



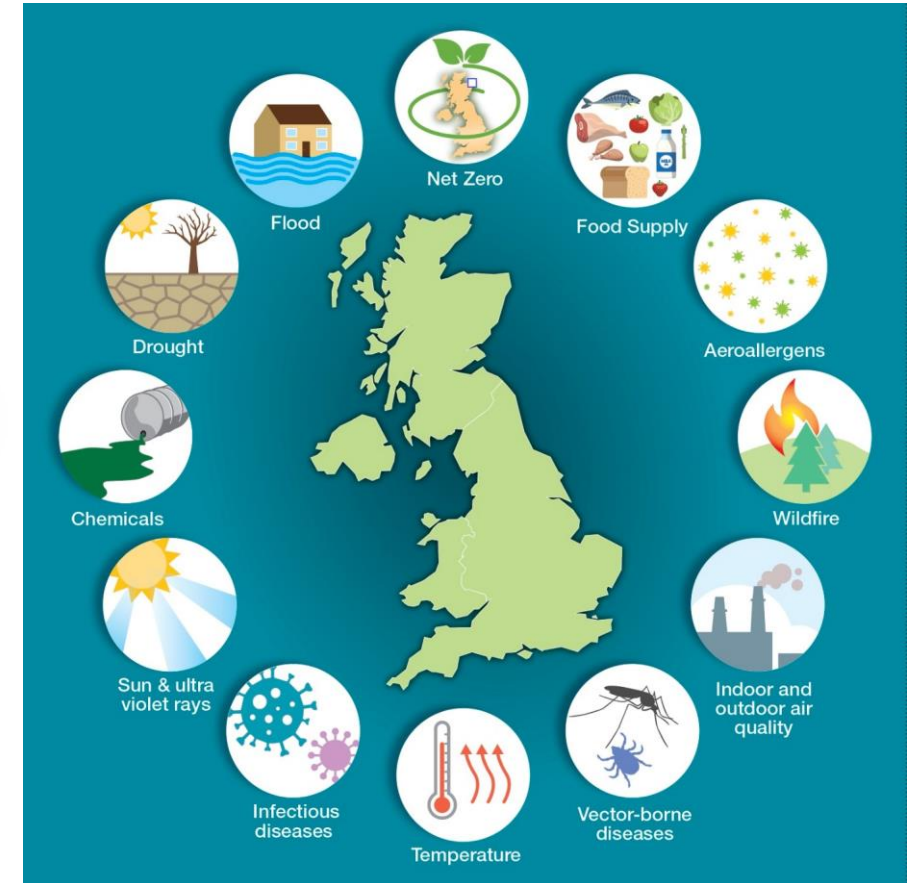
UK Health
Security
Agency

Health Effects of Climate Change in the UK

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UKHSA Centre for Climate and Health Security

- Launched in October 2022
- Led by Professor Lea Berrang Ford →
- 'Hub' of 5 teams:
 - Extreme Events and Health Protection (EEHP),
 - Climate Health and Assessment (CHAT),
 - Medical Entomology and Zoonoses (MEZE),
 - Mobilisation (MobT) and
 - Deputy Director's (DD) office



Working to ensure the health harms from climate change and adverse weather are minimised, and health is improved for all people, across current and future generations

Key achievements & more to come



Delivered statutory commitments to publish Adverse Weather and Health Plan and Health Effects of Climate Change



Raising the profile of the climate and health agenda across local and national government and with international partners



Expanding vector-borne disease surveillance system across England, plus providing scientific support and advice internationally



Operational response and supporting EPRR functions to take evidence supported action and build capability. Launch of impact-based heat-health alert systems



Improve knowledge mobilisation and use of evidence so you find it easier to find, digest, and apply to guide decision making



Develop and deliver a **programme of work within UKHSA to reduce the health impacts of climate change**, working with other government departments, academic partners and international organisations



Continue to build relationships and collaborate across regions, devolved nations and local authorities; responding to your needs and challenges



Refining our approach to assessing evidence; consulting on the **next UKHSA Health Effects of Climate Change** to maximise impact

Climate change

Climate change matters for health

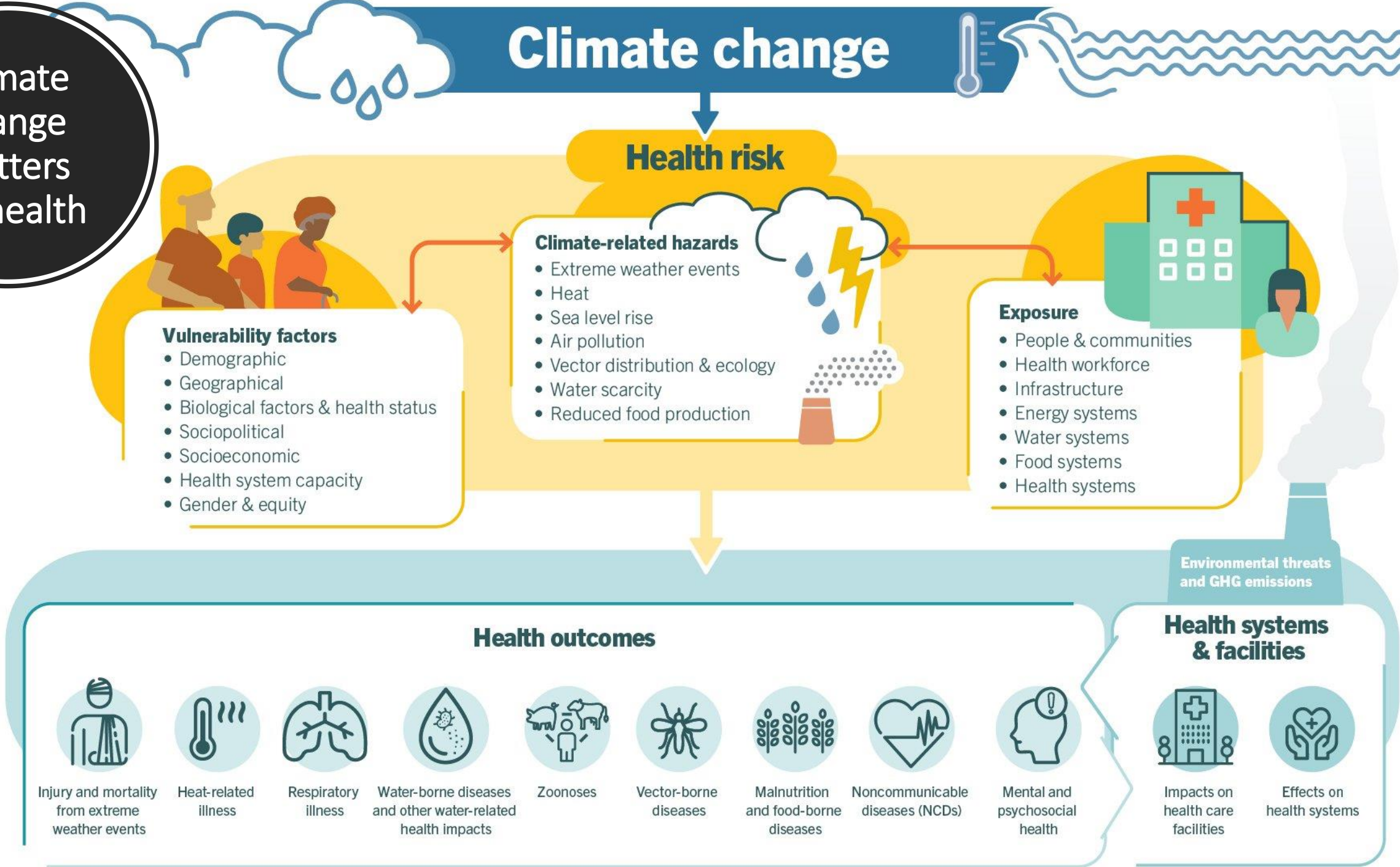
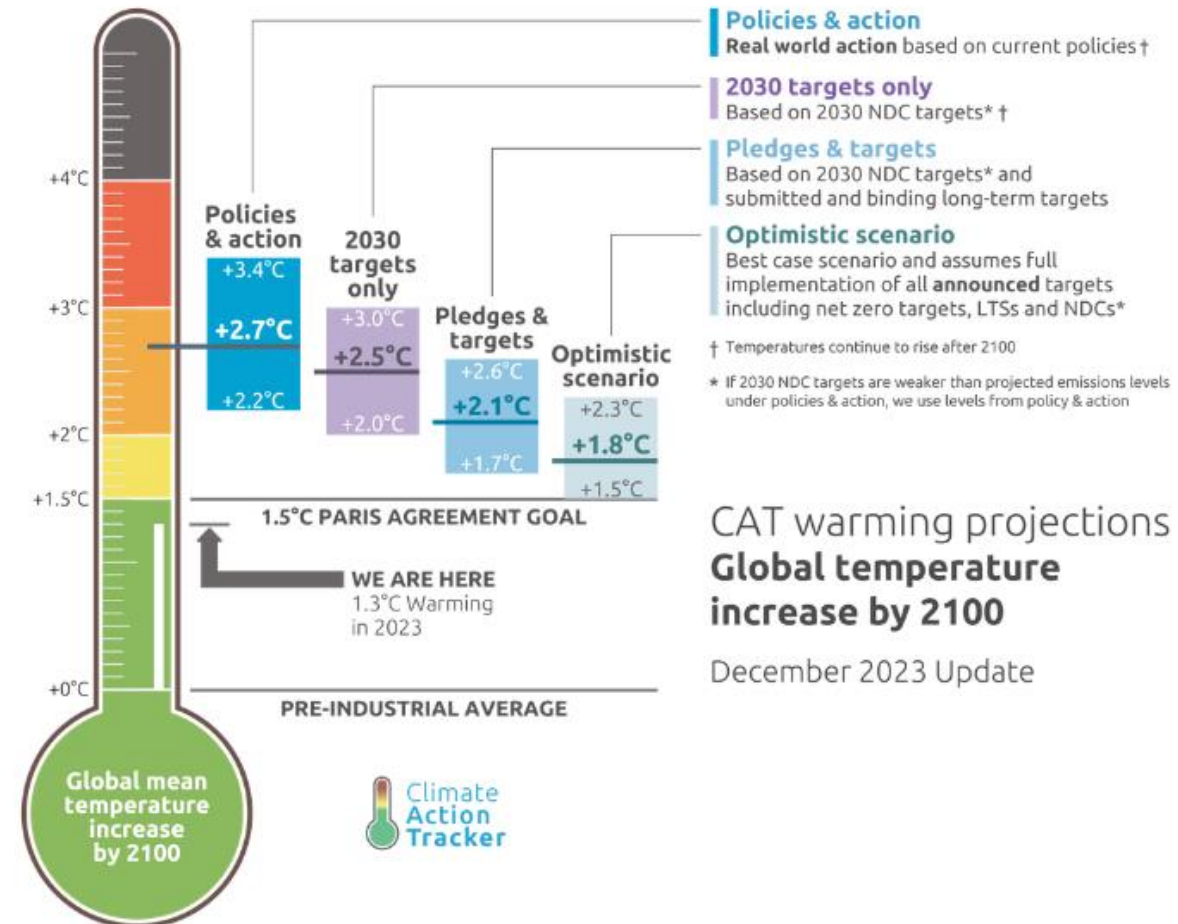


Image source: WHO

Climate change matters for health

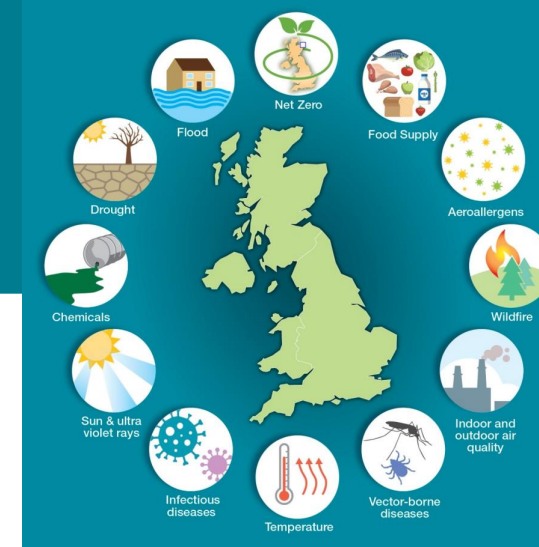
We are on track for ~2-3°C warming

- Even if GHG emissions decline, temperatures expected to rise until at least mid-century
- All scenarios pose public health risks
- Climate is the context in which we will need to protect health, affecting a wide range of health outcomes **and the determinants of health**
- Mitigation and adaptation will be required to avoid adverse impacts and may themselves have impacts on health



About the HECC report

- Deliverable for the second National Adaptation Programme (2018-2023)
- 15 chapters, 90 authors, 30 reviewers, covering a range of health impacts



Update the evidence base on climate change and health to inform policy making by the UK government, local authorities and other public health partners



Highlight future climate health research needs to improve depth and breadth of research

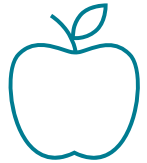


Raise awareness of the risks of health effects of climate change and **improve understanding** of the benefits to health from Net Zero policies

1. There is **substantial and growing evidence** of the effects of climate change on health in the UK - potential impacts will be significant and wide-ranging



- Evidence strongest for:
 - Health impacts due to heat and cold
 - Flooding
 - Vector-borne diseases



- Food imports and prices more volatile (particularly for fruit and vegetables)



- Emerging risks include exposure to drought and wildfires



- Evidence mixed for aeroallergens



- Insufficient evidence is available for full assessment:
 - Exposure to chemicals
 - Ultra-violet (UV) radiation

2. The health risks of climate change will not be distributed equally across the UK.

Geography

Health effects from **Flooding** include:

Drowning

Physical injury

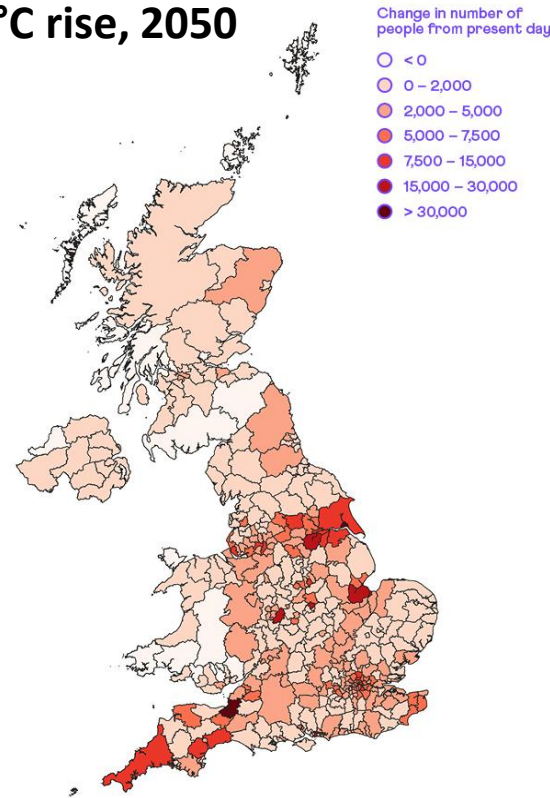
Skin and gastrointestinal infections

Mental health impacts

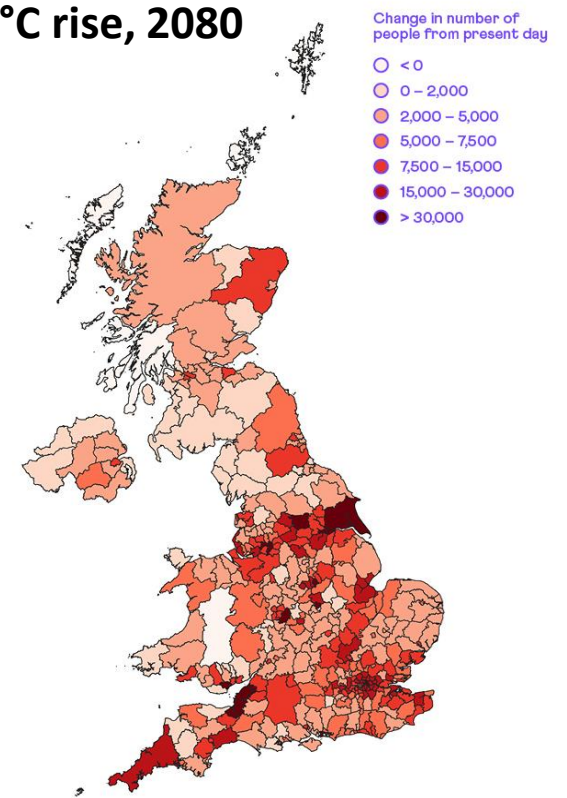
2°C rise: 61% increase in UK population exposed to flooding by 2050

4°C rise: 118% increase in UK population exposed to flooding by 2080

2°C rise, 2050



4°C rise, 2080



Figures source: Climate Change Committee

2. The health risks of climate change will **not be distributed equally** across the UK

Vulnerable populations



- Climate change will **exacerbate existing inequalities**



- **Ageing population** driver of climate vulnerability



- Most **vulnerable** groups:
 - Older adults (over 65 years),
 - Children
 - Those with pre-existing medical conditions



- Individuals less able to **control environments or adapt behaviours** vulnerable:
 - Social care residents
 - Homeless populations
 - Settings (e.g. schools, prisons)

3. The health risks of climate change will not be distributed equally across generations

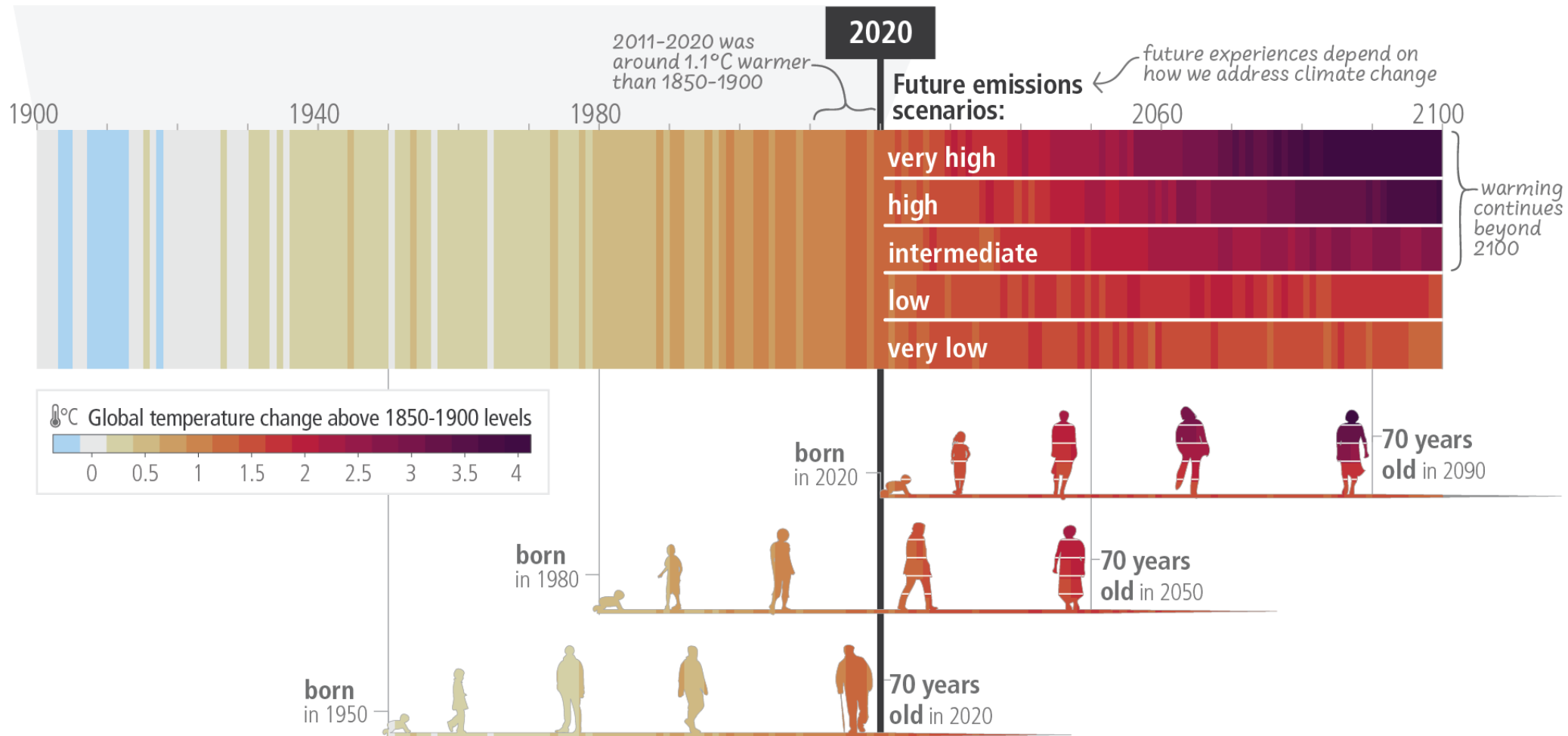
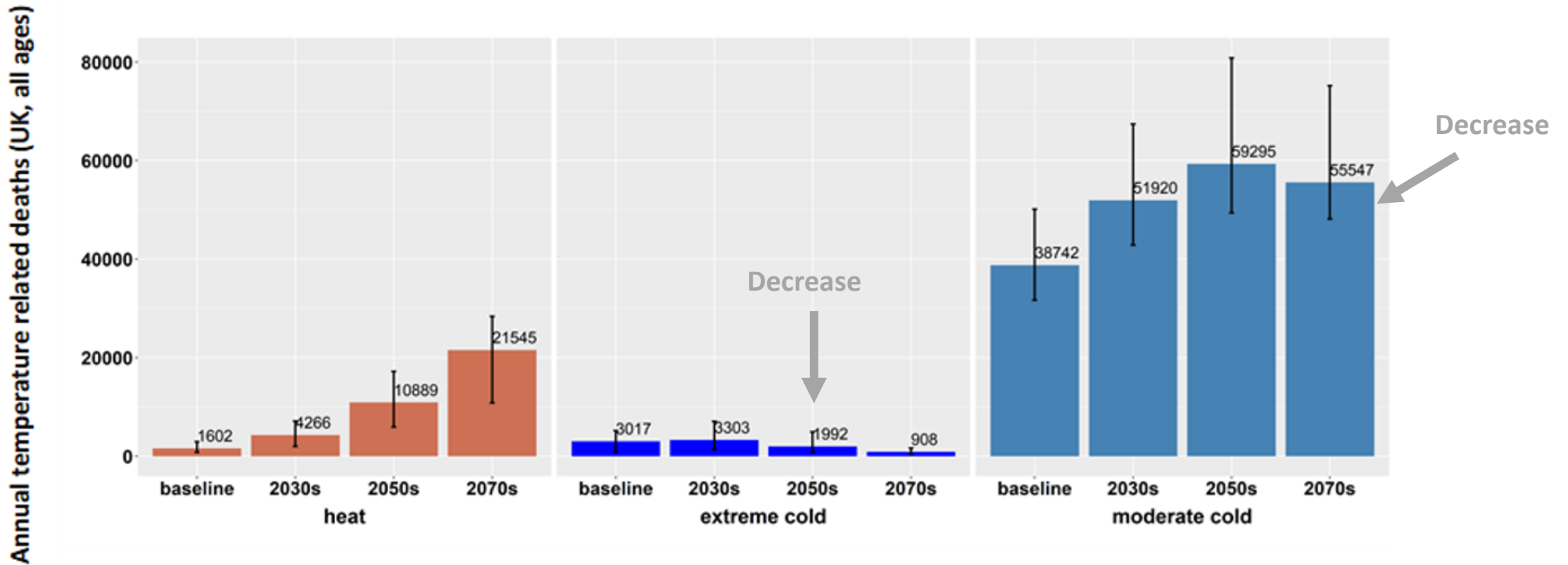


Figure source: IPCC

4. Health impacts will increase with progressive warming

- Estimated heat-related deaths increase per decade
- But deaths from extreme cold decrease in 2050s
- Deaths from moderate cold decrease during 2070s



5. Many adverse health impacts of climate change are **avoidable through climate change mitigation** and others are **preventable through effective adaptation**

- Targeted **adaptations** save lives and reduce adverse health impacts
 - National heat and cold alerting systems
 - Flood defences
 - Improvements to housing
- **‘Co-benefit’** options benefit both health and society
 - Active transport
 - Nature-based solutions



Can CCHS support your NIHR research bid?

- **Deadline:** 23rd April (Stage 1)
- **Research Question:**

What are the impacts of local authority led interventions aimed at climate change mitigation and/or adaptation on health and inequalities?

The logo for the National Institute for Health Research (NIHR) is displayed. It features the acronym 'NIHR' in a large, bold, blue sans-serif font. To the right of the acronym is a vertical red bar, followed by the full name 'National Institute for Health Research' in a smaller, blue sans-serif font, arranged in two lines.

NIHR | National Institute
for Health Research

If you are a Local Authority who is preparing a bid and would like to explore whether support from CCHS would be helpful, please get in touch via CCHS@ukhsa.gov.uk.