



H5: Estimating the Impacts of Climate Change on Human Health

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Summary of themes covered in workshop

- Effect of weather variation on household well-being in South Africa measured by the propensity to undertake HIV testing
- Climate change (temperature and humidity) impact on flu mortality in the US
- Impacts of extreme heat on habitability, survivability, workability
- Vulnerability and risk mapping in Finland
- Economic costs of floods and overheating in Bristol, UK. Multiple risks from river, coastal, surface water. Look at treatment cost, loss of productivity, pain and suffering
- Lancet countdown. Will inform work on SDGs. It contains many indicators on risk, adaptation, mitigation policies and co-benefits, as well as economic indicators. Despite the increase in frequency of events such as heat waves, floods, fires, mortality has not increased. Adaptation?
- National adaptation plan assessment. There are adaptation plans related to health but still many gaps.

Most controversial question that came up in this workshop?

What are the key barriers in advancing research in the field of health impacts?

The way we have been collecting data is a major barrier, for example with respect to occupational risks. Need more investments in monitoring behaviors and in data collection especially now that we are increasingly experiencing hot weather.

Results of the discussion

- Evidence based on historical data that permanent income increases HIV testing
- Evidence based on historical data that humidity and temperature conditions affect influenza mortality in the US in a nonlinear way. Based on this evidence, climate change could shift the spatial pattern of influenza mortality in the US
- Systematic reviews (establish criteria in advance) are very valuable and important in the health literature, but need to ensure comprehensive, it is a long process, in multiple steps, require at least 2 people
- Needs for fine resolution analyses of hazards
- Expand work on social vulnerability
- Health experts appear to suggest that there is a lot of peer reviewed literature that yields very high impacts using simple models, especially from science

Research gaps identified

- Stratify impacts of income on health precautionary measures by income level
- Mortality displacement is missing from current analyses of impacts of weather shocks on influenza mortality
- Lack of data on occupational deaths related to extreme heat even in developed countries such as UK and Germany
- Research in the health domain relies a lot on systematic review using very specific criteria. Doing that in relation to heat is difficult
- Needs for fine resolution analyses of hazards
- Expand work on social vulnerability
- Weather adaptation has reduced the risk of heat-related mortality or not is equivocal

Next steps

- Use projections on the spatial shift in diseases such as influenza to target health interventions such as vaccination.
- Since we have started to observe extreme heat improved monitoring and data collection can be a major priority to advance research in health climate impacts
- Still more work is needed to look into adaptation, whether we have been adapting so far, and which adaptation strategies to implement in the future
- Growing interests from public organization to have info on localized climate impacts and risks, also to inform adaptation strategies

Other

NA

3-5 keywords that characterize the session

Multidisciplinary research, Health and household well-being, Economic costs of health impacts from flooding and heatwaves, Influenza mortality, Heat stress