

## Climate, Migration and Health: An Underexplored Intersection

IUSSP Special Emphasis Panel on Migration, Climate & Health

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*PERN Cyberseminar on Climate, Migration, and Health: An Underexplored Intersection*  
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Important progress is being made on understanding the health impacts of climate change, while research on migration-climate links is also moving forward. Yet the three-way relationship between climate, migration and health remains virtually unexamined by the research community. Even so, the health implications of climate change will likely shape migration trends -- while the migratory impacts of climate change will likely shape health. Better understanding these intersections is essential for the development of effective policy response related to human movement, climate vulnerability and health service needs.

This introductory white paper offers an introduction to the elements of discussion over the subsequent cyberseminar through the Population-Environment Research Network (PERN). Below we first offer brief overviews of the dyadic relationships within the complex socioecological system within which climate-migration-health intersections are embedded. We then present background on the cyberseminar's contributed white papers, followed by potential discussion questions about data, methods, and impact.

**Climate-Migration:** The demographic and broader social science research community has made impressive progress over the past two decades in understanding the environmental dimensions of migration. This research has contributed to more refined understanding of the so-called process of environmental migration, including understanding different categories of mobility and, more recently, immobility. Researchers have also produced meaningful insight that has been used by stakeholders and policy-makers at the local, regional and or international levels. For example, some studies have highlighted the interactions between the different drivers of migration including environmental factors and, more recently, there has been specific emphasis on connections between

climate change, migration, displacement and relocation. Indeed, climate change is projected to increase displacement and it is important to note that those countries and populations that lack resources for planned migration tend to also experience higher exposure to climate risks and extreme weather events.

The brief white paper by **Lori Hunter** summarizes current understanding of migration-climate connections, while also putting forward a recently published empirical study by herself and Daniel Simon that examines health selectivity as related to climate-influenced migration from Mexico to the US. The empirical example is offered as a foundation for discussion of the ways in which population scholars may contribute to understanding of this three-way nexus, as well as the complications inherent in this line of research.

**Migration-Health:** In addition to migration-climate connections, similar research progress has been made, typically by a different group of scholars, on understanding migration's health dimensions. One aspect of this work examines the positive health selectivity within migration processes, otherwise known as 'healthy migrant effect'. Simply put, migrants tend to be healthier than non-migrants since migration can be a challenging process. Specifically, oftentimes, the most vulnerable (e.g. younger, older, sick, disabled) are less able to move. But, of course, the link between migration and health is not a simple one and the white paper by **Fernando Riosmena** outlines complexities of consequences for understanding the intersection of migrant health with climate pressures.

Riosmena also notes the large body of research has examined migration's diverse health consequences. A key finding is that, although typically healthier than non-migrants, many migrants lack access to health services, prevention and promotion measures, and social welfare programs. For some, migration can lead to fragile economic situations, poor living and working conditions, and inadequate access to healthcare services (due to high costs, language and cultural differences, discrimination, administrative hurdles etc.) During the journey or at the destination, migrants may be exposed to pathogens and infectious disease to which they potentially have limited immunity. Some migrants may suffer psychosocial challenges due to family separation or disruption of broader social networks. As another risk, migrants may experience interruptions to health-care, particularly problematic for those with existing non-communicable diseases or chronic conditions. Adverse health consequences have been widely documented especially for vulnerable migrants, including those undocumented, forcibly displaced, or refugees and asylum seekers.

As explored by Riosmena, many questions remain as to how best to tackle research linking migration-climate-health given the complexities in measuring pre-migration health and post-migration health changes. We hope to have a ripe cyberseminar discussion with regard to these challenges.

**Climate-Health:** Climate change impacts will have primarily negative consequences for human health. Researchers have studied and forecast the climate-related risks to health including the health impacts of changes in rainfall, temperature, dust, and extreme climate events. Health risks related to climate change include heat-related morbidity and mortality (including heatwaves amplifying the urban heat island effect), food insecurities in some regions, water stress, and infectious disease risk due to unsafe water supplies. Shifts in the geographic distribution of vector-borne diseases such as malaria and dengue will increase health risks in some regions.

**In addition to the two-way relationships, the three domains – climate change, migration, human health – also intersect to generate complex causal relationships, although these intersections have received only limited scholarly attention. This cyber-seminar focuses on this under-explored terrain.**

While there is growing scientific consensus that climate change will have significant direct consequences for human health, impacts will also occur via indirect, and less well-understood, pathways such as climate-related mobility. As an example, displacement and relocation will be amplified due to climate change through, for example, planned relocations of particularly vulnerable coastal communities. This movement has important implications for human health including both physical and mental health consequences of displacement, combined with challenges to health service access. In addition, those displaced may move into regions (e.g. informal urban settlements) already characterized by elevated climate-related health risks.

Of course, empirical examination of this three way nexus is tremendously challenging in part due to the lack of detailed, representative, relevant data that characterizes populations prior to migration. Such is the case particularly for natural disasters. During this cyberseminar, **Elizabeth Fussell** introduces us to several research designs making use of secondary data for examination of health and disaster-related displacement. She offers a useful characterization of innovative approaches, while also offering careful critiques with regard to what particular data sources can, and cannot, tell us. We look forward to a productive cyberseminar discussion on data and methodological approaches and hope that participants broadly share their own insights in order to move our research community forward with regard to this critical topic.

Of course, qualitative insights are also essential in an effort to understand these complex socio-ecological intersections. **Stephanie Koning** provides insightful lessons from her own fieldwork with refugees and migrants in northern Thailand along the Myanmar border. Combined with her thorough dive into the relevant literature, Koning presents the concept of “survival migration” and offers thoughtful observations on violence, trauma, stress and anxiety within the context of displacement. She further explores the impacts of intergenerational transmission of trauma and calls upon the global community to maintain a human rights perspective when it comes to response to displacement.

**Caroline Zickgraf** also offers a compelling contribution that represents a call to action for the scientific community. With an explicit focus on policy impact, Zickgraf offers sage advice by encouraging researchers to learn the policy landscape, explicitly develop research to meet knowledge demands, and better communicate important findings. Particularly insightful is her encouragement to move beyond vague, “catch-all” recommendations of capacity building and to, instead, craft more specific insights. And beyond recommendations, Zickgraf further encourages the identification of local pathways to action through which those research insights might actually yield impact. Her white paper is an essential read for scholars wanting to enhance the policy relevance of their work and we look forward to spirited dialogue around her compelling ideas.

Clearly the background papers will provide useful fodder for discussion. In addition, throughout the week, the following questions may also be usefully explored:

1. How can we adapt or develop theory on this threefold nexus of climate-migration-health? Do we need new concepts or can we adapt the main conceptual models on the pairwise associations?
2. In what ways might concepts such as vulnerability and resilience be better integrated into our data collection, research and theory?
3. Where, globally, are there emerging sites where this threefold nexus may be particularly evident? How might they be identified and analyzed?
4. What types of data collection approaches are particularly useful for studying climate-migration-health? What are their strengths? Limitations?

5. Which approaches are the most reliable to explore this issue? Qualitative interviews? Quantitative surveys? Mixed approaches? Complex systems models?
6. Which policy recommendations are relevant at global, national and local scales? Who are the main decision-makers?

In the end, we hope the dialogue will spur innovations and ideas, create new connections and community, as well as enhance understanding and, ultimately, impact.

Thank you for participating.