



# What does community resilience look like in practice? How institutions see the role of communities in responding to heatwaves in the UK.

**Author names: Ben Fagan-Watson and Kevin Burchell,  
Policy Studies Institute at the University of Westminster**

**ABSTRACT** The concept of resilience is well-established in policy, as well as popular and professional discourse. The notion of *community* resilience, though, is relatively new, and has only recently been taken up in policy (Cabinet Office 2011b; Defra 2012; 2013). Twigger-Ross et al (2011) define community resilience as an ongoing process of communities working with local resources – alongside local expertise – to help themselves and others to prepare for, respond to, and recover from emergencies. However, when regional and national policy documents mention community and voluntary groups – and local residents – the roles of these actors in developing and implementing resilience are not clearly explained. The documents tend to focus on infrastructure development and institutional emergency responses (Greater London Authority 2011; Defra 2013; UK Government 2013; Public Health England 2014b).

In this context, community resilience seems to be something that is bestowed on passive communities by active local institutions; all of the local agency of Twigger-Ross's definition is lost or missing. The challenge that policymakers face in trying to define the roles of communities in resilience raises various problems. Research and practice in a range of domains (and over a long period) highlights the limits of institutional responses, and emphasises that community-led action and other forms of public participation and engagement can effectively complement institutional responses (Arnstein 1969; INVOLVE 2005; Twigger Ross et al 2011; Cinderby et al 2014; DECC 2014). An active community with local agency could play a key role in preparing for, responding to and recovering from emergencies.

**KEYWORDS:** Community Resilience; Policy; Community-led; Institutional response; Local institutions; Emergency; Heatwave; London; Vulnerability; Action Research

## **The challenge of heatwaves in the UK**

This paper is a literature review that has a particular focus on one form of extreme weather that provides a challenge to community resilience: heatwaves in the UK. There is a strong evidence base about the risks to health from excess heat that is consistent from around the world (Public Health England 2014a, 2014b). Increasing temperatures in excess of

approximately 25°C are associated with excess summer deaths in the UK, with higher temperatures being associated with greater numbers of excess deaths (mortality above what would be expected based on the non-crisis mortality rate in the population). During the summer heatwave in Northern France in August 2003, unprecedented high day- and night-time temperatures for three days resulted in thousands of excess deaths, initially estimated as 15,000 excess deaths in France (Public Health England 2014b) and 2,000 in England (Kovats et al, 2006) although subsequent estimates put the figure as high as 70,000 excess deaths across all of Europe (Robine et al., 2008). The main causes of illness and death during a heatwave are respiratory and cardiovascular diseases.

While vulnerability to heat is multi-faceted, the elderly, the ill and disabled, and more deprived social groups are typically the most vulnerable, especially those living alone, as well as babies/infants (Lindley et al 2011). The Intergovernmental Panel on Climate Change (IPCC) predicts that as a result of climate change, it is *very likely* that heatwaves will increase in frequency, duration and intensity (IPCC, 2012). The UK Climate Change Risk Assessment (Defra, 2012) notes that there is likely to be an increase in the frequency and severity of extreme weather events (e.g. floods and heatwaves) and states that “hot weather accounts for around 1,100 premature deaths a year in the UK. By the 2050s, this figure is projected to increase by between 580 and 5,900, with the greatest risk in London and southern England.” It states that healthcare provision may also be affected by heatwaves if temperatures in hospital wards, care homes and medicine stores are not effectively controlled, and overheating may impact on UK infrastructure in various ways – for example, through higher energy demand for cooling, heat damage / disruption to energy infrastructure, and failure of water supplies.

### **Institutional plans for mitigating and responding to heatwaves**

When national and regional policy documents relating to heatwaves in the UK are reviewed, three trends are apparent: firstly, a substantial amount of policy effort has been put into developing *emergency responses*. This is to be expected; the Civil Contingencies Act (2005) requires Category 1 responders (eg, local authorities) to maintain plans for preventing emergencies; reducing, controlling or mitigating the effects of emergencies in both the response and recovery phases; and taking other action in the event of emergencies (Cabinet Office, 2011a). Many policy documents are based on the Heatwave alert levels developed by Public Health England (Public Health England, 2014b). Local authorities have developed plans with a clear list of actions to take at each level, as a heatwave becomes more likely and as the risk of a severe heatwave rises.



The second trend is that these institutional plans focus almost exclusively on actions that *public bodies* can undertake. In light of their statutory obligations, it is unsurprising that local and national policy documents first address the roles of public bodies; but it is surprising that the role of other actors (businesses, civil society, etc) is not further developed. Documents such as the Heatwave Plan for England (Public Health England, 2014) and the London Resilience Partnership Adverse Weather Framework (London Resilience Partnership, 2014) almost entirely focus on action by public bodies, and refer to a ‘multi-agency’ approach of multiple government agencies, rather than multiple societal actors.

Thirdly, when longer-term planning is detailed, it tends to focus on *infrastructure development* rather than any kind of community involvement or planning. For example, the Mayor of London’s climate change adaptation strategy puts forward a number of actions to mitigate heatwaves, which include: protecting and extending green space; creating breeze pathways that enhance natural ventilation; orientating streets and buildings to provide shade in summer and passive solar gain in winter; and upgrading the existing housing stock to reduce the risk of overheating (Greater London Authority, 2011). As policy on infrastructure, buildings, housing and utilities is complex, multi-actor, long-term and crosses numerous policy domains, it is unsurprising that it is often not entirely clear in these policy documents who will have responsibility for ensuring that the risk of overheating is addressed.

### **What role for community resilience?**

It is perhaps unsurprising that institutional plans and organisations focus on multi-agency, institutional responses to heatwaves (and other emergencies), as many public bodies have statutory duties to prepare for disasters. Almost all of the emergency plans focus on clear, step-by-step actions which will allow public bodies to effectively co-ordinate and fulfill their responsibilities to the public. Their failure to include community groups in their plans in a meaningful way, though, raises various problems, as research and practice in a range of domains (and over a long period) highlights the limits of institutional responses, and emphasises that community-led action and other forms of public participation and engagement can effectively complement institutional responses. Drawing upon case studies of emergencies in the UK, Twigger-Ross et al stated that a failure to appreciate the complexities of communities can lead to a waste of local knowledge and expertise, lack of trust in authorities and divisions in communities (Twigger-Ross et al, 2011).

INVOLVE has noted that ‘beneficiaries of public policy can add value to its development and implementation’, and cited a number of benefits that public participation can bring to

policymaking, including democratic legitimacy, accountability and enhanced governance, more efficient and better services that meet real needs and reflect community values, and helping to build stronger communities (INVOLVE, 2005). Other sources have described the varying degrees of citizen participation in the policymaking process (Arnstein, 1969), and have documented initiatives that have successfully involved communities in energy and environmental issues in their area (Cinderby et al 2014; DECC 2014). An active community with local agency could play a key role in preparing for, responding to and recovering from emergencies.

### **The role of communities in institutional plans and structures**

Communities, the voluntary sector and individuals are mentioned in policy documents related to heatwaves, but the roles of these actors in developing and implementing resilience are not clearly explained. The influential Heatwave Plan for England (Public Health England, 2014b) does have a specific list of actions for the 'Community and Voluntary Sector & Individuals', but seems to envisage communities as an extension of public bodies; the actions recommended for communities mirror those for local authorities, including:

- 'Develop a community emergency plan to identify and support vulnerable neighbours in the event of a heatwave' and 'Assess the impact a heatwave might have on the provision and use of usual community venues';
- 'Support the provision of good information about health risks especially with those vulnerable groups and individuals';
- 'Keep an eye on people you know to be at risk'; 'stay tuned into the weather forecast and keep stocked with food and medications' and 'check ambient room temperatures'.

Communities (and to a lesser extent businesses) are almost entirely absent from other policy documents. One example is the London Resilience Partnership Strategy and delivery plan for 2013-15 (London Resilience Partnership, 2013). One of the few mentions of community is a vague action to 'Promote community resilience initiatives by London resilience partners'. Performance measures against these are to 'Understand current activities to promote individual and community resilience being carried out by partners' and 'Link with these initiatives to boost recognition of London resilience'. At best, this is mapping of activities and external promotion of the London Resilience Partnership; at worst, it seems like communities have been added as an afterthought.

Communities are not only absent from institutional plans; they often have a very weak presence on institutional bodies that respond to heatwaves. A review of the membership of



the London Resilience Partnership (London Resilience Partnership, 2013) shows that it is dominated by 'Category one responders' (such as the emergency services, Greater London Authority, local authorities, health bodies and government agencies) and 'Category two responders' (including utilities, health bodies, transport organisations and the Health and Safety Executive). Community groups are only mentioned in a category called 'other responders', where the 'voluntary sector' and 'faith sector' are mentioned. This is mirrored in the make-up of other organisations that deal with extreme weather, or promote resilience.

The Mayor of London's climate change adaptation strategy states that 'No single authority is individually responsible, or capable, of increasing our resilience to climate risks. To effectively sustain and even increase our resilience, we need the climate to be routinely considered in all significant decisions and more joint working across the public, private and voluntary sectors' (Greater London Authority, 2011). Policymakers will need to make significant changes to their plans and community engagement strategies if they are to enact the multi-level governance and complex social picture this statement encapsulates. As the London Resilience Partnership's Adverse Weather Framework states: 'The response to any emergency is conducted in partnership.' (London Resilience Partnership, 2014)

### **Communicating with the public**

Twigger-Ross et al (2011) noted that the term 'community' has been considered by policymakers in emergency response as self-evident and unproblematic, and synonymous with 'the public'. They stated that civil contingency institutions do not seem focused on engaging with communities in the context of emergencies, with one-way information flows planned from state bodies to the public, allowing for little feedback from members of the community or organisations, with no discussion of messages or implications. This is backed up by our review of policy documents relating to heatwaves, which shows that most emergency plans envisage a simple flow of information outwards from a central point. This fails to address the complexity of communities and the local nature of many emergencies. Twigger-Ross et al (2014) specifically uses the riots in Peckham in 2011, and snow and ice in Gloucestershire over three successive winters, 2008-11, to highlight examples of where community trust in authorities broke down, and a failure to incorporate two-way information flows and community engagement limited the effectiveness of emergency response.

Research specifically on heatwaves underlines the problems for policymakers. Research with older people in London and Norwich (Amrahamson et al, 2008) found that intended target groups for messages about heatwaves many not be receptive to messages from

public bodies; few of the respondents that Abrahamson and colleagues interviewed (aged 72-94 years) considered themselves either old or at risk from the effects of heat, even though many had some form of relevant chronic illness, and 'do not think of themselves as the intended recipients of heatwave warnings'. Secondly, Abrahamson et al found that the 'vulnerable' people that heatwave plans are meant to target may not see state-led intervention as desirable or useful; some respondents fully endorsed the role of the state in protecting the population at risk, but others believed that state intervention was 'uncalled for, intrusive, patronising and infringed upon or threatened individuals independence, or was an inappropriate use of resources'.

### **Investigating community resilience: Urban Heat**

In response to these challenges, the authors have initiated the Urban Heat project. This 18-month project has the objective of developing community-led resilience to heatwaves in vulnerable areas. It will examine how community-led responses can be articulated, practised and realised, and will attempt to integrate these with the existing plans of local institutions. The project draws on action research and co-creation methodologies, and will consist of three case studies, all focusing on areas of London in which disadvantage is relatively high: Inner London (Dalston, Hackney); between inner London and the outer suburbs (Tooting, Wandsworth); and suburban London (Ivybridge housing estate, Hounslow).

### **Conclusion**

This paper has demonstrated that heatwaves are a long-term public-health concern for the UK, and has explored how the role of communities is envisaged in policy documents. It has shown that policy documents tend to focus on emergency response or infrastructure development, and focus on the actions that public bodies can take – often excluding communities, or viewing them as an extension of state intervention. While policymakers working in civil contingencies and emergency planning have often viewed the idea of 'community' as self-evident and unproblematic, this paper has highlighted evidence that a failure to consider the complexities of communities and to involve them in planning can limit the effectiveness of emergency response. The difficulty of communicating key messages to vulnerable populations means that even the limited action that is contained in emergency plans (one-way communication with 'the community') may be ineffective. The paper concludes by proposing an innovative methodology for articulating and realising community-led responses to heatwaves, noting the varied evidence on the limitations of institutional responses, and calls for institutions to include communities in their preparation, planning for and response to emergencies.



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