



Public Health  
England

# Findings of a study of the usefulness of HPA/PHE Flood Factsheets

# About Public Health England

Public Health England exists to protect and improve the nation's health and wellbeing, and reduce health inequalities. It does this through advocacy, partnerships, world-class science, knowledge and intelligence, and the delivery of specialist public health services. PHE is an operationally autonomous executive agency of the Department of Health.

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## Foreword

Under the Civil Contingencies Act 2004, PHE is responsible to the Secretary of State for Health as a Category 1 Responder in the event of a national flood incident. Communicating with the public about the health effects of flooding before, during and after an emergency is essential to help minimise the potentially significant impact flooding can have upon health. This evaluation of the usefulness of the HPA/PHE flood factsheets and the findings within this study predate the winter 2013/14 floods and the guidance PHE produced during its response. An evaluation of this guidance is contained in the companion report '*Evaluation of the joint PHE/EA flooding leaflet following the winter floods of 2013/14*'.

## Caveat

The comments, discussions and recommendations contained in this report have been summarised from the direct participant feedback. They do not necessarily reflect the views and opinions of Public Health England, or the affiliated organisations.

## Introduction

Flooding is a regular occurrence in the UK and is associated with a range of impacts on health and well-being. After the flooding in 2007, five leaflets for the public were published by the Health Protection Agency (HPA) in 2008 and 2012:

- health advice: general information following floods (2008)
- health advice: coping without mains water (2008)
- health advice: how to clean up safely following floods (2008)
- health advice: general information about mental health following floods (2012)
- flooding and mental health: essential information for front-line responders (2012)

## Aims and objectives

The aims of the evaluation were to:

- investigate the usefulness of the flood factsheets following the transition from HPA to PHE

- identify ways to improve the factsheets and to make the information more easily accessible by a greater number of people

## Methods

The evaluation consisted of four focus group discussions (FGD), each lasting half a day. The FGDs were held in March and June 2013 in Nottingham and Exeter; areas that had been badly affected by flooding in 2012.

In each location, one FGD was conducted with members of the public who either experienced flooding personally or lived in high flood risk areas, and the other was held with frontline flood personnel responsible for providing emergency planning and response for flood emergencies.

Members of the public were recruited through an agency and the HPA Public Panel. Frontline flood personnel included flood emergency services, Department of Communities and Local Government, British Red Cross, Met Office, and representatives from local authorities. Audio recordings and notes were taken, using a formatted discussion guide (see Appendix 1). Fifteen adult members of the public, and eighteen frontline flood personnel, participated in the focus groups. Members of the public received payment; employed staff did not. The notes from each focus group were reviewed and results were analysed thematically.

## Results

### Theme 1: Confusion regarding access and distribution of health-related flood information

Many different sources of health-related flooding advice were identified including health and other partner agencies, local, national, statutory and non-statutory agencies and social media. There was very little awareness of the HPA Factsheets – the leaflets were considered complementary rather than the first port of call for advice. For some, health information was not an immediate priority, but one that might emerge at a later date.

Duplication of information, confusion of access, and easier distribution of flood-related health information would be avoided by producing one public-facing guidance document. Ideally, this would contain flood messaging agreed across all participating agencies and available on one central site. However the groups felt that too much emphasis is placed on the internet as the

main source of information; consideration needs to be given to populations that are not internet-literate and circumstances where power outages restrict access to the internet for advice.

Ideas for improving the distribution of flood-related health information generated several ideas. These included the provision of a laminated pack to every household (with resource implications), and other community-led initiatives such as better use of social media and smartphone applications.

## Theme 2: Suggestions for improving leaflet content

The flood leaflets contained useful information, but content and formatting could be improved.

The format could be improved by reducing the amount of text and producing Easy Read and British Sign Language versions. Other suggestions included removing coloured backgrounds; highlighting important points in summary boxes and using illustrations and icons for those with low levels of English.

The content could be improved by consolidating the separate leaflets into one, with advice structured into sections before/during/and after a flood incident. Specific content related improvements suggested for inclusion were:

- prioritising injury and drowning due to the physical force of water rather than water-borne infections
- preparation checklists and phone numbers
- emphasising evacuation advice following a flood incident
- mental health advice incorporated into the general advice to reduce stigma
- clarification on the approved water options for baby-feed and handling of electricity

## Theme 3: Self-sufficiency and community cohesion

Some participants felt that they should take personal responsibility for themselves during a flood and would not expect help from anyone else. The feeling was that people should keep themselves safe and protect their properties with an onus on them to seek health-related flood information if necessary.

Better planning and the preparation of emergency packs were thought to help increase the ability to be self-sufficient. Some participants felt the need for national community resilience campaigns encouraging local communities to support each other, and to look after their neighbours. Some felt that rural areas have a better sense of community.

## Theme 4: Evacuation and vulnerable populations

Emergency flood personnel raised issues about the challenges of identifying and evacuating vulnerable populations, such as elderly people, and those with mobility and/or weight problems. They also highlighted the challenges of having accurate and up-to-date information on their location, including needs of their local population, in an emergency. There is no flood evacuation register and creating one may pose many problems.

Specific issues relating to evacuation were raised. There is no enforcement power requiring evacuation, and economic factors often influence the decision of people to evacuate and to use the rest centres provided. People with pets may put themselves at risk by refusing to evacuate if there is no provision for their pets. Some populations have particular difficulties in rest centres, including those living in caravan parks, people with drug and/or alcohol problems, and those with multiple health problems.

## Theme 5: Health risks observed/experienced

During a flood, participants discussed the risky behaviours of people who do not follow advice, such as driving through flood water, which then puts others at risk to rescue them. Other health risks include chemical contamination of floodwater in rural areas, and water quality issues, particularly for those with private water supplies. Accidental injuries were also raised when people are moving and lifting items, and rescuing pets.

Health issues during clean-up included the risk of carbon monoxide (CO) poisoning, the need to use the correct cleaning products, and power-tool related accidents and injuries. People might be dealing with stress and consequently might not be mindful of the risks, or may miss signs and early symptoms of flood-related illness. During recovery, specific mental health risks were observed and/or experienced, since dealing with the impact in homes and businesses can be exhausting and emotional, with significant long-term consequences impacting on relationships and future plans.

## Theme 6: Rural communities

Rural communities have issues that are different from urban communities, including private water supplies and overflowing septic tanks, but they may also have greater community cohesion, and access to resources such as farm machinery. Rural communities are often more practical and some will be more prepared out of necessity, since emergency services cannot easily reach them.

## Theme 7: Advice people would like to have or that is needed

Participants wanted additional health-related advice about specific issues including bacterial infections, chemical and environmental hazards, and the mental health impacts of flooding. Other practical advice was also requested related to aspects of recovery, as well as more detailed information about the likelihood and severity of flooding.

## Outcomes

This study shows that an evaluation of the factsheets was timely, and that improvements can be made, so they are more user-friendly, practical and more widely available. Awareness of the factsheets and of flood-related health advice in general needs to be increased. Local authorities, with their new public health responsibilities, are well placed to distribute PHE's flood materials.

Measures could be taken to simplify and streamline the resources available to the public through a cross-agency guidance document providing consistent messaging to members of the public. The internet should not be relied upon as the sole means of accessing this information.

Reducing risk-taking behaviour was also a recurrent theme. Preparation is key to being empowered. Rural communities may be more self-sufficient and have a stronger sense of community cohesion compared to urban communities. Community cohesion appears to develop naturally following a flood emergency, and local community groups could provide a useful channel for raising awareness of PHE resources.

The findings of the FGD are not intended to be representative of a larger population, but instead provide a rich narrative. There may have been selection bias, as participants may differ from non-participants and will have higher levels of engagement with public health activities. Agencies were also not equally represented, and some partners were not represented at all, which may have affected the findings. Similarly, focus groups held in other cities in England may have produced different findings.

## Recommendations and next steps

- a new single cross-agency flood guidance factsheet should be designed, produced and stored in a central location
- the information should be simplified, arranged temporally and include icons/imagery to support people with low levels of English



- an easy-read version should also be considered
- local authorities are ideally placed to distribute health-related flood messages
- there should not be over reliance on the internet as a sole communication channel

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## References

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# Appendix one

## Discussion guide for members of the public

Part 1: Welcome; introductions; introduce HPA/PHE and aims of the FGD

Part 2: Explore awareness of health advice available for flood emergencies:

- Who is expected to provide health advice in flood emergencies?
- Where would you look for this advice?
- In a flood what sort of health advice would you want?
- Before this FGD were you aware of HPA's flood health advice factsheets? If so, have you used them?

Part 3: Flood scenario:

- Preparing for a flood: What health information do you need to prepare and how would you expect to receive it?
- Coping with a flood: What would you want to know about the potential health risks, who would you expect to provide this information, how would you expect to receive it?
- Flood recovery: What would you want to know about the health risks, who would you expect to provide this information and how would you expect to receive it?

Part 4: Review of the factsheets:

- Language; style/structure; how would you expect to receive this information?

Part 5: Summary of the day; ways forward and lunch

## Discussion guide for flood personnel

Part 1: Welcome; introductions; introduce HPA/PHE and aims of the FGD

Part 2: Explore awareness of health advice available for flood emergencies:

- Who is expected to provide health advice in flood emergencies?
- Where would this advice be accessed?
- In a flood what sort of health advice is needed?
- Before this FGD were you aware of HPA's flood health advice factsheets; if so, have you used them?

Part 3: Flood scenario:

- Preparing for a flood: What health information is needed to prepare and how should it be delivered?

- Flood emergency: What information is needed about the potential health risks, who is expected to provide this information, how is it best to deliver this information, what specific health risks have you observed during an actual flood emergency?
- Flood recovery: What information is needed about the potential health risks, who is expected to provide this information, how is it best to deliver this information, what specific health-related remediation issues have you observed?

Part 4: Review of the factsheets:

- Language; style/structure; how should this information be distributed/accessed?  
Have you ever used these factsheets in a flood emergency?

Part 5: Summary of the day; ways forward and lunch