



UK Health
Security
Agency

Flooding and Health Workshop: October 2023

Summary report

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Summary

The UK Health Security Agency's (UKHSA) Extreme Events and Health Protection (EEHP) published updated [flooding and health guidance](#) for the public and for frontline responders in October 2023. Representatives from national and local organisations responsible for flood response and recovery were invited to participate in a 1.5 hour online stakeholder engagement workshop in October 2023, to share their experiences and opinions on how to mobilise and improve uptake of the updated flooding and health guidance materials across England. This report presents the key findings, identifies areas for improvement, and collates the experiences of response staff working across England.

Key findings:

Public awareness of flooding continues to be a challenge, suggesting a need for audience-specific guidance formats (interactive materials, videos).

Responders observed a lack of long-term or psychological support for communities following a flood.

1. Introduction

In 2023, a review of existing flooding and health guidance was undertaken by UKHSA's Extreme Events and Health Protection (EEHP) team. This review took place in support of UKHSA's commitment under the UK Government's second National Adaptation Programme (NAP) to develop the Adverse Weather and Health Plan for England (launched in April 2023) and associated workstreams, including the Plan itself, supporting evidence, the Weather-Health Alerts system, guidance, and materials. The updated [flooding and health guidance and advice](#) documents for the public and frontline responders were published on 26 October 2023.

Development of the flooding and health guidance materials, as well as the associated workshop, were carried out as part of collaborative work with the National Institute of Health Research (NIHR)-funded Health Protection Research Unit (HPRU) in Environmental Change and Health; and in consultation with key stakeholders, including: the Environment Agency (EA), other UKHSA directorates, Department for Environment, Food & Rural Affairs (DEFRA), Local Government Association (LGA), NIHR, London School of Health and Tropical Medicine (LSHTM).

The overall aim of the workshop was to support further updates to UKHSA's flooding and health guidance and to inform wider operational preparedness and response to flooding and associated adverse weather risks.

The workshop aimed to provide participants with an opportunity to:

- gain increased understanding of the impacts of flooding on public health and measures to reduce them
- gain familiarity with key recommendations and advice from the newly issued guidance on flooding and health from UKHSA
- ensure that UKHSA resources on flooding and health guidance meet the needs of end users
- voice their opinions on how to mobilise and improve uptake of the updated flooding and health guidance materials across all regions of England
- make links with, learn from and share best practice, knowledge and expertise with colleagues across England

This report provides a record of the workshop and outlines key findings from analysis of qualitative data collected from the participants' contributions during the workshop, breakout groups, and plenary sessions.

2. Methodology

The challenge of addressing the risks to health from flood events cuts across all health and social care services and public, private and voluntary and community sectors. A collaborative, partnership approach is essential to developing, improving and cascading our resources and ensuring they reach end users and meet their needs.

2.1 Participants

Forty stakeholders representing the academic sector, local authorities, national government departments, voluntary and community sector, and the NHS were invited to participate in an online (via MS Teams) 1.5 hour online stakeholder engagement workshop on Thursday 26 October 2023. The workshop was facilitated by 10 members of UKHSA and LSHTM staff. For details on the number of stakeholders from each sector in attendance, see Annex 2.

2.2 Workshop questions

The workshop registration form informed participants about the updated flooding and health guidance materials and provided the following 4 headline questions for discussion (prompts were added to the workshop facilitation guide and asked, as appropriate, by breakout group facilitators):

1. How are you currently using UKHSA's flooding and health guidance documents?

Prompts:

- Are you using them at all? Currently or have you used them in the past?
- If not (for example academics), have you experienced others using them? If so, how are they using them?

2. What are the knowledge gaps identified by frontline responders when responding to a flood event?

Prompts:

- Improve understanding of their evidence needs with respect to reducing the risk to health, including mental health, from flooding.
- What further steps might be taken to meet those needs in addition to the guidance documents produced?

3. How can the products be improved for end-user experience?

Prompts:

- Explore who needs what evidence, in what format, and when, to develop processes to support the effective translation of evidence into action for health.
4. **What are the key priorities to better align key actors and services (for example government agencies, voluntary and community groups, NHS, social care, emergency services) responsible for public safety and flood response and recovery?**

These themes and questions were informed by the guidance updates process and operational questions that have arisen through EEHP's involvement in flood preparedness and response. Rather than just answering the questions the participants were encouraged to discuss their experiences and ideas with each other and ask for clarity on anything they were unsure about from the UKHSA expert.

2.3 Overview of the workshop programme

The approach to the workshop was intended to maximise opportunities for learning and exchange between all parties, as well as providing valuable input on guidance mobilisation and response activities.

Presentation

UKHSA staff delivered a 45 minute presentation providing an overview of the AWHP, an overview of the flooding and health guidance update process and of the HPRU in Environmental Change and Health, and a presentation on associated research that has been recently completed through the HPRU: 'Climate change, flooding and chemicals in the environment: an international scoping review'.

Small group discussions

Stakeholders were randomly assigned to 5 virtual 'breakout rooms' for small group discussions of the workshop questions. Each room was comprised of one facilitator (UKHSA or LSHTM staff), at least one expert from UKHSA's EEHP team, a notetaker, and between 5 to 12 stakeholders. The primary role of the UKHSA expert was to provide information on the updates to the guidance and response activities, and to answer questions from stakeholders.

Plenary session

Feedback provided by each group on the small group discussions. Thanks and next steps.

2.4 Data analysis

The workshop was recorded (via MS Teams), transcripts from each group were collected, and thematic analysis undertaken. Themes were identified and arranged in 3 groups:

1. Preparedness
2. Response
3. Recovery

The group names represent the stages of flood risk management and allowed for issues that had emerged during Storm Babet to be highlighted for further consideration.

2.5 Limitations

Limitations to this work were observed in its reliance upon UKHSA staff members to both lead and participate in the breakout rooms. This UKHSA presence may have led to workshop attendees withholding criticism of the guidance materials or operational aspects out of professional courtesy. Future workshops could be organised by external staff to develop a more open and honest discussion space. Multiple attendees suggested the development of new guidance or systems that were already available to responders. Whether this is due to lack of awareness, or engagement with the materials distributed prior to the webinar is unclear; perhaps necessitating a follow-up survey to understand where this knowledge gap occurs.

That the workshop was held during Storm Babet (16 to 23 October 2023) is important to note for context and potential effects on participant attendance and contributions.

3. Results

3.1 Theme 1: Preparedness

‘Preparedness’ focuses on the organisation and structuring of government organisations, local partners, and responders in preparation for a flooding event. Contributions from partners were particularly influenced by the Storm Babet flooding response.

Knowledge gaps among responders undermined the handling of flooding events, with organisational hierarchy, areas of remit, and guidance availability all being common areas for feedback from participants. Ambiguity on roles, responsibilities, and the positioning of organisations within hierarchies were problematic for response staff as they led to conflicting messaging and revealed further issues with preparedness during the Storm Babet response. These included: ineffective information sharing during situation reports (sitreps), unfamiliarity with the wider effects of flooding (mental health, contamination), as well as the capacity and function of neighbouring responder organisations.

A lack of capacity and resources underpinned the issues regarding knowledge gaps. Several participants noted that many local councils had limited flood preparations: lacking dedicated adverse weather teams, or only having enough flooding defences (for example, sandbags) to protect critical infrastructure. These limitations would then have a cascading impact upon other sectors, with local populations unable to access support, or overwhelming local helplines due to lack of preparation. Attendees from local authorities were particularly keen to emphasise the lack of availability of funding to address these limitations.

Public awareness of guidance resources continued to be an issue flagged by multiple participants across the breakout groups. Suggestions for improvements included: shortening the length of printed materials, and producing an action checklist (likely to be beneficial particularly for older audiences), and more interactive guidance formats for the younger generation. Responders noted that public awareness and education on flooding was limited, with reports that local communities did not believe flooding posed them risk.

3.2 Theme 2: Response

The ‘Response’ theme focuses specifically on feedback that representatives became aware of during a flooding event (Storm Babet). Participants from each breakout room were concerned by an ambiguity in remit and responsibility between organisations and their responders. One emergency service colleague emphasised a need for greater clarity on prioritised actions for category 1 responders. Another attendee felt the responsibilities of responders needed to be better outlined for relevant on-call staff. The issue of priority actions and responsibilities for category 1 responders also pairs with participants’ requests for guidance on supporting populations most at risk from flood events. Concerns that

particular health conditions could negatively impact the ability of category 1 responders to assist the public were raised across the groups. In particular, participants were keen to suggest guidance that gives special consideration to ensure the safety and comfort of these vulnerable groups.

A perceived lack of clarity becomes more problematic within the context of public communication and awareness. Multiple attendees noted that responder phonelines were overwhelmed by members of the public and organisations who were unclear on areas of remit (for example, for the acquisition of sandbags, accommodation, or who was accountable for aspects of flood recovery). Considered with Theme 1's commentary on the general public's lack of flood awareness, this issue of communication may be the result of low personal perception of flood risk – an idea echoed by one of the breakout room's participants.

Participants also reported that companies and businesses demonstrated limited understanding of flood risks for their place of work. This included not having flooding plans or resources in place to respond to flooding.

3.3 Theme 3: Recovery

Feedback within this theme focused on recovery following a flooding event. Participants reported key issues with long-term strategy and recovery to assist communities after an incident. An attendee from a local authority noted their dependency on charities to find accommodation for evacuated persons, particularly for longer periods where flood damage was severe. This was compounded by a lack of insurance coverage from evacuated persons and reluctance to inform insurance providers due to the impact on insurance premiums.

Much of the guidance available to responders was focused on short-term recovery, or immediate response. Almost a quarter of participants suggested it would be useful to develop resources discussing psychological impacts of flooding, as well as longer-term strategies for local organisations supporting community-rebuilding efforts. However, this example highlights a further issue regarding responder awareness of existing resources as the UKHSA had already published guidance on [mental health impacts of flooding in 2022](#).

The issue of long-term recovery may also be related to a lack of knowledge continuity. Participants who noted a lack of adverse weather teams or flooding scenario training within their organisation were also concerned about gaps in knowledge, or disruptions to communications from duplicated information and unclear remit. These issues would often be discussed within the context of a shrinking knowledge-base, or lack of specialist knowledge for flooding prevention. In some cases, participants would request solutions already provided by the UKHSA. One participant proposed that the organisation of information-sharing cells and sitreps should be a priority for Government, despite DEFRA coordinating sitreps throughout the Storm Babet response.

4. Conclusion

The workshop provided valuable insights into the existing processes and guidance available to flood response groups, as well as the experiences of their staff in responding to flooding events. The discussions that emerged from this workshop are immediately useful in that they demonstrate a broader set of challenges facing UK flood response:

- **A lack of flood education in the general population:** with a need for educational materials to be developed to better prepare for flooding events. This could be particularly significant given [NAP3](#)'s expectation that flooding will become increasingly frequent in the UK
- **Knowledge continuity for responders:** ambiguity among responders on guidance, hierarchy, response priorities. Participating responders cited a lack of training exercises, knowledge continuity, and guidance for supporting individuals with physical or mental conditions
- **Understanding long term recovery and mental health:** mental health resources and psychological support for flood victims were requested across each breakout room. Emphasis was given to long-term factors that could impact wellbeing: displacement from a flood-damaged home, loss of community, insurance coverage. Although the [flooding: health guidance and advice](#) published alongside the workshop does provide information regarding long-term support, the frequent request for mental health support from participants could provide the basis for an expansion of these materials in the future

Limitations to the workshop include its reliance on UKHSA staff to host the breakout room discussions: this may have limited criticism towards UKHSA-driven actions or guidance by external participants. This limitation could be resolved by involving more external staff in the hosting of these sessions.

The short time between the publication of the new flooding guidance and the workshop may also have exacerbated the issues of knowledge continuity outlined above: participants would not have necessarily familiarised themselves with the new guidance prior to attendance, and may have provided feedback for outdated guidance. Steps to resolve this could include increasing the time between guidance publication and workshop sessions.

Further refinement to the methodology for note-taking could also better assist with data recording for the purposes of future analysis, as ambiguity in workshop notes caused difficulty in identifying frequently-occurring issues from individuals focused on a limited set of issues.

Annex 1: analysis annotations

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|--|--|
| <p>Theme 1 Annotations:</p> <p>Remit: There was a lack of knowledge of the role of emergency responders and who calls the shots and coordinates evacuation – are organisations outside of CS aware of the hierarchy?</p> <p>Public awareness: Leaflets contain too much text. The younger generation may benefit from a product that is more interactive.</p> <p>Public awareness: Informing public and public knowledge as the public don't expect flooding.</p> <p>Planning: Partners note flooding exercises are neglected – suggests greater frequency of training is useful for knowledge continuity.</p> <p>Planning: “Some councils only have sandbags enough for critical infrastructure” – councils do not have funding for flooding, have to apply to schemes with limited availability.</p> | <p>Recommendations from responders:</p> <p>Public awareness: Action card checklists and interactive guidance for younger generations.</p> <p>Planning: Central contact list for vulnerable groups.</p> |
| <p>Theme 2 Annotations:</p> <p>Coordination: Question over action priority for responders, and how agencies can enforce policy during response interactions with public.</p> <p>Coordination: Daily information cells and sitreps requested at all levels.</p> <p>Response resources: Centralised location on info on vulnerability. Guidance for helping people with specific issues: hoarders, bariatrics.</p> <p>Response resources: Dedicated response teams need to be set up to ensure this continuity of knowledge and to build greater awareness.</p> | <p>Recommendations from responders:</p> <p>Response resources: Bespoke guidance for specific medical conditions.</p> <p>Response resources: Vulnerable persons list for local authorities. GDPR issue is immediate concern.</p> |
| <p>Theme 3 Annotations:</p> <p>Long term: We struggled to find alternative accommodation for them, especially long term – they may not be able to return home for 6 months.</p> <p>Retention: “Flooding spreads to other areas due to ineffective response” – combined with infrequent training suggests a long-term issue with knowledge retention.</p> <p>Long term: Short-term focus on aftermath rather than long-term impacts and recovery.</p> <p>Learned experience: “Guidance/flooding plans should be reviewed after flooding event” – need for more frequent reviews of information.</p> | <p>Recommendations from responders:</p> <p>Contact info: Longer term recovery planning needed, contact list for vulnerable areas would be useful – GDPR issue is immediate concern.</p> <p>Long-term mental health: More resources should be allocated to providing long-term support for communities recovering from flooding. Some will be displaced from their homes for 6 months. Mental health support needs to be in place.</p> |

Annex 2: overview of attendees

| Organisation | Attendees |
|--------------------------------|-----------|
| National government | 22 |
| Academia | 4 |
| Local authorities | 6 |
| Voluntary and community sector | 1 |
| NHS | 7 |
| Total | 40 |

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.

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Prepared by: Extreme Events Health Protection
For queries relating to this document, please contact: Extreme.Events@UKHSA.gov.uk

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