

Climate Adaptation and Resilience

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*Adaptation and Resilience: How to leave
no one behind: Climate and Health*

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Outline

1. Climate change impact on human health: the need of adaptation.
2. Limited presence of national adaptation plans for health.
3. Adaptation is decreasing the risk of mortality due to heat exposure.
4. Insufficient adaptation in the context of rising temperatures.
5. Urgent need of new approaches with a focus on equity.



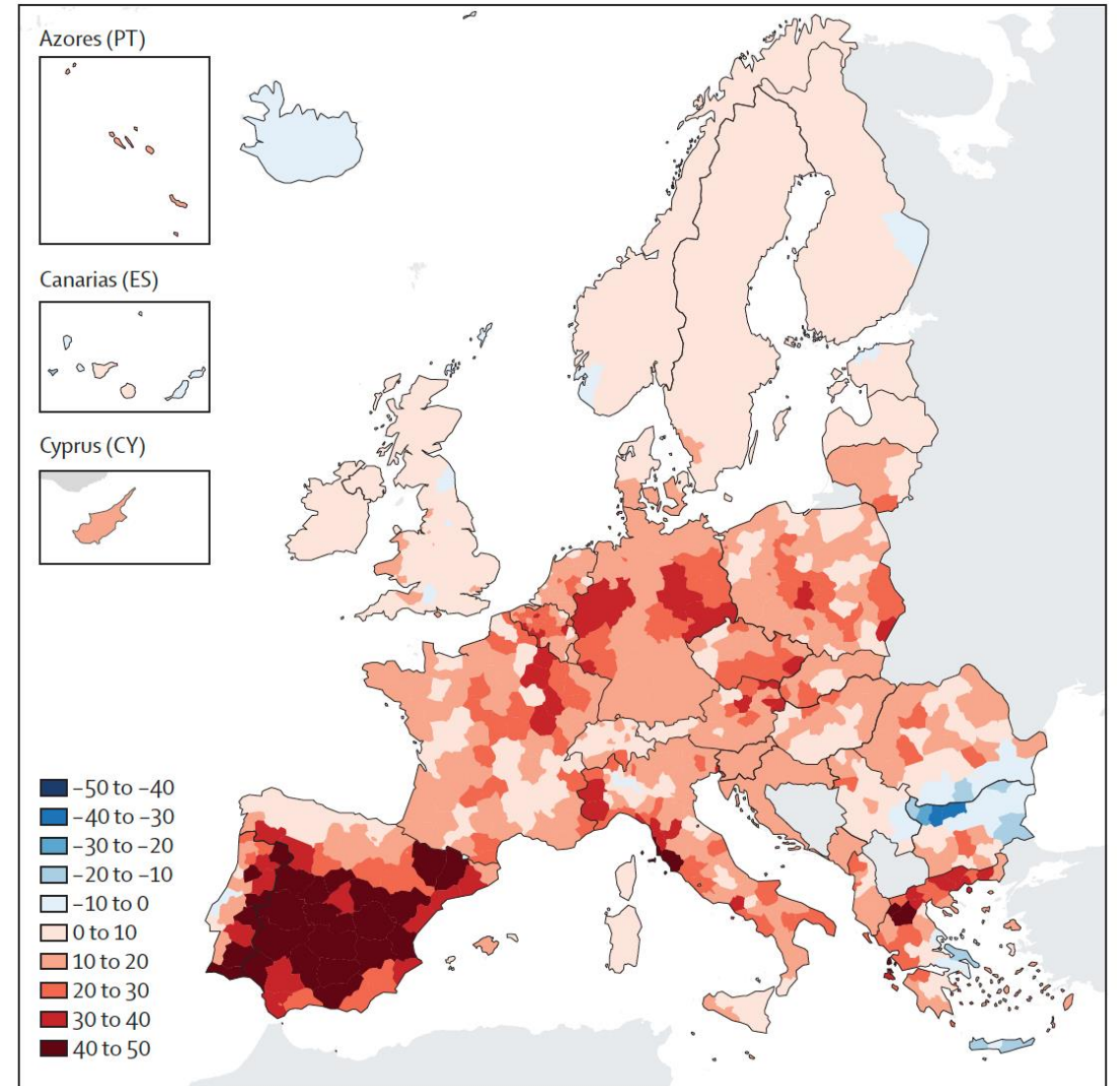
1.1.4 Heat related mortality

Headline finding(s):

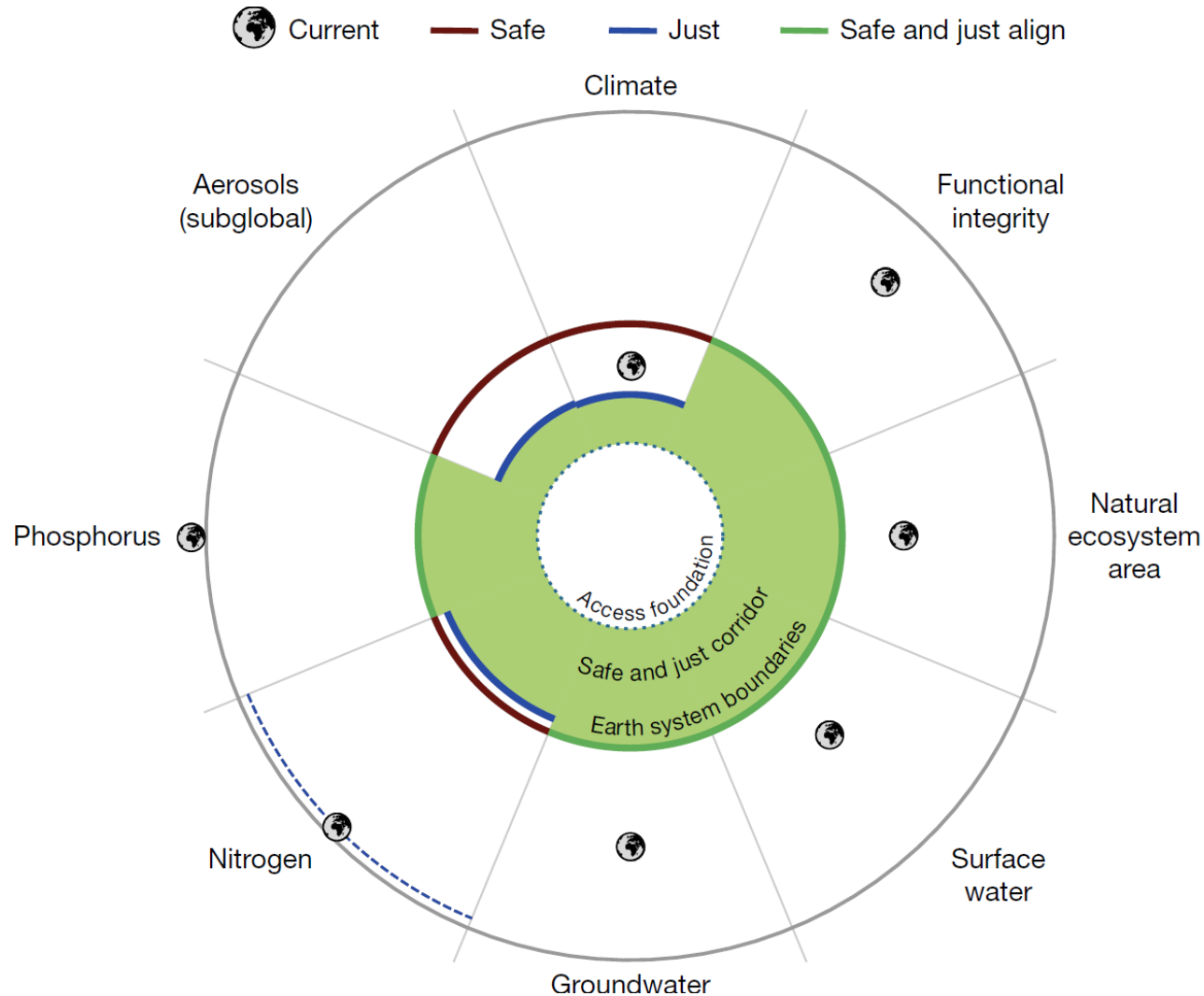
Heat-related deaths are estimated to have increased in 94% of the 990 regions monitored from 2000 to 2020,

with an overall average increase of 15.1 (95%CI: -1.51, 31.6) annual deaths per million inhabitants per decade for the general population

and 60.4 (-17.8, 138.6) extra deaths per million inhabitants per decade for the elderly (over 65 of age).



Safe and Just Earth Systems Boundaries (ESBs). Rockström J et al. Nature May 31, 2023



CLIMATE: We conclude that if exposure of tens of millions of people to significant harm is to be avoided, the just (NSH) boundary should be set at or below 1.0 °C.

Since returning within this boundary may not be achievable in the foreseeable future, adaptations and compensations to reduce sensitivity to harm and vulnerability will be necessary.



2.1.2 National adaptation plans for health

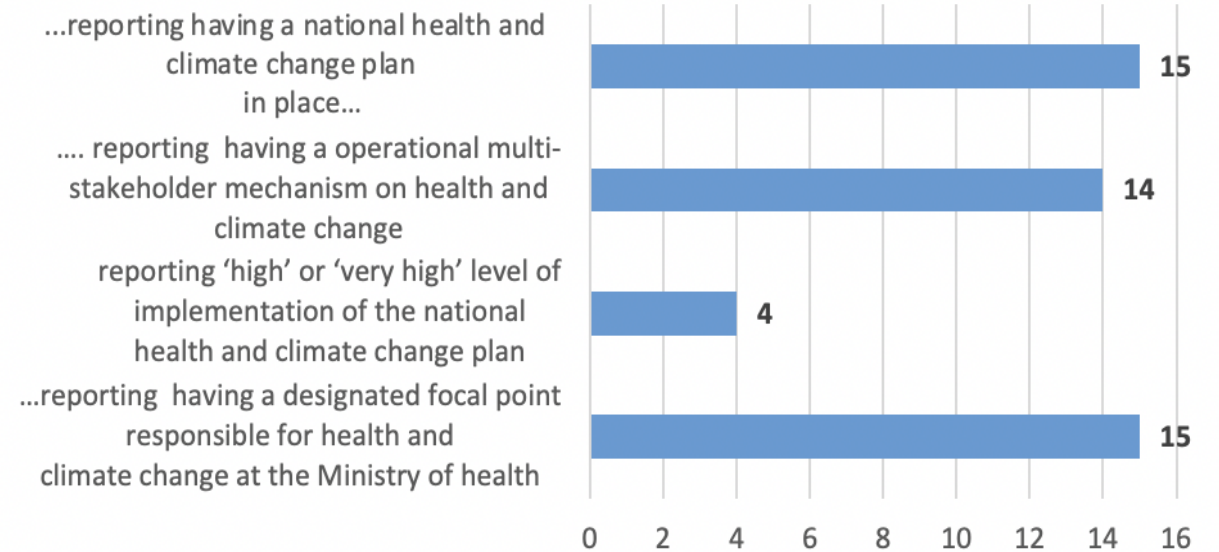
Headline finding(s):

In 2021, 15 (68%) of 22 assessed European countries reported having national health and climate change strategies or plans in place.

36% (8/22) of these countries reported having 'moderate' or 'low' levels of implementations, with only 3 countries reporting 'very high' implementation.



Health adaptation planning: Number of countries that...





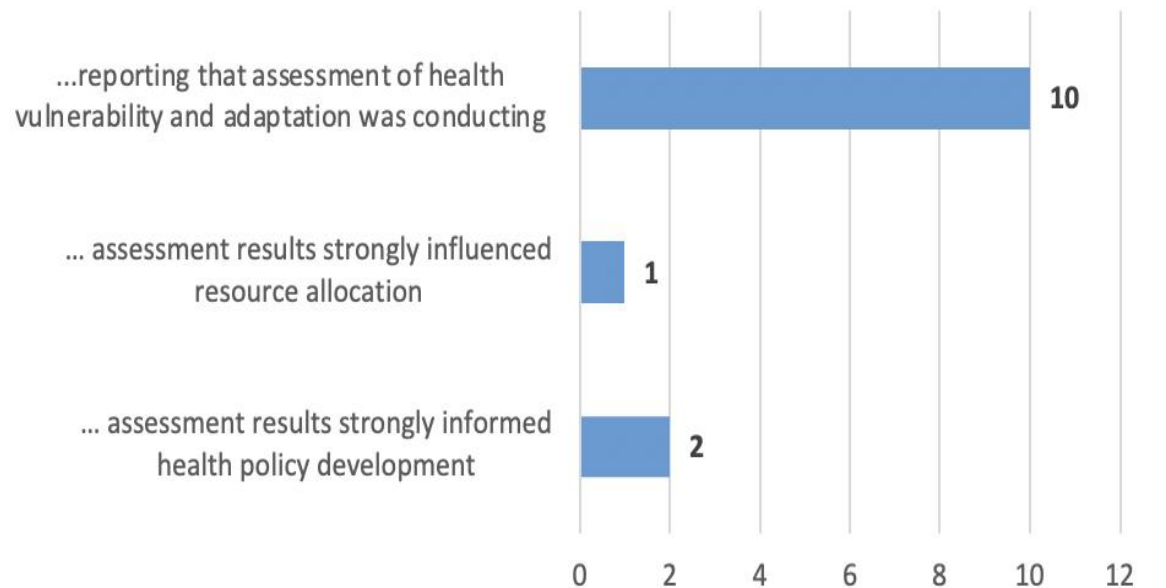
2.1.1 National assessments of climate change impacts, vulnerability, and adaptation for health

Headline finding(s):

In 2021, 10 (45%) of 22 countries reported having undertaken a climate change and health vulnerability and adaptation assessment.

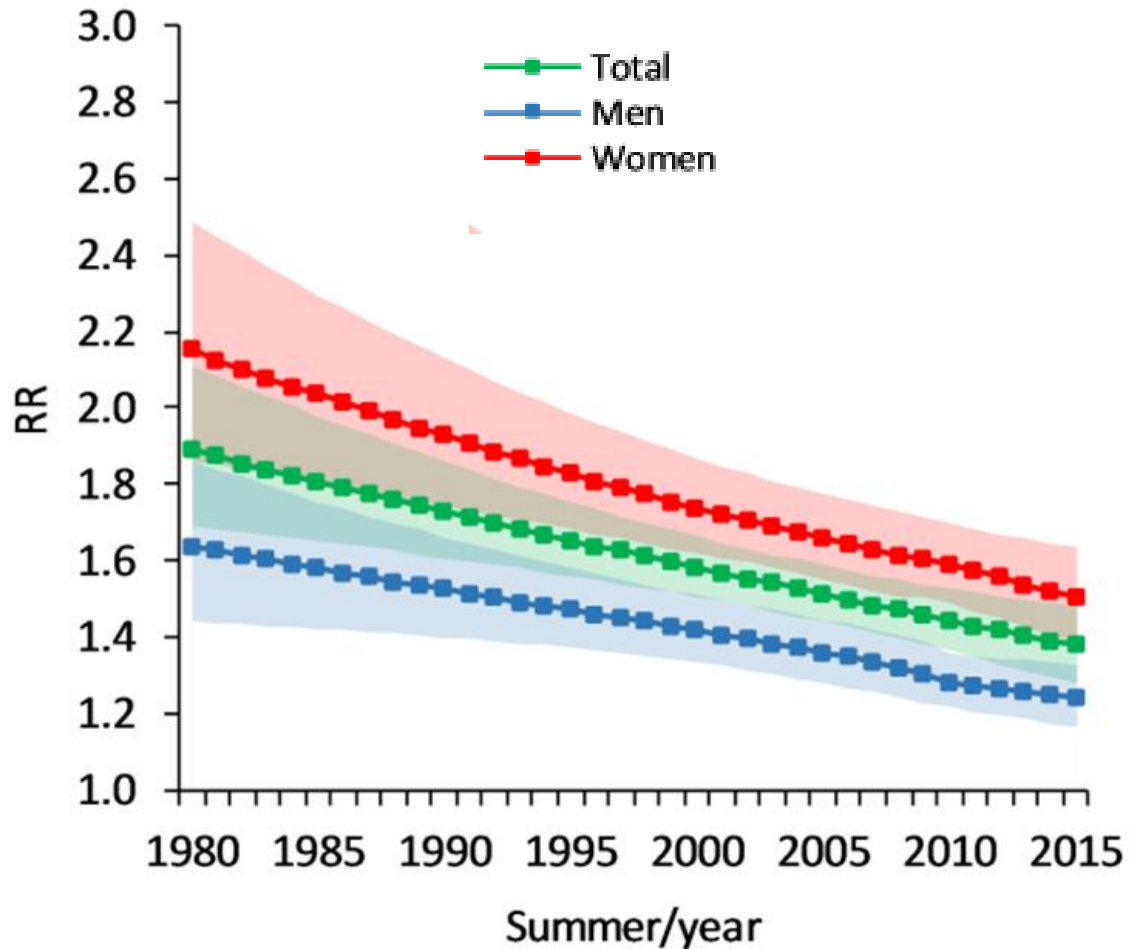
14 (64%) of 22 countries reported having a multi-stakeholder mechanism on health and climate change that is currently operational.

Health impacts and vulnerability assessments: Number of countries that....

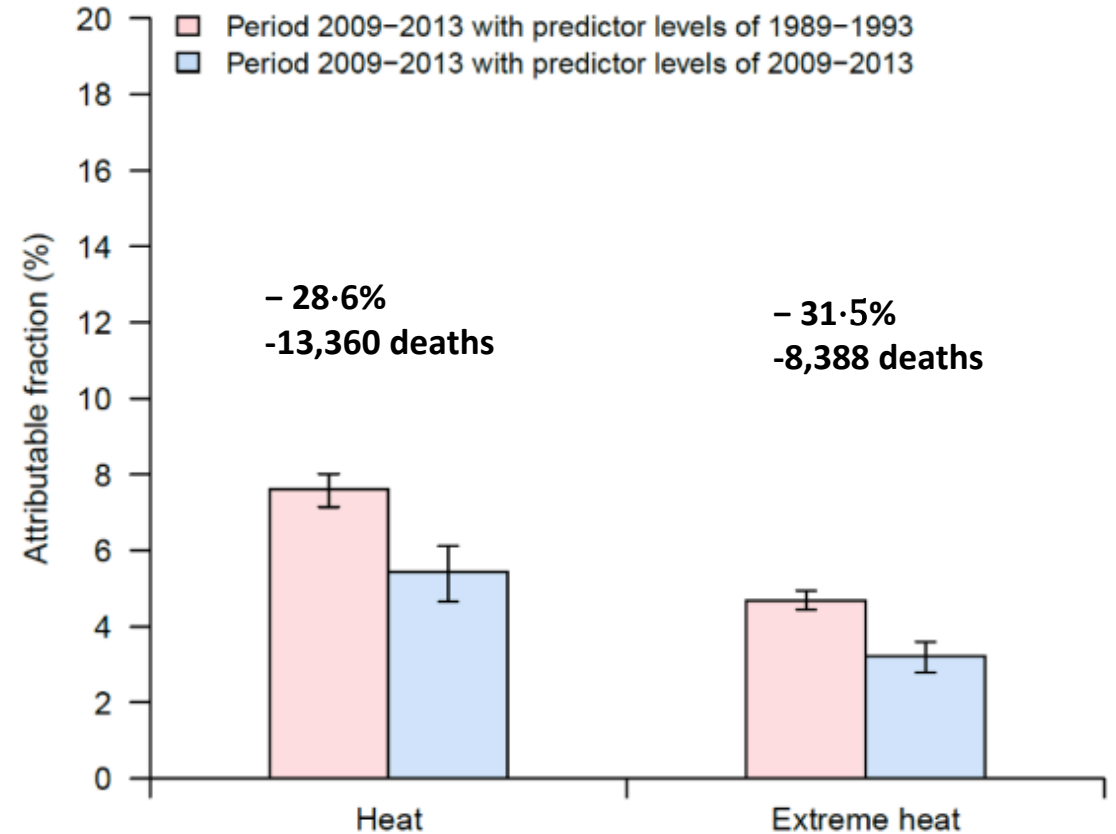


Heat-related mortality in Spain. Achebak H et al.

PLOS Medicine 2018 & Env Int 2023



c) Air conditioning



Heat-related mortality in Europe during the summer of 2022

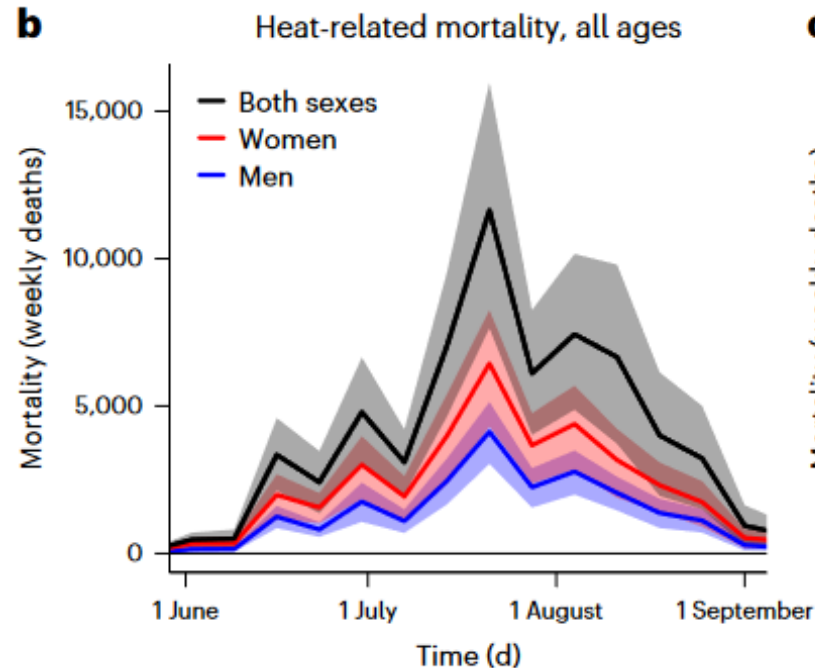
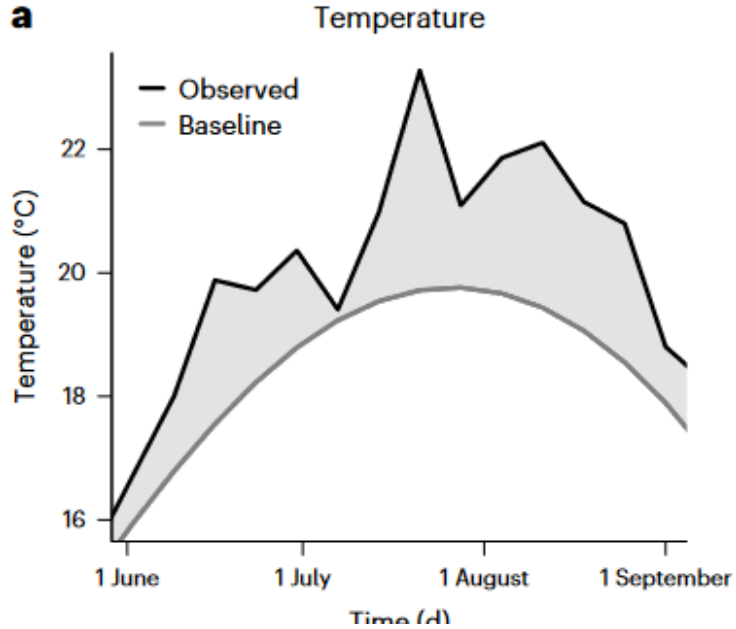
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Check for updates

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Heat-related mortality burden during the summer of 2022 (2nd hottest season in Europe)

Eurostat database: 543 M people, 45M deaths, 823 regions, 35 European countries

30 May to 4 September 2022: 61,672 heat-related deaths

Italy (18,010 deaths) Spain (11,324) and Germany (8,173) had the highest mortality

60% (36848) were 80 or more years old and **57% (35,406) were women**

With current adaptation levels we would expect 68,116 heat-related deaths on average every summer by the year 2030, 94,363 deaths by 2040 and **120,610 deaths by 2050**

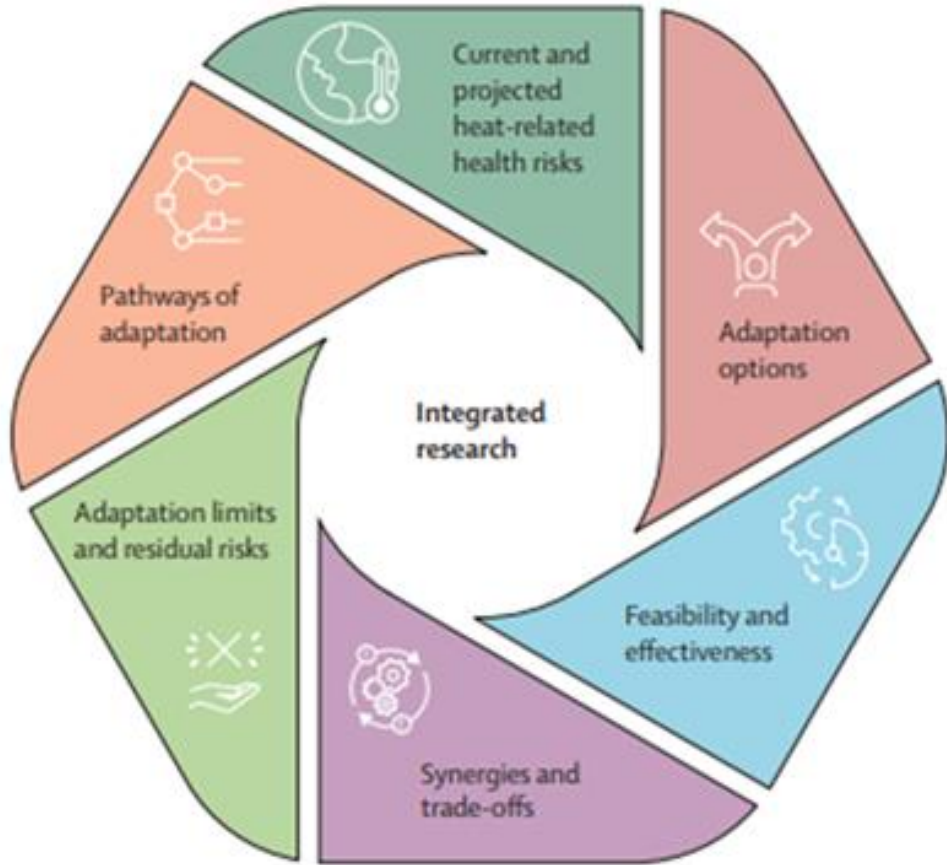
Results call for a re-evaluation and strengthening of existing heat surveillance platforms, prevention plans and long-term adaptation strategies.

Policy and action measures to reduce the impacts of high and low temperatures on various vulnerable groups.

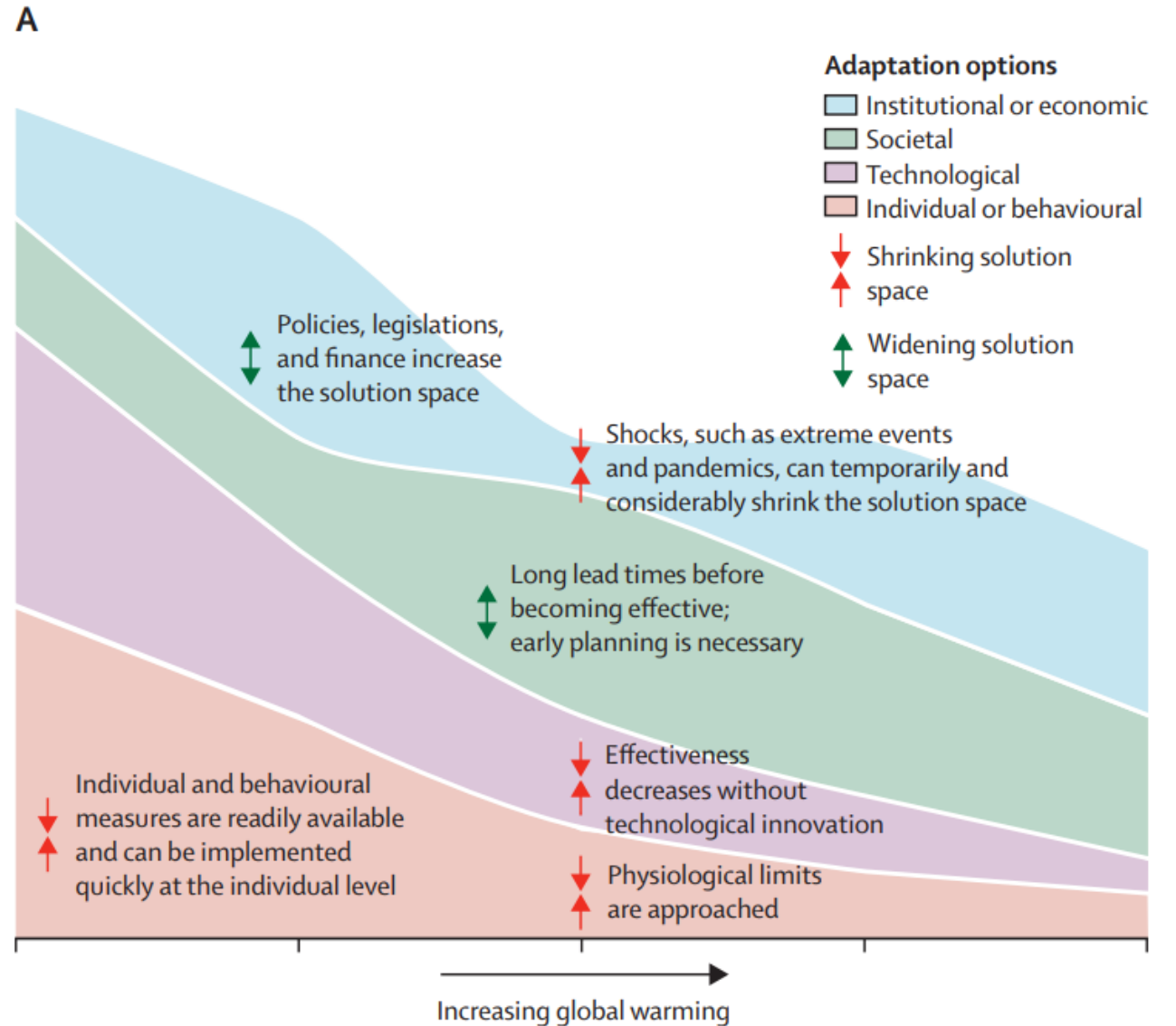
From: Unequal exposure and unequal impacts. EEA 2018

- Identifying vulnerable people and communities through mapping to inform policy and action;
 - > *lack of knowledge and tools to map and monitor inequalities*
- Heatwave and cold wave response plans originating in the public health sector;
 - > *lack of robust before/after evaluations*
- Adaptation to climate change strategies and plans;
 - > *need to strengthen and generalize its implementation*
- Actions aimed at reducing exposure to heat through improvements to the living environment (housing and neighbourhood) and also through urban planning;
 - > *need of feasible and sustainable transformative changes*
- Community-driven self-help initiatives.
 - > *support individual and community empowerment*

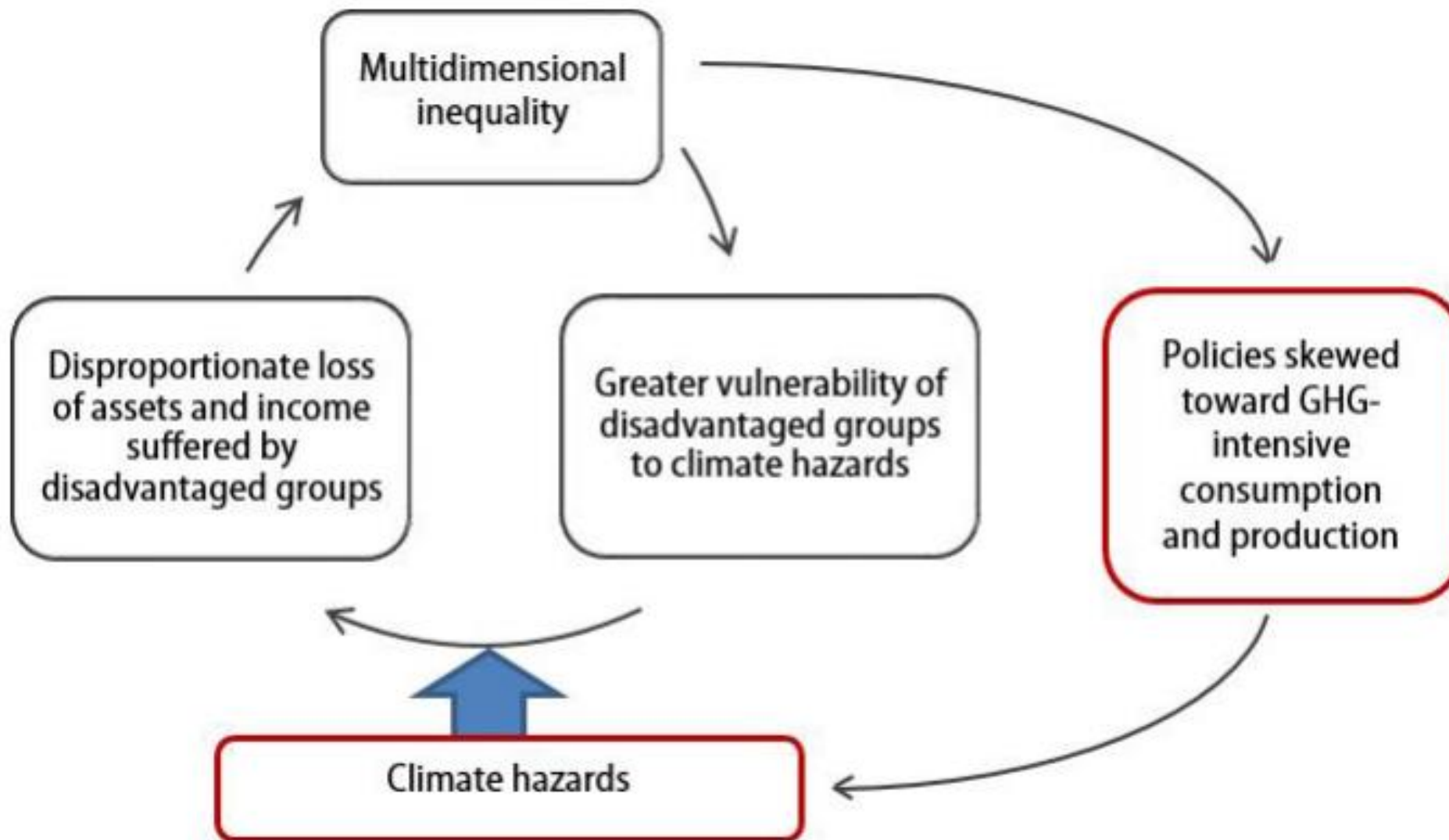
Two archetypes of stylized solution space showing how solution space (ie, the total colored area) changes with increasing global warming



The solution space for heat-related health risk



Reinforced vicious cycle between inequality and climate change. From: Climate Change and Social Inequality. DESA Working Paper No. 152. 2017





Climate Health Cluster at the Research Perspectives on the Health Impacts of Climate Change Conference

CLUSTER

The European Climate Health Cluster attended the 'Research Perspectives on the Health Impacts of Climate Change' Conference in Brussels, on 19 and 20 February. The high-level conference, organised by the Directorate-General for Research and Innovation of the European...



<https://climate-health.eu/>

Issac Cordal: “Follow the leaders” series
(<http://creativism.com/5-climate-change-art-projects/>)

