

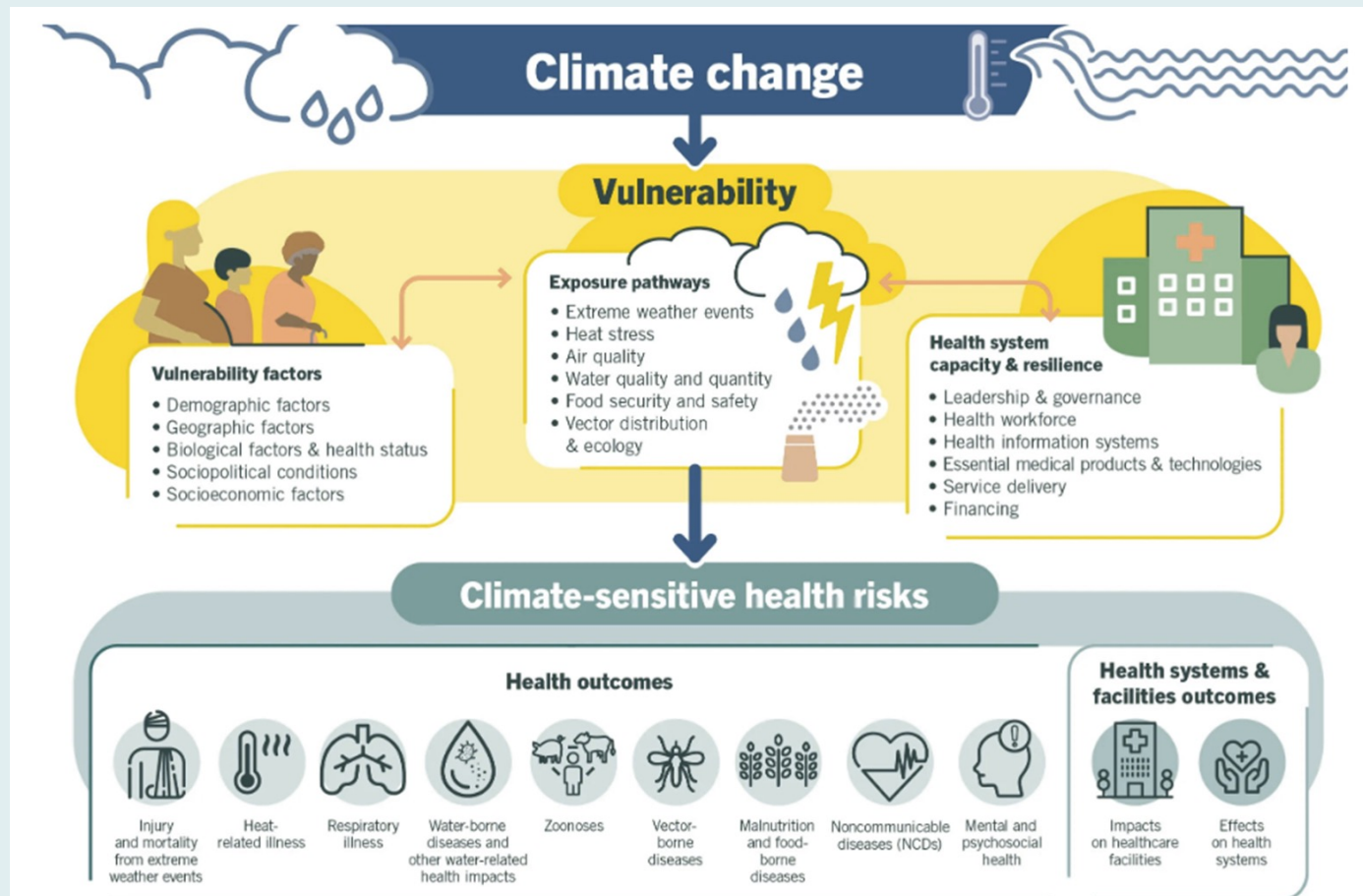
# Evaluating community-led interventions to maximise the health and well-being of climate change adaptations for extreme events

Professor Neil Adger, Dr Catherine Butler, Professor Emma Bland, Professor Gordon Walker, Dr Patricia Albers, Professor Matthew Cotton



## Introduction

- Climate change is considered the biggest threat to human health



WHO Climate change and health fact sheet. Oct 2021.

<https://www.who.int/news-room/fact-sheets/detail/climate-change-and-health>

## Introduction

### Storm Eunice won't be the last extreme weather event to hit the UK

If only British people talked about climate change as much as the weather it's causing.

By Philippa Nuttall



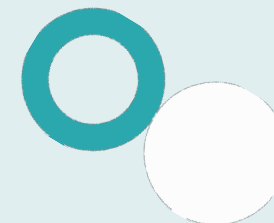
Photo by Geoff Caddick/AFP via Getty Images.



UK Health  
Security  
Agency

### Adverse Weather and Health Plan Protecting health from weather related harm

2023 to 2024

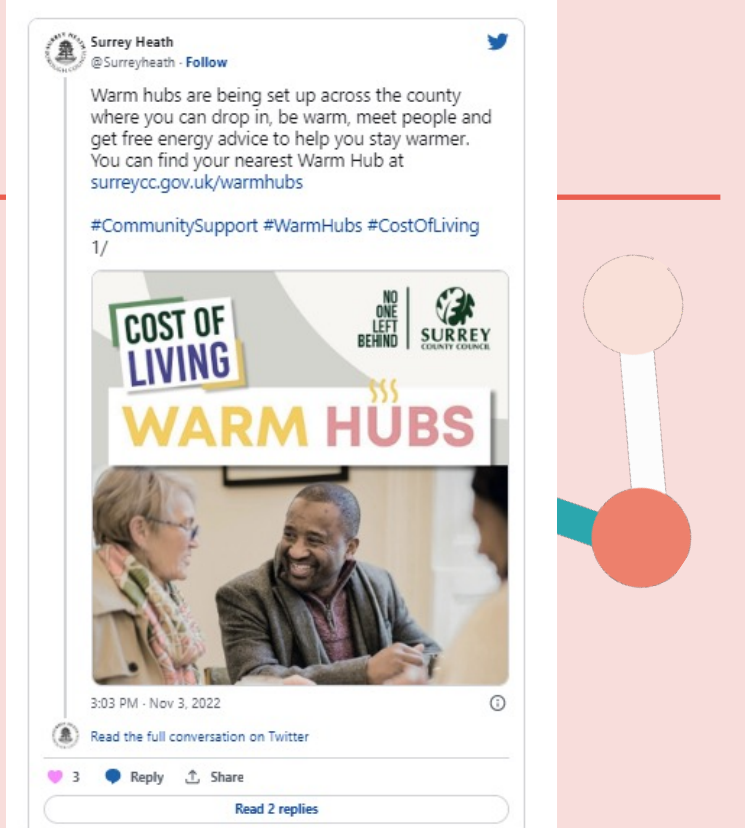


- Prevent the increase in years of life lost due to adverse weather events
- Prevent mortality due to adverse weather events
- Prevent morbidity due to adverse weather events
- Reduce the use of healthcare services due to adverse weather events
- Climate change adversely effects those in the most deprived communities (globally)
- **Current project:** Evaluate how groups of people within diverse communities can act to reduce the health consequences of floods, heatwaves, and cold waves

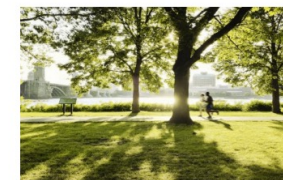


## Climate risk interventions and health and well-being

- Learnings from cold wave interventions could be applied to other extreme weather events (e.g. warm banks)
  - Identify any gaps in support and response which could prevent health burdens and harm (particularly for marginalised and vulnerable people)
- Interventions designed and assessed based on risk reduction or economic impacts limited consideration for how these changes might impact or drive human health and well-being
  - E.g. Nature based approaches could provide many benefits for health and well-being (green space and health and well-being)



### Green Space and Health



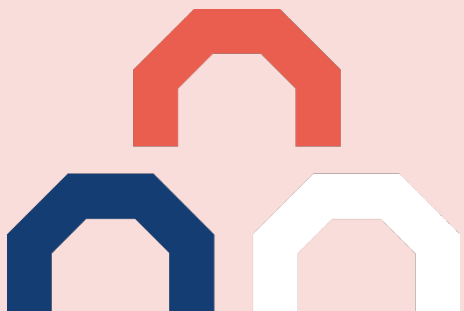
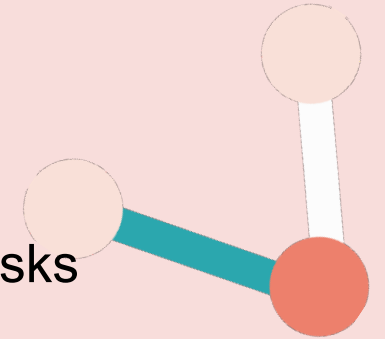
A range of bodies, including Government agencies, have promoted the possible physical and mental health benefits of access to green space. This POSTnote summarises the evidence for physical and mental health benefits from contact with nature, such as reducing rates of non-communicable diseases, and the challenges for urban green spaces.

#### Overview

- Physical and mental illnesses associated with sedentary urban lifestyles are an increasing economic and social cost.
- Areas with more accessible green space are associated with better mental and physical health.
- The risk of mortality caused by cardiovascular disease is lower in residential areas that have higher levels of 'greenness'.
- There is evidence that exposure to nature could be used as part of the treatment for some conditions.
- There are challenges to providing green spaces, such as how to make parks easily accessible and how to fund both their creation and maintenance.

## Community led action for weather extremes

- Community action: Any community action/ activity/ response to weather related risks
  - E.g. A communities spontaneous response in the aftermath of a flood
  - Or communities planning for anticipated risks
  - Could range from providing skilled services to support recovery or changes to lessen the impacts to efforts to support vulnerable people
- These forms of action have great success in reducing risks from extreme weather
  - But the breadth or extent of these actions are not known
  - Nor what it is about these community-led actions that make them particularly impactful or effective in supporting health and well-being



## Flood defense schemes

### INNOVATIVE FLOOD DEFENCE SCHEME IN PICKERING A SUCCESS - AND GEOGRAPHERS' WORK VITAL

Posted on [April 13, 2016](#) | by [rgsibgpolicy](#) | [Leave a comment](#)

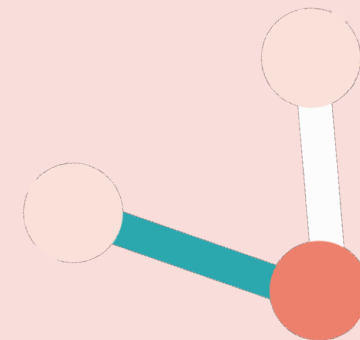


### THE CREDITON FLOOD RESILIENCE GROUP

The project has been run by the Crediton Flood Resilience Group, which has representatives from the community of Crediton, Devon County Council, Climate Outreach and climate change researchers from the University of Exeter. It has also been supported by the Environment Agency and the Devon and Somerset Fire and Rescue Service. The group is an affiliate of Susitaneable

Crediton and has explored current understandings of flood risk and the ways Crediton's vulnerability will change in the future by undertaking local research, exploring archives and identifying key vulnerabilities. The group has finished its first phase of research and the findings of its work are now being taken forward to be acted upon in association with Sustainable Crediton.

Reduced the chance of flooding from 25% in any one year, to less than 4%



## UK flooding: How a Yorkshire town worked with nature to stay dry

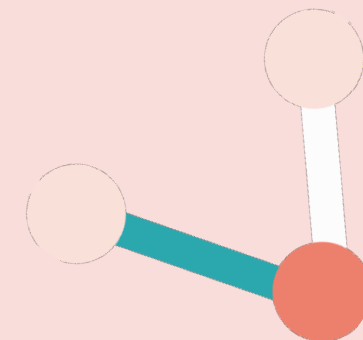
Pickering pulled off protection by embracing the very opposite of what passes for conventional wisdom

Geoffrey Lean • Sunday 03 January 2016 00:50 • [Comments](#)



## Flood defense schemes

- Examples of 'social learning' between community members, researchers, local governments, and other agencies
- Initiatives are community-centred, encouraging the participation of as many people as possible
- Draw from as many local sources of information as possible
  - Pickering in part took learning from monks centuries ago
- Create a local approach for managing the flood risk
  - Cridton Flood Resilience Group is working with the Town Council to develop their emergency plans
  - These plans include providing support (emergency and emotional) to the community
  - Ensure that vulnerable groups (disabilities or no internet access) are planned for



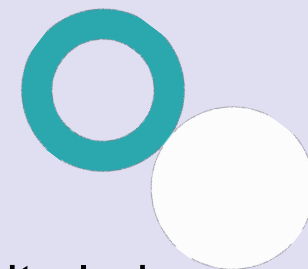
### More storms predicted after South West hit by flash floods and mudslides

Major incident declared in a number of areas of Somerset as Met Office urges people to watch for weather alerts

By Emma Gatten, ENVIRONMENT EDITOR and Michael Murphy IN QUEEN CAMEL, SOMERSET  
10 May 2023 - 6:46pm

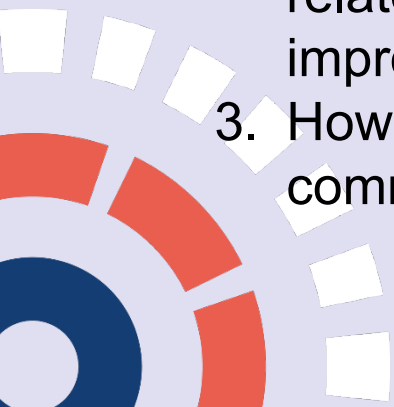


## Aim and Objectives



**Aim:** To evaluate how places and populations can be made healthier through community-led actions aimed at addressing the impacts of climate change (specifically extreme weather events, such as extreme cold, heatwaves and floods.)

- Objectives
  1. What are the range of existing community-led actions that address weather extremes and how are these actions inter-related and/or disconnected?
  2. How are community-led actions supporting better health and wellbeing outcomes related to the impacts of extreme weather events and how can this be enhanced and improved in future?
  3. How are systemic inequalities shaping experiences of, and being addressed by, community-led actions for extreme weather events?





## Methods

- Project duration: 2 years (Year 1 and 2 of a larger 4-year plan)
- Year 1 and 2: Evaluating community-led actions for weather extremes (heat, cold, and flooding)
- Year 3 and 4: Using knowledge and networks from Years 1 and 2 to engage in action research and create new community-led actions for adapting to weather extremes, ultimately supporting the health of people and place
- Work in Year 1 and 2 will be divided into two work packages:
  1. Community-led action review and network building
  2. In-depth case evaluation of community-based interventions for climate risks



## Methods- Work package 1



### Community-led action review and network building

- Activity 1:
  - In-depth review of scientific findings, and
  - mapping existing evidence across different types of climate risk, identifying overlaps
- Activity 2:
  - Review of ongoing interventions in the UK with key stakeholders (advocate for, or facilitate community-led actions)
  - Including work focused on inequalities

The screenshot shows the Sustainable CREDITON website. At the top left is the logo for Sustainable CREDITON, featuring a stylized flower icon. To the right of the logo are links for 'Register' and 'Login', followed by a search bar containing the text 'I'm looking for...'. Further right are icons for email, Facebook, Twitter, and a plus sign. Below this is a navigation menu with buttons for 'Home', 'What's on', 'Market place', 'Newsletters', 'About us', and 'Contact us'. The main content area shows a breadcrumb trail 'Core Group » Affiliates' and a large heading 'CREDITON FLOOD RESILIENCE GROUP'. A button labeled 'For more information' is visible in the bottom right corner of the screenshot.



## Methods- Work package 2



### **In-depth case evaluation of community-based interventions for climate risks**

- Activity 1:
  - Select three community-led actions (floods, heatwaves, and cold-waves)
  - Realist approach to evaluate the community-led actions in terms of the outcomes for health and wellbeing, and the ways they are shaped by inequality and vulnerabilities.
    - In-depth interviews, workshops, and document review
    - Retrospective evaluation of the effectiveness and social barriers
- Activity 2:
  - Synthesise all findings (WP1 and 2) to develop a set of principles to support both the creation and evaluation of community-led actions for health and wellbeing





Thank you!

Further questions:

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