes in variable and extreme weather circumstances. These problems occur alongside that of precarious housing tending to be less equipped to withstand other climatic events, such as floods and storms, and its residents are more likely to become homeless as a result.

> "Those experiencing extreme weather exposures associated with homelessness and inadequate housing face significant physical and mental health consequences."

3 Teller, N.; Somogyi, E.; Tosics, N. Social context, evictions and prevention measures in Hungary. In *Loss of Homes and Evictions across Europe: A Comparative Legal and Policy Examination;* Kenna, P., Nasarre-Aznar, S., Sparkes, P., Schmid, C.U., Eds. Northampton, MA: Edward Elgar Pub, **2018**; pp. 141-61. https://www.elgaronline.com/view/edcoll/9781788116985/9781788116985.00017.xml

4 Thomson, H; Simcock, N.; Bouzarovski, S.; Petrova, S. (2019). Energy Poverty and Indoor Cooling: An Overlooked Issue in Europe. *Energy and Buildings* **2019**, 196, 21–29. https://doi.org/10.1016/j.enbuild.2019.05.014

Box 1. Mild and Moderate Cold: Case Examples in England and Poland

Due to climate change and global warming, there are some projections that in colder climates winters might become milder. This has been suggested to result in marginal health benefits due to decreased exposure to extreme cold[5]. However, research consistently indicates that the mild cold in winter is associated with higher hospitalisations and mortality rates among the homeless populations.

What is meant by mild and moderate cold can vary depending on the region. For example, for individuals experiencing homelessness, temperature-related hospital admissions related to cold start at 3.9°C in England and at 5°C in London specifically[6]. At the same time, the Severe Weather Emergency Protocol is only activated when nighttime temperatures reach 0°C. Such a gap can lead to many hospitalisations that could be prevented.

In Poland, a study found that homeless individuals are 13 times more likely to die as a result of hypothermia than the general population, making cold a stronger risk factor for adverse outcomes than heat. Moderate cold stress (0°C to -12.9°C) was seen to produce the most pronounced effects, rather than the extreme cold[7].

There tends to be a similar response strategy for heat and cold weather, with extremes being considered the most dangerous time periods, triggering emergency responses. However, the response to cold should be based on the available data, which suggests that mild and moderate cold temperatures have detrimental effects for homeless populations.

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5 Ramin, B.; Svoboda, T. Health of the Homeless and Climate Change. *J Urban Health* **2009**, *86*, 654-664, https://doi.org/10.1007/s11524-009-9354-7

6 Hajat, S.; Sarran, C.; Bezgrebelna, M; Kidd, S. A. Impacts of the Severe Weather Emergency Protocol (SWEP) in Reducing Heat- and Cold-Related Health Effects in People Who Are Homeless in London. Under Review at *AJPH.*

7 Romaszko,J.; Cymes, I.; Dragańska, E.; Kuchta, R.; Glińska-Lewczuk, K. Mortality among the Homeless: Causes and Meteorological Relationships. *PloS One* **2017**, *12*(12), e0189938–e0189938. https://doi.org/10.1371/journal.pone.0189938" https://doi.org/10.1371

EXPOSURE

Those experiencing extreme weather exposures associated with homelessness and inadequate housing face significant physical and mental health consequences. Heat presents a range of risks to these populations including dehydration, heat stroke, and other heat-related illnesses. These risks have been highlighted this past summer in many European countries, with extreme heat, drought, and wildfires being reported throughout the continent[8]. Cold and wet weather have also been implicated in changing, variable, and extreme weather patterns that attend the climate crisis. Cold has been consistently found to present hypothermia risks even during mildly cold temperatures[9] (see Box 1). This is related to multiple factors. For example, homeless individuals are more likely to experience malnourishment, which reduces tolerance to cold. Wet conditions during the cold season amplify this effect. Populations experiencing homelessness also have a greater likelihood of pre-existing physical and mental health conditions, all of which contribute to negative health outcomes, including premature death.

The phenomena described above, in the frame of being a threat multiplier, index around factors beyond poverty alone. Specific populations that are particularly affected include women, infants and children, and the elderly. Globally, Indigenous populations are profoundly impacted by cultural losses – and climate change is another facet of the colonial violence and genocide that have been and continue to be perpetrated.

RESPONSES

Considering the risk of increasing energy insecurity in Europe, policy should primarily focus on the most leveraged response: preventing the loss of housing. Depending on the local context, strategies could look differently and can combine a variety of approaches, such as retrofitting housing and providing subsidies to help cover energy bills. Another key strategy is to focus on reducing the exposure to cold and heat for those already experiencing homelessness. These measures should include opening of warming/cooling centres and emergency shelters, as well as ensuring access to healthcare and other services as needed. Planning around such measures should be data-driven, considering the issues described in this article regarding milder cold and wet weather presenting as great a risk as more extreme cold weather. Disaster plans should include provisions for homeless populations, informed by co-design and peer-support models[10]. Emphasis should also be placed on relying on trauma-informed approaches in providing information about the available shelters (e.g., their location and transportation options), amongst other resources.

8 World Meteorological Organization. WMO Provisional State of the Global Climate 2022. https://library.wmo.int/doc_num.php?explnum_id=11359

9 Lane, K.; Ito, K.; Johnson, S.; Gibson, E.A.; Tang, A.; Matte, T. Burden and Risk Factors for Cold-Related Illness and Death in New York City. Int. J. Environ. Res. *Public Health* **2018**, 15, 632. https://doi.org/10.3390/ijerph15040632

10 Andrews, C., Heerde, J. A Role for Lived Experience Leadership in Australian Homelessness Research. *Parity* **2021**, *34*(6), 22-23.

Examples of response strategies include:

- Improving insulation in housing (government sponsored) for precariously housed populations (e.g., UK)
- Retrofitting housing to withstand climatic shocks (e.g., Ireland)
- Providing housing (temporary and permanent) for unhoused individuals (e.g., Housing First programs)
- Subsidies to cover heating and/or energy bills (e.g., EU Commission Energy Prices Toolbox)
- Re-evaluation of the temperature threshold for opening emergency shelters[11]

For more examples of systems and policy-level responses, see the response framework that was recently released based upon literature reviews and expert consultation.

CONCLUSION

To date, the story of globally-coordinated responses to address climate change and its attendant impacts on human health has been primarily one of missed opportunities. This problem is most evident with respect to countries, communities, and people experiencing poverty. It is essential, as organised efforts emerge from international to community levels, that attention to equity is a central part of plans and actions. This must be framed as a critical part of an effective global response – not one of charity and goodwill. The COVID-19 pandemic readily demonstrated that whole population health is essential to the health of any group therein, including those experiencing extreme poverty. This phenomenon is all the more pertinent in considering the population health implications of climate change – both with respect to population health risks and the capacity of communities to generate effective responses.

11 Romaszko,J.; Cymes, I.; Dragańska, E.; Kuchta, R.; Glińska-Lewczuk, K. Mortality among the Homeless: Causes and Meteorological Relationships. *PloS One* **2017**, *12*(12), e0189938–e0189938. https://doi.org/10.1371/journal.pone.0189938" https://doi.org/10.1371