

# Vulnerability and resilience

Public awareness and perceptions of flood risk in the UK



# Introduction

## 5.2M

households in England alone are at risk of flooding<sup>1</sup>

Millions of people are at risk of flooding in the UK. In England alone, approximately 5.2 million households are at risk<sup>1</sup>, and the number of people exposed to frequent flooding in the UK is projected to increase by 61 per cent by 2050 and 118 per cent by 2080.<sup>2</sup> Climate change drives this, increasing the intensity and frequency of extreme rainfall events throughout the year and causing sea levels to rise, which heightens flood risks in coastal regions.<sup>3,4</sup> Additionally, the UK's population growth increases demand on drainage and sewerage systems, heightening the risk of surface water flooding.<sup>5,6</sup>

## £32K

is the average insurance claim per household<sup>13</sup>

The impacts of flooding are severe, profoundly affecting the physical and mental wellbeing of those impacted.<sup>7,8</sup> Flooding also comes with high economic tolls: UK flood damage costs an estimated £2 billion annually.<sup>9</sup> In 2023, Storm Babet alone cost the Scottish economy up to £650 million.<sup>10,11</sup> Widespread damage to critical infrastructure, such as power supply during storm Henk<sup>12</sup>, plays a significant role in these costs. In 2020, insurance claims for flooding following major storms averaged £32,000 per household, not accounting for additional disruptions to daily life, work, and education.<sup>13,14</sup>

In this escalating context, the British Red Cross plays a crucial role in alleviating the impact of flooding. Since 2019, we have responded to over 500 UK flood incidents, distributing essential supplies such as food, dry clothing and hygiene kits, and offering emotional support and practical advice to help individuals and families recover. Our support extends beyond immediate relief, through initiatives such as the [Weather Together](#) resources and [Community Resilience Toolkit](#) we empower communities to prepare for and adapt to extreme weather.<sup>15</sup>

## £2B

is the estimated annual cost of UK flood damage to the economy<sup>9</sup>

Through our emergency response, we have observed that flood vulnerability is not determined solely by location. Factors such as property type, understanding of risk, preparedness, and physical and mental health conditions play a significant role.<sup>16</sup> Poverty intersects many of these.<sup>17</sup> People living in poverty are more likely to live in higher flood-risk areas owing to lower housing costs, and often lack resources to implement Property Flood Resilience (PFR)<sup>i</sup> measures that could help protect their homes from flooding.<sup>18</sup> People less able to afford insurance covering flood damage are left especially vulnerable to the substantial costs of flood recovery, including repairs to their home, replacement of possessions and temporary accommodation.<sup>19</sup>

The British Red Cross's previous research, [Every Time It Rains](#)<sup>20</sup>, and [Public Perceptions of Heatwaves](#)<sup>21</sup> show that those most vulnerable to the effects of extreme weather often have the lowest awareness of their risk and the least knowledge of how to prepare.<sup>22</sup> This report, published two years after [Every Time it Rains](#) and in the aftermath of the devastating winter floods of 2023-2024, presents fresh insights into public perceptions of flooding and flood preparedness in the UK. The findings further deepen our understanding of these issues, highlighting the need to address the link between social vulnerability and resilience.

<sup>i</sup> Property Flood Resilience (PFR) measures are adaptations made to buildings to help reduce flood damage. These include installing flood doors, raising electrical sockets, applying waterproof coatings to walls, and using water-resistant materials to make properties more resilient to floodwater and quicker to recover after a flood event.

# Findings

Between the **17th and 25th September 2024**, the British Red Cross commissioned Opinium to conduct a survey to explore public experiences of flooding, understanding of flood warnings, levels of preparedness, and the impact of flood events. The survey reached a total of 3,306 adults across all four nations of the UK, comprising a nationally representative sample of 2,000 people in the UK, with additional boosts to include 534 adults from Scotland, 500 from Wales, and 272 from Northern Ireland. Participant postcodes were then used to identify levels of vulnerability to flooding and deprivation using the Social Flood Risk Index (SFRI) and Index of Multiple Deprivation (IMD) to enable comparison.<sup>ii</sup> The following section presents the key findings from this research.

## Experiences of flooding in the UK



**1 in 6 UK adults**

say their home has been flooded in the past, with...



**1 in 50**

people having experienced flooding to their home in the last year, and...



**1 in 11**

in the last 5 years.



**1 in 5**

people living in urban areas reported experience of flooding compared to around...



**1 in 7**

in rural areas.

Younger people aged 18 to 34 are more likely to have ever experienced a flood to their home than those over 55 (**31% vs 6%**).

**31%**

**6%**



In England, flooding is more likely to affect those living in the most deprived areas. **20%** of those in the **10%** most deprived neighbourhoods<sup>iii</sup> report experiences of flooding, compared with **10%** in the **10%** least deprived neighbourhoods.



**20%**



**10%**

<sup>ii</sup> The Social Flood Risk Index (SFRI) is a measure used to assess the relative vulnerability of different areas to flooding, accounting for factors such as social, economic, and demographic characteristics. It helps identify communities that may need additional support to prepare for, respond to, and recover from flooding events. References to social flood risk in this report are guided by the SFRI.

<sup>iii</sup> The Index of Multiple Deprivation (IMD) is a UK government measure used to rank areas of England based on various deprivation factors, including income, employment, health, education, housing, and crime. It is commonly used to identify the most deprived areas and allocate resources accordingly, supporting policies that address social inequality. References to 'most/least deprived areas' in this report are guided by the IMD.

# Understanding risk

Across the UK, 1 in 10 people (**10 per cent**) live in an area they consider to be at high risk of flooding. Given that an estimated 1 in 6 properties are at risk of flooding, this indicates that many are not aware of their flood risk.<sup>23</sup> Concerningly, the number of people who identify themselves as living in high-risk flood areas does not increase among those living in high, very high or extremely high social flood risk areas on the Social Flood Risk Index (SFRI) (**11 per cent**). Moreover, only a third (**36 per cent**) of those who have been flooded in the past 5 years report living in an area at high risk of flooding, suggesting that many may not recognise their area's flood risk even after flooding.



**65%** Two-thirds of UK adults believe flooding is worsening in the UK but...

**73%** around three-quarters rarely think about their own home being flooded, including...

**54%** over half of people who report living in a high-risk flood area.

**61%** Only 3 in 5 feel they have a good understanding of the current flood risk to their home

**24%** report that they do not know how to find out about the flood risk in their area.

People in the **20 per cent** most deprived areas in England have lower confidence in their understanding of flood risk compared with those in the **20 per cent** least deprived areas: **57 per cent** and **70 per cent** respectively agree that they have a good understanding of the flood risk to their home. This contrast highlights a concerning disparity: people in the most deprived areas, who are likely to be more vulnerable to the impacts of flooding, may also have less awareness of their risk, limiting their ability to prepare effectively.

**Worryingly, information gaps are evident among those most affected by flooding: nearly half (48 per cent) of those who have experienced flooding in their home within the last 5 years say they have not seen any information about flooding in their area.**

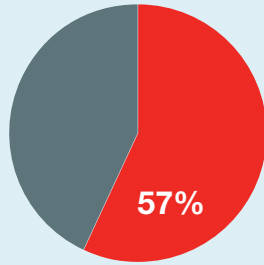
However, there are some signs of improvement. In our 2022 poll, only **27 per cent** reported a good understanding of the flood risk to their home and area. Although the questions differed slightly this year, this may indicate a rise in public awareness, potentially influenced by recent campaigns like the [Environment Agency's Flood Action Week](#), alongside high media coverage of major floods in winter 2023–24.<sup>24,25</sup>

**47% of people say they know how to find out about the risk of flooding in their area.**

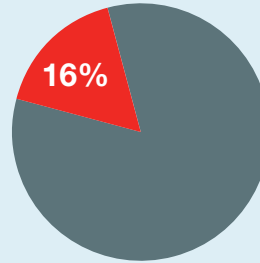
# Flood warnings

**Over half  
(57%)**

of people who have been flooded in the past 5 years are signed up for flood warnings



vs



**1 in 6  
(16%)**

of the general population.



**Two-thirds (66%)**

of those who have experienced more than one flood in the last decade are signed up for flood warnings.

Although this suggests that direct experience with flooding leads to greater sign-up rates, it also highlights that a substantial proportion of people previously affected by floods may still not be receiving information that could help them in a future flooding scenario. The implications are concerning, as flood warnings can provide time to take necessary actions to mitigate the impact of flooding.

## Those signed up for flood warnings are more likely to:

Be aged 18-34

than aged 55+



Live in an urban area

than a rural area



Report that they live in a high-risk area

than report they do not



Be from highest income households

than lowest income households<sup>iv</sup>



<sup>iv</sup> In this report, households with an annual income of £29,500 and under are defined as "lowest income", and households with an annual income of £75,000 and above are defined as "highest income". In the survey, respondents were asked for their total household rather than individual annual income. This allowed us to know that households with an annual income of £29,500 or less definitely fall under the Joseph Rowntree Foundation (JRF) Minimum Income Standard 2023 definition of low-income. However, this will not capture the experiences of all people on low incomes, as some who took part in the survey will likely have a higher household income but multiple occupants with their household who individually fall under the JRF low-income threshold.

A striking finding is that one-third (**33 per cent**) of individuals who have not signed up for flood warnings and consider themselves to be living in high-risk flood areas say that they are not signed up for warnings because they do not believe they are relevant to them. In addition to this, 2 in 5 (**42 per cent**) people who have not signed up to flood warnings and report living in a high-risk flood area say they have not signed up because they had not heard of them or did not know how to sign up. This suggests a clear need for communication and education on flood warnings, both on improving understanding of the value of early warnings and on making the opportunity to sign up more accessible and visible to at-risk populations. It also suggests a case for a push notification approach to dissemination rather than relying on sign-up.

### Of people who had seen or heard guidance on preparing for or responding before (22%), during (20%) or after (18%) a flood happens:



**36%**

had accessed guidance via TV, radio or print media



**24%**

via a Floodline warning



**35%**

via a specialist flood agency website



**29%**

via online news



**35%**

via the GOV.UK website



**28%**

via the Met Office website



TV, radio and print media are the most used communication channels by older people (over 55s) (**40 per cent**) and those on the lowest incomes (**35 per cent**).

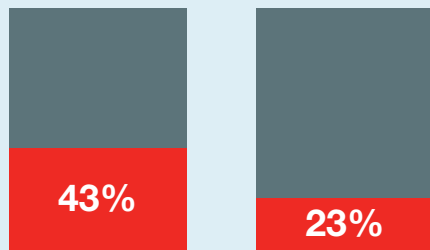
# Knowing what to do in the event of a flood

**4 in 10 (39 per cent) UK adults say they would know what to do if they received a flood warning, while a similar proportion (41 per cent) say they would not know what to do if their home started flooding.**

These knowledge gaps may stem from a lack of exposure to guidance – only about 1 in 5 report having seen or heard clear guidance before a flood (**22 per cent**), during a flood (**20 per cent**), or after a flood (**18 per cent**). Among those living in extremely high-risk social flood risk areas just over half (**54 per cent**) say they would know what to do if they receive a warning, compared to **37 per cent** of those classified as not at risk (SFR1).

Around half (**49 per cent**) of UK adults say they know people in their neighbourhood who might not be able to evacuate in a flood without assistance. However, roughly the same proportion (**48 per cent**) say they would not know how to support family, friends, or neighbours in a flood. Moreover, 2 in 5 (**41 per cent**) people believe their local community is not adequately prepared for a flood.

Those living in the most deprived areas of England were almost **twice as likely** to know which organisations they could turn to for support during or after a flood.



in the **10%** most deprived areas compared to

in the **10%** least deprived areas.

People in Northern Ireland were the most likely to know individuals in their communities who might require assistance in evacuating during a flood (60%), compared to those in Wales (52%), England (49%) and Scotland (47%).



# Home adaptation



**Only 1 in 5 (20%) who have experienced flooding have taken steps to adapt their homes to be more resistant to future flooding**

## Of those who own their own home:

**10%** have already taken steps to adapt their home to make it more resistant to flooding.

**15%** said that, before the survey, they did not know it was possible to adapt a home to prevent or reduce the impact of flooding.

**14%** want to adapt their home but have not done so either because it is too expensive, a struggle to find suppliers or because they don't know how.

**59%** do not think they need to make their home more resistant to flooding.

**72%** of people who rent said they are unable to adapt their home because they don't own it.

These findings highlight a low level of home adaptation for flood resilience across the UK, even among those directly affected by flooding. Despite the growing risks, many people do not feel the need to make their homes more flood-resistant and there remains limited awareness of the options available to reduce flood impacts. This suggests a need for clearer, more accessible information on the benefits and feasibility of Property Flood Resilience measures, particularly targeting those at higher risk and those facing economic constraints. However, the findings also suggest a sense of powerlessness to take action among most of those who rent.





# Home insurance

**1 in 8 people across the UK report that they do not have any form of building or contents insurance, leaving them vulnerable to financial loss in the event of a flood.**

Adequate insurance is key to flood preparedness.<sup>26,27</sup> However, concerningly, the research found a number of ways in which greater vulnerability to flooding correlated with lower likelihood of insurance coverage.

## People who have both contents and buildings insurance

Report living in a high flood risk area



vs

Don't report living in a high risk flood area



## People who have contents insurance

Flooded in the last 5 years



vs

Never flooded



## People who have buildings insurance

Flooded in the last 5 years



vs

Never flooded



## People who do not have buildings or contents insurance

The general population



vs

Living in extremely high social flood risk areas



In 2022, this was 15% and 22% respectively.<sup>28</sup>

Live in the 20% most deprived areas in England



vs

Live in the 20% least deprived areas in England



## People who say they cannot afford buildings or contents insurance

Are renters



vs

Are home owners




These findings highlight a concerning trend: the people likely to be the most vulnerable to flooding are often the least likely to be able to take measures to protect themselves through insurance or adaptation measures. Reduced insurance coverage among high-risk groups could be linked to several factors. These include rising premiums due to increased flood risks, difficulties in obtaining coverage in high-risk areas, and broader social vulnerabilities such as income, housing quality, and geography. Together, these factors may combine to make obtaining adequate insurance even more challenging.<sup>29</sup>

# The impact of flooding on people's lives



**40%** of people who have been flooded report severe or moderate mental health impacts.

**4 in 5 (81%)** of those whose mental health was affected by flooding report that it has since resolved, though for **8%**, the impact is still ongoing.





Those aged 55+ are more likely to report financial loss (**37%**) compared to younger age groups (**35%** for 18–34 and **30%** for 35–54).

**Half (49%)** of people who have been flooded and have experienced financial loss report the cost of home repairs as their main financial loss.



**35%** of people who have been flooded report moderate to severe physical health impacts.

**42%** of people who have been flooded report moderate or severe impact on finances, including costs related to repairs, relocation, or insurance.







**32%** of people who have been flooded report material loss, with irreplaceable personal possessions being damaged or destroyed.

**26%** of people who have been flooded report household disruption, such as having to temporarily move or only being able to use parts of their home.

Those aged 18–34 are more likely to report a moderate or severe impact on their finances (**51%**) compared to older age groups (**36%** for 35–54 and **27%** for 55+).

<b>18–34</b>	
<b>35–54</b>	
<b>55+</b>	

These findings speak to the substantial human impact of flooding, with wide reaching effects. The economic strain from repairs and other related costs places a heavy burden on affected households, implying a need to ensure that people affected by flooding can meet costs of living following damage to property and possessions. The loss of irreplaceable personal items and disruption to daily life underscore the need for comprehensive support that addresses not only repair costs, but also broader recovery needs to support wellbeing. The high proportion of those reporting mental and physical health consequences highlights the lasting impact of flooding.

# Support in the aftermath of a flood

## Practical support:

Almost half (**46 per cent**) of UK adults received practical support after experiencing a flood, such as evacuation help or temporary accommodation, though 1 in 4 (**26 per cent**) found the support inadequate, meaning just 1 in 5 (**20 per cent**) of those who had experienced flooding actually received practical support that met their needs. **21 per cent** of people who experienced flooding said they needed practical support but did not receive any at all. 1 in 5 (**22 per cent**) of those affected by floods received practical support from neighbours, family, and friends in the immediate aftermath of the flood. This was much less commonly reported in Wales, where only **10 per cent** of those affected by flooding say they received practical help from these groups.

## Mental health support:

Emotional or mental health-related support was taken up by **39 per cent** of people who had experienced a flood but again, **26 per cent** found it inadequate. While it is important to note that these figures are not directly comparable to the **40 per cent** who reported experiencing moderate or severe emotional or mental health impacts, the data suggests that while support is available, it may not meet the needs of all those who require it. This form of support was taken up the least in Scotland (**28 per cent**), compared with **35 per cent** in Wales and **39 per cent** in England. The most common source of this support was from neighbours, family and friends (**24 per cent**).



## Financial support:

**21 per cent** of people who had experienced flooding reported needing financial support to repair the damage to their home but not receiving any. **43 per cent** reported receiving some of this kind of support, which mainly came from insurance companies (**23 per cent**) and communities they belong to, such as religious groups and hobby clubs (**19 per cent**). However, **24 per cent** found the financial support to be inadequate.

## Sources of support:

Emergency services were the least common source of support across all types of support required, closely followed by local councils. Only **9 per cent** of people who had experienced flooding received practical assistance from their council and only **5 per cent** received financial help from their council. Neighbours, family and friends were the most common sources of support across all types of support, closely followed by the communities people belong to (such as religious and hobby groups), who were especially helpful in supporting with adapting the home to reduce risk from future flooding (**23 per cent** of people who had experienced flooding and needed this kind of support received it from the communities they belonged to).

These findings paint a complex picture of the flood recovery process. While practical and emotional support reached many, much of this assistance came from informal sources, such as friends, family, and local community groups, underscoring the importance of these networks in the aftermath of a flood. However, a significant number of people found the support they received to be insufficient, which points to a critical gap between the availability of support and its effectiveness in meeting people's needs. Financially, many received help for home repairs following a flood, largely from insurance, though sources of financial support from government, such as the [flood recovery framework](#) and [PFR Repair Grant](#) which are disbursed through local councils, appear to have had limited reach. Only a small percentage received financial aid from councils, further emphasising reliance on informal networks for financial support and home repair. These findings underscore the need for accessible information on home repair and adaptation, and more effective systems to meet the diverse needs of those affected by flooding.



# Recommendations

## 1. National governments need to increase overall investment in adaptation to flooding and work with local governments to ensure this investment is more effectively targeted at those communities and households who need it most.

- These findings confirm that the number of people impacted by flooding in the UK is already high, with climate change threatening to further intensify flood risks. They also reveal a range of ways in which social vulnerability exacerbates flood risk, including increased risk of exposure, lower understanding of how to prepare, and financial barriers to accessing both insurance and home adaptation measures.
- Analysis by the Climate Change Committee offers a detailed picture of how UK adaptation efforts to climate change are falling short of what is required and, in areas, failing to adequately consider and address the needs of vulnerable groups.<sup>30,31,32,33</sup> Other expert bodies have pointed to a risk of progress stalling due to shortage of finance.<sup>34,35</sup>
- While areas at high risk of flooding remain an obvious priority for resource allocation, social vulnerability must also be considered to ensure investments achieve the greatest social returns. There is a particularly clear need to ensure that those who cannot afford insurance receive support.

**We urge local authorities, alongside local resilience partners, to incorporate the use of vulnerability data into planning efforts, resource allocation for flood adaptation, emergency response, and recovery. We urge environmental regulator agencies to champion this approach with local partners.**

The UK Government should also fully integrate national adaptation plans with the forthcoming updates to national resilience planning, including support for the regular use of spatial vulnerability data in disaster planning.<sup>36</sup>

## 2. National and local governments must urgently address the UK's significant shortfall in household-level flood protection.

- Protection at household level is a critical component of national flood resilience. Only 8 per cent of people report adapting their home to be more flood resilient, yet 1 in 8 are uninsured. Low-income areas face the greatest vulnerability, with lower insurance coverage and limited access to property adaptations. Retrofitting the UK's housing stock with flood protection measures at scale is essential, starting with the most at-risk areas. This will not only mitigate flood impacts but also help reduce insurance costs.
- New housing must lead by example, incorporating best practice in sustainable drainage systems and Property Flood Resilience (PFR). While progress has been made in improving planning standards for flood resilience in recent years, notably in Wales and Scotland,<sup>37,38</sup> local governments in England are under pressure to meet new mandatory house building targets without compromising flood protection standards.<sup>39</sup>

**National governments must ensure that regulations mandate new buildings to be equipped with flood protection measures that are commensurate with their specific flood risk. This may require improvements to planning regulations in some parts of the UK, as well as ensuring that local government planning departments have the resources and skills to apply them.**<sup>40,41,42</sup>

- Furthermore everyone should receive clear and accessible information about the flood risk of the new home they are considering buying or renting. We urge national governments to review recommendations made by environmental regulators for clearer and more comprehensive information packs for homebuyers on flood risk, and to identify how they can also be applied to the rental property market.<sup>43</sup>
- New build homes are currently ineligible for Flood Re's subsidised insurance coverage, leaving many households without affordable coverage.<sup>44</sup> Greater innovation is needed to improve insurance access for low-income and high flood risk households.

### **3. National and local governments should prioritise raising awareness and understanding of risk, preparedness and of available support in high social flood risk areas.**

- Our polling found that awareness of risk and knowledge of how to prepare for and respond to a flood remain too low across the UK, with the shortfall being particularly concerning in areas with the greatest social vulnerability to flooding:
  - The low proportion who have signed up for flood warnings suggests a case for a 'push notification' approach to flood alerts rather than relying on voluntary sign-ups. The Cabinet Office should consider extending the national Emergency Alerts system to include flood warnings.<sup>45</sup>
  - The low proportion of those flooded who reported receiving financial support from local authorities suggests a case for councils enhancing efforts to raise awareness of recovery grants available to households and to ensure that this support is accessible to those who need it most. This includes sources of support such as the PFR Repair Grant, the Flood Recovery Framework and special funds announced in response to specific flood events.

**Partnering with VCS organisations is an effective channel for both identifying and reaching vulnerable groups and communities with vital information on how to prepare, respond and access resources to mitigate flood impact.<sup>46</sup> They should be involved throughout resilience approaches and enabled to collaborate with statutory partners.**

### **4. Flood response efforts must strengthen support for the practical and emotional impact of flooding.**

- Our findings show that 40 per cent of those affected by flooding reported that it had mental health impacts. This aligns with a 2020 Public Health England study, which found that individuals who have experienced flooding have a 6 times higher risk of developing depression, anxiety, or post-traumatic stress disorder, with the increased risk persisting for up to 3 years after the flood event.<sup>47</sup>
- Financial strain can exacerbate the mental health impact of flooding.<sup>48</sup> To address these issues, councils should collaborate with VCS organisations to raise awareness of flood recovery grants, particularly in higher-deprivation areas where insurance coverage is likely to be lower.

**Mental health support must be integrated into flood response plans, with training for first responders and local authorities, and partnerships with mental health organisations to provide both immediate and long-term support.**

## 5.

### Community resilience approaches require greater support.

- Our findings highlight the potential for communities to play a key role in supporting flood preparation, providing assistance during floods, and offering support during recovery, including mental health care and home adaptation. The fact that 49 per cent of people are aware of those in their neighbourhood who may be in need of assistance for evacuation speaks to the potential for community-based approaches to reach those most in need.
- Our previous research, Every Time it Rains, also found evidence of the role communities can play in supporting recovery from the mental health impacts of flooding. However, the fact that a similar proportion report being unaware of how to help suggests that this potential remains untapped.

**National governments and local authorities should consider how to support the rollout of community education for flood resilience, utilising resources and support such as the British Red Cross Community Resilience Toolkit, Communities Prepared, the Flood Hub and working with VCS partners to extend reach.**<sup>49,50,51</sup>

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# Acknowledgements

<b>The British Red Cross team:</b>	Leo Bryant, Lois Davies, Lucy Fisher, Rebecca Lewis , Adeline Siffert, Georgia Mealings
<b>Opinium team:</b>	Emily Arnold and Priya Minhas
<b>Design:</b>	Aaron Miller at Pencil Pencil

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December 2024