



UK Health  
Security  
Agency

# **Adverse Weather and Health Plan**

## Protecting health from weather related harm

2023 to 2024

# Contents

1. List of abbreviations .....	3
2. Executive summary.....	6
3. Strategy.....	8
3.1 Goals.....	8
3.2 Principles.....	8
3.3 Objectives.....	9
4. Governance .....	10
4.1 Management .....	10
5. Plan implementation .....	11
5.1 Supporting evidence.....	12
5.2 Guidance .....	12
5.3 Weather Health Alerts .....	13
5.4 Action areas .....	13
5.5 Activities .....	23
5.6 Timeline.....	24
5.7 Target populations.....	25
5.8 Health inequalities .....	25
5.9 Monitoring.....	25
5.10 Evaluation.....	26
5.11 Sustainability .....	26
6. Appendices .....	28
6.1 Appendix 1. Delivery groups.....	28
6.2 Appendix 2. Heat guidance .....	44
6.3 Appendix 3. Cold guidance.....	45
6.4 Appendix 4. Flood guidance .....	46
6.5 Appendix 5. Monitoring.....	47
6.6 Appendix 6. Cascade of Weather Health Alerts.....	49

# 1. List of abbreviations

Abbreviation	Meaning
ADPH	Association of Directors of Public Health
BS EN	British Standards European Norm
CAS	Central Alerting System
CB	Capacity Building
CCA	Civil Contingencies Act
CCHS	UKHSA Centre for Climate and Health Security
CERC	Crisis and Emergency Risk Communication
CQC	Care Quality Commission
CM	Communication
CO	Cabinet Office
COBR	Cabinet Office Briefing Rooms
CRR	Community Risk Register
DCMS	Department for Culture, Media and Sport
Defra	Department for Environment, Food and Rural Affairs
DESNZ	Department for Energy Security and Net Zero
DfE	Department for Education
DfT	Department for Transport
DHSC	Department of Health and Social Care
DLUHC	Department for Levelling Up, Housing and Communities
DPH	Director of public health
DRA	Dynamic risk assessment
DsPH	Directors of Public Health
DWP	Department for Work and Pensions
e-lfh	e-learning for healthcare
EA	Environment Agency
EEHP	UKHSA Extreme Events and Health Protection
EPRR	Emergency preparedness, resilience and response
EWS	early warning system
FFC	Flood Forecasting Centre
FGS	Flood Guidance Statement
FPH	Faculty of Public Health
H&SC	Health and Social Care
HPRU	Health Protection Research Unit
HSE	Health and Safety Executive
HWB	Health and wellbeing board

ICB	Integrated Care Boards
ICP	Integrated Care Partnership
ICS	Integrated Care System
ISO	International Organization for Standardization
JSNA	Joint strategic needs assessment
LA	Local Authority
LGA	Local Government Association
LHRP	Local health resilience partnership
LRF	Local resilience forum
Met Office	Meteorological Office
MoD	Ministry of Defence
MoJ	Ministry of Justice
MECC	Making Every Contact Count
MHRA	Medicines and Healthcare products Regulatory Agency
MOOC	Massive Open Online Courses
NAP	National Adaptation Programme
NEA	National Energy Action
NICE	National Institute for Health and Care Excellence
NIHR	National Institute for Health and Care Research
NRR	National Risk Register
NSRA	National Security Risk Assessment
NSWWS	National Severe Weather Warning Service
OA	Organisational Arrangements
OGD	other government departments
OHID	Office for Health Improvement and Disparities
ONS	Office for National Statistics
PD	Policy Development
PHE	Public Health England
PIRU	Policy Innovation Research Unit
PWS	Public Weather Service
QMS	Quality Management System
RD	Research and Data Analysis
RED	Resilience and Emergencies Division (DLUHC)
RM	Risk Management
QA	Quality Assurance
SCG	Strategic co-ordination group
SD	Service Delivery
SOP	Standard operating procedure

TCPA	Town and Country Planning Association
UKHSA	UK Health Security Agency
VCS	Voluntary and Community Services
VCSEP	Voluntary and Community Sector Emergencies Partnership

## 2. Executive summary

The Adverse Weather and Health Plan (AWHP) delivers our commitment under the National Adaptation Programme to develop a single plan, bringing together and improving current guidance on weather and health. It builds on existing measures taken by government, its agencies, the NHS England and local authorities, to protect individuals and communities from the health effects of adverse weather and to build community resilience.

The Plan outlines the important areas where the public sector, independent sector, voluntary sector, health and social care organisations and local communities can work together to maintain and improve integrated arrangements for planning and response to deliver the best outcomes possible during adverse weather. The Plan brings together and builds on the previous Heatwave Plan for England, first published in 2004, and the Cold Weather Plan for England, first published in 2011.

The Plan is underpinned by:

- an evidence collection, published in parallel, that underlines the activities and scientific evidence that support the Plan
- guidance and support materials, available in Appendix 2 (Heat), Appendix 3 (Cold) and Appendix 4 (Flooding)
- the Weather Health alerts (heat and cold), developed in collaboration with the Met Office

The Plan will be implemented and delivered by a range of groups and organisations working in partnership across sectors and at different levels. There are 7 delivery groups referred to in the Plan. These include national delivery, regional delivery, local delivery, other governmental departments, academia, third sector and private sector.

The Plan has adapted the International Organisation for Standardisation 7 quality management principles as guides to support future quality improvements in local and national plans and responses. These include people focus, leadership, engagement of people, process approach, improvement, evidence-based decision making and relationship management.

Additionally, the Plan sets out 9 action areas for delivery including:

- service delivery
- capacity building
- organisational arrangements
- communication
- risk management
- early warning systems
- data analysis

- quality assurance
- policy development and accountability

The Plan establishes mechanisms for implementation monitoring as well as a system of regular reporting. A timetable ([Section 5.6](#)) is included for future revisions and updates to the supporting materials accompanying this Plan.

This is an ambitious plan which seeks to support local and national organisations to prepare, build, and respond to future adverse weather events to protect lives and promote health and wellbeing.

## 3. Strategy

### 3.1 Goals

The Plan is focused on addressing the following 4 important goals:

- G1. Prevent the increase in years of life lost due to adverse weather events
- G2. Prevent mortality due to adverse weather events
- G3. Prevent morbidity due to adverse weather events
- G4. Reduce the use of healthcare services due to adverse weather events

Over the next 2 years we will be refining the measurement and evaluation of these goals.

### 3.2 Principles

The Plan has adopted the International Organisation for Standardisation (ISO) 7 quality management principles to take a more structured approach to improving the quality of our plans and guidance. These principles also establish the foundation for the quality management system (QMS) according to the [BS EN ISO 9001:2015](#), that is currently under development.

- P1. People focus (adapted from customer focus)
- P2. Leadership
- P3. Engagement of people
- P4. Process approach
- P5. Improvement
- P6. Evidence-based decision making
- P7. Relationship management

Our core of the principle remains, which is to meet the populations' needs and strive to exceed the populations' expectations.

The principles are referred to throughout the Plan, to illustrate their alignment with specific implementation activities, such as P6 evidence based decision making.

More information regarding the [ISO quality management principles](#) including their rationale, benefits and possible actions is available online.



## 3.3 Objectives

To meet the goals defined above, actions will be focussed around the following 9 objectives:

- **O1. Service delivery:** Improve health and social care services preparedness, resilience, and response to adverse weather events by updating the cold, heat and flooding guidance by October 2024
- **O2. Capacity building:** Develop a series of capacity building events to support actions from the public health, healthcare and social care sectors, by March 2024
- **O3. Organisational arrangements:** Drive increased collaboration across delivery groups and ensure clarity in the respective responsibilities of delivery organisations and partners
- **O4. Communication:** Increase the impact of public and stakeholder communications on adverse weather and health
- **O5. Risk management:** Review and identify improvements to risk management mechanisms on adverse weather and health by October 2023
- **O6. Early warning systems:** Implement a new impact-based alert system for adverse weather events, focused on health impacts, by September 2023
- **O7. Research and data analysis:** Continue to produce and publish timely reports on the impacts of adverse weather (heat and cold) on health
- **O8. Quality assurance:** Develop the Plan's Quality Management System by October 2024
- **O9. Policy development and accountability:** Update the supporting evidence with a chapter on policy and legal commitments related with adverse weather and health by March 2024

These objectives illustrate the important elements that form the basis for how local and national programmes might be developed in future to ensure that comprehensive arrangements are in place to protect the public from harm from adverse weather events.

## 4. Governance

Successful delivery of the Plan requires close collaboration across a wide variety of organisations and people (P1, P7). The UK government, local government, regional organisations, independent sector, voluntary sector, health and social care organisations and local communities have interests and responsibilities in keeping the population healthy.

The Plan aims to collate adaptation activities across the system and clarify the systems of implementation, accountability, monitoring and evaluation across the different levels (P2, P4, P7).

Future iterations of the Plan will provide a collection of case studies of adaptation activities which stakeholders are developing in respect of climate change and response to adverse weather events. This will help clarify systems of implementation, accountability, monitoring and evaluation across different levels of government.

The complete list of stakeholders involved in the delivery of responses to adverse weather events at national, regional and local level, and their role and responsibilities are defined in [Appendix 1](#).

### 4.1 Management

The UK Health Security Agency (UKHSA) Extreme Events and Health Protection (EEHP) team, located within the UKHSA Centre for Climate and Health Security (CCHS), is responsible for developing, reviewing and supporting the implementation of the Plan and associated guidance and evidence, and for managing the weather and health early warning system (P2).

Accountability for certain implementation activities or programmes may reside outside of UKHSA, in accordance with the governance model, as well as current legal frameworks (P2). Some sections of the Plan, such as the evidence base and associated guidance are being developed in collaboration with partners under other schemes of funding such as the NIHR Health Protection Research Units.

The AWHP Steering Group will continue to oversee the effective and timely delivery of the Plan. The group includes local, regional, and national level stakeholders, as well as stakeholders experienced in preparedness, policy, science, and response. The Steering Group will meet at least 2 times per year to review the annual and interim progress reports and oversee the development of subsequent iterations of the Plan (P2, P5, P7).

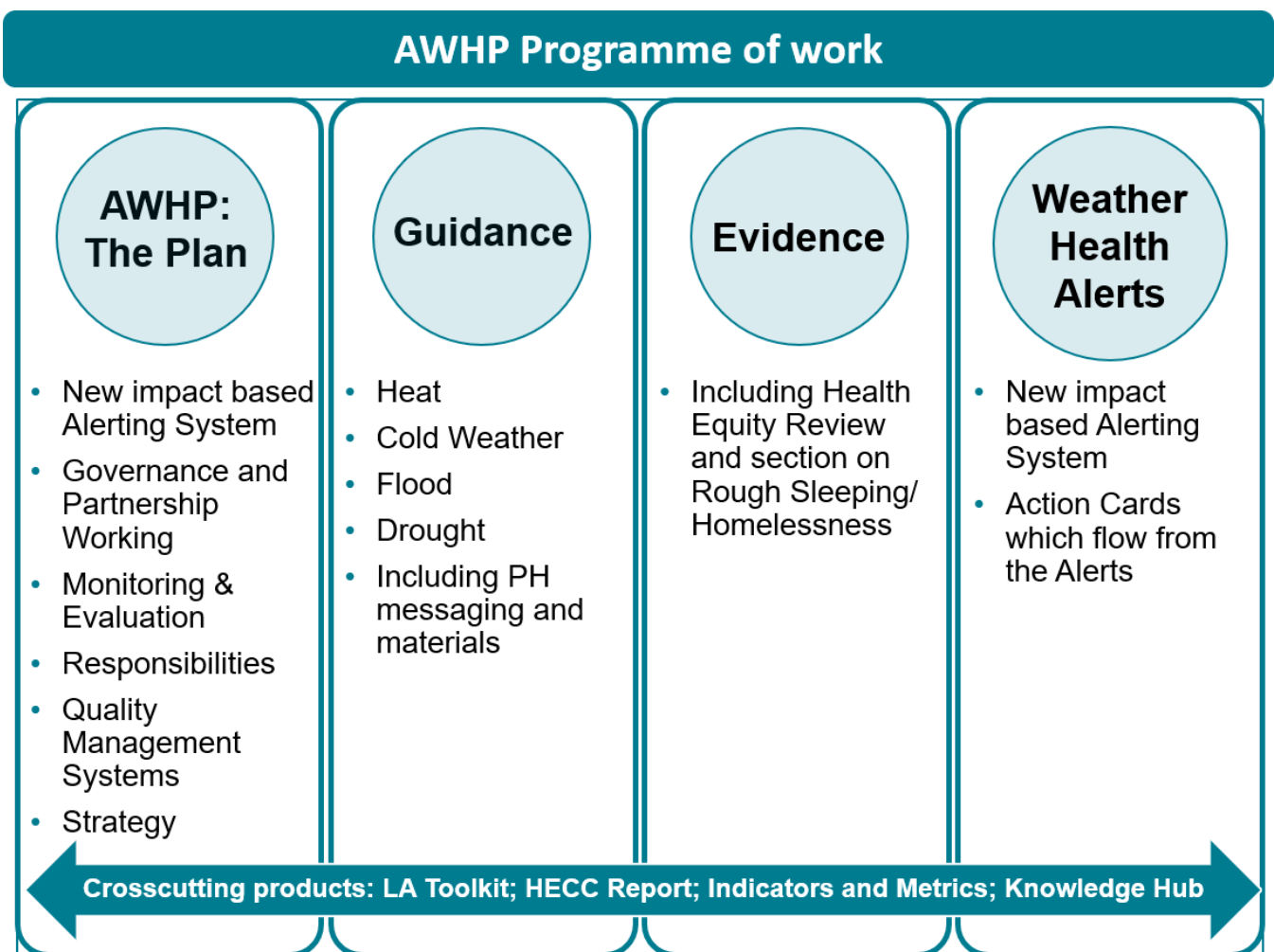
The annual report to the steering group will review all elements of the Plan and make any recommendations for improvements and changes to ensure the Plan remains fit for purpose during future adverse weather events (P5).

## 5. Plan implementation

Significant documents that underpin and support the implementation of the Plan include a review of the evidence (published separately), guidance and support materials which are available in [Appendix 2](#) (Heat), [Appendix 3](#) (Cold) and [Appendix 4](#) (Flooding). An updated weather and health alerting service will also be implemented in 2023 (P4, P6).

The 2023 to 2024 Plan covers activities specifically related to heat, cold and flooding hazards. The next iteration of the Plan will also include thunderstorm asthma, drought and storms.

**Figure 1. Overview of the AWHP programme of work**



The Plan follows an impact model that will be implemented according to the 9 objectives and areas of action ([Section 5.4](#)). The important milestones of the Plan are defined in an operational timeline ([Section 5.6](#)) (P4, P5).

The timeline will support regional and local levels in the updates of their plans. It includes year-round engagement workshops and preparation webinars and defines the evaluation and reporting periods. Reducing excess illness and death related to adverse weather is not

something that can be tackled with short term planning alone and it requires a medium to long-term strategic approach. The Plan aims to improve long-term planning and commissioning at all implementation levels. In addition, it promotes a change of focus from response and recovery to resilience and preparedness (P3, P4).

## 5.1 Supporting evidence

The Plan is underpinned by a strong and comprehensive supporting evidence that specifies the impacts of adverse weather and climate change on health (P6).

The evidence document includes the following chapters:

- introduction
- health effects of adverse weather
- population at risk to adverse weather events
- addressing health inequalities
- recommendations mapping

This document will be updated on an annual basis to ensure the Plan and guidance is supported by strong and reliable evidence. Next year's evidence document will contain information from the UKHSA Health Effects of Climate Change (HECC) report, due to be published in 2023, as well as a chapter on the policy and legal commitments related to adverse weather and health (P1, P4, P5, P6).

## 5.2 Guidance

The Plan's implementation is supported by a series of guidance documents and support materials that are published online, which include additional information about the effects of adverse weather on health. The guidance also describes actions to be taken before and during periods of adverse weather in England. It details what preparations both individuals and national, regional, and local organisations can make to reduce health risks and includes specific measures to protect vulnerable groups (P1, P6, P7).

During the implementation of the 2023 to 2024 Plan, UKHSA will update guidance related to:

- extreme the heat and heatwaves by April 2023
- cold by September 2023
- flooding by November 2023

The full list of available guidance and support materials are included in the [Appendices](#).

The appendices specify the material's target population, audience, organisations responsible for the review, date of latest review and when the next review is going to take place.

## 5.3 Weather Health Alerts

UKHSA and the Met Office are delivering a new dedicated platform for Heat-Health Alerts in April 2023 and for Cold Weather Alerts by autumn 2023.

The platform will be an authoritative voice for adverse weather alerts (heat and cold) for the health and social care sectors and will provide associated advice and guidance. Users can register for alerts they wish to receive and will obtain relevant information on the current alert period direct from the platform (P4, P6).

More details are provided in [Section 5.4.6](#) on early warning systems.

## 5.4 Action areas

To meet the goals of this Plan, local organisations and partnerships should consider developing plans which address the 9 action areas:

- service delivery (SD)
- capacity building (CB)
- organisational arrangements (OA)
- communication (CM)
- risk management (RM)
- early warning systems (EWS)
- research and data analysis (RD)
- quality assurance (QA)
- policy development and accountability (PD)

These local plans should build on existing strategies and business resilience plans. Local organisations should check to see that their plans cover the 9 action areas to help ensure preparation for and resilience to future weather events.

Further information about the action areas is set out below. Organisations and partnerships should be clear as to their roles and responsibilities for longer term preventive planning as well as preparing for, and response to future adverse weather events. Ideally these will be agreed at partnership level as between Integrated System Partnerships (ISPs), Health and Wellbeing Boards (HWBs) and Local Resilience Forums (LRFs) as appropriate locally. This will help to ensure ownership and accountability for preparedness and response and for long term planning.

## 5.4.1 Service delivery

National and local organisations and partnerships should have up to date service delivery plans which cover preparedness, resilience, and response to adverse weather events. These should consider the latest cold, heat and flooding guidance and should be reviewed in its totality by October 2024. Each organisation should also ensure that its local guidance is updated for summer 2023 to specifically take account of the new weather and health alerting service and actions issued with this Plan.

### 5.4.1.1 Guidance implementation

It is the responsibility of the delivery groups to implement the guidance referred to in [appendices 2, 3 and 4](#). Additionally, it is the responsibility of specific organisations to keep the information in the available guidance ([Section 5.2](#)) updated and aligned with the most current evidence.

## 5.4.2 Capacity building

All health and social care staff should be prepared for extreme heat and cold weather events and understand their impacts on health. They should understand the actions which need to be taken individually and organisationally to ensure the safety and health of their clients and patients during such events and the preparations that need to be taken in advance.

There is an ongoing need to ensure that all staff working with patients and clients are trained both to understand the impact of extreme heat and cold on bodily functions and to be alert to the physical and mental signs of impact on health. All staff should be made aware of the new weather and health alerting service and the good practice actions which follow on from these (introduced from summer 2023).

### 5.4.2.1 Training materials

A range of UKHSA guidance and training resources for staff and the public are freely available and described in [appendices 2, 3 and 4](#). In addition, training materials about both climate change and adverse weather and health are freely available, including slide sets, e-learning and third party hosted accredited courses such as Massive Open Online Courses.

### 5.4.2.2 UKHSA operational webinars

UKHSA organises operational preparedness webinars ahead of the summer and winter season, in collaboration with other national and local partners, to provide updates to the different delivery groups and stakeholders on latest guidance and what is expected ahead of the specific season. In future, UKHSA may organise additional capacity building webinars to improve the knowledge of partners on specific hazards or on AWHP implementation and associated guidance and weather health alert systems.

#### 5.4.2.3 Making Every Contact Count programme (MECC)

Teams may wish to consider opportunistic approaches to signpost potentially vulnerable patients to appropriate services when they present for other reasons for example the [Making Every Contact Count](#) (MECC), developed in the Yorkshire and the Humber region. It provides frontline staff with behavioural change interventions training. It focuses on providing an informed choice for individuals but with the understanding of the wider determinants of health approach.

#### 5.4.2.4 All Our Health eLearning sessions – climate change module

[OHID's All Our Health framework](#) is a call to action to all health and care professionals to embed prevention within their everyday work. Through educational materials, tools and resources, All Our Health helps professionals make an even greater impact in preventing illness, protecting health, promoting wellbeing and reducing health inequalities. The [climate change module](#) is a bite-sized session to give health and care professionals an overview of climate and health. It includes evidence, data and signposting to trusted resources to help prevent illness, protect health and promote wellbeing.

### 5.4.3 Organisational arrangements

At both local and national level there are numerous organisations and partnerships, operating as part of the wider health system, which are responsible for preparing for and responding to adverse weather events which might impact on health and wellbeing.

Individual organisations at all levels of the delivery chain will wish to consider the implications of this Plan and guidance as they continue to focus on keeping people safe and well from adverse weather events. They will wish to review how they participate in wider national or local emergency preparedness and resilience arrangements.

#### 5.4.3.1 Emergency Preparedness Resilience Response (EPRR) arrangements

In light of the information published in this Plan, associated guidance and lessons learned from previous incidents, national organisations delivering EPRR functions will continue to work in collaboration and assure themselves that protocols and Standard Operating Procedures (SOPs) are up to date.

#### 5.4.3.2 Exercises

If applicable, the delivery groups both national and locally should regularly test the robustness of their EPRR plans through regular 'table-top' and other 'real-time' planning exercises to assure themselves that plans and arrangements (including internal plans and distribution lists) are up to date and fit for purpose. It is the responsibility of each organisation to ensure that preparedness and response plans are drawn up, tested, and updated.

## 5.4.4 Communication

A range of robust and resilient communication methods and approaches are required to ensure effective:

- inter-organisational and intra-organisational communication and dissemination of information in the planning for and response to adverse weather events
- communication with staff so they are aware of what to do in advance, and for accurate and timely information and guidance during an incident
- communication and dissemination of public health messages to the public
- communication and dissemination to at-risk and vulnerable groups and those groups who are underserved or otherwise often 'hidden' from service providers

Delivery groups should review their current communication materials and dissemination material in light of this Plan and associated guidance and test these out as part of their regular exercising.

Described below are a range of materials that are available to support some of these communication activities. UKHSA will be seeking to develop case studies for future Plan iterations.

### 5.4.4.1 Communications materials

A range of communication resources that support action by hazard, and that support a shift from emergency planning to adaptation are available within the guidance in [appendices 2 \(Heat\) and 3 \(Cold\)](#).

### 5.4.4.2 Communications toolkit

If applicable, delivery groups, should develop a suite of weather and health communications tools, specifying what is communicated, to whom, when, how and why. These toolkits should raise awareness of how exposure to adverse weather and excessive low or high indoor temperatures affects health and what preventive action people can take, both throughout the year and during adverse weather events. The Plan guidance and evidence should support these communications toolkits.

The toolkits should also highlight activities to mobilise individuals and communities to help to protect their neighbours, friends, relatives, and themselves against avoidable health problems during adverse weather events. Particular attention should be given to ensuring that important public health messages reach vulnerable groups and those who care for them (for example, caregivers of the chronically ill, parents of young children) in a suitable and timely way. Public health messages and advice on financial support and benefits can be found on GOV.UK.



#### 5.4.4.3 Focus groups and customer insights

Different organisations and partnerships may wish to engage focus groups to test behavioural messages to improve heat risk perception and protective behaviours in older adults. Customer insight surveys can also be used to understand how guidance is used and acted upon (or not) by different population groups during an adverse weather event.

UKHSA recently conducted a series of focus groups to develop tailored messages for this Plan and associated guidance. Additionally, the UKHSA Hot Weather Communications Toolkit was updated based on behavioural and customer insight (IPSOS/MORI surveys) with recommendations to address identified barriers in older adults. More details are available in the accompanying evidence document.

#### 5.4.4.4 Weather Ready campaign

The [Weather Ready campaign](#) is a year-round campaign run by the Met Office. It provides the latest and expert seasonal guidance and tips for public on how and why they need to prepare for the weather. The guidance material is produced in partnership with UKHSA and the Cabinet Office through whom the guidance material is further disseminated to the public.

Members of the public visiting the Met Office website for the latest weather forecast can also access up-to-date, expert seasonal advice from carefully selected organisations to help them prepare for and respond to the weather, to stay safe and protect their homes and businesses.

#### 5.4.4.5 Keep Warm Keep Well leaflets

In the winter, UKHSA, NHS England and AgeUK have provided advice on how to stay healthy in winter. The flyers have also been distributed to some of the most vulnerable households in receipt of the Warm Homes discount scheme operated by the Department of Works and Pension (DWP). These messages provide a crucial function in ensuring that some of the most vulnerable people in the UK are receiving advice on how to stay well during adverse weather events.

#### 5.4.4.6 Media engagement

Delivery groups should actively work with the local and national media to get advice to people, both before, during and after an adverse weather event.

### 5.4.5 Risk management

Management of risk both within organisations and sharing of risk across organisations is a fundamental feature of an overarching weather and health plan. Nationally, UKHSA works closely with partners across government to advise on health risks arising from adverse weather events and then supports partners to help manage these risks in the most effective manner. Locally, risk management this will often be led by local Directors of Public Health.

There are several tools to help organisations and partnerships undertake risk assessments.

#### 5.4.5.1 Horizon scanning

The Met Office provides nowcasting, short-range, medium-range and extended-range weather forecasts. These forecasts provide the foundations for early warning systems, supporting preparedness for adverse weather events.

UKHSA and Met Office meet at least weekly during the Weather Health Alert seasons, to discuss possible escalation of Weather Health Alerts and the possible involvement of OGD in the DRA conducted by both organisations.

#### 5.4.5.2 National Security Risk Assessment (NSRA)

The government monitors the most significant emergencies that the UK could face over the next 5 years through the National Security Risk Assessment (NSRA). This is a confidential assessment, conducted every year, that draws on expertise from a wide range of departments and agencies of government. The National Risk Register (NRR) is the public version of the assessment.

#### 5.4.5.3 National Risk Register (NRR)

The NRR provides an updated government assessment of the likelihood and potential impact of a range of different malicious and non-malicious national security risks (including natural hazards, industrial accidents, malicious attacks, and others) that may directly affect the UK and its interests over the next 2 years.

In addition to providing information on how the UK government and local responders manage these emergencies, [the National Risk Register 2020](#) also signposts advice and guidance on what members of the public can do to prepare for these events.

#### 5.4.5.4 Local risk assessment and community risk registers

Alongside the national level risk assessments, local tiers are required to produce a specific risk assessment that reflects, as far as possible, the unique characteristics of each area. The government provides guidance to LRFs on how to interpret the risks in the NSRA and NRR to help with their local assessment of risk. This ensures that risk assessments at all levels of government are integrated, and underpins coherent emergency planning throughout the country.

The Civil Contingencies Act 2004 also requires emergency responders in England and Wales to co-operate in maintaining a public Community Risk Register (CRR). These [CRRs are approved and published by LRFs](#), which include representatives from local emergency responders as well as public, private and voluntary organisations. Each local council publishes its CRR on its website.

#### 5.4.5.5 Crisis and Emergency Risk Communication (CERC)

If relevant, organisations should have robust arrangements in place to address specific communication requirements during major emergencies. Those arrangements should be based on the [6 principles of CERC](#): be first, be right, be credible, express empathy, promote action and show respect.

### 5.4.6 Early warning systems

Early weather and health warning systems lie at the heart of robust adverse weather and health plans and guidance. These systems, which the WHO has shown to be one of the most single most cost-effective actions which countries can take to improve civil preparedness for adverse weather events, have been in place in England for heatwaves since 2004.

#### 5.4.6.1 Weather Health Alerts

The heat-health alert system operates from 1 June to 30 September and the cold health alert system operates from 1 November to 30 March. An out of season alert may still be issued if impacts from adverse weather on health (heat and cold) are expected.

Both systems are based on the Met Office forecasts and data. Depending on the level of alert, a response will be triggered to communicate the risk to the NHS England, government, and public health system. Advice and information will be sent to the public and health and social care professionals, particularly those working with at-risk groups, after an alert is issued or updated. This includes both general preparation for hot weather and more specific advice when a severe heatwave has been forecast. Delivery groups should implement year-round planning and use the guidance in advance of the summer and winter.

The platform aims to cover the spectrum of action from different groups. In general terms:

- **Green (preparedness):** No alert will be issued as the conditions are likely to have minimal impact on health; business as usual and summer/winter planning and preparedness activities.
- **Yellow (response):** These alerts cover a range of situations. Yellow alerts may be issued during periods of heat/cold which would be unlikely to impact most people, but could impact those who are particularly vulnerable.
- **Amber (enhanced response):** An amber alert indicates that weather impacts are likely to be felt across the whole health service, with potential for the whole population to be at risk. Non-health sectors may also start to observe impacts and a more significant coordinated response may be required.
- **Red (emergency response):** A red alert indicates significant risk to life for even the healthy population.

The Weather Health Alerts are cascaded to the groups previously mentioned, as defined in [Appendix 6](#). The details of the Weather Health Alerts can be found in the [User Guide](#).

#### 5.4.6.2 Met Office National Severe Weather Warning Service (NSWWS)

The Met Office also issues weather warnings through the National Severe Weather Warning Service (NSWWS) for severe weather that has potential for impact to the UK and uses a colour coded matrix system to convey the likelihood of impact and severity. A NSWWS warning alerts the public and emergency responders of a severe weather warning that has a likelihood of low, medium and high impact across various sectors causing widespread disruption such as damage to property, infrastructure and power lines, travel delays and cancellations, loss of water supplies and in the most severe cases, danger to life.

#### 5.4.6.3 Flood Guidance Statement

The Environment Agency and Met Office Flood Guidance Statement (FGS) is a 5-day risk-based product for England and Wales. It is produced by the Flood Forecasting Centre (FFC), and it shows the forecast level of flood risk for the coming 5 days for surface water, river, groundwater and coastal flooding. The FGS provides an assessment of the reasonable worst-case scenario for flood impacts.

#### 5.4.6.4 CAS and UKHSA safety alerts

The Medicines and Healthcare products Regulatory Agency (MHRA) Central Alerting System (CAS) is a web-based cascading system for issuing patient safety alerts, important public health messages and other safety critical information and guidance to the NHS England and others, including independent providers of health and social care. CAS alerts may also be issued by DHSC and NHS England.

UKHSA may issue a National Patient Safety Alert or Urgent Public Health Message alerts in response to an adverse weather event, mainly related with health and social care staff wellness.

### 5.4.7 Research and data analysis

The Plan, guidance, and associated evidence is underpinned by an ongoing system of surveillance, monitoring, and evaluation based on both real-time and retrospective data analysis on the health effects of adverse weather. UKHSA with partner agencies, such as NHS England, run systems to help give early analysis of the effects of adverse weather on health (including syndromic surveillance) as well as on the associated impacts on healthcare and social care services. UKHSA is working to continue to improve the timely production of reports of the impacts of adverse weather on health (heat and cold) with partner agencies. UKHSA also commissions research on weather and health topics to inform future policy and guidance.

#### 5.4.7.1 Official statistics

[UKHSA collects and publishes statistics](#) related to planning, preventing and responding to adverse weather events, such as close monitoring of deaths from all causes or more specific aspects such as [National flu and COVID-19 surveillance reports](#) and vaccination update.

#### 5.4.7.2 Mortality reports

UKHSA provides [all-cause mortality surveillance](#) updates based on information provided by the General Registry Office (GRO). UKHSA publishes its cold and [heat related mortality reports](#) on the UKHSA website.

#### 5.4.7.3 Syndromic surveillance

UKHSA routinely monitors outputs from real-time syndromic surveillance systems including calls to NHS 111, GP in and out of hours daily (weekdays only) consultations and emergency department attendances, for the impact of adverse weather-related morbidity using a range of syndromic health indicators. Information on adverse weather-related illness will be included in routine [weekly surveillance reports published by UKHSA](#); these provide a source of intelligence on how severe the effects are and how well services are responding to them.

#### 5.4.7.4 Influenza surveillance

UKHSA routinely analyses and collates influenza data from a variety of sources producing a [national flu report](#) once a week during the winter season.

#### 5.4.7.5 Norovirus surveillance

UKHSA will continue to monitor outbreak reports from hospitals and laboratory reports of cases of norovirus throughout the winter and will publish a [weekly norovirus bulletin](#).

#### 5.4.7.6 Public health outcomes framework

The [public health outcomes framework](#) sets out desired outcomes and indicators to help us understand how well public health is being improved and protected. A number of indicators in the outcomes framework can be linked to long-term planning for severe heat and heatwaves. OHID will publish data on an online tool that allows local authorities to compare their achievements with other areas.

#### 5.4.7.7 Research collaborations

[Section 6.1.5](#) provides more information on current research collaborations as well as the possible establishment of future partnerships to develop research to meet evidence needs.

### 5.4.8 Quality assurance

UKHSA is formalising the quality assurance system it is running and the guidance for local areas focussing on improving their own quality assurance. This is aimed at ensuring the Plan remains effective and is being efficiently delivered in an equitable manner across all sections of the community on which it is impacting. It will encompass data analysis and monitoring ([Section 5.4.7](#)) and also include specific elements for quality monitoring.

#### 5.4.8.1 Quality Management System

A quality management system (QMS) for the AWHP is currently being initiated and will be developed in accordance with the [BS EN ISO 9001:2015](#).

#### 5.4.8.2 Auditing

After establishing the QMS, UKHSA will conduct regular internal audits to its conformity and in alignment with the BS EN ISO 19011:2018 guidelines for auditing management systems.

#### 5.4.8.3 Monitoring and evaluation

More information on the Plan's monitoring and evaluation can be found on [Section 5.9](#) and [Section 5.10](#), respectively, but forms the basis of our work, as noted previously, to ensure that the Plan is effective, efficiently delivered and equitable.

#### 5.4.8.4 Quality assurance at local level

The Plan has outlined 9 action areas against which organisations and partnerships can review their current plans with a view to improving their effectiveness and ensuring that longer term strategic actions for preparation and resilience are addressed as well as more immediate response activities. The weather and health alerting service has been updated and the registration process has changed. All NHS and local authority commissioners with LRFs should also review and audit the distribution of the new weather and health alerts across the local health and social care systems to ensure the alerts reach those that need to take action, and to ensure appropriate action is taken. The consequent actions to be taken are outlined in [Section 5.4.6.1](#) and [appendix 6](#), but all areas are still developing their services under the Integrated Care Partnerships and Systems.

Local areas need to adapt their review and audits to their specific situations and confirm the cascade systems are working appropriately. Particular care should be taken to ensure independent care homes, hospitals and healthcare providers are made aware of plans and of the specific risks and advice for their patients, residents and staff. Directors of Public Health will also wish to assure themselves that other local institutions (such as schools) are receiving alerts and are clear as to the actions to be taken consequent to receiving an alert.

### 5.4.9 Policy development and accountability

Appendix 1 outlines the responsibilities of organisations at national and local level on policy development in respect of weather and health and wider issues relating to climate change. Through this Plan, UKHSA will continue to work with partner organisations at national level to support a coordinated response to the challenges of climate change, adverse weather and health issues. This could include providing advice and guidance for policy development in non-health sectors, for example the impacts of expected changes in the climate on housing stock and health, including the health impacts of overheating and relevance to building standards and regulations.

At local level, it is up to local health champions to ensure that local policies and approaches are consistent with national guidance and with an approach that prioritises health. For example, the adoption of low-emission zones to reduce air pollution from road traffic, or ensuring that new housing developments have sufficient green and blue infrastructure which can help reduce the impact of urban heat islands.

#### 5.4.9.1 Climate Change Act and National Adaptation Programme

The Climate Change Act 2008 includes a responsibility for public agencies to adapt to climate change. Sector-specific strategies for national departments are presented in the National Adaptation Plans. The second National Adaptation Programme (NAP2) was published in 2018 and sets out the actions that government departments will take to address risks identified in the UK Climate Change Risk Assessment.

More information of policy arrangements will be provided in the 2024 edition of the evidence document.

#### 5.4.9.2 Parliamentary accountability

Governmental departments and agencies will continue to fulfil their policy requirements by providing ministerial briefings and answering parliamentary questions (PQ).

#### 5.4.9.3 From EPRR to resilience and long-term adaptation: governance and delivery

Existing local and regional infrastructure and channels can be used to support a shift to prevention and longer term planning on climate change adaptation activities. However, to do this requires a clear governance framework across the system which gives clarity about local policy frameworks and responsibilities for delivery across the system, standards to be delivered, and the levers which exist and how to leverage that support.

## 5.5 Activities

UKHSA has identified a range of activities to be implemented in support of delivery of this Plan and for the next iteration of the Plan (2024 to 2025). The list of activities will be defined according to:

- action areas
- delivery group
- activity code
- activity description
- accountable organisation
- responsible organisation(s)
- ISO week of expected implementation

- policy document defining that activity and the evidence document that supports the implementation of the activity (if applicable)

The development of these activities will be underpinned by the AWHP Supporting Evidence and its recommendations mapping.

## 5.6 Timeline

The following timeline highlights indicative significant dates for the 2023 to 2024 Plan implementation. These dates may be subject to change due and stakeholders will receive updates on any changes throughout the year.

**Table 1. Timeline of events for the 2023 to 2024 Plan implementation**

Date	Plan implementation
27 April 2023	AWHP 2023 to 2024 and associated materials publication
	Launch of the Weather Health Alerts platform and associated materials
	Start of the registration to new Weather Health Alert system from users
10 May 2023	AWHP 2023 to 24 launch webinar
11 May 2023	Summer 2023 preparedness programme webinar
31 May 2023	UKHSA heat-related mortality summer 2022 final report
1 June 2023	Start of Heat-Health alerting season
7 September 2023	Winter 2023 to 2024 preparedness programme webinar
	Publication of the reviewed cold weather guidance
30 September 2023	End of Heat-Health alerting season
19 October 2023	Mid-year AWHP Webinar
	Publication of the reviewed flood guidance
26 October 2023	Flood and mental health guidance webinar
1 November 2023	Start of Cold-Health alerting season
16 November 2023	Launch of AWHP equity review
22 February 2024	AWHP 2024 to 2025 and associated materials publication
29 February 2024	AWHP 2024 to 25 launch webinar
14 March 2024	Summer 2024 preparedness programme webinar
31 March 2024	End of Cold-Health alerting season



## 5.7 Target populations

Some groups of people are especially vulnerable to the health effects of severe weather conditions, such as very hot or cold weather. At-risk groups include older people, the very young and people with pre-existing medical conditions as well as those whose health, housing or economic circumstances put them at greater risk of harm from adverse weather.

While actions taken by health and social care sector during adverse weather events may relieve part of the health impacts, multi-agency action is required to address wider determinants of health, such as socioeconomic inequalities, fuel poverty and housing energy efficiency.

The [supporting evidence document](#) for this Plan provides more information on which groups may be at particular risk from heat and cold.

## 5.8 Health inequalities

The supporting evidence provides more information on the approach to elucidate gaps and recommends areas for further development and implementation within the Plan (supporting evidence, Chapter 3).

An equity review analysis will be produced by November 2023.

## 5.9 Monitoring

The Plan will be monitored according to the indicators defined in appendix 5. The indicators are organised by:

- indicator type (input, activity, output, outcome, impact)
- description of indicator
- source organisation
- metric used
- when the indicator should be monitored
- target to be achieved
- global indicator being met (SDG indicator or Sendai Framework indicator)

Current routine data sources use surveillance data and a small number of impact reporting processes (for example indicators of presentations to health services during alerting episodes) and may not capture process or delivery indicators at regional or local level. Where available, UKHSA will provide disaggregated data by region, gender, and age on relevant indicators.

Important activities for 2023 to 2024 include increasing sources of information, obtain information for indicators denominators, and establish of key performance indicators for the delivery of activities.

UKHSA also aim to launch a public version of the Plan's PowerBI real-time monitoring platform, to track implementation progress at national, regional, and local level by 2025.

## 5.10 Evaluation

UKHSA will work together with partners to prepare an annual report, during the second quarter of each year.

The report will address:

- short description of the implementation progress by hazard and by areas of action
- indicators analysis
- recommendations for improvement in future Plan iterations

By 2025, the annual report will also include important conclusions from audits conducted on the Plan. A shorter mid-year report will also be produced, to report on the ongoing progress in Plan implementation. The report will be produced by UKHSA and will focus on a limited number of indicators and recommendations for future Plan iterations.

The impact of the Plan will be evaluated in more detail after 5 years, under a post-test design, where the outcome and impact indicators of the Plan will be compared with other nations in the UK and Europe.

## 5.11 Sustainability

The Plan will continue to receive continuous improvements, building on the lessons learned from its previous editions, as well as internal audit reports.

The supporting evidence document also provides a recommendations mapping, summarising a series of further actions which would support climate change mitigation and adaptation. These recommendations should be implemented according to the available resources and should be considered as part of long-term strategic planning across the different delivery groups.

### 5.11.1 Total economic costs of heat-related mortality

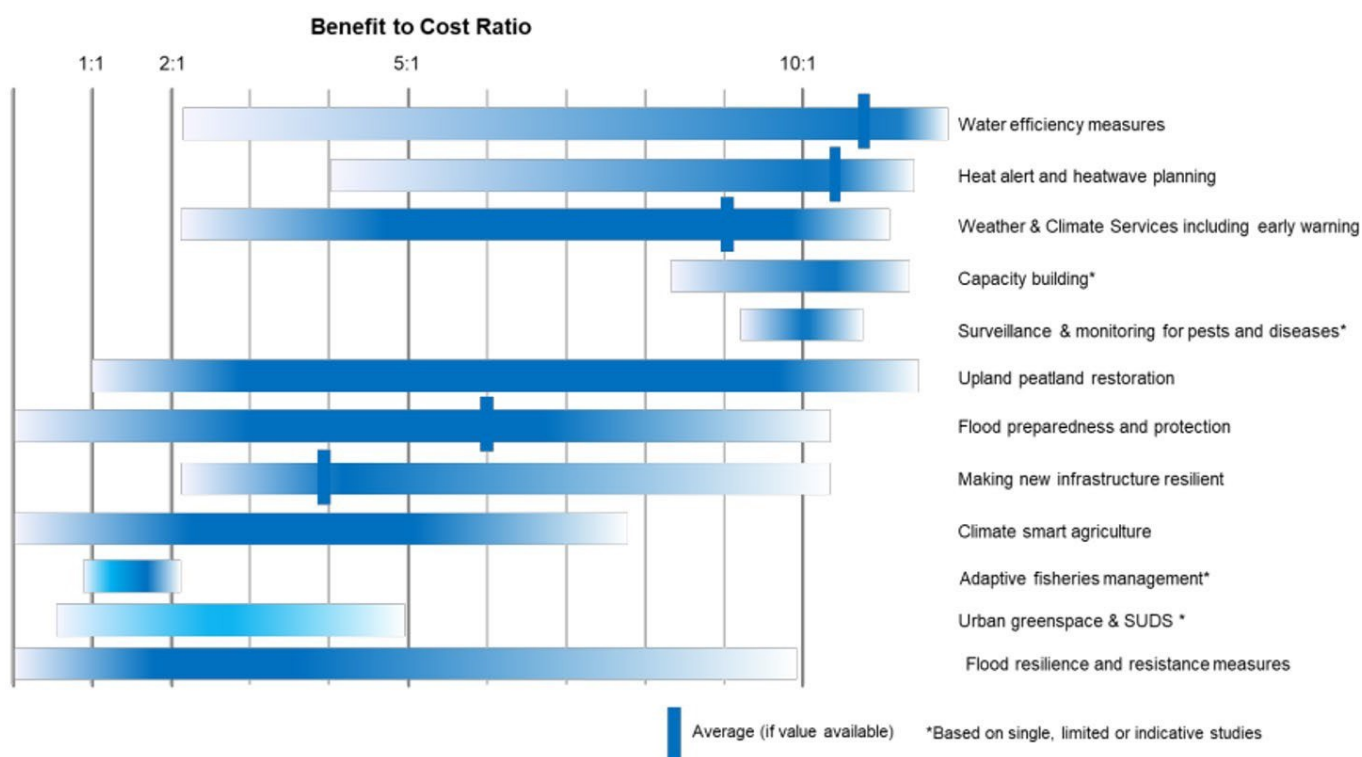
The projection of total economic costs of heat-related mortality from climate change and socio-economic change in England in this decade amounts to approximately £6.4 billion pounds per year, according to the [Monetary Valuation of Risks and Opportunities in CCRA3 \(table 42\)](#).

### 5.11.2 Benefit to cost ratio and return of investment

The [Monetary Valuation of Risks and Opportunities in CCRA3](#) also identifies many early adaptation investments that deliver high value for money. The benefit-cost ratios typically range from 2:1 to 10:1, meaning every £1 invested in adaptation could result in £2 to £10 in net economic benefits. Some of them relate to the Plan’s implementation:

- heat alert and heatwave planning – above 10:1
- weather and climate services including early warning – above 10:1
- capacity building – around 10:1

**Figure 2. Benefit to cost ratios for adaptation for selected CCRA3 risks**



By 2025, a cost effectiveness chapter will be added to the Plan’s annual report, which will also capture the Plan’s specific return of investment.

## 6. Appendices

### 6.1 Appendix 1: delivery groups

The Plan will be implemented and delivered by a range of groups and organisations working in partnership across sectors and at different levels. There are 7 delivery groups referred to in the Plan including national delivery, regional delivery, local delivery, other governmental departments, academia, third sector and private sector. This section outlines the primary roles and responsibilities of the groups and organisations in relation to adverse weather and health (P2, P7).

#### 6.1.1 National delivery

The organisations in this section have different responsibilities in relation to adverse weather planning, guidance, and health. Some organisations also have roles in operational delivery in response to adverse weather events alongside regional and local colleagues.

Health is a devolved responsibility in the UK, and this document only applies to the health system in England. While UK-wide institutions may have a role in adverse weather planning in England, this does not confer responsibility for adverse weather planning to them for devolved governments elsewhere in the UK, unless formally agreed between these institutions and devolved governments.

##### 6.1.1.1 UKHSA

UKHSA provides expert public health advice, support and services tailored to local needs. UKHSA is a Category 1 responder under the Civil Contingencies Act 2004, providing specialist advice and support to emergency services, NHS England, Local Authorities, communities, and the wider public.

UKHSA provides specialist adverse weather advice and guidance to health and social care professionals, other emergency responders and the public via GOV.UK, NHS England, and Met Office websites, as well as targeted communications during a Weather Health Alert.

UKHSA is responsible for the preparation, review, and publication of overarching adverse weather and health plans. This includes monitoring and evaluating Plan implementation using the current legal frameworks and organisational arrangements defined herein. UKHSA will ensure that the Plan, and its associated guidance and platforms are widely communicated using a variety of channels.

##### 6.1.1.2 Cabinet Office

The Cabinet Office has an important role at local and national level response as a Category 1 responder. The Cabinet Office is the lead government department for central response and

supports government departments in working together effectively when responding to an emergency. It does this by creating crisis management arrangements that are understood and used across all central government.

During a Weather Health Alert escalation, the Cabinet Office COBR Unit coordinates response functions. Depending on the alert, a Summer or Winter Resilience Network meeting is scheduled with OGDs to discuss the level of impact expected across sectors, which is then used to determine national and regional emergency response activities.

CO coordinate dynamic risk assessment (DRA) meetings as the situation develops with feedback from OGDs on whether the alert and its associated warnings need to be modified or prolonged based on weather forecast and response needs.

#### 6.1.1.3 Department of Health and Social Care (DHSC)

DHSC is responsible and accountable for the delivery of co-agreed plans and commitments such as the delivery of the health elements of the [National Adaptation Programme \(NAP\)](#). This includes the development of a single adverse weather and health plan under Section 4.6 of the NAP. DHSC sets the strategic remit and priorities for UKHSA including through an annual remit letter.

DHSC also holds responsibility for policy decisions regarding excess weather-related morbidity and mortality monitored and reported by relevant UKHSA teams. UKHSA develops actions with regards to health harms from climate change and outline activities to be delivered over a 5 year period.

During escalated adverse weather events (Weather Health Alerts with high impact and medium or high-likelihood), DHSC coordinates health and social care sector response activities between UKHSA and the NHS England. DHSC's role includes but is not restricted to coordinating health and social care sector DRA and response in partnership with UKHSA and NHS England, and delegating parliamentary responses and updates.

#### 6.1.1.4 Office for Health Improvement and Disparities (OHID)

As part of DHSC, OHID brings together expert advice, analysis and evidence with policy development and implementation to shape and drive health improvement and equalities priorities for government. OHID works across government, the healthcare system, local government, and industry to achieve these aims, particularly with a focus on health improvement, reducing health disparities and preventable risk factors affecting the health of the population.

They lead the development and implementation of healthcare services policy framework, to ensure it is shaped and driven in health improvement and equalities priorities for the government.

OHID produces [official statistics](#) for use across the government, the health system and wider. These statistics can be used by all organisations to monitor the population health outcomes, but also to monitor the effectiveness of public health initiatives and impacts of adverse weather events through various markers and publications.

OHID also has regional roles which are covered later in this section.

#### 6.1.1.5 NHS England

NHS England is a Category 1 responder, and it is responsible for NHS emergency preparedness resilience and response (EPRR) in healthcare delivery in England. NHS England is required to ensure that organisations have system-wide emergency plans for a range of incidents including preparation for adverse and extreme weather events.

The NHS England EPRR plans are linked with UKHSA weather guidance and alert systems to ensure the health system has prepared ahead of seasonal weather warnings, as well as during an adverse weather alert. This aims to protect patients, employees and the public in need for medical assistance from weather related harm. In situations of severe weather disruptions to health care delivery, DHSC and the Cabinet Office coordinate emergency activities, ensuring support is provided to ease NHS England pressures.

NHS England provides national leadership for improving health care outcomes and supports the local [integrated care systems \(ICSs\)](#).

#### 6.1.1.6 Met Office

The Met Office is the UK's national weather service and a Category 2 responder. Its Public Weather Service (PWS) provides forecasts for the public to help them make informed decisions about their everyday activities.

The Met Office issues weather warnings through the National Severe Weather Warning Service (NSWWS) for severe weather that has potential for impact to the UK. The NSWWS is covered later in the sub-section on early warning systems. The Met Office ensures adverse weather alerts are disseminated to government departments and agencies responsible for cascading weather warnings to minimise the impacts of adverse weather events in several sectors.

UKHSA and the Met Office are delivering a dedicated platform for Heat-Health Alerts in April 2023 which will also include Cold Health Alerts by autumn 2023. UKHSA and the Met Office carry out horizon scanning to assess level of weather impacts forecasted over a 3 month period as well as weekly review.

During an adverse or adverse weather event with a with high impact (and medium or high likelihood) on health, they issue an alert with information on the level of probability of impact and for which regions within England. UKHSA is responsible to cascade the alert information to government departments, health and social care sectors, local authorities and the public to

ensure the alert is well communicated with guidance and actions to protect public health and reduce pressures on the health and social care sector.

#### 6.1.1.7 Local Government Association (LGA)

The LGA supports the delivery of governmental policy and how it is shaped and delivered through partnership at the local level.

The LGA provides a range of practical support to local councils to enable them to exploit the opportunities that the approach to improvement provides. The LGA produces guidance and provides advice to councils, allowing them to respond effectively to adverse weather events (as well as providing other support).

The LGA also represents the interests of local authorities at national level, supporting development of relevant plans and policies that affect them, and that they will deliver as part of their devolved responsibilities.

#### 6.1.1.8 Department for Levelling Up, Housing and Communities (DLUHC)

DLUHC is responsible for delivering housing, supporting communities, overseeing local government, and planning and building safety.

DLUHC's Resilience and Emergencies Division (RED) play a significant role in strengthening local communities, by providing a link between central government and local partners in preparing for, responding to and recovering from incidents and emergencies. They are an essential part of CCA structures, with emergency response operations locally, working closely with the Cabinet Office's COBR Unit and lead with governmental departments and across LRFs.

DLUHC are the lead for LRFs coordination. LRFs are multi-agency partnerships made up of Category 1 and 2 responders from local public services, including the emergency services as well as local voluntary organisations.

As part of the NAP, DHSC, DLUHC and UKHSA work in partnership on how best to tailor respective commitments and actions such as improving housing conditions to address overheating in buildings and prevent ill health.

#### 6.1.1.9 Department for Environment, Food and Rural Affairs (Defra)

Defra is the lead department for the flooding capability workstream, working closely with both the Environment Agency and Cabinet Office. During flood events and emergencies. Defra provides daily situation reports detailing impact of flood event in areas affected, transport disruption, updates from lead governmental bodies such as DLUHC, Department for Transport, DESNZ, DCMS and agencies such as Environment Agency, with reports on actions and communications.

UKHSA supports Defra flood relief plans, focussing on health impacts communications, as well as disseminating guidance material to healthcare sector. Defra is lead government body for coordinating working groups across governmental and executive agencies to develop strategies and actions based on the climate risks and opportunities reported in the [UK Climate Change Risk Assessment](#).

## 6.1.2 Regional delivery

The UKHSA and OHID have regional teams and functions as well as its national functions described earlier in this document. The expertise from these 2 organisations is critical for the health protection (UKHSA) and health improvement (OHID) functions. Both organisations work closely with regional organisations and local organisations (including local authority Directors of Public Health, health and social care providers and third sector organisations) to ensure that the plans made for response as well as longer term adaptation/mitigation to adverse weather are comprehensive and alert to the risks derived from severe weather events.

The detail of this section focuses primarily on those organisations that have responsibilities in public health, healthcare, and social care service delivery. There are other relevant organisations within planning for adverse weather events that have responsibilities additional to those listed here that must ensure that they have adequate plans in place to protect service delivery and adaptation measures to mitigate the impact of adverse weather events.

Many organisations mentioned in this Plan have different organisational boundaries that may not align to each other. There will be overlaps and differences between organisations and the approaches that these regional and local delivery arms take. It is for regional and local colleagues and organisations to ensure that they are cognisant of these boundaries and ensure they engage comprehensively with others within their footprint.

### 6.1.2.1 UKHSA pan-regional Health Protection Teams

The UKHSA has 9 regions in England: North East, North West, Yorkshire and the Humber, East Midlands, East of England, West Midlands, South East, South West, and London.

[UKHSA regional teams](#) have several functions relevant to adverse weather and health, which include the provision of local health protection services, expertise, response and advice to the local NHS, local authorities, and other partners, and investigating and managing health protection incidents.

### 6.1.2.2 OHID regional

OHID's regional teams support the delivery of national and regional priorities for prevention and health inequalities and ensure that there is a joint approach to public health, building strong interfaces with different teams and areas of public health across the regional system. OHID's regional teams are focused on delivering strategies for health improvement, which include the impact of the built environment in health and wellbeing. OHID Regions provide a single point of



access to the full range of OHID's specialist skills and knowledge to support the implementation of public health initiatives at local and regional levels within a nationally consistent framework.

### 6.1.3 Local delivery

It is the responsibility of each local area to ensure that preparedness and response plans are created, tested, and regularly monitored to ensure high quality services, and to protect health and wellbeing of their populations, patients and clients during adverse weather events.

This Plan provides recommendations for local authorities and their NHS partners. Local authorities should consider the actions and activities in this Plan and adapt them as appropriate to their local needs.

Local authorities and the NHS England should use the Plan as a guide for wider adverse weather planning and other climate change adaptation arrangements. Local teams from Integrated Care Boards, NHS England and UKHSA will support, advise, and help to coordinate these adaptation arrangements as required by local areas and appropriate for their demographics.

All local authorities, NHS commissioners and their partner organisations should consider the suggested actions in this Plan and familiarise themselves with the alerts. Local adverse plans and climate change adaptation plans should be reviewed accordingly with the recommendations of this Plan and associated guidance.

It is the responsibility of each local area to ensure that preparedness and response plans are drawn up and tested. While not an exhaustive list, these responsibilities include:

- taking a system-wide, strategic approach to protect the health of their population, patients, clients, and workforce during adverse weather events (linking with structures including LRFs, LHRPS, ICSs and others), working together to deliver clearly defined plans that implement
- developing plans of action to reduce exposure to adverse indoor temperatures (either hot or cold)
- developing a specific and detailed plan for how they will protect the most vulnerable people in their local areas in the case of adverse weather events
- ensuring that health and social care providers, and their associated systems, have preparedness plans in place for a variety of adverse weather events
- delivering training and planning for professionals and staff across their services in response to adverse weather
- ensuring that their estates, facilities and other physical infrastructure are prepared for the impacts of a variety of adverse weather events, including:
  - ensuring the wellbeing of patients, clients and their workforce in these settings

- ensuring that service delivery can continue in each of those adverse weather events
- developing a framework and plans for how voluntary, community and third sector organisations will meet all these requirements for the services that they deliver on behalf of health and social care commissioners or systems

More detail on these responsibilities, and how they should be actioned in relation to specific types of adverse weather incident, can be found in accompanying action cards that will be developed alongside this Plan.

#### 6.1.3.1 Integrated care systems (ICSs)

ICSs are partnerships of organisations that come together to plan and deliver joined up health and social care services, and to improve the lives of people who live and work in their area. ICSs bring partner organisations together to improve outcomes in population health and healthcare, tackle inequalities in outcomes, experience and access, enhance productivity and value for money and help the NHS support broader social and economic development.

For the purposes of adverse weather planning, ICSs and its constituent statutory groups and local health and social care organisations, including local authorities, NHS organisations and others, should ensure that there is adequate consideration and planning for broad regional co-operation and planning for adverse weather events to protect patients and clients.

ICSs are constituted of 2 core statutory groups:

- Integrated Care Partnerships (ICPs): shared group of the ICB, all upper-tier local authorities and local partners focused on improving the health, wellbeing and care of the population within its remit
- Integrated Care Boards (ICBs): focused on meeting the health needs of the population, managing the NHS budget and arranging provision of health services in the ICS area

ICPs and ICBs both have statutory remits that require protection of public health and service delivery in the event of adverse weathers events. As a Category 1 responder, the ICB must lead on the development of local resilience plans to ensure delivery affecting one or multiple areas within their footprint and creating strategies and approaches to ensure health and wellbeing of the public, patients and staff. It is for these ICB areas to define and develop these approaches. NHS England and ICBs will co-ordinate health services at the LRF level ([Section 6.1.3.4](#)), and ICBs will ensure co-ordination across local ICSs. The LHRP ([Section 6.1.3.5](#)) and local EPRR planning groups facilitate this partnership working.

Local authorities in the [Integrated Care System](#) area are responsible for social care and public health functions, as well as other vital services for local people and businesses. ICBs and ICPs will support, advise, and help to coordinate these arrangements as required, and will need to

consider the effects of adverse weather events on the broader population groups in their footprints.

### 6.1.3.2 Local Authorities

Local authorities are local government authorities with varying levels of remit, dependent on the level of responsibility devolved to them. Responsibilities for elements of planning for adverse weather events are devolved to local authorities, though depending on local arrangements these may take place in other fora, or delivered by or in partnership with other local or regional organisations or providers.

Local authorities are Category 1 responders under the CCA, and have duties to discharge as part of the Act. Local authority County Councils and Unitary Authorities are responsible for social care, public health (in partnership with and supported by OHID, UKHSA, and Directors of Public Health), emergency planning and housing among many other responsibilities.

These functions and others are critical for health and wellbeing of their population, but also ensuring continuity in the services they provide in adverse weather.

Local authorities must undertake their own local planning, as well as contributing to and taking forward regional plans and other plans as part of LRFs, ICPs and other planning structures. Local authority county councils and unitary authorities are responsible for the delivery and management of adult and children's social care in their local area. As such, local authorities are responsible for developing plans to ensure that these services are resilient in the event of adverse weather that risks the delivery of these services, or the health and safety of their clients. This includes those that may provide services on their behalf.

Two-tier local authorities will need to ensure that both tiers understand their individual and collective roles and responsibilities in mitigating against, preparing for and responding to adverse weather events and coordinate their plans accordingly. These roles and responsibilities should be clearly reflected in their own local planning and staff need to be aware of their roles, and that of their services, in the event of adverse weather.

### 6.1.3.3 Social care providers

Social care in England includes both adult social care and children's social care. Local authorities are responsible for assessing an individual's needs and, if eligible, funding their care. Care may be provided by a wide range of organisations including independent home and residential care providers and voluntary sector organisations. Some people employ personal assistants to provide their care and support. Care or support may be provided in care or nursing homes (residential care) or in the individual's own home (domiciliary care). Children's social care provides care and support to children with physical or learning disabilities and looked after children. Adult social care provides care and support to adults with physical or learning disabilities, or physical or mental illnesses.

#### 6.1.3.4 Local Resilience Forums (LRFs)

LRFs bring together emergency planning and response arrangements run by local government, the NHS and other partners for adverse weather events such as cold weather, heatwaves and flooding. To coordinate multi-agency response, LRFs may convene a Strategic Co-ordinating Group (SCG).

LRFs are multi-agency partnerships made up of Category 1 and Category 2 responders as well as voluntary organisations in local areas as defined by the Civil Contingencies Act (2004).

LRFs adapt, review and audit the distribution of the weather alerts across the local health and social care systems, for example independent care to ensure the alerts reach those that need to take appropriate actions immediately after issue.

LRFs should seek assurance from organisations and key stakeholders on appropriate actions are taken detailed in weather alert messages. Local areas should amend and adapt this guidance and procedures for staff and organisations in a way which is appropriate for the local needs and requirements. It is the responsibility of each local area to ensure that preparedness and response plans are drawn up and tested. These organisations are brought together to provide strategic co-ordination of commissioning, planning and response at local level as per the Civil Contingencies Act 2004 and guidance issued by the Cabinet Office, DHSC, UKHSA, NHS England and the DLUHC.

#### 6.1.3.5 Local Health Resilience Partnerships (LHRPs)

LHRPs are a local strategic forum for joint planning for incidents and consist of local health organisations to deliver on national EPRR strategies in the context of local risks. These partnerships will support the health sector's contribution to the multiagency planning through the LRFs.

LHRPs ensure that the health sector in local areas co-ordinate multi-agency planning and response, based on their responsibilities and the remits of agencies and providers in that local area. This includes representatives from Directors of Public Health (as part of Local Authorities), and Regional Directors of Public Health (as part of OHID). LHRPs are not a statutory organisation and accountability for EPRR remains with individual organisation.

#### 6.1.3.6 Directors of Public Health (DsPH)

DsPH are responsible for public health, within their local authority and have a number of statutory and non-statutory duties, particularly in health protection, health improvement, and healthcare public health.

DsPH are responsible for exercising their local authority's functions in planning for, and responding to, emergencies that present a risk to the public's health. This includes plans and responses to adverse weather events, and DsPH will use the AWHP to support the delivery of these responsibilities in their local areas.

It is the responsibility of the DsPH to provide leadership on this emergency preparedness and response, but also to work through LRFs to ensure that effective and tested plans are in place for the wider health sector to protect the local population from risks to its health. DsPH also work with colleagues in their local authority on children and adult social care services, as well as NHS colleagues, and should ensure that their resilience planning activities include continuity for these services.

Vulnerable populations within specific footprints must have explicit plans in place to ensure their unique needs are planned for. Additionally, DsPH should create their plans in a way that are cognisant of differential impacts on health, and health inequalities in local populations of their local authority footprint.

#### 6.1.3.7 Health and Wellbeing Boards (HWBs)

HWBs act as forums for commissioners across the NHS, social care and public health systems and are responsible for Joint Strategic Needs Assessments (JSNAs) and health and wellbeing strategies to inform commissioning. Engagement with these boards for the long-term strategic preparation for health impacts related to climate change mitigation and adaptation is critical. This will help to reduce the risks and harness the opportunities to improve health more holistically which will include aspects such as tackling the poor-quality housing.

HWBs are statutory committees of local authorities, and ICB and ICPs must have regard and build on the work of HWBs. HWBs must be engaged in adverse weather planning to ensure that communities, business, civil society organisations and the wider system are engaged and prepared for the nature of adverse weather plans when implemented. These organisations and groups must collaborate on a Joint Strategic Needs Assessment. All organisations must carefully consider the needs of vulnerable groups within their local populations. DsPH also sit on the HWB for their area, and this is a statutory requirement.

#### 6.1.4 Other governmental departments, agencies, and regulators

The UK government as a whole is responsible for keeping the population healthy and well. Each of the organisations covered in this action have roles, responsibilities, functions, or policies in place that support health and wellbeing of the public, patients or clients during adverse weather events. While these are not explicitly part or mapped across directly to the detail of this Plan, these roles, responsibilities, functions or policies are adjunct to work in this area and should link into the detail and broad approaches of adverse weather planning.

This section describes these roles, responsibilities, functions, or policies broadly. More detail can be found with the relevant government departments and organisations below.

#### 6.1.4.1 Care Quality Commission (CQC)

CQC is the independent regulator of health and adult social care in England. CQC ensures health and social care services provide people with safe, effective, compassionate, high-quality care, encourages care services to improve.

CQC covers the issue of safe environments for people who use services as part of our quality assessment framework. The CQC reviews this within the 'safety' and 'well-led' domains, which are 2 of the 5 domains CQC looks at when it assesses quality.

The CQC highlights the issue of adverse weather, and appropriate emergency planning and preparedness to the providers it regulates through various channels, including signposting to guidance, and coverage on social media channels during adverse weather events.

The CQC assesses this preparedness in the following regulations:

- Regulation 12: Safe Care and Treatment
- Regulation 15: Premises and Equipment
- Regulation 17: Good Governance

#### 6.1.4.2 Ministry of Defence (MoD)

The MoD and the armed forces can deliver a critical resilience function in the case of serious or significant events across the UK, including those as a result from adverse weather, when civil capabilities and capacities are overwhelmed by an incident. If civil authorities require assistance, then military aid to the civil authorities (MACA) allows them to draw upon specific expertise held within defence, to deliver additional capacity to local responders and organisations, or intervene directly in the most serious events. Further details of military support to civil capabilities in the event of serious or significant events can be found in the [Joint Doctrine Publication](#).

#### 6.1.4.3 Department of Energy Security and Net Zero (DESNZ)

DESNZ holds responsibility for the UK government's energy resilience in the event of weather-related hazards, as well as other civil contingencies and disruption to energy supplies. [DESNZ publishes detailed guidance for the resilience of UK energy supplies](#) in the event of adverse weather emergencies.

DESNZ is also responsible for areas including fuel poverty and policies relating to that, such as winter fuel allowances and other policies initiatives to support consumers and organisations to maintain stable temperatures or environments during adverse weather events.

#### 6.1.4.4 Department of Work and Pensions (DWP)

DWP keeps people healthy and well through welfare payments and benefits initiatives when they are unable to work or require additional support. Their responsibilities play an important role in health and wellbeing and services support population health protection work. As well as

welfare and benefits, DWP also administers the Warm Home Discount Scheme, Cold Weather Payment and Winter Fuel payment.

Public health messages from UKHSA, NHS England and AgeUK are distributed alongside the information regarding DWP services. These messages provide a crucial function in ensuring that some of the most vulnerable people in the UK are receiving advice on how to stay well during adverse weather events.

#### 6.1.4.5 Environment Agency (EA)

The EA is an executive agency of Defra responsible for regulating major industry and waste, treatment of contaminated land, water quality regulations, fisheries, managing of riverways and improving conservation and ecology in England.

EA is also responsible for managing flood risk and support the local flood authorities that prepare and protect local communities from flood events and their recovery.

#### 6.1.4.6 Health Safety Executive (HSE)

HSE is the UK's national regulator for workplace health and safety, their responsibility is to develop guidance and deliver standards to prevent work-related death, injury, or ill-health. They are an executive non-departmental public body sponsored by the DWP.

The HSE's role in ensuring that places of work are able to maintain safe environments for the workforce is critical. All settings and organisations in this Plan must comply with these regulations and plan for eventualities in adverse weather to ensure the health and wellbeing of all who work in services in these settings or work in them to ensure service continuity.

#### 6.1.4.7 Ministry of Justice (MoJ)

The MoJ is responsible for prisons and justice and must put in place plans to protect prisoners and staff in jails in the event of adverse weather. These plans will need to be developed to balance the considerations of prisoner and staff wellbeing as well as ensuring the continuity of safety, security and order in these settings.

#### 6.1.4.8 Department for Transport (DfT)

It is the responsibility of DfT and its executive agencies (such as National Highways and Network Rail) to create guidance and plans to respond to the effects of adverse weather on travellers and transport infrastructure.

#### 6.1.4.9 Department for Education (DfE)

DfE is responsible for: teaching and learning for children in the early years and in primary schools and secondary schools, apprenticeships, further education and higher education, as well as supporting children and young people to achieve more, and that local service protect children.

It is for the DfE to support local authorities, schools and higher education institutions to develop tools and approaches to adverse weather to ensure that learners of all ages are able to stay well and enjoy a positive learning environment.

#### 6.1.4.10 Scientific Advisory Group for Emergencies (SAGE)

SAGE provides scientific and technical advice to support government decision makers during emergencies. While many emergencies can be handled locally without the need for assistance from central government, sometimes the extent, scale, duration, severity, and potential complexity of an emergency mean that assistance and/or support is required.

SAGE is activated by the Cabinet Office Briefing Rooms (COBR) in response and/or recovery for certain level 2 or 3 emergencies requiring expert technical or scientific advice, or other criteria leading to the activation of SAGE as determined by COBR. Adverse weather and associated level 2 or 3 emergencies may require activation of a SAGE group.

#### 6.1.4.11 Medicines and Healthcare products Regulatory Agency (MHRA)

Medicines, healthcare products and blood components for transfusion require careful storage and have specific requirements around the environmental conditions for their use, particularly relating to temperature (though this will vary by product or medicine). The MHRA has specific guidance, regulations and requirements relating to storage of medicines, medical products and blood components.

### 6.1.5 Academia, societies and professional organisations

#### 6.1.5.1 Health Protection Research Unit (HPRU)

The National Institute for Health and Care Research (NIHR) HPRU consists of 14 HPRUs across England, each HPRU undertakes high quality research that is used by UKHSA to keep the public safe from current and emerging public health threats.

The NIHR HPRU in Environmental Change and Health is a partnership between The London School of Hygiene and Tropical Medicine, UKHSA, Met Office and University College London. It undertakes a programme of research and training to improve understanding of the impacts on health of climate change and other environmental challenges, the actions needed to protect health, and the opportunities for improving health of policies aimed at reducing emissions of greenhouse gases.

The NIHR HPRU in Emergency Preparedness and Response is a partnership between King's College London, UKHSA and the University of East Anglia. The mission of this HPRU includes the development of research to minimise the impact of emergencies, such as episodes of major flooding, heatwaves, and climate change.



### 6.1.5.2 Other academic partnerships

In October 2022, UKHSA launched our Centre for Climate and Health Security (CCHS) to lead UKHSA's climate health activity, providing a focus for partnerships and collaborations with academia, local authorities, and other public sector organisations. The creation of this centre will also streamline the academia engagement with UKHSA on the topics of climate change, weather, and health.

The UKHSA's academic partnerships provide rich sources of research and data on which the UKHSA can provide clear evidence for its interventions to support public health and adverse weather planning. This information is critical to ensure that interventions are effective, and to provide research that supports the minimisation of health impacts of emergencies.

Current partners include:

- partners previously mentioned in the HPRU subsection
- University of Bristol
- University of Brighton
- University of West of England
- University of Surrey

### 6.1.5.3 Association of Directors of Public Health (ADPH)

The ADPH represents DsPH on public health policy at the local, regional, national and international and provides a professional network for DsPH to collaborate, and to share ideas and best practice. These networks and guidance provide direction and support for colleagues in local areas to implement strategies and adaptation activities for adverse weather.

### 6.1.5.4 Royal Colleges

Medical Royal Colleges are professional bodies in the UK that set curricula for doctors in training, organise elements of supervision and set standards for medical practitioners for all doctors within that specialty.

Medical Royal Colleges provide strategies for ensuring the work of their practitioners is sustainable and resilient to climate change, including adverse weather. They do this by updating curricula, providing bespoke training and providing best practice examples and resourcing to support their members to practice effectively in the context of a changing climate.

### 6.1.5.5 Faculty of Public Health (FPH)

The FPH's role is to improve the health and wellbeing of local communities and national populations. For adverse weather, they support public health practitioners with data, research and best practice to support the development of strategies to protect populations in defined geographical areas, ensuring protection of the whole population in that area (including specific attention to vulnerable populations).

## 6.1.6 Voluntary and community services

UKHSA encourages voluntary and community sector (VCS) to use this Plan to develop their own local plans. There are sector specific guidance and action cards available to help in the planning and preparation for the adverse weather.

UKHSA also encourages the VCS to connect with their local authorities, ICSs, local NHS trusts, commissioners or other relevant bodies identify the opportunities and any gaps in their planning, and how their respective system can work effectively together for adverse weather planning. NHS England and local authority commissioners and providers should take opportunities for closer partnership working with these groups.

VCS covers a wide variety of organisations from organisations with a very specialist focus on a specific condition or type of provision, organisations who focus on a specific client group or community, broader-based providers, emergency response organisations, campaigning organisations, representative groups, community centres. This broad range of support different groups can provide should be considered at all levels of planning and response, and it is important that they are involved at the earliest opportunity, as trusted links take time to build.

VCS providers that specialise in health and social care are vital and many of these will already be well linked into the health and care system; however, the wider voluntary and community sector (for example, community centres, recreational groups, social groups, parish councils in rural areas and neighbourhood forums in urban areas) can also have an important role to play, particularly for example in reaching vulnerable people not already engaged with statutory services – these organisations are much less likely to be linked in with statutory bodies or providers and may need information to understand their role and why adverse weather planning and response is relevant to them.

The wider VCS can also be involved as a provider of resources, such as equipment (blankets, sleeping bags, stoves), facilities (emergency accommodation) or people (volunteers, signposting). Strong links with local older people's forums are essential, providing partners with information to help identify and support those most at risk.

Local infrastructure organisations and local umbrella bodies are a good initial route into the local voluntary and community sector; they can communicate messages, identify organisations that represent communities and co-ordinate partnerships of sector bodies.

Some national VCS organisations that have roles in this area are listed here. This is not presented as an exhausted list, rather as an example of organisations offering support. There will also be organisations and charities that provide specific levels of support in local or regional areas.

#### 6.1.6.1 Voluntary Community Sector Emergencies Partnership (VCSEP)

VCSEP is hosted by the British Red Cross and help to build local, regional, and national systems and processes to bring together organisations inside the sector and beyond. These ensure that organisations understand each other's needs and capabilities prior, during and in the recovery stage of an emergency. They have information and links from various government agencies including the UKHSA and voluntary sector organisations to cold and heat guidance for the public.

#### 6.1.6.2 British Red Cross

The British Red Cross provides practical, local and emotional support to people around the UK. In the event of adverse weather events, the British Red Cross provides preparation advice, how to respond to an emergency and stay safe during adverse weather events.

#### 6.1.6.3 Town and Country Planning Association (TCPA)

The TCPA works to support people and organisations to create healthy, sustainable and resilient places that fair for all. This includes publishing research, training, influencing policy and support delivery of actions and best practice.

#### 6.1.6.4 AgeUK

AgeUK is a charity focused on support older people in a variety of difficulties and emergencies that they may face. In the event of adverse weather, they will provide wellbeing support to those affected.

#### 6.1.6.5 Homeless, Shelter and Crisis

Organisations such as Homeless, Shelter and Crisis provide invaluable support to homeless people in the UK. In the event of adverse weather, these organisations provide support directly to homeless people on staying safe in those conditions.

#### 6.1.6.6 National Energy Action (NEA)

The affordable warmth charity, National Energy Action (NEA), has previously worked with other partnership referral schemes across the country with frontline staff. NEA advocates asking 3 main questions at contact assessment stages to identify those who are at risk of living in fuel poverty and in cold homes.

### 6.1.7 Business and retail sector

The Plan provides not only recommendations to the public but also for the business and retail sectors. In future iterations of the Plan, the UKHSA will wish to work with the private sector to consider how to develop guidance for businesses, companies, and small and medium enterprises and to strengthen public-private partnerships to improve the nation's resilience to adverse weather events. This will require the establishment of links with organisations representing the voice major industries and SME business associations.

## 6.2 Appendix 2. Heat guidance

Name	Type	Target Population	Audience	Organisation(s)	Latest review	Next Review
Supporting vulnerable people before and during hot weather: for social care managers, staff, and carers	Guidance	Vulnerable people	Care home managers	UKHSA, DHSC	Jul 2022	May 2023
Supporting vulnerable people before and during hot weather: for healthcare professionals	Guidance	Vulnerable people	H&SC professionals	UKHSA, DHSC, NHS England	Jul 2022	May 2023
Looking after children and those in early years settings during heatwaves: for teachers and professionals	Guidance	Children	Teachers and related professionals	UKHSA, DfE	Jul 2022	Jun 2023
Hot weather advice: planning events and mass gatherings	Guidance	Event participants	Event organisers	UKHSA	Jul 2022	May 2023
Supporting people sleeping rough before and during hot weather	Guidance	People sleeping rough	H&SC, LRF, third sector	UKHSA	N/A	Jun 2023
Guidance on running events safely	Guidance	Event participants	Event organisers	HSE	N/A	N/A
Beat the heat: staying safe in hot weather	Public advice	Public	Public	UKHSA	April 2023	Feb 2026
Beat the heat: keep cool at home checklist	Public advice	Public	Public	UKHSA	April 2023	Feb 2026
Beat the heat: poster	Public advice	Public	Public	UKHSA	April 2023	Feb 2026
The health impacts of hot weather and the Heatwave Plan for England	Capacity building	Public	H&SC, third sector	UKHSA	Jan 2019	N/A

## 6.3 Appendix 3. Cold guidance

Name	Type	Target population	Audience	Organisation(s)	Latest review	Next review
Action cards: cold weather alert service: Commissioners (health and social care) and local authorities	Guidance	Public, vulnerable, at-risk	LAs, ICB, DoJ, CO, DHSC	UKHSA, NHS England, LGA, DHSC	Nov 2022	Oct 2023
Action cards: Provider organisations	Guidance	Vulnerable, at-risk	H&SC, DoJ, CO, DHSC	UKHSA, NHS England, DHSC	Nov 2022	Oct 2023
Action cards: Frontline health and social care staff in community and care facilities	Guidance	Vulnerable, at-risk	H&SC	UKHSA, NHS England	Nov 2022	Oct 2023
Action cards: GPs and practice staff	Guidance	Public, vulnerable, at-risk	H&SC, ICB	UKHSA, NHS England	Nov 2022	Oct 2023
Action cards: Voluntary and community sector	Guidance	Vulnerable	Third sector, H&SC	UKHSA, NHS England	Nov 2022	Oct 2023
Data sources to support local services tackling health risks of cold homes	Guidance	Vulnerable, at-risk	Commissioners, LAs, ICB, DHLUC	UKHSA	Jan 2019	Oct 2023
Excess winter deaths and the winter of 2019 to 2020: information for the NHS	Capacity building	Public, vulnerable	NHS, commissioners, ICB	UKHSA	Oct 2021	Oct 2023
Excess winter deaths and the winter: information for the local authorities	Capacity building	Public, Vulnerable	LA, commissioners	UKHSA	Oct 2021	Oct 2023
Cold weather health risks: actions to prevent harm	Capacity building	Public	H&SC	UKHSA	Nov 2022	TBD
NICE guideline NG6: Excess winter deaths and illness and the health risks associated with cold homes	Guidance	Public, vulnerable, at-risk	H&SC	NICE	N/A	N/A
NG6: A quick guide for home care managers	Guidance	Vulnerable, at-risk	Social care	NICE	N/A	N/A
Quality standard QS 117: Preventing EWD and illnesses associated with cold homes	Guidance	Vulnerable, at-risk	H&SC	NICE	N/A	N/A
Cold weather plan: easy-read guide	Public advice	Public	Public	UKHSA	Jan 2015	Oct 2023
Leaflet: Keep Warm Keep Well	Public advice	Public	Public	NHS England, UKHSA	Oct 2021	Oct 2023
Top tips for keeping warm and well leaflet	Public advice	Public	Public	Age UK, NHS England, UKHSA	Nov 2022	Oct 2023

## 6.4 Appendix 4. Flood guidance

Name	Type	Target population	Audience	Organisation(s)	Latest review	Next review
Flooding and health: assessment and management of public mental health	Guidance	Public	NHS, LA, H&SC, Blue Light services, voluntary groups	UKHSA	Jul 2022	Oct 2023
Recovering from flooding: information for frontline responders	Guidance	Public	NHS, LA, H&SC, Blue Light services, voluntary groups	UKHSA (formerly PHE)	Feb 2014	Oct 2023
Floods: cleaning your home safely	Public advice	Public	Public	UKHSA (formerly PHE)	Feb 2014	Oct 2023
Mental health advice following floods	Guidance	Public	LA, H&SC	UKHSA (formerly PHE)	Feb 2014	Oct 2023
Flooding and mental health: essential information for frontline responders	Guidance	Public	Blue Light, LA	UKHSA (formerly PHE)	Feb 2014	Oct 2023

## 6.5 Appendix 5. Monitoring

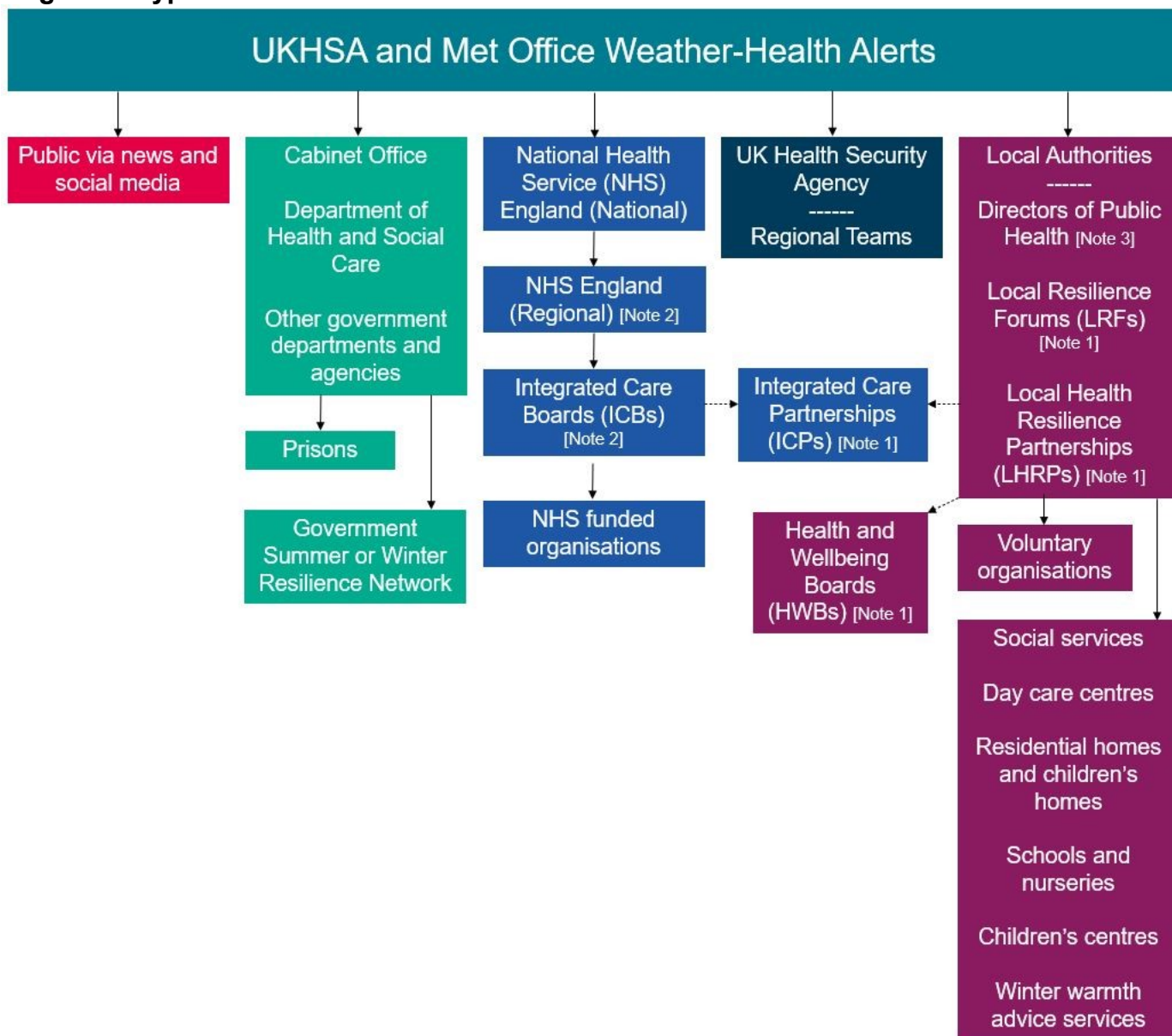
Indicator Type	Indicator	Source	Metric	When	Global indicator
Contextual	Children in absolute low-income families (aged 16 and under)	OHID	Number and %	Annual	SDG 1.2.1, 1.2.2
Contextual	Children in relative low-income families (aged 16 and under)	OHID	Number and %	Annual	SDG 1.2.1, 1.2.2
Contextual	% Households living in fuel poverty under the Low-Income Low Energy efficiency (LILEE) indicator definition	Fuel Poverty Statistics, DESNZ	% of households	Annual	SDG 1.2.1, 1.2.2
Outcome	Population vaccination coverage: flu (at-risk individuals)	UKHSA	%	Annual	N/A
Contextual	% of EPC certificates awarded that year which are grade C or above	DLUHC statistical releases	%	Annual	SDG 11.1.1
Contextual	% of UK house stock likely to be considered 'Cold Homes'	Fuel Poverty Statistics, DESNZ	%	Annual	SDG 11.1.1
Output	Number of households claiming Cold Homes payment	DWP	Number eligible or number of payments made	Annual	SDG 11.1.1
Contextual	% of private and social tenants as overall tenure types	English Housing Survey, DLUHC	%	Annual	
Contextual	% of occupied dwelling stock that have had problems with damp in last year (modelled)	English Housing Survey, DLUHC	%	Annual	SDG 11.1.1
Contextual	Number of households initially assessed as homeless or threatened with homelessness and owed a statutory homelessness duty	DLUHC	Number	Annual	SDG 11.1.1
Activity	% of recommendations acted on in a period of 1 year	UKHSA	%	Mar 2024	SDG 17.1
Activity	% of recommendations acted on a period of 5 years	UKHSA	%	Mar 2028	SDG 17.1
Activity	% of AWHP guidance aimed at the public which are translated into at least 3 languages	UKHSA	%	Mar 2024	
Output	Information on number of views and downloads of the AWHP related materials added to the annual report of the AWHP	UKHSA	Yes or No	Annual	
Output	Number of alerts issued by alert level	UKHSA	Number	2 times per year	
Output	% of LRFs that have at least one representative registering for training sessions or webinars	UKHSA	%	Annual	SF G-4
Output	Number of media interviews given by UKHSA on weather and health	UKHSA	Number	Annual	
Output	Number of different countries represented in webinars hosted by UKHSA to an international on weather and health	UKHSA	Number	Annual	SDG 17.6.1
Outcome	% of LRFs with updated and published community risk register on heat, cold and flooding risks	Cabinet Office, DLUHC	%	Annual	SDG 11.b.1; SF E-2, G-4

Impact	Years of life lost due to adverse weather events	General Register Office	Years of life lost	Feb 2024	SDG 1.5.1/11.5.1/13.1.2; SF A-1
Impact	Rate of mortality due to adverse weather events	UKHSA	Deaths in those aged 65 and over per 100,000	Annual	SDG 1.5.1/11.5.1/13.1.2; SF A1
Impact	Emergency hospital admissions due to falls in people aged 65 and over (or aged 80 and over)	OHID	Number	Annual	SDG 3.4.1
Impact	Excess Winter Deaths Index (excess winter deaths as a percentage ratio of the number of deaths expected in the (8) warmer months either side of winter (1 December to 31 March))	ONS	% ratio	Annual	SDG 3.4.1
Impact	Excess winter deaths index (aged 85 and over)	ONS	% ratio	Annual	SDG 3.4.1



## 6.6 Appendix 6. Cascade of Weather-Health Alerts

Figure 3. Typical cascade of Weather-Health Alerts



[Note 1] LHRPs, HWBs and ICPs are strategic and planning bodies, but may wish to be included in local alert cascades.

[Note 2] NHS England Regional Teams and ICBs should work collaboratively to ensure that between them they have cascade mechanism for Heat-Health Alerts to all providers of NHS funded services both in business as usual hours and the out of hours period in their area.

[Note 3] UKHSA would be expected to liaise with Directors of Public Health to offer support, but formal alerting would be expected through usual Local Authorities channels.

### Accessible text equivalent for Figure 3. Typical cascade of Weather-Health Alerts

UKHSA and the Met Office Weather-Health Alert is issued and cascaded to:

- the public via news and social media
- the Cabinet Office, DHSC and other government departments and agencies
- NHS England
- UKHSA and regional teams
- local authorities, including the directors of public health, LRFs and local health resilience partnerships (LHRPs)

The Cabinet Office, DHSC and other government departments and agencies cascade the alert to:

- the government summer or winter resilience network
- prisons

The NHS England national team cascades the alert to NHS England regional teams. The NHS England regional teams then cascade the alert to the Integrated Care Boards (ICBs). The ICBs and local authorities work closely within the Integrated Care Partnerships (ICPs). ICBs cascade the alert to the NHS funded organisations.

Further points to note on this cascade are that UKHSA would be expected to liaise with directors of public health to offer support, but formal alerting would be expected through usual local authority channels.

Local Health Resilience Partnerships, Health and Wellbeing Boards, and Integrated Care Partnerships are strategic and planning bodies, but may wish to be included in local alert cascades.

NHS England regional teams and ICBs should work collaboratively to ensure that between them they have a cascade mechanism for weather and health alerts to all providers of NHS funded services both in business as usual hours and the out of hours period in their areas.

Local authorities, including the directors of public health, LRFs, LHRPs cascade the alert to:

- health and wellbeing boards (HWBs)
- social services
- day care centres
- residential homes and children's homes
- winter warmth advice services
- community and voluntary organisations

# About the UK Health Security Agency

UKHSA is responsible for protecting every member of every community from the impact of infectious diseases, chemical, biological, radiological and nuclear incidents and other health threats. We provide intellectual, scientific and operational leadership at national and local level, as well as on the global stage, to make the nation health secure.

UKHSA is an executive agency, sponsored by the Department of Health and Social Care.

© Crown copyright 2023

Prepared by: UKHSA Extreme Events and Health Protection  
For queries relating to this document, please contact: [sawhp@ukhsa.gov.uk](mailto:sawhp@ukhsa.gov.uk)

Published: April 2023  
Publishing reference: GOV-14677



You may re-use this information (excluding logos) free of charge in any format or medium, under the terms of the Open Government Licence v3.0. To view this licence, visit [OGL](#). Where we have identified any third party copyright information you will need to obtain permission from the copyright holders concerned.



UKHSA supports the  
Sustainable Development Goals

