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Image by George Chandrinos on unsplash.com

Why do we do this? Heat-mortality

- Extreme heat is one of the deadliest climate extremes
- More than 70'000 heat-related death in Europe in 2003¹
- \succ More than 60'000 heat-related deaths in Europe in 2022^2

1) Robine er al. (2008) 2) Ballester et al. (2023)



Par William Audureau, Pierre Breteau(graphique) et Léa Sanchez. (2021) 'La France a connu en 2020 la plus importante mortalité de son histoire récente', Le Monde, Available at: https://www.lemonde.fr/lesdecodeurs/article/2021/01/15/avec-667-400-deces-enregistres-la-france-a-connu-9-d-excedent-demortalite-en-2020_6066415_4355770.html (Accessed: 21 august 2022).

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Why do we do this? *Heat-mortality in Switzerland*

- More than 1400 people died due to heat in 2003
- However, during the recent hot summers of 2015, 2018, 2022 etc., not as many people died
- > Why? Do countries differ?
- Data for 23 countries where we have data via the MCC research network



Figure adaptet from Ragettli 2023, Swiss TPH

Climate risk Modelling heat-mortality



Climate risk Modelling heat-mortality vulnerability Relative risk Temperature (°C) hazard mortality Tmean Climate Daily Heat Risk Day-of-year Day-of-year # Deaths Day-of-year exposure

Climate risk Modelling heat-mortality



Adaptation Vulnerability in Zurich over time



Preliminary results – please do not distribute





Adaptation worldwide Generally, populations adapt









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Are we adapting fast enough? Disentangling the drivers of heat-mortality in Switzerland







Are we adapting fast enough? *It depends*









Now what? Are we adapting fast enough?





- From counting countries in our examples: rather not
- > However, we don't see clear patterns. Adaptation is definitively relevant
- Extreme seasons especially important for driving heat mortality levels





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Are we adapting fast enough? *A complex picture*





Are we adapting fast enough? *A complex picture*





Now what *Are we adapting fast enough?*



- From counting countries in our examples: rather not
- However, we don't see clear patterns. But adaptation is definitely relevant
- Extreme seasons especially important for driving heat mortality levels

