Building a Climate-Resilient Health System in the UK

UK Health Alliance on Climate Change

Executive Summary

The increasing frequency and intensity of climate-related events pose significant challenges to the UK healthcare system. Extreme weather events, rising temperatures, and shifting disease patterns threaten the health of the population and strain existing and future healthcare resources. This report outlines strategic recommendations to enhance the resilience of the UK healthcare system to climate change, focusing on adapting infrastructure, workforce preparedness, and community engagement.

Climate change is no longer a distant threat but a present-day reality that demands immediate action. The UK is not immune to these challenges. Its impacts are felt across sectors, including healthcare delivery. Adaptation and mitigation are both crucial to tackling climate change. For the NHS, adaptation protects healthcare services during events like heatwaves and floods, while mitigation cuts emissions to meet net-zero goals.

Despite a strong focus on mitigation, adaptation efforts in the health sector have fallen behind—new research commissioned by MedAct showed that almost half (49%) of surveyed healthcare workers said they have experienced NHS services being disrupted by extreme weather over the past five years.[1] Without intervention and investment, it will become increasingly more difficult to protect public health and ensure the NHS remains resilient in the long term.

Key Challenges

Extreme weather events
Heatwaves, flooding and storms disrupt healthcare services, damage infrastructure, and increase demand for emergency care.
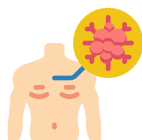
Vulnerable populations
The older people, children and those with pre-existing conditions are disproportionately affected, requiring targeted interventions.

Workforce & capacity strains
Increased demand for services during climate-related events exacerbates workforce shortages and stresses healthcare capacity.

Changing disease patterns
Warmer temperatures and shifting ecosystems contribute to the spread of vector-borne diseases and exacerbate chronic conditions like cardiovascular and respiratory illnesses in addition to reducing opportunities for wellbeing activities such as exercise.
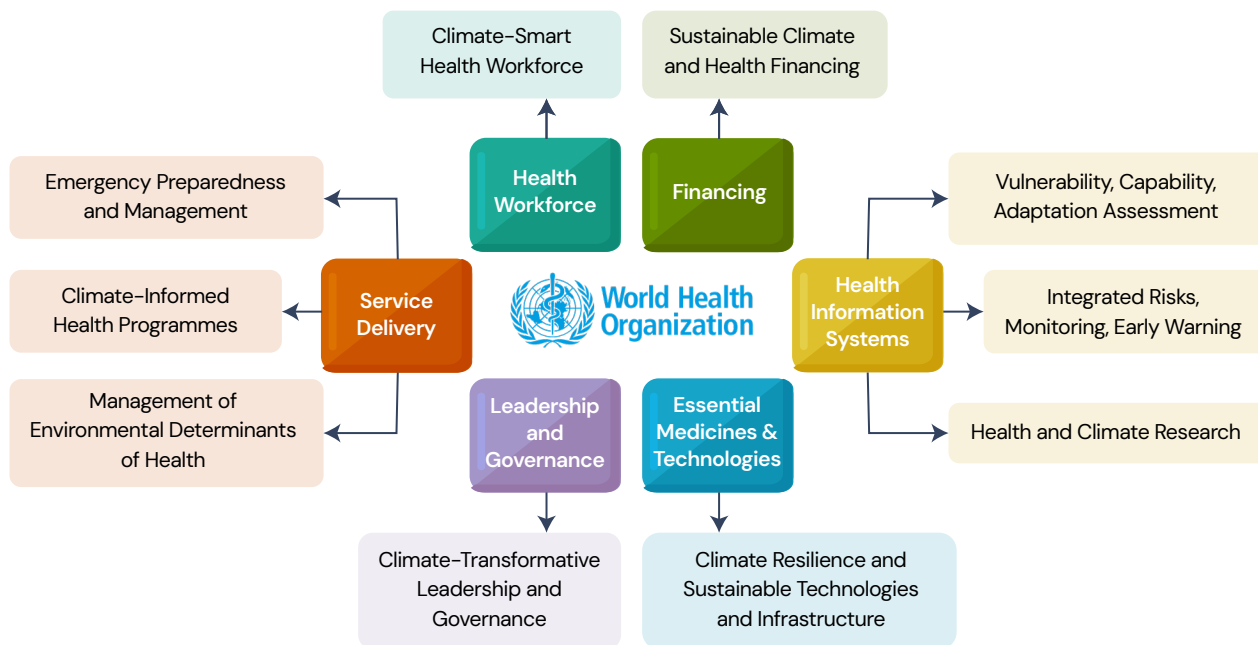
Infrastructure vulnerability
Ageing facilities are often ill-equipped to handle extreme weather events and unable to ensure uninterrupted service provision.

WHO Building Blocks for a Climate-Resilient Health system

The WHO outlines six building blocks of health systems that are crucial for building climate-resilient and low-carbon health systems.

Climate-Smart Health Workforce

Sustainable Climate and Health Financing

Health Workforce

Financing

Emergency Preparedness and Management

Health Information Systems

Vulnerability, Capability, Adaptation Assessment

Service Delivery

World Health Organization

Climate-Informed Health Programmes

Integrated Risks, Monitoring, Early Warning

Management of Environmental Determinants of Health

Leadership and Governance

Essential Medicines & Technologies

Health and Climate Research

Climate-Transformative Leadership and Governance

Climate Resilience and Sustainable Technologies and Infrastructure

Recommendations

1 Provide Sustainable Funding

- Allocate ring-fenced multi-year funding for climate adaptation initiatives within the NHS budget.
- Explore and enable public-private partnerships to finance large-scale infrastructure upgrades.

Financing

Responsible: UK and devolved nation Departments of Health and Social Care, HM Treasury

2 Strengthen Research on Climate Adaptation

- Invest in research to quantify climate health vulnerabilities and guide evidence-based policy-making.
- Invest in research to identify cost-effective adaptation strategies.

Health Information Systems

Responsible: HM Treasury, UK and devolved nation Departments of Health and Social Care, NHS England, NHS Scotland, NHS Wales, Health and Social Care Northern Ireland, Integrated Care Boards (England), regional and local health boards (Scotland, Wales), and Health and Social Care Trusts (Northern Ireland)

Recommendations

3 Enhance Workforce Preparedness

- Integrate climate adaptation training into medical, nursing, pharmacy and allied health professionals curricula.
- Ensure that NICE and SIGN provide clear guidance for clinicians on managing climate-related health risks and incorporating sustainability into clinical practice.
- Develop rapid response protocols for climate-induced health emergencies.
- Establish support systems for healthcare workers during extreme weather events to maintain service continuity.

Health Workforce

Responsible: UK and devolved nation Departments of Health and Social Care, NHS England, NHS Scotland, NHS Wales, Health and Social Care Northern Ireland, Integrated Care Boards (England), regional and local health boards (Scotland, Wales), and Health and Social Care Trusts (Northern Ireland), Local authorities, NICE, SIGN, education providers (universities, colleges, Health Education England, NES Education for Scotland, Health Education and Improvement Wales), regulators (GMC, NMC, HCPC)]

4 Promote Public Health Resilience

- Expand community-based programmes to educate the public on climate-related health risks and preventive measures.
- Enhance surveillance systems to monitor and respond to emerging health threats like vector-borne diseases.
- Ensure collaboration of DHSC, NHS and ICBs with local authorities to create heatwave and flood response plans.

Health Information Systems   **Service Delivery**

Responsible: UK and devolved nation Departments of Health and Social Care, NHS England, NHS Scotland, NHS Wales, Health and Social Care Northern Ireland, Integrated Care Boards (England), regional and local health boards (Scotland, Wales), Health and Social Care Trusts (Northern Ireland), Local authorities

5 Foster Cross-Sector Collaboration

- Strengthen partnerships between the NHS, local councils, and environmental agencies from planning to implementation stages to align climate adaptation efforts.
- Leverage technology and data-sharing platforms for better coordination during crises.
- Advocate for integrated urban planning to reduce health risks from climate impacts.

Health Information Systems   **Leadership and Governance**

Responsible: all levels

Recommendations

6 Integrate Climate Adaptation in Health Policies

- Mandate the development of a Health National Adaptation Plan (HNAP) across each of the devolved nations, outlining specific strategies for the healthcare sector to respond to climate risks.
- Align NHS climate resilience initiatives with the UK Climate Change Risk Assessment (CCRA) and other national climate policies to streamline resources and efforts.
- NHS organisations should have climate change response plans that cover both emissions reductions and adaptation planning; ICS Green Plans in England, Climate Change Response plans in Wales, and Sustainability Plans in Scotland.

Health Information Systems **Service Delivery**

Responsible: National governments, UK and devolved nation Departments of Health and Social Care, NHS England, NHS Scotland, NHS Wales, Health and Social Care Northern Ireland, Integrated Care Boards (England), regional and local health boards (Scotland, Wales), and Health and Social Care Trusts (Northern Ireland)

7 Strengthen Healthcare Infrastructure

- Conduct climate risk assessments for all NHS facilities to identify vulnerabilities at the local level.
- Urgently undertake existing repairs required and retrofit existing healthcare buildings with climate-resilient features, including improved insulation, flood defences, and renewable energy systems.
- Ensure all new healthcare facilities meet high environmental and climate resilience standards.
- Prioritise integration and expansion of high quality green spaces within healthcare estates.
- Ensure collaboration of DHSC, NHS and ICBs with mayoral and local authorities to integrate climate considerations in any future planning decisions.

Health Information Systems **Essential Medicines & Technologies**

Responsible: UK and devolved nation Departments of Health and Social Care, NHS England, NHS Scotland, NHS Wales, Health and Social Care Northern Ireland, Integrated Care Boards (England), regional and local health boards (Scotland, Wales), and Health and Social Care Trusts (Northern Ireland)