

# WORKSHOP B

## Public Health, Adaptation, Climate Impacts, and Social Inequalities

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*Dr Maria Ruiz Castell*

*Socioeconomic, environmental health and health services (CARES)*

*Luxembourg Institute of Health (LIH)*



# OVERVIEW

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## **Context and health impacts**

Climate change as a public health challenge

2

## **Inequalities and vulnerability**

Who is most affected and why

3

## **Adaptation strategies**

What we are doing to reduce risks

4

## **Questions and discussion**

Key questions for this workshop

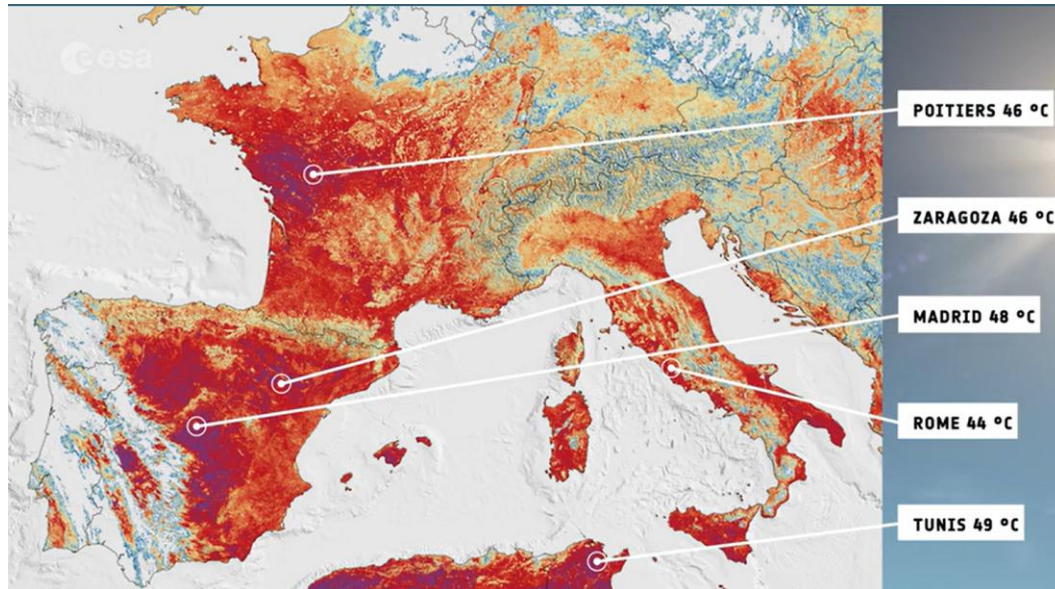


# Climate change as a public health issue

It is happening NOW

Impacting populations worldwide

Source: European Space Agency, 2026



BBC

Europe's heatwave linked to 1,300 deaths, WHO says, as Germany hits record 41.7C

## Dozens dead, thousands trapped after flash floods in Valencia, Spain, officials say

The flash floods were caused by heavy rain, Spain's meteorological agency said

By [Kevin Shalvey](#), [Helena Skinner](#), [Somayah Malekian](#), and [Aicha El Hammar Castano](#)

October 30, 2024, 8:23 PM



Flooding in Valencia, Spain, leaves dozens dead ABC News' James Longman reports on the European nation in recent memory.

BBC

## How do hurricanes and typhoons form and is climate change making them stronger?

21 May 2026

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Mark Poynting  
Climate researcher



Hurricane Melissa, which hit Jamaica in October 2025, was one of the strongest storms ever recorded

Reuters

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## Temperature records shattered in Europe as deadly heatwave moves east

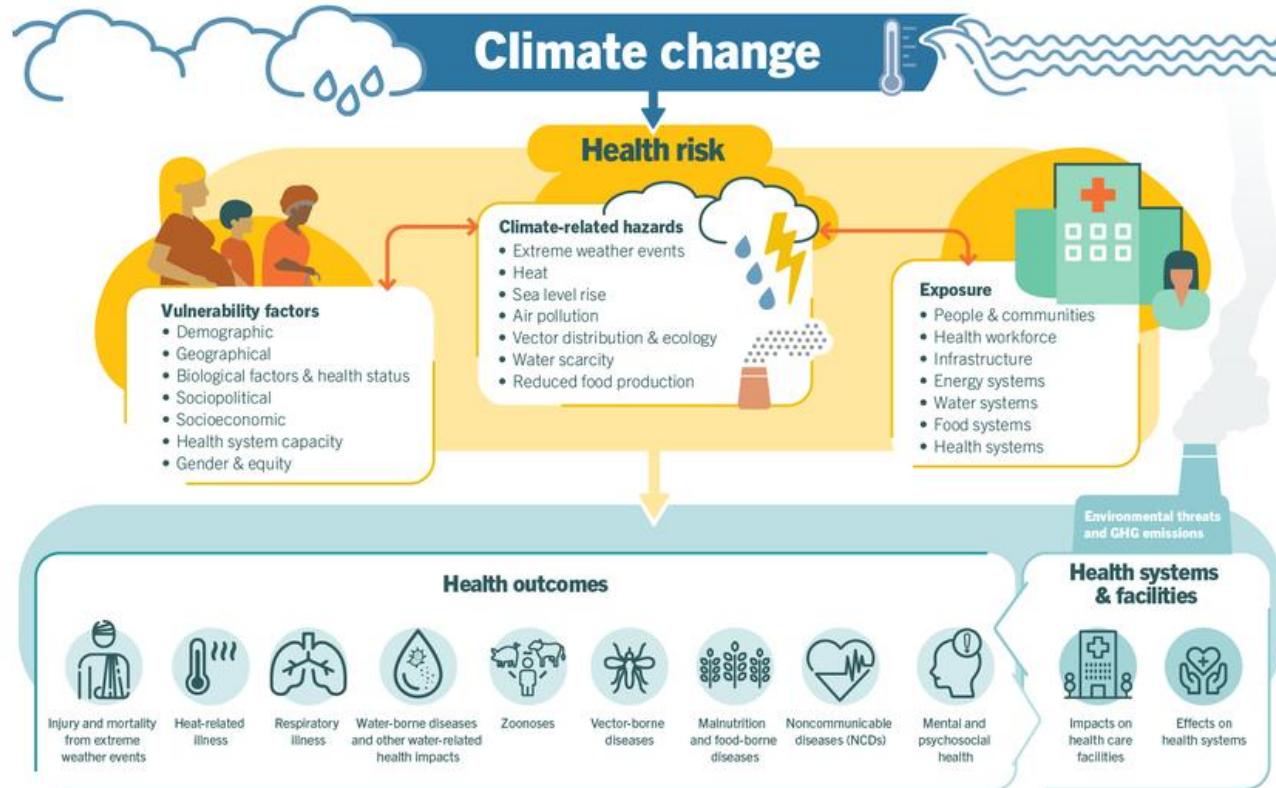
By Thomas Seythal, Francesca Landini and Stine Jacobsen

June 27, 2026 4:11 AM GMT+2 · Updated June 28, 2026

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# Climate impacts on health



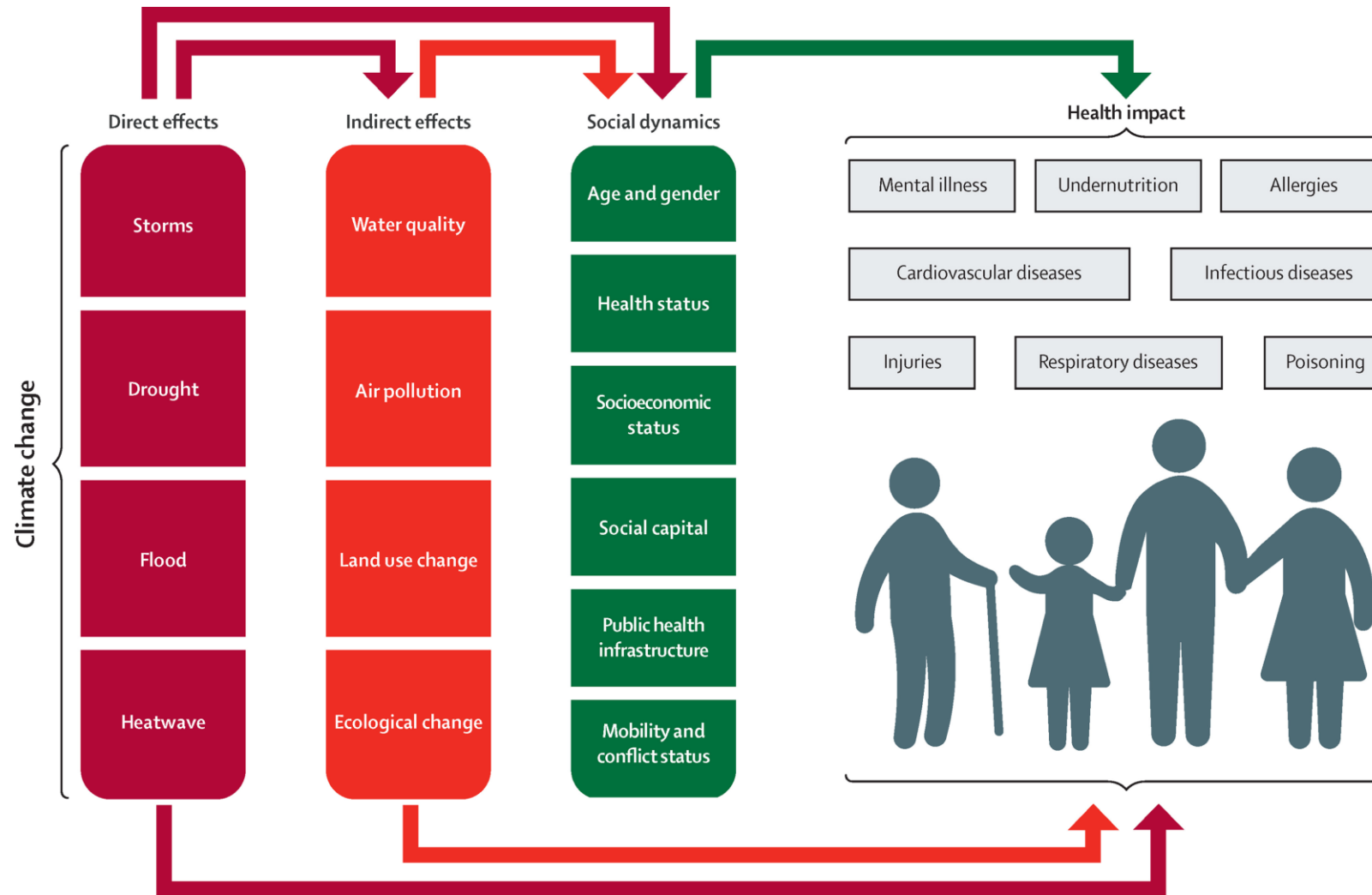
- Increase the risk of developing health conditions
- Worsen existing health conditions
- Distributed unequally across populations

Figure: An overview of climate-sensitive health risks, their exposure pathways and vulnerability factors. Climate change impacts health both directly and indirectly, and is strongly mediated by environmental, social and public health determinants.

Source: WHO, 2023



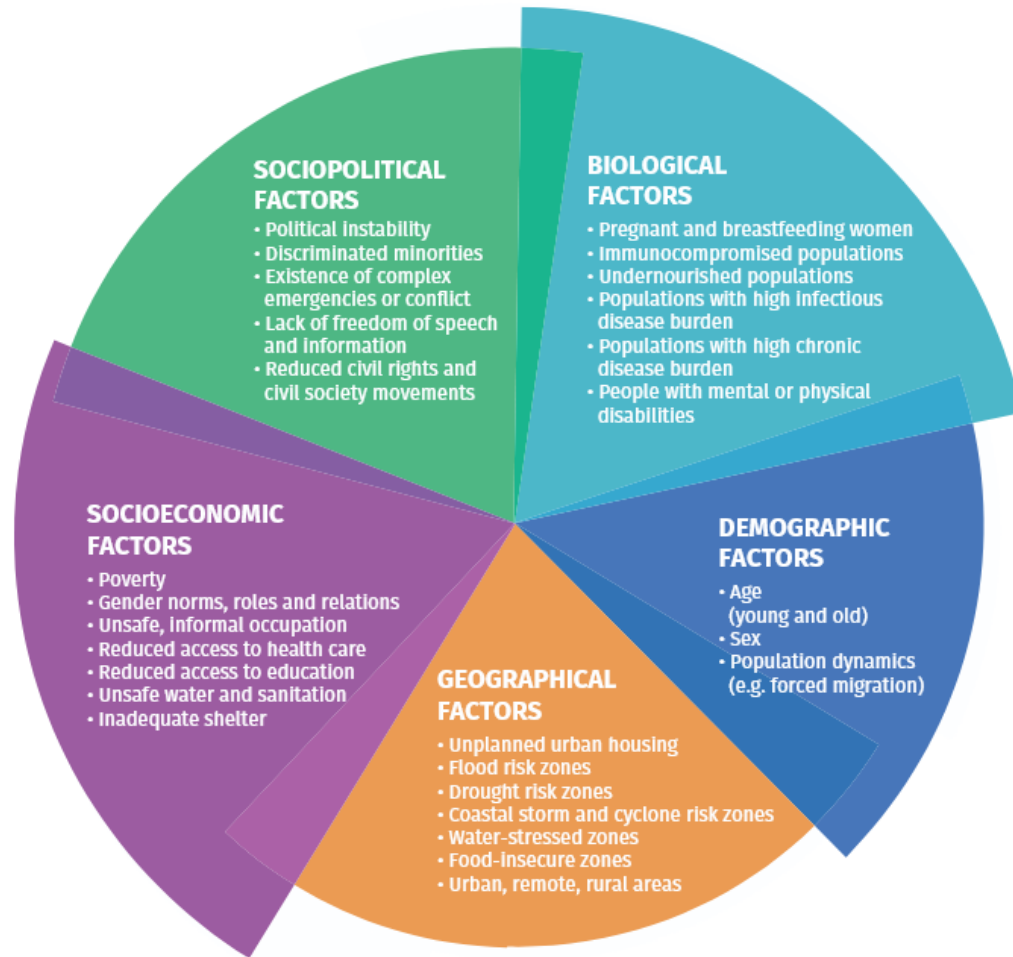
# Pathways linking climate change and health



Source: *The lancet*, 2015



# Vulnerability factors for health impacts of climate change



- Impacts are not equally distributed
- Climate change affects people differently

Source: Based on Gamble JL, Balbus J, Berger M, et al. Populations of concern. In: The impacts of climate change on human health in the United States: a scientific assessment. Washington, DC: U.S. Global Change Research Program; 2016; and Quality criteria for health national adaptation plans. Geneva: World Health Organization; 2021.




# Vulnerability factors: the case of heat

## Main Heat Vulnerability Factors


*Multiple vulnerabilities compound the health risks of extreme heat*

### ▼ PHYSIOLOGICAL FACTORS


 Older and less-abled people


 People with certain medical conditions or taking certain medications or drugs


 Pregnant people


 Infants and children

### ▼ EXPOSURE FACTORS

 Outdoor and manual workers

 People living in sub-par housing conditions or who lack access to cooling

 People who are poor, displaced or experiencing homelessness

 Athletes and attendees of outdoor events

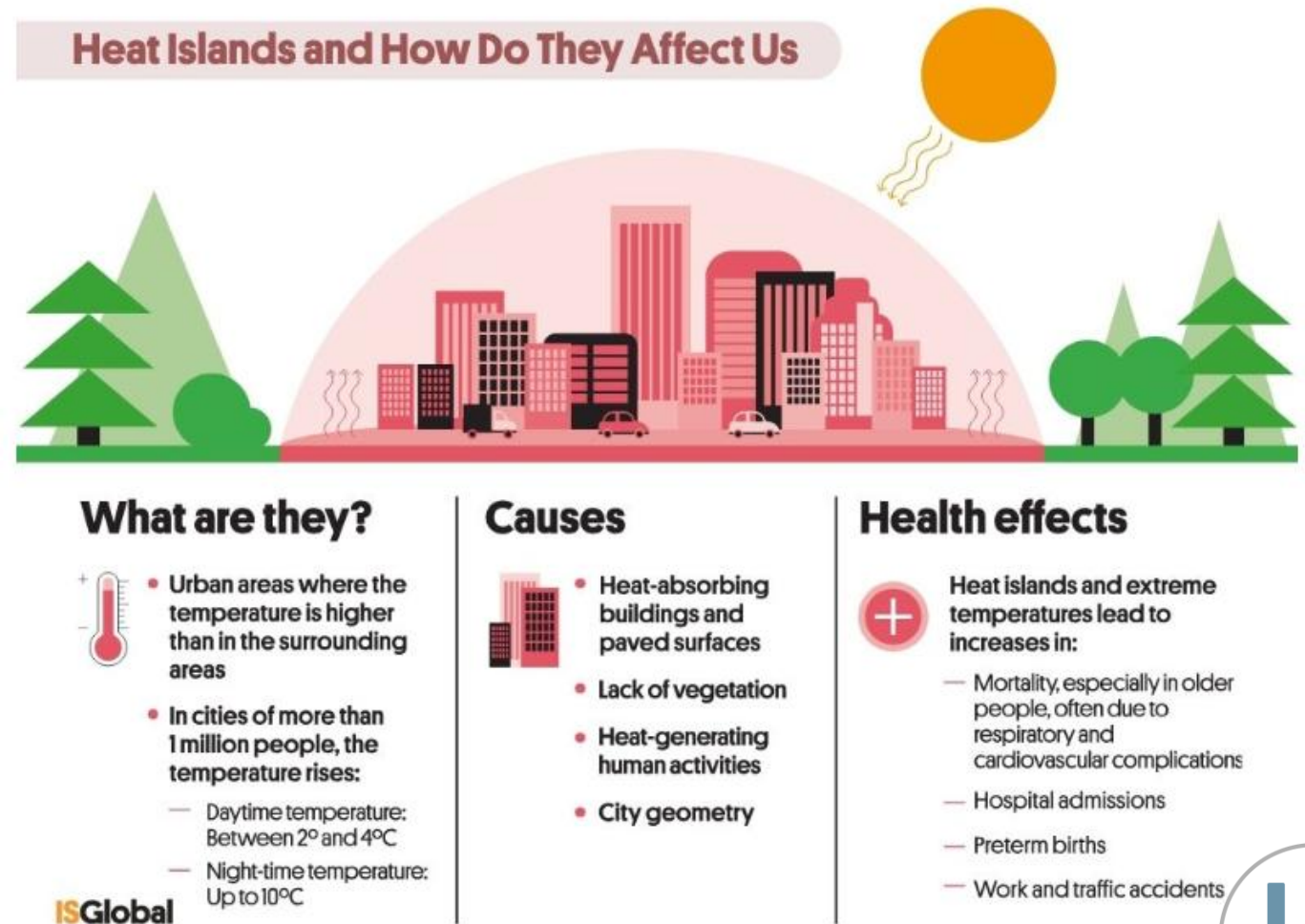
- Vulnerability factors rarely act alone
- Climate change worsens existing vulnerabilities and increases the gap between groups

*Source: Main Heat Vulnerability Factors, WHO 2024*



# Urban areas: where vulnerability concentrates

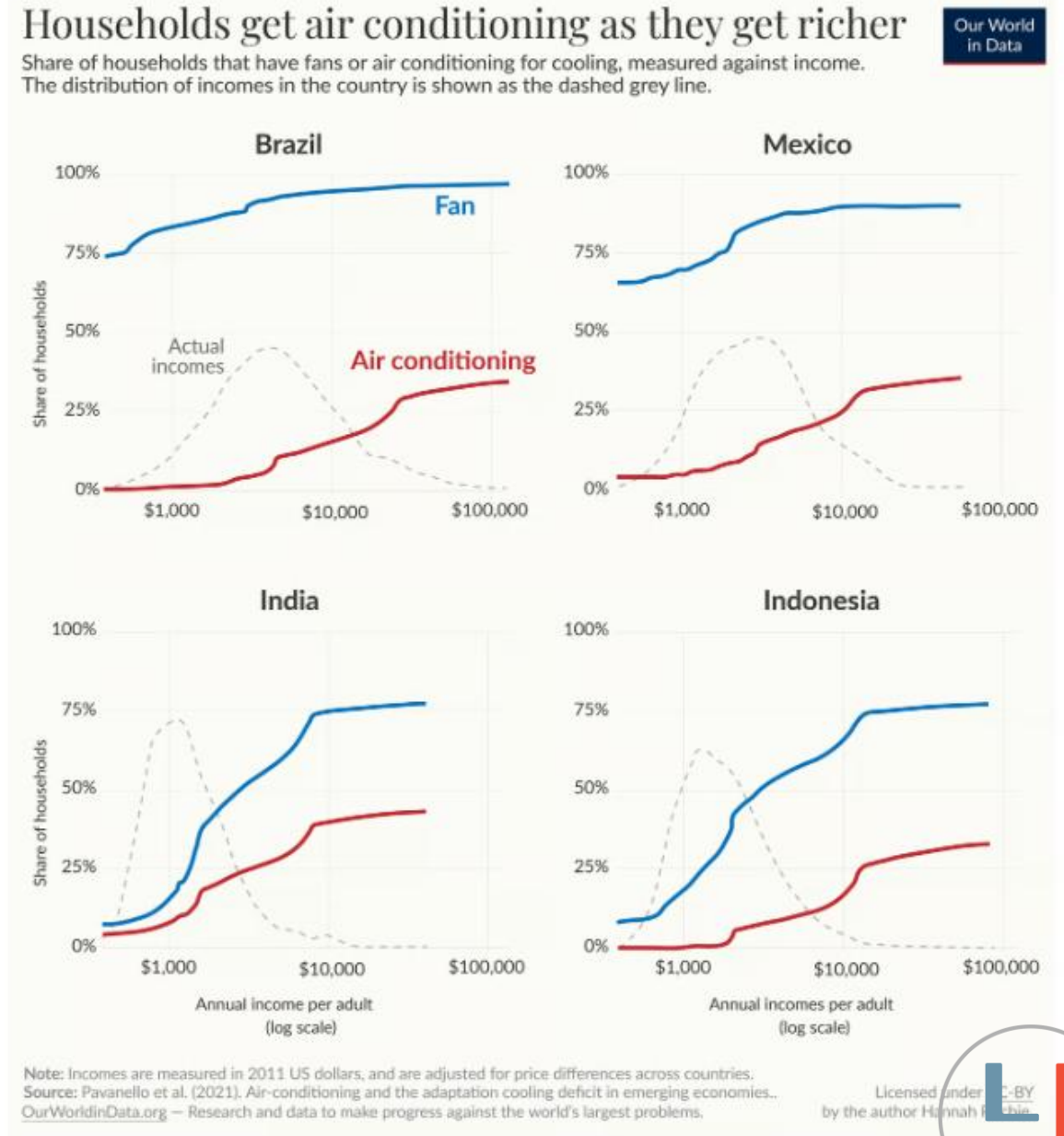
- More than half the world's population now lives in urban areas.
- Cities concentrate people and risks
- Heat Islands increase temperature in urban areas → important population health effects
- Heat is not shared equally



Source: ISGlobal

# Technological solutions

- Air conditioning (AC) essential but not alone
- Availability and affordability highly unequal
  - Inequalities between countries and within countries
  - Impact on wellbeing and economic benefits
- Outdoor workers
- Combine with urban planning, communication, and emergency responses.



# Resilient cities: The opportunity of Nature-Based Solutions

- Lower surface and air temperatures. evapotranspiration, provide shade from direct sunlight.
- Health benefits of planting more trees, preserve and maintain trees in cities
- Caution: greening can raise property values and displace those most at risk (“green gentrification”)

## Cooling cities through urban green infrastructure: a health impact assessment of European cities

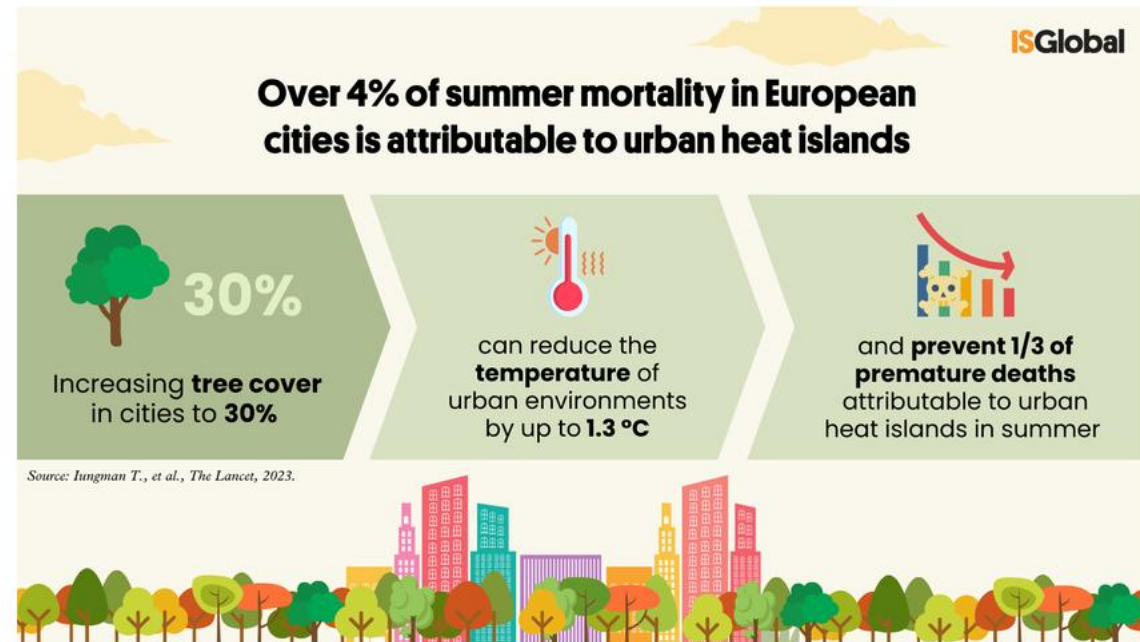


Tamara lungman, Marta Cirach, Federica Marando, Evelise Pereira Barboza, Sasha Khomenko, Pierre Masselot, Marcos Quijal-Zamorano, Natalie Mueller, Antonio Gasparrini, José Urquiza, Mehdi Heris, Meelan Thondoo, Mark Nieuwenhuijsen

### Summary

**Background** High ambient temperatures are associated with many health effects, including premature mortality. The combination of global warming due to climate change and the expansion of the global built environment mean that [Lancet 2023; 401: 577-89](#) Published Online

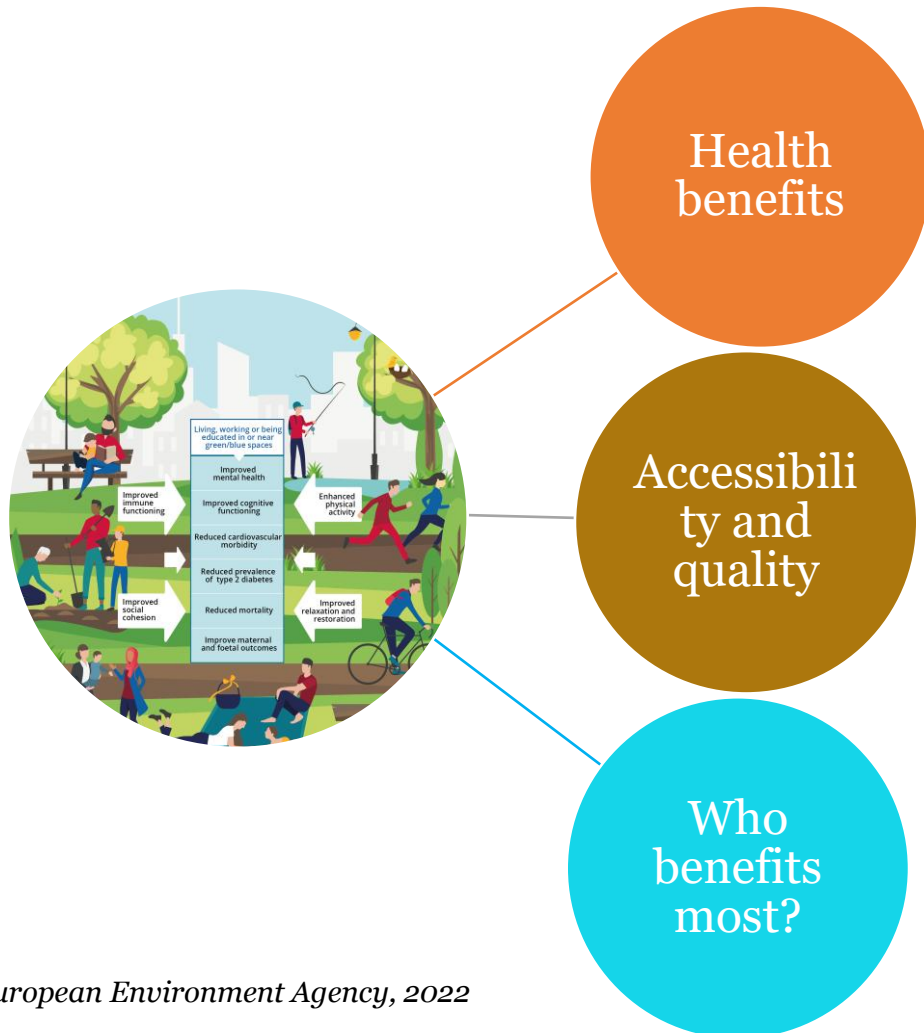
Source: The Lancet 2023



Source: lungman T., et al., The Lancet, 2023.

Source: ISGlobal

# Inequalities in access to urban green and blue spaces across Europe



## Health benefits to local communities

- Improve air quality, reduce noise, enhance biodiversity
- Moderate temperatures during hot periods, cool and shaded areas
- Physical exercise, social interaction, relaxation, mental restoration

## Unequal access


- Less available in lower income urban neighbourhoods and lower socioeconomic backgrounds
- More expensive
- Communities with immigrants and ethnic minorities have less access to high quality green and blue spaces
- Children with disabilities, older adults with reduce mobility not use it
- Perceived safety: women feel less safe







## Greater benefit for


- Lower socioeconomic status groups
- Children and young people
- Older adults






# Individual and Government Levels

Protecting health from climate change needs action at every scale — from personal habits to national systems.

 **Individual Level**

-  **Stay hydrated & cool in heat. Know heat & vector warning**
-  **Floods: avoid floodwater, know routes**
-  **Vectors: use repellent, remove standing water**
-  **Protect children & elderly relatives**
-  **Seek care early for symptoms**
-  **Support mental wellbeing**

 **Government Level**

-  **Heat-health early-warning systems**
-  **Resilient hospitals & surge capacity**
-  **Disease surveillance & One Health data**
-  **Urban cooling & green infrastructure**
-  **Equity-targeted health policy (Outdoor workers, children & elderly)**

Source: CDC, *Climate and Health*, U.S. Centers for Disease Control and Prevention ([cdc.gov/climate-health](https://cdc.gov/climate-health)).

Source: Fox, M., et al. (2019)- *Integrating public health into climate change policy and planning: state of practice update*. 12

# Health systems should consider how they can adapt to climate change

Two interrelated dimensions shape a climate-resilient health system.



## Environmental Sustainability

Actions aiming to cut the health sector's own footprint on the environment: e.g., reducing greenhouse gas emissions, energy waste.



## Climate Resilience

Improving health systems to Cope with climate impacts: preparedness, surge capacity, continuity of care.

### KEY BUILDING BLOCKS OF A WHO CLIMATE-RESILIENT HEALTH SYSTEM



Governance & Policy



Health Workforce



Sustainable Financing



Information & Surveillance

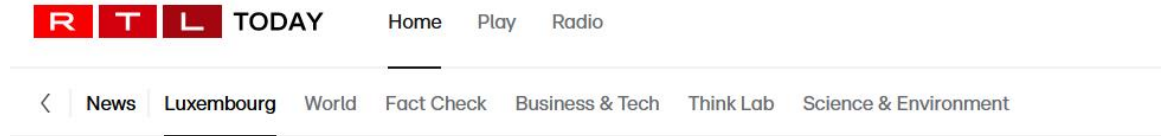


Service Delivery



Medical Products & Technologies

- More patients need care
- Reduced access to care
- More stress on staff and services
- Older adults, outdoor workers, chronic conditions and low-income patients feels this strain first and worst



Structural challenges

## 'We were not really prepared': Minister admits hospitals must adapt to extreme heat

Tim Morizet, Dany Rasqué, adapted for RTL Today


With 40°C outside and sometimes over 34°C inside hospital rooms, last week's extreme heatwave laid bare fresh challenges for the country's healthcare system and Health Minister Martine Deprez.







Update: 01.07.2026 08:43




# Luxembourg: Health in the National Adaptation Strategy







**National strategy** is institutional, surveillance-oriented, and health-sector led.

 **National Strategy — Institutional & Surveillance-Led**

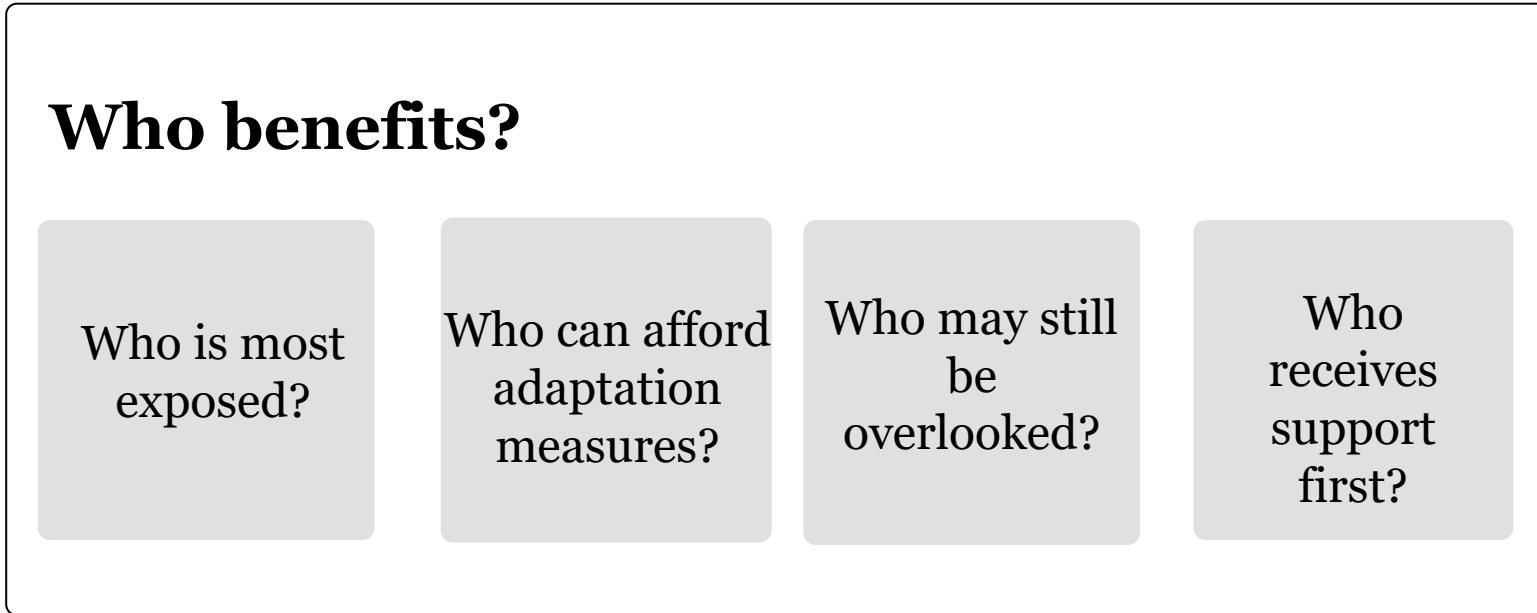
 Early heat-illness detection	 Climate-sensitive infectious disease surveillance through One Health	 Digital surveillance (SORMAS)
 Heatwave plan for isolated people over 75	 schools and childcare settings' air quality monitoring	 Public dashboards & research

**The workshop report** asks for a broader transformation.

 **Workshop — Broader, Equity-Focused Response**

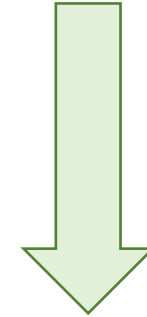
 Primary care & municipalities involved	 Protect outdoor workers from heat	 Air-quality checks in elderly care
 Cross-ministerial One Health	 Local crisis centres & first-aid training	 Close the digital divide

# Equity as a strategic principle

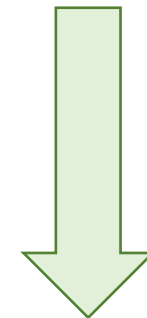


*Connect climate action with health equity*

Adaptation policies



Must also be equitable



To reduce (not worsen) inequalities in climate risks

# WORKSHOP B

## Public Health, Adaptation, Climate Impacts, and Social Inequalities

- 1 Who is most vulnerable?**  
Do we sufficiently understand climate-health vulnerabilities?
- 2 Are we adapting systems or transforming systems?**  
Are we mainly improving our capacity to respond to crises, or are we addressing the underlying determinants of vulnerability?
- 3 How do we measure success?**  
Should success be measured only through reduced risks?  
Or also through improved health, equity and resilience?