



UK Health
Security
Agency

Adverse Weather and Health Plan Annual Report

April 2024 to March 2025

Contents

1. Performance report.....	3
2. Introduction.....	4
3. AWHP high-level achievements	5
4. AWHP programme of work	6
4.1 Plan.....	6
4.2 Evidence	10
4.3 Weather-health alerts.....	11
4.4 Guidance materials	14
5. Progress against the plan's goals.....	15
6. Progress against the plan's objectives	16
6.1 Service delivery.....	18
6.2 Capacity building.....	18
6.3 Organisational arrangements.....	19
6.4 Communication	19
6.5 Risk management	20
6.6 Early warning systems	21
6.7 Research and data analysis.....	21
6.8 Quality assurance	23
6.9 Policy development and accountability	24
7. Progress on health equity	25
8. Appendices.....	26
8.1 Appendix 1 – Review of annual report 2023 to 2024 recommendations	26
8.2 Appendix 2 – Summary of annual report recommendations	30
8.3 Appendix 3 – AWHP monitoring indicators analysis	33
8.4 Appendix 4 – global indicators analysis	38
8.5 Appendix 5 – list of AWHP publications	40

1. Performance report

We are pleased to share the second annual report of the Adverse Weather and Health Plan (AWHP), covering the period from 2024 to 2025. Building on the foundations laid during its inaugural year, the AWHP has continued to evolve as a public health framework to protect health in the face of increasingly complex and frequent weather-related challenges.

All the objectives set out at the beginning of the cycle were met, such as strengthening our early warning systems and ensure that the plan remained grounded in the latest evidence.

Monitoring aligned with global standards ensured transparency, while stakeholder engagement grew. Our evidence informed best practice guidance, and we are now developing a new methodological framework for systematic updates on a 5-year cycle, ensuring transparency and alignment with public health goals.

Our Weather-Health Alerting system has been significantly enhanced. Upcoming outputs include a Cold-Associated Mortality Report and research into heat-related morbidity. Further planned improvements include finer geographic resolution and a 5-day outlook.

We released training slides for heat and cold, new flood action cards and enhanced advice for vulnerable populations. A stakeholder workshop on flooding informed guidance development and ensured alignment with user needs.

Collaboration through a multi-agency Steering Group and implementation partners was central to the AWHP success, as well as its dedicated implementation team. Their commitment has been instrumental in translating vision into impact, and we extend our deepest thanks to them. Future priorities focus on enhancing internal UKHSA collaboration and governance through targeted workshops.

Looking ahead, the achievements of this year provide a strong foundation for the continued evolution of the AWHP. As climate and weather-related risks grow more complex, our collective efforts will remain focused on ensuring that the plan remains a dynamic, inclusive, and evidence-led tool for protecting public health and building resilience across England.

AWHP Steering Group
Sarah Bird
Chair 2024 to 2025

AWHP Implementation Team
Agostinho Moreira de Sousa
Coordinator 2024 to 2025

2. Introduction

The first edition [Adverse Weather and Health Plan](#) (AWHP) was initially published on the 27 April 2023 by the UK Health Security Agency (UKHSA). The second iteration of the AWHP, alongside its supporting materials was published on 21 March 2024.

The AWHP aims to protect individuals and communities from the health effects of adverse weather and to build community resilience. It fulfilled the UKHSA's commitment within the [National Adaptation Programme 2](#) (NAP 2) and UKHSA 2022 to 2023 priorities to develop a single adverse weather and health plan.

The AWHP is published annually alongside:

- a [Weather-Health Alerting \(WHA\)](#) early-warning system
- a comprehensive [evidence review](#) of the science underpinning the impacts of adverse weather on health and wellbeing
- a collection of [guidance](#) for health and social care organisations, professionals and the general public on how stay healthy and well during periods of adverse weather

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 are 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, and policy development and accountability.

UKHSA is committed to regular reporting on the implementation of the AWHP, led by its Implementation team, and overseen by its Steering Group. This report provides a comprehensive assessment of the activities conducted between April 2024 and March 2025 and outline recommendations for improvement in future AWHP iterations.

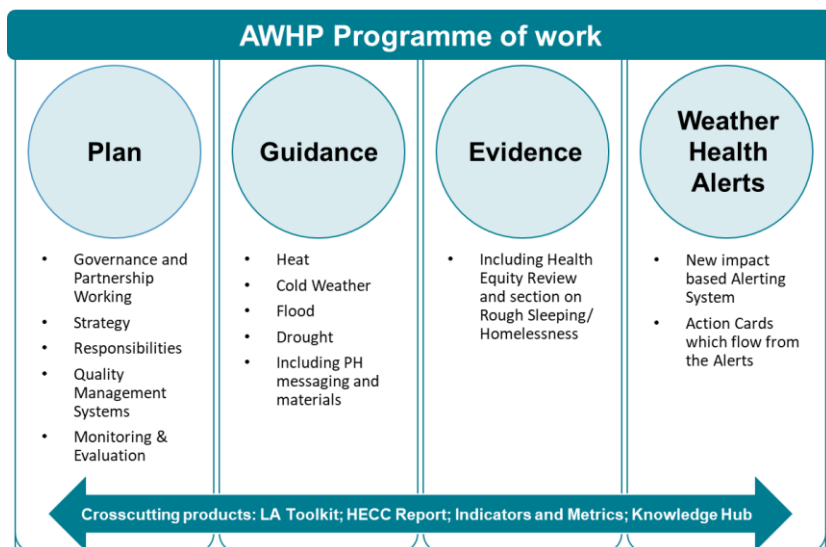
Each section of this report provides a list of recommendations for the AWHP 2026 to 2027 onwards, considering the recommendations from the AWHP 2023 to 2024 Annual report and the changes already made in the AWHP 2025 to 2026. These recommendations are summarised in the Appendix 2 of this report. The recommendations provide a foundation for future planning activities, and their implementation depends on the resources available from the partners responsible for delivering the plan.

3. AWHP high-level achievements

The Adverse Weather and Health Plan's high-level achievements were:

- delivered all 9 objectives for 2024 to 2025
- strengthened multi-agency collaboration through the AWHP Steering Group and implementation partners
- developed a methodological framework for systematic five-year guidance updates
- updated heat and cold training slide sets
- published new flood action cards
- delivered capacity-building webinars and stakeholder workshops –
 - cold preparedness webinar – 1,215 registrations
 - heat preparedness webinar – 1,102 registrations
 - AWHP Annual Report webinar – 542 registrations
 - operational webinar recording – 739 registrations
- distributed 2.58 million 'Stay Well This Winter' flyers
- published 9 newsletters
- updated communication toolkits for heat, cold and flooding
- enhanced Weather-Health Alert system functionality
- issued 13 weather-health alerts
- conducted 35 Joint Dynamic Risk Assessments
- conducted 33 horizon scanning meetings
- reviewed heat and cold 'Off-The-Shelf Exercises' (OTSE)
- published Heat Mortality Monitoring Report
- produced 5 peer-reviewed articles
- produced 8 conference papers in collaboration with academic partners
- initiated development of a Quality Management System
- launched the UKHSA internal data dashboard for monitoring AWHP progress
- published AWHP Annual Report 2023 to 2024
- responded to 14 parliamentary questions and 260 general enquiries

4. AWHP programme of work



4.1 Plan

The AWHP sets out a clear strategy with specific goals and objectives and established an annual operational timeline. It incorporates detailed monitoring and evaluation mechanisms and it is currently implementation a framework for its quality management system. The AWHP has an all-hazards approach, ensuring comprehensive preparedness and response to a broad spectrum of weather-related risks, integrating lessons learned from prior plans while addressing emerging and evolving climate-related challenges.

An independent report by RE:State foundation, [Health security from the ground up](#), highlighted the AWHP as an example of an iterative approach to developing national threat response planning documents that should be replicated across UKHSA. Nevertheless, as the report noted, further work is required to allow the AWHP to go through a public consultation, allowing external scrutiny and feedback on future editions of the plan.

The plan implemented both recommendations of last year's annual report for 2024 to 2025. The plan clarified its role as technical document and its target users in the AWHP 2024 to 2025 Executive Summary, by stating that the "the plan itself is a mechanism for national, regional and local planners to support their strategies and operations, being technical in nature". In addition, the plan also expanded its section 7.9, where more detail was provided on the role of the AWHP in terms of long-term climate adaptation and underlining that "AWHP is supported by several key pieces of UK legislation that provide a legal framework for preparedness, response, adaptation and mitigation of the health impacts of adverse weather events".

The AWHP programme of work aims to reduce life years lost, mortality, morbidity, and healthcare demand from adverse weather events. Progress is monitored through routine analysis of observed versus expected impacts. In summer 2024, 4 heat episodes over 14 days resulted in an estimated 1,311 heat-related deaths and 6,931 years of life lost, in line with modelled predictions. UKHSA continues to expand reporting to include morbidity and healthcare usage, alongside research on risk factors and similar assessments for cold, flooding, drought, and other events. More information can be found in section 5.

All 9 objectives of the AWHP plan were achieved, strengthening national resilience to adverse weather impacts on health. This achievement reflects strong collaboration across local authorities, NHS England, national government, and other partners, reflecting the AWHP whole-society approach.

The plan strengthened resilience, improved risk management, enhanced communication, and advanced early warning systems. It also supported capacity building, research, and policy development, ensuring stakeholders are better equipped to protect public health during extreme weather events. Progress was underpinned by evidence-based actions and continuous quality assurance measures. Further details on how each objective was achieved are provided in Sections 6.1 to 6.9.

The plan continued to improve its whole-of-society approach, involving diverse stakeholders such as the private sector, academia, community organisations, and the general public, as outlined in the plan's Appendix 1. The multi-agency AWHP Steering Group, which oversees the effective and timely delivery of the plan, reflects this approach. The group included local, regional, and national level stakeholders, as well as stakeholders experienced in preparedness, policy, science, and response.

The 2024 to 2025 Steering Group had 28 members, from UKHSA, Cabinet Office, Met Office, the Department of Health and Social Care, the Office of Health Improvement and Disparities (OHID), the Department of Environment Food and Rural Affairs (Defra), the Ministry of Housing, Communities and Local Government (MHCLG), the Department for Energy Security and Net Zero (DESNZ), the Ministry of Justice (MoJ), the Department for Education (DfE), the Local Government Association, NHS England, the Environment Agency, the Voluntary and Community Services Emergencies Partnership (VCSEP), and the National Institute for Health and Care Research (NIHR) Health Protection Research Unit on Environmental Change and Health. Four steering group meetings were held during the period from April 2024 to March 2025.

UKHSA has an implementation team responsible for the development and improvement of the AWHP programme of work. This team currently has a total of 2.9 full-time equivalent (FTE) to the AWHP. Fourteen implementation team meetings were held during the period from April 2024 to March 2025.

For next year, the AWHP implementation team will improve its internal engagement mechanisms. A series of workshops will be hosted to ensure alignment across different action areas. These workshops aim to create opportunities for different UKHSA teams to share progress, identify interdependencies, and resolve challenges collectively. Similarly, we aim to enhance engagement with Steering Group members through dedicated workshops strengthens governance and strategic oversight by 2026 to 2027. These sessions will provide a platform for stakeholders to contribute expertise and validate priorities.

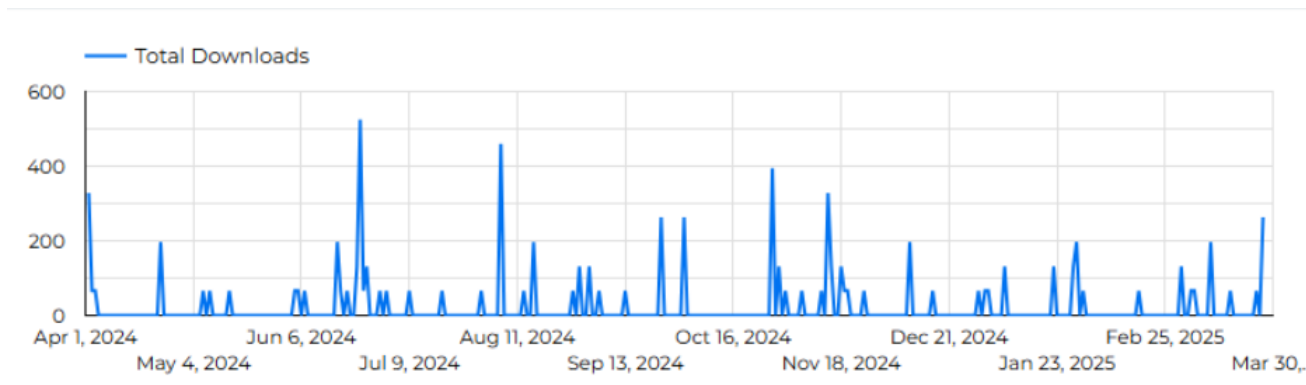
UKHSA hosted a series of operational webinars to help different stakeholders to gain a better understanding of the plan's implementation, which are detailed in section 6.2.

A monitoring framework underpinned the plan, ensuring transparency and accountability in its implementation. An analysis on the progress of the AWHP 2024 to 2025 monitoring indicators (plan's Appendix 5) is provided in Appendix 3 of this report. The appendix also provides a comparison with the indicators mapped in the AWHP 2023 to 2024. The monitoring framework is also aligned with global processes such as the Sustainable Development Goals and the Sendai Framework for Disaster Risk Reduction. More information can be found in Appendix 4 of this report. Next iterations of the annual report will also include an analysis of the monitoring indicators data.

Regular updates, such as last year's annual report and the publication of new editions, reflect the plan's continuous quality improvement. All the recommendations of the annual report for the AWHP 2023 to 2024 for the year 2024 to 2025 were implemented, as described in Appendix 1 of this report.

In the period covering the first edition of the AWHP from April 2024 to March 2025, the AWHP collection page was viewed 11,888 times. The plan itself was downloaded 3,547 times, an increase of 25.8% in comparison with last year (2,736 downloads). As demonstrated in Figure 1, peak number downloads occurred when an alert was issued, a preparedness webinar was held or at the start of an alert season.

Figure 1. Total daily downloads of the AWHP materials between 1 April 2024 and 31 March 2025



The third iteration of the plan was unveiled published on 20 March 2025. This edition of the plan was updated based on our experience in implementing the plan over the previous year, including feedback from users of the plan and the recommendations from both the [2023 to 2024 Midterm report](#) and the [2023 to 2024 Annual Report](#).

Recommendations for future iterations of the plan are to:

- improve collaboration mechanisms internally within UKHSA, through the implementation of a series of AWHP Implementation team workshops for each action area
- improve collaboration mechanisms and engagement with steering-group members (for example, through the implementation of AWHP Steering Group workshops for each action area)
- include a short indicators analysis in the next iteration of the annual report

4.2 Evidence

The Supporting Evidence Document (SED) considers the health effects of adverse weather and key populations in England who are most at risk from hot and cold weather, flooding and emerging risks: drought, storms and thunderstorm asthma.

The SED includes a list of 77 recommendations to inform action on adverse weather risks to health that were identified through a review of a series of national policy plans from a wide range of sources, including national government and executive agencies, as well as independent, academic and other research bodies.

It was informed by primary and secondary evidence, including evaluation and guidance documents and UKHSA publications, such as the [Health Effects of Climate Change \(HECC\) report](#) (2024) and the [Equity Review and Impact Assessment of the AWHP](#) (2024). This long list of recommendations has informed the development of a series of high-level recommendations for best practice to improve health and wellbeing with respect to adverse weather events and climate change.

As the effects of climate change intensify, the need for an up-to-date, evidence-based response plan becomes increasingly urgent. Therefore, since the previous annual report, UKHSA has undertaken research prioritisation and stakeholder engagement processes to identify key evidence gaps and needs to inform future workstreams.

In parallel, an internal audit of the processes to develop the SED has been conducted to identify areas for improvement and produce an audit report with actionable recommendations. See Section 6.8 'Quality assurance' for further details.

These outputs have informed development of a comprehensive methodological framework for systematically updating and reviewing evidence underpinning the AWHP has been developed. This will help to ensure that the AWHP, the SED, WHA system and associated guidance materials will be underpinned by the latest high quality scientific research and public health best practices, to ensure they remain relevant, effective, aligned with broader public health goals and meet the needs of end users. The methodology is designed to increase transparency around sourcing, robustness of evidence and to embed ongoing processes for future updates of the SED, which will occur on a 5-yearly cycle.

Following publication of the first edition of the AWHP's SED in the period from March 2023 to April 2024, the SED was downloaded 675 times and the second edition of the SED has been downloaded 1,117 times from March 2024 to April 2025. See Appendix 5 for a list of citations for the AWHP and related products.

Recommendations for AWHP evidence development are to:

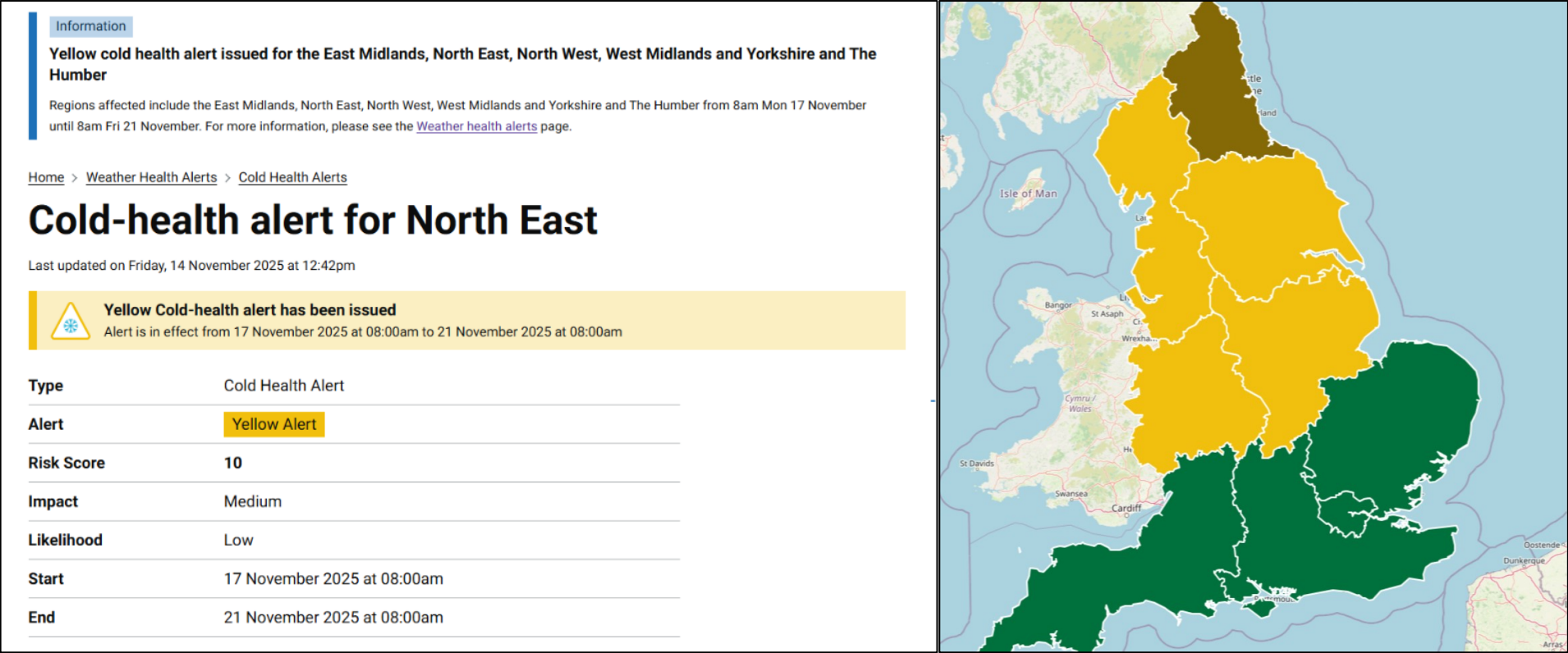
- trial newly developed methodological framework and Standard Operating Procedure (SOP) for evidence updates that incorporate recommendations from the SED audit
- establish a governance and feedback system for evidence updates
- continue to explore opportunities to increase impactful research partnerships to develop scientific or advisory research projects to address identified key evidence gaps to inform the AWHP and associated products

4.3 Weather-health alerts

Since the previous report, the Weather-Health Alerting (WHA) system has undergone further enhancement to ensure that the information provided to users is relevant, actionable, and delivered in a timely manner. All recommendations from the last annual report have either been fully addressed or are currently being implemented.

For example, the WHA pages on the UKHSA Data Dashboard now include additional detail on impact, likelihood, and overall risk scores, enabling users to better interrogate the nature of each alert. This provides local partners with richer information to support evidence-based local responses. Furthermore, the current alerting status is now displayed directly on the main landing page of the Dashboard, further improving accessibility and visibility of WHA information.

Figure 2. Additional alert detail such as impact and likelihood available within the UKHSA Data Dashboard Weather-Health Alerts pages



In 2024, UKHSA developed a monitoring and evaluation framework to identify the core elements of an impact-based early warning system and to assess its effectiveness. This framework was applied to the WHA system through the development of a theory of change, mapping pathways to action, underlying assumptions, and associated risks. These elements have informed the development of core evaluation questions. The findings from this work are on track for publication by Q4 2025 to 2026.

A post-alert survey protocol was developed and implemented during summer 2025, with deployment planned for the winter 2025 to 2026 season. In parallel, a Cold-Associated Mortality Report is in development and also scheduled for publication by Q4 2025 to 2026. Work is additionally underway to investigate heat-associated morbidity, which will contribute to a potential annual assessment of heat-health impacts, providing stakeholders with enhanced insight into the effects of heat on population health.

By expanding both quantitative monitoring and qualitative evidence collection, UKHSA aims to robustly demonstrate the effectiveness of the AWHP programme and its underpinning WHA system, while strengthening users' ability to make informed public health decisions.

Following stakeholder engagement led by the University of Surrey, further enhancements to the WHA system are being explored. These include the ability to issue alerts at finer geographic resolutions, a consistent stakeholder request, and to provide a 5-day WHA outlook. This new functionality will enable users to better anticipate changes in alert levels across time and geography, supporting more proactive and locally tailored decision-making.

Recommendations for the WHA system are to:

- analyse and publish post-alert user survey data following the 2025 summer
- analyse and publish post-alert user surveys data following the 2025 to 2026 winter
- provide WHAs at finer geographic resolution in England, to be ready for implementation
- provide 5-day view of alerting situation on the UKHSA Data Dashboard, to be ready for implementation

4.4 Guidance materials

The plan is supported by a series of guidance materials to support stakeholders to prepare for, and respond to, significant adverse weather events. The collections of guidance describe the potential impact of each hazard on health, who is at risk and the actions to be taken before and during periods of adverse and extreme weather events in England. They detail what preparations national, regional, and local organisations; and health and social care professionals, can take to prepare for extreme weather events and reduce health risks.

A flooding and health stakeholder workshop was held in October 2023, with a summary report published in August 2024. The event brought together key national and local stakeholders to strengthen understanding of the public health impacts of flooding and ways to reduce them, familiarise participants with forthcoming UKHSA guidance, ensure resources meet end-user needs, and share best practice and expertise across England.

This includes measures to protect vulnerable groups, as well as advice for the general public and new resources and updates to previously published guidance.

The list of all the guidance relating to the AWHP can be found in appendices 2, 3 and 4 of the plan. A total of 35 products were released, including 17 guidance documents, 7 action cards and 11 summary action cards. The AWHP and WHA system user guide is available in 'easy-read' versions and 'Beat the heat' guidance has been translated into the 11 most commonly spoken languages in Britain. The [flood-health action cards](#) were published on 27 March 2025.

An internal audit of processes to develop the flood-health action cards has been conducted to identify areas for improvement and produce an audit report with actionable recommendations. See Section 6.8 Quality assurance for further details.

Recommendations for AWHP guidance development are to:

- trial newly developed Standard Operating Procedures for developing guidance and incorporating new evidence that incorporate recommendations from the guidance audit.
- embed process for considering health equity issues when developing guidance through incorporation of UKHSA's Equality and Health Equity Assessment (EHEA) tool

5. Progress against the plan's goals

The AWHP is focused on achieving the following 4 goals:

Goal 1. Prevent the increase in years of life lost due to adverse weather events.

Goal 2. Prevent mortality due to adverse weather events.

Goal 3. Prevent morbidity due to adverse weather events.

Goal 4. Reduce the use of healthcare services due to adverse weather events.

However, demonstrating progress toward the AWHP goals is challenging due to the complex relationship between adverse weather and health impacts. Efforts to measure and report these impacts are continuing. Since the AWHP's launch, methodologies for routine collection, analysis, and reporting have been developed to help better monitor progress.

For example, in 2022, UKHSA started comparing the observed heat-associated mortality during heat episodes to the number of heat-associated deaths we would have expected based on the historical relationship between temperature and mortality and the observed temperatures. This approach allows us to comment on how the observed heat-associated mortality in 2024 compares to estimates from modelling. For heat, UKHSA's annual [Heat mortality monitoring reports](#) address Goal 1 (from summer 2023 onwards) and Goal 2 (from 2016 onwards). Key metrics for summer 2024 are presented in Table 1.

Table 1. Heat mortality in summer 2024

Number of heat episodes		4
Number of heat episode days		14
Observed heat-associated deaths		1,311 (95% Confidence Interval (CI): 929 to 1,692)
Observed heat-associated deaths per day		94
Difference between observed and modelled predicted heat-associated deaths	+283 (difference not statistically significant)	
Observed heat-associated years of life lost by age group	75 to 84 age group	4,087 (95% CI: 2,091 to 6,083)
	85 and over age group	2,844 (95% CI: 1,826 to 3,826)
Observed heat-associated years of life lost	6,931	
Observed heat-associated years of life lost per day	495	

Source: [Heat mortality monitoring report: 2024](#)

Ongoing work previously outlined in previous sections aims to expand these into an annual heat impact report, including estimates of morbidity and health system usage (Goals 3 and 4), with the intention for this to be designated as Official Statistics. In addition, bespoke epidemiological assessments of risk factors such as ethnicity, for example, are also being planned to supplement the annual surveillance reports outlined above. Similar efforts are underway for cold-related deaths and impacts, with further exploration planned for other adverse weather events like flooding, drought, and thunderstorm asthma, in collaboration with academic partners.

6. Progress against the plan's objectives

The plan outlined a structured approach with 9 key objectives designed to guide national efforts. These objectives served as a comprehensive framework for local authorities, the NHS, national government and other stakeholders to implement evidence-based actions aimed at mitigating the impacts of adverse weather on health. All the objectives were met during the period of April 2024 to March 2025. More details on how these objectives were achieved can be found in sections 6.1 to 6.9.

Objective 1. Service delivery

To update the heat and cold training slide sets and other relevant service delivery materials for local authorities and NHS England:

- the [heat](#) and [cold](#) training slide sets were updated and published on gov.uk
- flood action cards were published
- the guidance for heat and cold remained unchanged from year 2023 to 2024

Objective 2. Capacity building

To continue to deliver of a series of capacity building events to support actions from the public health, healthcare and social care sectors:

- cold and Hot weather preparedness webinars
- AWHP launch and annual report webinars
- AWHP microteach

Objective 3. Organisational arrangements

To support local partners to develop robust resiliency and preparedness plans to help achieve the health goals of this plan and how we can better monitor such developments nationally:

- UKHSA co-operated with other national responders to enhance co-ordination and efficiency as described under the duties of Category-1 responders
- heat and cold 'Off The Shelf Exercises' (OTSE)

Objective 4. Communication

To increase the impact of public and stakeholder communications on adverse weather and health, including through scientific research to understand how our guidance and supporting materials are used by different groups:

- 9 newsletters
- 2,578,379 million 'Stay well this winter' flyers were sent
- stakeholder engagement processes
- updated and published the heat, cold and flooding communication toolkits

Objective 5. Risk management

To review and identify improvements to risk management mechanisms on adverse weather and health:

- 35 Joint Dynamic Risk Assessments (JDRA)
- 33 horizon scanning meetings
- review of Community Risk Registers (CRRs)
- updated National Risk Register (NRR)

Objective 6. Early warning systems

To improve the current Weather-Health Alert system based on recommendations from the AWHP reports and user insights:

- improved Weather-Health Alert system based on recommendations from the AWHP reports and user insights
- 13 Weather Health Alerts issued

Objective 7. Research and data analysis

To continue developing the plan's Quality Management System:

- Heat Mortality Monitoring Report 2024 – official statistics
- collaboration with academic partners
- 5 peer-reviewed journal articles published
- 8 conference papers presented

Objective 8. Quality assurance

To continue developing the plan's Quality Management System:

- start of Quality Management System development
- UKHSA Data Dashboard live (internally)

Objective 9. Policy development and accountability

Publication of the first AWHP annual report which will consider how the implementation of the AWHP has progressed since publication in April 2023:

- Annual Report 2023 to 2024 published
- 14 parliamentary questions
- 260 general enquiries

6.1 Service delivery

During 2024, we continued to assess how AWHP products are used in practice. A series of interviews with all Local Resilience Forum (LRF) regions, through the NIHR funded Health Protection Research Unit, found that the AWHP is widely used to inform local adverse weather plans, though the level of preparedness and the extent to which guidance is embedded varies between areas.

In parallel, a process evaluation of the AWHP, commissioned from the London School of Hygiene and Tropical Medicine, engaged frontline organisations (including social care, NHS and local authorities) and confirmed that many are organisations translate AWHP guidance into their own operational procedures. Findings from both pieces of work will be published in 2025 and will inform future products and implementation support. As noted earlier, user surveys linked to the weather-health alerts now provide real-time insight into how alerts are received and acted on.

Going forward, health and social care settings have been identified as priority areas. Work is under way to explore tools and resources that can help these services to risk-assess residents and clients, and to present response actions in formats that are simple, accessible and easy to deploy during periods of adverse weather.

We also met the objective of publishing the [heat](#) and [cold](#) training slide sets on gov.uk. Furthermore, the flood action cards were published in March 2025.

6.2 Capacity building

UKHSA delivered a series of capacity building webinars aimed at health and social care professionals and stakeholders, such as the community and voluntary sector and the public. These webinars have attracted significant stakeholder engagement from across the country and a range of organisations.

In the period from April 2024 to March 2025, UKHSA hosted:

- the AWHP Annual Report webinar for 2023 to 2024 which had 539 registrants
- the AWHP microteach webinar
- a summer preparedness 2024 to 2025 webinar for which there were 1102 registrants
- a cold preparedness 2024 to 2025 webinar for which there were 1,215 registrants
- an AWHP launch webinar 2025 to 2026 for which there were 725 registrants

Additional presentations were delivered to internal and external stakeholders including engagements with World Health Organisation and the World Meteorological Organisation. Additionally, 2 lectures were delivered on the effects of climate change and adverse weather at the University of Bristol and Brighton and Sussex Medical School and University College of London between March 2024 and April 2025. Furthermore, the 'Winter pressures' eLearning module has been reviewed and published.

6.3 Organisational arrangements

UKHSA co-operated with other national responders to enhance co-ordination and efficiency as described under the duties of Category-1 responders under the [Civil Contingencies Act](#). There was also collaboration across delivery groups on national and regional level with the respective responsibilities of delivery organisations and partners.

Additionally, there was also Emergency Preparedness, Resilience Response (EPRR) national and regional engagement (for example hot weather and cold weather preparedness webinars and exercises). The heat and cold Off The Shelf Exercise (OTSE) were also reviewed and published in February 2025. These 2 OTSEs are available to internal and external stakeholders to help them prepare for extreme heat and cold. Also supported with the planning for numerous multiagency extreme heat and cold exercises.

6.4 Communication

The team have engaged and partnered with a broad range of stakeholders from across UKHSA and external organisations, to gain increased understanding of their needs, behavioural insights and expert input on AWHP-related activities this year. Insight from this work will improve and inform public engagement, incident response, communications campaigns, UKHSA, strategy and planning.

Activities have included:

- delivering 9 newsletters to highlight articles about adverse weather events and the impact on public health
- in collaboration with AgeUK and NHS, preparing and distributing 'Stay Well This Winter' flyers to 2,578,379 people aged 55 years and over between March 2024 and April 2025
- Carrying out a stakeholder engagement process using Delphi methodology to gather responses from stakeholders through a 2-phase survey and semi-structured interviews to ensure CCHS outputs, including AWHP-related outputs, remain relevant, effective, and aligned with our strategic remit and the wider climate change and health goals
- commissioning IpsosMoRI to gather data via the UKHSA Public Perceptions Tracker online survey of 1,000 participants in England on public attitudes and behaviours in relation to public health challenges, including cold weather, hot weather and climate change, and monitor how these change over time
- developing a research protocol and conducted a baseline online survey (n=93) to investigate mental health impacts on farmers and farmworkers from flooding and drought – follow-up semi-structured interviews are to be conducted next year
- Undertaking primary research to explore young people's risk perception and behaviours during large outdoor gatherings in hot weather
- developing and implementing the post-alert survey that has been in the AWHP 2024 to 2025 (see section 4.3 'Weather Health Alerts' for details)
- creating or updating the following communications materials to provide guidance and toolkits for professionals and the public on how to communicate effectively during adverse weather events –
 - hot weather, cold weather and flooding communications toolkits updated
 - UKHSA/HPRU ECH flooding and health stakeholder engagement workshop summary report published in August 2024 – findings from the workshop helped to ensure that UKHSA flooding and health guidance materials meet the needs of end users

6.5 Risk management

During the reporting period, 35 Joint Dynamic Risk Assessments (JDRA) with governmental partners were conducted. UKHSA and the Met Office also held 33 horizon scanning meetings. These activities played a crucial role in identifying emerging risks, evaluating potential impacts of adverse weather events, and ensuring timely and effective responses. The JDRA sessions facilitated cross-agency collaboration, enabling decision making based on real-time scenarios and improvement of action plans, while the horizon scanning exercises provided valuable insights into future threats, informing strategic planning and preparedness efforts.

A review of Community Risk Registers (CRRs), developed by Local Resilience Forums (LRFs) across England to address climate- and weather-related hazards, was undertaken during the reporting period. The review assessed how effectively LRFs communicate health and safety risks arising from adverse weather through their CRRs. It identified considerable variation in how these risks are described and prioritised, as well as differences in the extent to which health impacts are incorporated.

Building on this analysis, the project highlighted examples of good practice in local risk communication and provided recommendations to improve consistency, transparency, and alignment with the latest National Risk Register (NRR). The updated National Risk Register (NRR) was published in January 2025, providing an important framework for LRFs to incorporate emerging climate and health risks into future CRR updates. These insights will inform ongoing work to strengthen local preparedness and public engagement around climate and weather related health risks.

6.6 Early warning systems

An update on the implementation of the Weather-Health Alerting system was provided in section 4.3.

Several areas of work undertaken under the AWHP, explicitly the WHA, were identified as being the most advanced globally. We are engaging with other national and international partners such as WHO, WMO and the GHHIN to explore to best practices elsewhere and to showcase the technical requirements to develop early warning systems for health. Other possible collaborations include deep dives into the AWHP programme of work, monitoring and evaluation of the WHAs, surveillance of the health impacts of adverse weather, research priorities and the importance of EPRR/WHA governance.

There were 13 Weather Health Alerts issued, which were further extended or updated 10 more times between March 2024 and April 2025. Six were Heat-Health Alerts (from which 0 were escalated to AMBER) and 7 were Cold-Health Alerts (from which 2 were escalated to AMBER). There were 23 Weather Health Alerts issued, extended or updated between March 2024 and April 2025.

6.7 Research and data analysis

On 3 April 2025, UKHSA published the Heat Mortality Monitoring Report: 2024 which contains the annual statistics on the impact of adverse heat on the population and is now badged as Official Statistics.

The report presents heat-associated mortality estimates disaggregated by age, sex, region, and years of life lost, and, for the first time, by Local Resilience Forum (LRF) geography, place of death (home, care home, hospital, hospice, or other location), and underlying

cause of death. In addition, the report maintains a hybrid analytical approach, combining observed data with statistical modelling to enable direct comparison between observed and modelled heat-associated mortality estimates. Where discrepancies arise between these estimates, this enhanced methodology allows contextual factors influencing observed mortality to be explored.

Insights gained from this analysis are used to refine communications and public health messaging in subsequent seasons.

A cold mortality monitoring report covering winter 2024 to 2025 will be published by Q4 2025 to 2026 and will follow the same format as the Heat Mortality Monitoring Report and be published as 'Official Statistics in Development'.

The NIHR-funded Health Protection Research Unit (HPRU) in Environmental Change, co-led by UKHSA and London School of Hygiene and Tropical Medicine (LSHTM), has now come to an end. However, this resulted in action-orientated research on diverse topics including preparation in responding to adverse weather events among LRFs, health impacts of flooding, impact of high indoor temperatures and communication packages to be used during heat alerts.

Outputs include development of UKHSA guidance, changes to response plans and processes for issuing alerts and UKHSA comms, as well as including academic publications, workshops, summary reports and 2 PhDs on topics including heat, drought, wildfire, thunderstorms and coastal and flood risks.

The third round of HPRU funding has now started with the new project co-led again by UKHSA and LSHTM, themes dedicated improving the quantification of health impacts related to climate change and another dedicated to implementation science to address climate risks to health.

UKHSA are also currently involved in other large research projects such as the Centre for Net Positive Health and Climate Solutions co-lead by UKHSA and University of Exeter, and sit on the advisory boards of other research projects including the HEARTH Project, ClimaCare and ARCADE.

Further research activities and collaborations include working with the UKHSA Syndromic Surveillance team to explore opportunities to use the syndromic data using alternative methods to enhance intelligence on heat and cold morbidity.

UKHSA has also worked with academic partners to provide placements for Masters and Doctoral students addressing research questions that have been identified as a priority. Masters summer projects have included both systematic literature reviews and data

analysis, and PhD projects include cold weather and health, heat and pregnancy/newborn health and thunderstorm asthma.

Furthermore, UKHSA have worked with colleagues from the Department of Health and Social Care (DHSC) to advise on research commissioned to explore updating the quantified estimates that cold homes have on mortality in England, work led by the Office of Health Improvement and Disparities (OHID) and the London School of Hygiene and Tropical Medicine (LSHTM), and a process evaluation of the AWHP undertaken by the Policy Innovation and Evaluation Policy Research Unit (PIRU) at LSHTM.

Over the reporting period, members of the UKHSA have published 5 peer-reviewed journal articles and presented 8 conference papers related to the AWHP programme of work.

Additionally, 10 peer-reviewed studies referenced AWHP, underscoring its influence on governance approaches, the development of health indicators, and the evaluation of climate-related mortality trends.

On 25 April 2024, UKHSA published the results of a qualitative study conducted in collaboration with UKHSA's Behavioural Science and Insights Unit (BSIU): Extreme cold temperatures in domiciliary care.

6.8 Quality assurance

There has been significant progress with the quality management system. This has included the development start of a quality manual; quality objectives and process maps for the AWHP-related products and services. This will continue to be developed through 2025 to 2026, which will aim to keep improving the quality of the plan and all the activities implemented and products delivered which are associated with the plan.

The AWHP BI transitioned to UKHSA Data Dashboard and adverse weather went live in June 2024. However, this information is only available to UKHSA user accounts. The aim remains to provide public access to this platform.

As previously mentioned, 2 internal audits were conducted to assess processes underpinning AWHP resources: the Supporting Evidence Document (SED) and the flood-health action cards. Both audits applied UKHSA Guidance Quality Standards, adapted where necessary, and focused on governance, technical development, stakeholder engagement, and compliance with quality principles. The audits found that both products meet critical needs within the AWHP programme and demonstrate strong compliance in areas such as clarity of purpose and presentation. The SED provides essential evidence to support AWHP, and improvements were noted between its initial development and subsequent updates. Similarly, the flood-health action cards were well-presented and derived from robust existing guidance, with good stakeholder engagement. Findings from

the audits are being used to refine the process of identifying and evaluating evidence and for developing guidance.

Both audits highlight the need for clearer governance structures, standardised documentation, and formalised processes for dissemination, feedback, and evaluation. Developing product-specific standards, improving project planning, and embedding equity considerations will strengthen resilience and transparency. Early planning for audits and stakeholder engagement is essential to ensure compliance and continuity.

6.9 Policy development and accountability

EEHP has continued to strengthen policy alignment between the AWHP ongoing national and international programmes (for example, NAP3), working to embed public health considerations within wider climate adaptation and resilience activity. This collaboration supports a coordinated, cross-government approach to protecting communities from the health impacts of a changing climate.

The AWHP also continues to act as a bridge between short-term emergency preparedness, resilience and response activity and long-term adaptation planning. As highlighted in the recent AWHP annual report, work is ongoing to ensure that lessons from seasonal response are integrated into future planning and that local partners are supported to embed adaptation measures into routine service delivery.

The AWHP 2023 to 2024 Annual Report was also published, underlining the commitment to transparency and accountability when defining and meeting objectives.

Over this reporting period, the EEHP team responded to a high volume of parliamentary correspondence, primarily during the heat and cold alert seasons. These enquiries covered a broad range of topics, including overheating in educational settings, protecting vulnerable residents and local action planning.

Together, these activities strengthen accountability and reinforce the AWHP's role as a key mechanism for coordinating national and local policy on climate resilience and public health protection. In addition, the team also responded to 260 enquiries, 14 of which were Parliamentary Questions (PQs).

7. Progress on health equity

In March 2024, UKHSA published the [Adverse Weather and Health Plan Equity Review and Impact Assessment 2024](#), which assessed how effectively the AWHP addresses fairness, inclusion and differential risks across population groups. The review found strong evidence that older adults, people with long-term health conditions and those living in deprived areas are at increased risk from both hot and cold weather. It also highlighted overlapping vulnerabilities – for example, where age, socio-economic disadvantage and pre-existing health conditions intersect – which can substantially heighten risk.

The report identified variations in how different groups access and act on public health guidance, noting that barriers such as language, digital access and health literacy may limit the effectiveness of communications. It also pointed to evidence gaps for certain populations, including pregnant women, people with mental health conditions, inclusion health groups and those in custodial settings, underscoring the need for further research and targeted interventions.

The review was formally presented to UKHSA's Equalities, Ethics and Communities Committee in October 2024. Work is now under way to ensure that equity is embedded across all future AWHP guidance and public-facing tools. A new process is being developed to make equity an integral step in the design and review of all guidance and communications produced under the AWHP.

8. Appendices

8.1 Appendix 1 – Review of annual report 2023 to 2024 recommendations

Programme area	Code*	Recommendation	Status
Plan	AR23P1	Clarify the role of the plan as technical document and its target audience	Completed
Plan	AR23P2	Explore mechanisms that would allow the AWHP format to go through a period of public consultation	Year 2025/26 Under implementation
Plan	AR23P3	Development of a template for local-level planning and AWHP implementation	Year 2025/26 Under implementation
Plan	AR23P4	Provide more detail on sections related to long-term climate adaptation	Completed
Plan	AR23P5	Development of acknowledgment section in GOV.UK for the AWHP Steering Group, Implementation team members and people involved in guidance reviews	Year 2025/26 Under implementation

Programme area	Code*	Recommendation	Status
Plan	AR23P6	Define methods to collect data in terms of media engagement	Year 2025/26 Under implementation
Guidance	AR23G1	Develop a comprehensive methodology framework for updating and reviewing guidance and evidence under the AWHP, ensuring alignment with the latest academic research and public health best practices	Year 2025/26 Under implementation
Guidance	AR23G2	Conduct an audit of existing AWHP guidance to identify areas for improvement and produce an audit report with actionable recommendations	Year 2025/26 Under implementation
Guidance	AR23G3	Establish standard operating procedures (SOPs) for the development and periodic review of AWHP guidance documents to enhance consistency and quality	Year 2026/27 Under implementation
Evidence	AR23E1	Conduct a stakeholder engagement process to identify	Year 2025/26 Under implementation

Programme area	Code*	Recommendation	Status
		key evidence gaps and needs to inform future workstreams	
Evidence	AR23E2	Develop a comprehensive methodological framework for systematically updating and reviewing evidence underpinning the AWHP to ensure alignment with the latest academic research and public health best practices; transparency around sourcing and robustness of evidence; and, effectiveness and relevance of outputs	Year 2025/26 Under implementation
Evidence	AR23E3	Conduct an audit on the Supporting Evidence Documents (SED) to identify areas for improvement and produce an audit report with actionable recommendations	Completed
Evidence	AR23E4	Major updates of SED content to occur on a 5-yearly cycle	Not applicable

Programme area	Code*	Recommendation	Status
Weather-Health Alerts	AR23WHA1	Further refinement of alerting information provided to users on the UKHSA Data Dashboard	Year 2025/26 Under implementation
Weather-Health Alerts	AR23WHA2	Framework for ongoing monitoring and evaluation of the WHA system that includes recommendations to be published	Year 2026/27 Under implementation
Weather-Health Alerts	AR23WHA3	Development of work programme to implement recommendations from this framework, such as developing standardised survey to be issued to a sample of registered users following an AMBER or RED WHA	Year 2025/26 Under implementation
Weather-Health Alerts	AR23WHA4	Develop a work programme to explore user needs and technical capability required to deliver WHA at smaller geographic resolution	Year 2025/26 Under implementation

*AR = Annual report, P = Plan, G = Guidance, E = Evidence, WHA = Weather-Health Alerts

8.2 Appendix 2 – Summary of annual report recommendations

Programme area	Code*	Recommendation
Plan	AR24P1	Improving collaboration mechanisms of internal UKHSA collaboration, through the implementation of AWHP Implementation team workshops per action area
Plan	AR24P2	Improving collaboration mechanisms/engagement with Steering group members (for example, through the implementation of AWHP Steering Group workshops per action area)
Plan	AR24P3	Include a short indicators analysis in the next iteration of the annual report
Evidence	AR24E1	Trial newly developed methodological framework and Standard Operating Procedure (SOP) for evidence updates that incorporate recommendations from the SED audit.
Evidence	AR24E2	Establish a governance and feedback system for evidence updates
Evidence	AR23E3	Continue to explore opportunities to increase

Programme area	Code*	Recommendation
		impactful research partnerships to develop scientific or advisory research projects to address identified key evidence gaps to inform the AWHP and associated products
Weather-Health Alerts	AR24WHA1	Analyse and publish post-alert user survey data following the 2025 summer
Weather-Health Alerts	AR24WHA2	Analyse and publish post-alert user surveys data following the 2025/26 winter
Weather-Health Alerts	AR24WHA3	Provide WHAs at finer geographic resolution in England, to be ready for implementation
Weather-Health Alerts	AR24WHA4	Provide 5-day view of alerting situation on the UKHSA Data Dashboard, to be ready for implementation
Guidance	AR24G1	Trial newly developed Standard Operating Procedures for developing guidance and incorporating new evidence that incorporate recommendations from the guidance audit.
Guidance	AR24G2	Embed process for considering health equity issues when developing

Programme area	Code*	Recommendation
		guidance through incorporation of UKHSA's Equality and Health Equity Assessment (EHEA) Tool

*AR = Annual report, P = Plan, G = Guidance, E = Evidence, WHA = Weather-Health Alerts

8.3 Appendix 3 – AWHP monitoring indicators analysis

Indicator Code	Indicator type	Indicator	Source	Metric	Global indicator	2023/24 Report	2024/25 Report	Variation	Update date	Note
PMCT001	Contextual	Children in absolute low-income families (under 16)	DWP	Number and %	SDG 1.2.2	1,838,721 17.2%%	2,030,840 18.7%	+10.45%	27/03/2025 (FYE 2024)	Correction of last year's data. Percentage based on UK data
PMCT002	Contextual	Children in relative low-income families (under 16)	DWP	Number and %	SDG 1.2.2	2,253,154 21.1%	2,354,687 21.8%	+4.51%	27/03/2025 (FYE 2024)	Correction of last year's data. Percentage based on UK data
PMCT003	Contextual	% households living in fuel poverty under the Low-Income Low Energy Efficiency (LILEE) indicator definition	Fuel Poverty Statistics, DESNZ	%	SDG 11.1.1	13.0%	11.0%	-15.38%	27/03/2025 (2024)	
PMCT004	Contextual	% of Domestic Properties which EPC certificates are grade C or above	MHCLG statistical releases	%	SDG 11.1.1	58.96%	60.72%	+2.99%	30/10/2025	Indicator clarification. Correction of last year's data
PMCT005	Contextual	% of England house stock likely to be considered 'Cold Homes'	Fuel Poverty Statistics, DESNZ	%	SDG 11.1.1	12.7%	No update	N/A	13/09/2024 (2023-24)	
PMCT006	Contextual	% of private and social tenants as overall tenure types	English Housing Survey, MHCLG	%	N/A	35.2%	No update	N/A	28/11/2024 (2023-24)	
PMCT007	Contextual	% of occupied dwelling stock that have had problems with damp in last year (modelled)	English Housing Survey, MHCLG	%	SDG 11.1.1	4.1%	5.3%	+29.27%	17/07/2025 (2023-24)	
PMCT008	Contextual	Number of households initially assessed as homeless or threatened with homelessness and owed a statutory homelessness duty	MHCLG	Number	SDG 11.1.1	324,990	330,410	+1.67%	27/11/2025 (2024-25)	
PMAC001	Activity	% of UKHSA recommendations acted on in a period of 1 year	UKHSA	Number and %	N/A	N/A – New indicator	2/2 100%	N/A	27/11/2025	
PMAC002	Activity	% of UKHSA recommendations acted on a period of 5 years	UKHSA	%	N/A	N/A – New indicator	2/2 100%	N/A	27/11/2025	First year of tracking AWHP report recommendations
PMAC003	Activity	Production of training slide sets on impacts of hot weather on health for NHS England and social care colleagues	UKHSA	Yes/No	N/A	N/A – New indicator	Yes	N/A	13/03/2025	Hot weather risks and their impact on health
PMAC004	Activity	To update 'Cold Weather-Health risk: actions to prevent harm' slide set	UKHSA	Yes/No	N/A	N/A – New indicator	Yes	N/A	20/03/2025	PMAC004 and PMAC 007 merged. Cold weather risks and their impact on health

Indicator Code	Indicator type	Indicator	Source	Metric	Global indicator	2023/24 Report	2024/25 Report	Variation	Update date	Note
PMAC005	Activity	To update the structure of healthcare professional guidance for cold weather to better reflect service organisation.	UKHSA	Yes/No	N/A	N/A – New indicator	Yes	N/A	24/09/2025	
PMAC006	Activity	To update the structure of social care professional guidance for cold weather to better reflect service organisation.	UKHSA	Yes/No	N/A	N/A – New indicator	Yes	N/A	24/09/2025	
PMAC007	Activity	To update the slide sets for NHS England and social care colleagues on the impacts of cold weather on health.	UKHSA	Yes/No	N/A	N/A – New indicator	Yes	N/A	20/03/2025	PMAC004 and PMAC 007 merged. Cold weather risks and their impact on health
PMAC008	Activity	To publish the flood action cards	UKHSA	Yes/No	N/A	N/A – New indicator	Yes	N/A	27/03/2025	
PMAC009	Activity	To produce a toolkit for CRR updates considering the AWHP materials and the NRR 2023	UKHSA	Yes/No	N/A	N/A – New indicator	No	N/A	27/11/2025	Postponed to AWHP 2024/25
PMAC010	Activity	Review of the public UKHSA Heat-Health Communication materials	UKHSA	Yes/No	N/A	N/A – New indicator	Yes	N/A	27/11/2025	
PMAC011	Activity	Review of the public UKHSA Cold-Health Communication materials	UKHSA	Yes/No	N/A	N/A – New indicator	Yes	N/A	27/11/2025	
PMAC011	Activity	Review of the public UKHSA Cold-Health Communication materials	UKHSA	Yes/No	N/A	N/A – New indicator	Yes	N/A	27/11/2025	
PMAC012	Activity	Review of the UKHSA Heat-Health Communication toolkit	UKHSA	Yes/No	N/A	N/A – New indicator	Yes	N/A	27/11/2025	
PMAC013	Activity	Review of the UKHSA Drought Communication toolkit	UKHSA	Yes/No	N/A	N/A – New indicator	Yes	N/A	27/11/2025	Merged with PMAC012
PMAC014	Activity	Review of the UKHSA Cold-Health Communication toolkit	UKHSA	Yes/No	N/A	N/A – New indicator	Yes	N/A	27/11/2025	
PMAC015	Activity	Review of the UKHSA Flooding Communication toolkit	UKHSA	Yes/No	N/A	N/A – New indicator	Yes	N/A	27/11/2025	Merged with PMAC012
PMAC016	Activity	Production of the UKHSA Storms Communication toolkit	UKHSA	Yes/No	N/A	N/A – New indicator	No	N/A	27/11/2025	Decision made not to create a new communication toolkit
PMAC017	Activity	Production of the UKHSA Thunderstorm Asthma Communication toolkit	UKHSA	Yes/No	N/A	N/A – New indicator	Yes	N/A	27/11/2025	Merged with PMAC012

Indicator Code	Indicator type	Indicator	Source	Metric	Global indicator	2023/24 Report	2024/25 Report	Variation	Update date	Note
PMAC018	Activity	Focus groups and customer insights – beat the heat	UKHSA	Yes/No	N/A	N/A – New indicator	Yes	N/A	01/12/2024	
PMAC019	Activity	Focus groups and customer insights – weather-health alert system	UKHSA	Yes/No	N/A	N/A – New indicator	Yes	N/A	27/06/2024	
PMAC020	Activity	Review of health impacts over the heat and cold seasons to inform review of alerting thresholds.	UKHSA	Yes/No	N/A	N/A – New indicator	No	N/A	27/11/2025	Postponed
PMAC021	Activity	Improvement of Weather-Health Alert emails system so users receive the alert within 30 minutes	UKHSA	Yes/No	N/A	N/A – New indicator	No	N/A	27/11/2025	Postponed to AWHP 2026/27
PMAC022	Activity	Addition of further specific action cards and guidance to be included with alert emails for providers, commissioners, third sector and national government departments.	UKHSA	Yes/No	N/A	N/A – New indicator	No	N/A	27/11/2025	Postponed to AWHP 2026/27
PMAC023	Activity	Addition of filter on the Weather-Health Alert dashboard to allow users to see the alert situation over the next 5 days	UKHSA	Yes/No	N/A	N/A – New indicator	No	N/A	27/11/2025	Postponed to AWHP 2026/27
PMAC024	Activity	Creation of framework for academic collaborations for SED reviews	UKHSA	Yes/No	N/A	N/A – New indicator	No	N/A	27/11/2025	Postponed to AWHP 2025/26
PMAC025	Activity	To hold the workshop with academic partners for the iteration of the SED.26/27	UKHSA	Yes/No	N/A	N/A – New indicator	No	N/A	27/11/2025	New process being established as described in AWHP 2025/26
PMAC026	Activity	To publish the UKHSA heat-related mortality final report	UKHSA	Yes/No	N/A	N/A – New indicator	Yes	N/A	03/04/2025	
PMAC027	Activity	To publish the UKHSA cold-related mortality provisional report	UKHSA	Yes/No	N/A	N/A – New indicator	No	N/A	27/11/2025	New process being established as described in AWHP 2024/25 – To be published as official statistics
PMAC028	Activity	Publication of the AWHP Annual Report 2023/2024	UKHSA	Yes/No	N/A	N/A – New indicator	Yes	N/A	16/12/2024	
PMAC029	Output	Launch of the AWHP PowerBI platform	UKHSA	Yes/No	N/A	N/A – New indicator	Yes	N/A	27/11/2025	First phase completed – available internally
PMOU001	Output	Number of registrations to receive AWHP launch webinar	UKHSA	Number	N/A	692	739	+6.73%	27/11/2025	Indicator clarification

Indicator Code	Indicator type	Indicator	Source	Metric	Global indicator	2023/24 Report	2024/25 Report	Variation	Update date	Note
PMOU002	Output	Number of registrations to adverse cold preparedness webinar	UKHSA	Number	N/A	1272	1,215	-4.48%	27/11/2025	
PMOU003	Output	Number of registrations to adverse heat preparedness webinar	UKHSA	Number	N/A	656	1,102	+67.99%	27/11/2025	
PMOU004	Output	Number of engagements with national media partners before and during adverse weather events	UKHSA	Number	N/A	N/A – New indicator	No	N/A	27/11/2025	New process established in AWHP 2025/26
PMOU005	Output	Number of Horizon Scanning – UKHSA and Met Office meetings	UKHSA	Number	N/A	N/A – New indicator	33	N/A	27/11/2025	
PMOU006	Output	Number of hot weather JDRA	UKHSA	Number	N/A	N/A – New indicator	16	N/A	27/11/2025	
PMOU007	Output	Number of hot cold-health alerts	UKHSA	Number	SF G-2	N/A – New indicator	7	N/A	27/11/2025	
PMOU008	Output	Number of hot cold weather JDRA	UKHSA	Number	N/A	N/A – New indicator	19	N/A	27/11/2025	
PMOU009	Output	Number of hot heat-health alert	UKHSA	Number	SF G-2	N/A – New indicator	6	N/A	27/11/2025	
PMOU010	Output	Number of National Patient Safety Alert safety alerts issued	UKHSA	Number	N/A	N/A – New indicator	0	N/A	27/11/2025	
PMOU011	Output	Number of registrations to the AWHP Annual Report webinar	UKHSA	Number	N/A	N/A – New indicator	542	N/A	27/11/2025	
PMOU012	Output	Number of PQ replies and other parliamentary enquiries on climate change and adverse weather	UKHSA	Number	N/A	12	14	+16.67%	27/11/2025	
PMOU013	Output	Number of households claiming winter fuel payment	DWP	Number	SDG 11.1.1	7,290,731	1,184,429	-83.75%	16/09/2025	Change from cold homes payment to winter fuel payment. Correction of last year's data
PMOU014	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	N/A	16,925 2,736	11,888 3,547	-29.76% +29.64%	27/11/2025	Information regarding views and then downloads
PMOU015	Output	% of LRFs that have at least one representative registering for training sessions or webinars	UKHSA	%	N/A	N/A – New indicator	No	N/A	27/11/2025	Postponed to AWHP 2026/27

Indicator Code	Indicator type	Indicator	Source	Metric	Global indicator	2023/24 Report	2024/25 Report	Variation	Update date	Note
PMOU016	Output	Number of different countries represented in webinars hosted by UKHSA to an international on weather and health	UKHSA	Number	N/A	12	11	-8.33%	27/11/2025	
PMOT001	Outcome	Population vaccination coverage: flu (at-risk individuals)	UKHSA	%	N/A	77.8%	74.9%	-3.73%	28/05/2025 (winter 2024-25)	
PMOT002	Outcome	% of LRFs with updated and published community risk register on heat, cold and flooding risks	UKHSA	%	SDG 3.1.3 SF E-2	5.26%	No update	N/A	UKHSA	
PMIM001	Impact	Years of life lost due to adverse weather events	General Register Office	Years of life lost	N/A	N/A – New indicator	N/A	N/A	N/A	Information provided in PMIM008 and PMIM009 (indicators included in the AWHP 2025-26)
PMIM002	Impact	Rate of mortality due to adverse weather events in 65 and over	UKHSA	Deaths in those aged 65 and over per 100,000	N/A	N/A – New indicator	N/A	N/A	N/A	Information provided in PMIM008 and PMIM009 (indicators included in the AWHP 2025-26)
PMIM008	Impact	Years of life lost due to heat	UKHSA	Years of life lost	SDG 1.5.1/13.1.1 SF A-2	16,239	6,931	-57.32%	03/04/2025 (Summer 2024)	Proxy for indicator PMIM001
PMIM009	Impact	Rate of mortality due to heat	UKHSA	Deaths per million	SDG 1.5.1/13.1.1 SF A-2	40	23	-42.5%	03/04/2025 (Summer 2024)	Proxy for indicator PMIM002

PM – Plan Monitoring | CT – Contextual | AC – Activity | OU – Output | OT - Outcome | IM – Impact | PL – Plan | SD – Service Delivery | CB – Capacity Building | OA – Organisation Arrangements | CM – Communication | RM – Risk Management | EW – Early Warning System | RD – Research and data analysis | QA – Quality Assurance | PD – Policy development and Accountability | SDG – Sustainable Development Goal | SF – Sendai Framework

The following indicators were excluded from the analysis considering methodological challenges, and were not included in the AWHP 2025 to 2026 Appendix 6:

- PMIM003 – number of Gastroenteritis outbreak events linked to flood registered in HPZone/CIMS
- PMIM004 – number GP in/out of hours consultations for gastroenteritis syndromes (gastroenteritis, diarrhoea and vomiting) in areas under severe flood warnings
- PMIM005 – number of laboratory diagnosed cases of gastrointestinal pathogen in flooded areas (Salmonella spp; E. coli; Campylobacter; Norovirus; Cryptosporidium; Hepatitis A)
- PMIM006 – number of gastroenteritis Emergency depart attendances in areas under severe flood warnings
- PMIM007 – number of leptospirosis cases diagnosed in the 4 weeks post-flooding, and upon follow up found to be associated with floodwater exposure

8.4 Appendix 4 – global indicators analysis

Indicator ID	Global indicator	AWHP indicator	Metric	Report	Date Period
SDG 1.2.2	Proportion of men, women and children of all ages living in poverty in all its dimensions according to national definitions	Children in absolute low-income families (under 16)	Number and %	2,030,840 18.7%	27/03/2025 (FYE 2024)
		Children in relative low-income families (under 16)	Number and %	2,354,687 21.8%	27/03/2025 (FYE 2024)
SDG 1.5.1/13.1.1 SF A-2	Number of deaths, missing persons and directly affected persons attributed to disasters per 100,000 population	Years of life lost due to heat	Years of life lost	16,239	03/04/2025 (Summer 2024)
		Rate of mortality due to heat	Rate per 100,000	2.3	03/04/2025 (Summer 2024)
SDG 11.1.1	Proportion of urban population living in slums, informal settlements or inadequate housing	% households living in fuel poverty under the Low-Income Low Energy Efficiency (LILEE) indicator definition	%	11.0%	27/03/2025 (2024)
		% of Domestic Properties which EPC certificates are grade C or above	%	60.72%	30/10/2025
		% of England house stock likely to be considered 'Cold Homes'	%	12.7%	2023/24 13/09/2024
		Number of households claiming Cold Homes payment	Number	1,184,429	16/09/2025

Indicator ID	Global indicator	AWHP indicator	Metric	Report	Date Period
		% of occupied dwelling stock that have had problems with damp in last year (modelled)	%	5.3%	17/07/2025 (2023-24)
		Number of households initially assessed as homeless or threatened with homelessness and owed a statutory homelessness duty	Number	330,410	27/11/2025 (2024-25)
SDG 13.1.3 SF E-2	Proportion of local governments that adopt and implement local disaster risk reduction strategies in line with national disaster risk reduction strategies	% of LRFs with updated and published community risk register on heat, cold and flooding risks	%	5.26%	02/2024
SF G-2	Number of countries that have multi-hazard monitoring and forecasting systems.	Number of alerts issued by alert level	Number	13 Alerts 11 Yellow 2 Amber	04/2025

SDG – Sustainable Development Goal | SF – Sendai Framework

8.5 Appendix 5 – list of AWHP publications

AWHP-related products:

- updated Weather Health Alerting System | Published 21 June 2024
- updated Cold Health Alert Action Card | Published 27 June 2024
- Weather Health Alerts User manual | Published 6 July 2024
- Heat Mortality Monitoring report: 2023 | Published 22 July 2024
- How Heat-Health alerts contribute to keeping the vulnerable safe this summer blog | Published 30 July 2024
- Flooding Analysis report | Published 14 August 2024
- AWHP Annual Report 2024 | Published 16 December 2024
- Adverse Weather Capacity Building materials | Published 13 March 2025
- Adverse Weather Health Plan 2025 to 2026 | Published 20 March 2025
- Flood-Health Action Cards | Published 27 March 2025
- AWHP Microteach | 31 March 2025

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