Heffernan, C; Jones, L; Ritchie, B; Erens, B; Chalabi, Z; Mays, N; (2017) Local health and social care responses to implementing the national cold weather plan. Journal of public health (Oxford, England). pp. 1-6. ISSN 1741-3842 DOI: https://doi.org/10.1093/pubmed/fdx120

Downloaded from: http://researchonline.lshtm.ac.uk/4498075/

DOI: https://doi.org/10.1093/pubmed/fdx120

Usage Guidelines:

Please refer to usage guidelines at http://researchonline.lshtm.ac.uk/policies.html or alternatively contact researchonline@lshtm.ac.uk.

Available under license: http://creativecommons.org/licenses/by-nc-nd/2.5/
**Local Health and Social Care Responses to Implementing the National Cold Weather Plan**

<table>
<thead>
<tr>
<th>Journal:</th>
<th>Journal of Public Health</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manuscript ID</td>
<td>JPH-16-0062.R1</td>
</tr>
<tr>
<td>Manuscript Type</td>
<td>Original Article</td>
</tr>
<tr>
<td>Date Submitted by the Author:</td>
<td>n/a</td>
</tr>
<tr>
<td>Complete List of Authors:</td>
<td>Heffernan, Catherine; London School of Hygiene and Tropical Medicine, Policy Innovation Research Unit (PIRU), Jones, Lorelei; London School of Hygiene and Tropical Medicine, Policy Innovation Research Unit (PIRU),; University College London, Department of Applied Health Research Ritchie, Benjamin; London School of Hygiene and Tropical Medicine, Policy Innovation Research Unit (PIRU),; University College London, Evidence Based Practice Unit Erens, Bob; London School of Hygiene and Tropical Medicine, Policy Innovation Research Unit (PIRU), Chalabi, Zaid; London School of Hygiene and Tropical Medicine Mays, Nick; London School of Hygiene and Tropical Medicine,</td>
</tr>
<tr>
<td>Keywords:</td>
<td>Communities, Health services, Public health</td>
</tr>
</tbody>
</table>
Local Health and Social Care Responses to Implementing the National Cold Weather Plan

Heffernan C, Jones L, Ritchie B, Erens B & Mays N

Dr C Heffernan, Hon Associate Professor in Public Health

Dr L Jones, Senior Research Fellow

Mr B Ritchie, Pilot Site Manager, CAMHS Payment by Results Project

Mr B Erens, Deputy Director and Associate Professor

Dr Z Chalabi, Associate Professor of Mathematical Modelling

Prof. N Mays, Director and Professor of Health Policy

1 Policy Innovation Research Unit (PIRU), Faculty of Public Health & Policy, London School of Hygiene and Tropical Medicine, 15-17 Tavistock Place, London, WC1H 9SH, United Kingdom.

2 Department of Applied Health Research, University College London,

1-19 Torrington Place, London WC1E 7HB, United Kingdom

3 Evidence Based Practice Unit, University College London and Anna Freud National Centre for Children and Families,

21 Maresfield Gardens

London NW3 5SU

4 Department of Social and Environmental Health Research, Faculty of Public Health & Policy, London School of Hygiene and Tropical Medicine,

15-17 Tavistock Place, London, WC1H 9SH, United Kingdom.

Corresponding author:

Dr Catherine Heffernan, catherine.heffernan@nhs.net
Abstract

Background
The Cold Weather Plan (CWP) for England was launched by the Department of Health in 2011 to prevent avoidable harm to health by cold weather by enabling individuals to prepare and respond appropriately. This study sought the views of local decision makers involved in the implementation of the CWP in the winter of 2012/13 to establish the effects of the CWP on local planning. It was part of a multi-component independent evaluation of the CWP.

Methods
Ten local authority areas were purposively sampled which varied in level of deprivation and urbanism. Fifty-two semi-structured interviews were held with health and social care managers involved in local planning between November 2012 and May 2013.

Results
Thematic analysis revealed that the CWP was considered a useful framework to formalise working arrangements between agencies though local leadership varied across localities. There were difficulties in engaging general practitioners, differences in defining vulnerable individuals and a lack of performance monitoring mechanisms.

Conclusions
The CWP was welcomed by local health and social care managers, and improved proactive winter preparedness. Areas for improvement include better integration with general practice, and targeting resources at socially isolated individuals in cold homes with specific interventions aimed at reducing social isolation and building community resilience.
Introduction

The Department of Health (DH) launched the Cold Weather Plan (CWP) in 2011 with the aim of preventing avoidable harm to health by alerting people to the negative health effects of cold weather, and enabling them and local public agencies to prepare and respond appropriately.\(^1\) This annual plan, now the responsibility of Public Health England (PHE), recommends a series of steps to be taken throughout the year by the National Health Service (NHS), local authorities, social care, voluntary organisations and local communities, working with people at risk. It is underpinned by a system of cold weather alerts, developed with the Met Office and accompanied by ‘action cards’, outlining the actions to be taken at each alert level by the relevant bodies. The system operates in England from 1 November to 31 March.

This study sought to elicit the views of local decision makers involved in the implementation of the CWP in the winter of 2012/13 to establish the effects of the CWP on local planning. It was part of a multi-component evaluation which looked at the extent to which the CWP was implemented at local level, its potential cost-effectiveness, how it might be improved, and the relationship between cold weather and health (morbidity and mortality).\(^2\)\(^3\)\(^4\)\(^5\)

Methods

Semi-structured qualitative interviews were undertaken with representatives from Primary Care Trusts (PCTS)/Shadow Clinical Commissioning Groups (CCGs) and local authorities who were involved in local CWP planning across England (Table 1). A purposive sample of ten local authority/council areas was drawn, ensuring a mix of rural and urban locations, and covering a range of different winter weather patterns with at least one local authority area from each Government Office Region and from each quintile of the English Index of Multiple Deprivation (2010)\(^6\).

The Chief Executives of the local authorities (LAs) and PCTs in the ten areas were approached by letter and asked to identify appropriate interviewees involved in local CWP
planning and implementation. Potential participants were invited to interview by email and followed up by a telephone call if there was no response.

Interviews were conducted by four members of the research team by telephone and audio-recorded with participants’ consent. The topic guide for interviews covered seven main areas: (i) brief background of participants; (ii) current activities relating to cold weather planning; (iii) local cold weather plans; (iv) important issues, facilitating factors and challenges for cold weather planning and response; (v) procedures for responding to and views on the cold weather alerts; (vi) partnership working; and (vii) costs of implementation. The topic guide was used flexibly so that issues of importance could be discussed in detail.

All interviews were transcribed verbatim by an external service and the transcripts were divided into localities. Wherever possible, the findings from the interviews within a particular locality were triangulated with examinations of the local cold weather and winter plans that participants within that locality had sent to the team. Transcripts were coded using Nvivo 10 software. The codes were examined and linked to form major themes in an iterative fashion, whereby emerging themes informed further coding, which led to the refinement of themes. Three researchers independently analysed the data. Discrepancies in interpretation were resolved through re-examination of data and group discussions.

Ethical approval was obtained in November 2012 from the Observational Research Ethics Committee of the London School of Hygiene & Tropical Medicine. Local NHS R&D governance approvals were obtained between January and February 2013 from NHS R&D offices in the 10 localities.

Results

Fifty-two interviews were held in the ten LA areas in England between November 2012 and May 2013 (See Table I). All interviewees were supportive of the CWP. Five themes emerged: (1) CWP as a framework to formalise working arrangements; (2) variation in local
leadership; (3) difficulties engaging general practitioners; (4) differences defining vulnerable individuals; and (5) lack of performance monitoring mechanisms.

Table I. Organisational background of interviewees by region (n=52)

<table>
<thead>
<tr>
<th>Locality ID</th>
<th>Broad Location in England</th>
<th>IMD Quintile</th>
<th>Rural or urban</th>
<th>Local authority Managers</th>
<th>PCT/CCG Managers</th>
<th>NHS Trust</th>
<th>NHS Ambulance trust</th>
<th>Care home</th>
<th>Voluntary sector</th>
<th>General practice</th>
</tr>
</thead>
<tbody>
<tr>
<td>M1</td>
<td>Midlands</td>
<td>1</td>
<td>Urban</td>
<td>2</td>
<td></td>
<td></td>
<td></td>
<td>3</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>M2</td>
<td>Midlands</td>
<td>1</td>
<td>Urban</td>
<td>7</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>N1</td>
<td>North</td>
<td>3</td>
<td>Rural</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>N2</td>
<td>North</td>
<td>3</td>
<td>Urban</td>
<td>3</td>
<td></td>
<td></td>
<td></td>
<td>2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>N3</td>
<td>North</td>
<td>2</td>
<td>Rural</td>
<td>2</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>N4</td>
<td>North</td>
<td>5</td>
<td>Rural</td>
<td>3</td>
<td>2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>S1</td>
<td>South</td>
<td>4</td>
<td>Rural</td>
<td>4</td>
<td>1</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>S2</td>
<td>South</td>
<td>2</td>
<td>Urban</td>
<td>2</td>
<td>2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>S3</td>
<td>South</td>
<td>2</td>
<td>Rural</td>
<td>2</td>
<td>2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>S4</td>
<td>South</td>
<td>2</td>
<td>Urban</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>25</td>
<td>13</td>
<td>4</td>
</tr>
</tbody>
</table>

North = GOR of North East, North West, Yorkshire & The Humber

South = GOR of South East, South West, London and East of England

IMD quintile 1=most deprived; 5=least deprived
**Framework to formalise working arrangements**

All interviewees felt that the CWP had helped formalise processes for planning and responding to periods of cold weather, alerting “*senior management to the need to have this more systematic approach to things*” (LA manager, North). Interviewees reported that they were better prepared than before the CWP, and that the CWP had led to more collaboration between agencies with increased joint planning and improved communications. Typical networks consist of NHS organisations, the LA, police and fire authorities, housing providers, and voluntary and community organisations. As a result managers felt that their organisations had become more proactive, rather than reactive, in their response to cold weather.

The CWP was also viewed as a compilation of good practice that could be used as a reference locally. Examples given were improvements to home heating, maximising benefits receipt for vulnerable people and implementing a good neighbour scheme for improving community resilience. The CWP suggests actions at five levels that range from year-round planning to emergency response. This comprehensiveness was commended:

> *I think it gave us a focus on what the outcomes were that we were trying to get from it and I think it made people realise it wasn’t just about the hospital setting and sort of NHS side of it and social care side of it, it’s far wider than that.* (PCT manager, South)

**Variation in Local Leadership**

Participants reported variation in local leadership of CWP implementation. In most cases, implementation fell to emergency planning or resilience staff. One interviewee described it as being “*handed round like a hot potato*”. Interviewees reported that, given the emphasis in the CWP on preventing cold-related morbidity and mortality, overall leadership of the plan in future should be the responsibility of the Director of Public Health, when this post transferred from the NHS to the LA in 2013.
Leadership from the LA public health department was seen as necessary to facilitate the coordination of initiatives aimed at preventing mortality and morbidity that were being implemented by different departments (housing, adult social care, communities and neighbourhoods, etc). It was maintained that the public health department would be better placed to address the wider determinants of cold-related health and well-being: “this is really about public health and education and ensuring that, not just educating the people that might be vulnerable, but the people around the people who might be vulnerable.” (PCT Emergency Planner, South)

**Difficulty engaging general practice**

General practices have a pivotal role in helping potentially vulnerable people prepare for winter and in monitoring their health. However, interviewees frequently expressed difficulty engaging GPs. There were examples of GPs referring patients to interventions aimed at reducing cold-related mortality and morbidity, such as household warmth initiatives but most managers reported very few referrals despite efforts to engage GPs. This was linked to GPs not seeing it “as part of their job” (LA manager, North) and that GPs had many competing priorities. One area utilised a ‘GP Champion’ which had helped to raise awareness amongst GPs but most managers acknowledged that more work was needed to involve GPs, particularly as CCGs were to take over the former PCTs’ roles in cold weather planning from April 2013. Interviewees suggested that the CWP be published earlier in the year, thus giving the ‘lead time’ necessary to engage GPs in the provision of cold weather advice and referrals. Difficulties engaging GPs have been cited elsewhere and this study only managed to recruit one GP for interview.

**Identifying vulnerable people**

Whilst health and social care managers reported using the voluntary sector to help engage their target audience, different organisations used different definitions of ‘vulnerable people’. In many cases only people who were in receipt of services from the LA were considered, rather than the broader population of local residents who might be vulnerable.
during periods of cold weather. Local managers also tended to think of vulnerability in terms of socio-economic deprivation. Typical definitions of vulnerability included “in receipt of statutory services” or “eligible for services”.

Localities employed different strategies for identifying people who might be vulnerable to cold weather. Mostly organisations used opportunistic strategies that relied on staff who came into contact with members of the public as part of their duties “to keep their eyes open when they visit” for people who might be vulnerable and refer them to relevant services (LA emergency planner, South). Some managers acknowledged that this method resulted in the exclusion of other potentially vulnerable people who were not in contact with services. They also reported that they were not always confident that they knew “who the risk groups are and whether the interventions that are advocated are the correct interventions” (PCT emergency planner, Midlands).

The task of identifying potentially vulnerable people was complicated by the many different organisations that hold lists of such people and difficulties with sharing data without the consent of the individual. A compromise was to compile a ‘list of lists’ that could be shared during an emergency, when data protection laws allow data to be shared between organisations. However, these individual lists were used for different types of emergencies (for example, flooding) with specific definitions of vulnerability that did not necessarily include all people who might be vulnerable during cold weather.

Some localities had tried to identify people who might be vulnerable during cold weather. In one locality, research had revealed that excess winter mortality was higher in the least deprived areas as there were a large number of privately owned, large, old and cold houses. In another locality, the LA had identified a particular problem amongst residents on low incomes who were renting privately. For some residents, the issues went beyond household warmth to include difficulties in getting access to food and medication during periods of snow and ice. Interviews also reported reluctance to accept help:

*We had people turning round and saying, “No we don’t need these, we don’t want them”. And yet, according to the information that we had those were people that could*
do with that support. The people actually distributing them in some cases were able to
persuade them you know ‘Just take it, it’s here if you use it great, if you don’t need it at
least you’ve got it’, but you know sometimes people can be a bit dogmatic and say ‘No’
and you don’t want to go in too heavily and cause distress.

(LA resilience forum manager, Midlands)

Lack of performance monitoring

The NHS and LA commission a range of providers to deliver care to people in their homes. In
this context, local health and social care commissioning managers found that the CWP, and
the cold weather alerts, served as a useful way of engaging with providers on the subject of
cold weather planning and encouraging them to ensure that the CWP actions were being
carried out by front line staff (e.g. checking the temperature in a client’s home or
undertaking home insulation assessments). However, many interviewees reported that they
had no evidence if the contractors were conducting all the relevant actions. They were
neither included in contracts nor were they part of contract monitoring procedures and
there was an assumption that the providers would just do them as part of their duty of care:
“These are professional people who know the risks. They know vulnerable people. You don’t
want to teach them to suck eggs.”

(PCT emergency planner, South)

Discussion

Main findings

Overall, the national CWP was viewed as providing a comprehensive range of activities
related to winter and increasing the extent to which localities had a planned, co-ordinated
response to cold weather. Localities felt they were more prepared for the arrival of cold
weather than they had been previously. The CWP reinforced existing practice, provided
guidance for best practice and increased partnership working between local health and
social care services.
There were concerns about identifying comprehensively who was vulnerable, with related implications for the effectiveness of interventions. The CWP lists different categories of ‘vulnerable people’ (e.g. people with pre-existing chronic medical conditions) but such individuals may not be especially vulnerable during cold weather in the absence of other risk factors such as social isolation or poor housing. Other people may not become vulnerable until cold weather hits. For example, they may be at increased risk of falls, respiratory diseases, hypothermia and social isolation. Socio-economic deprivation cannot be used straightforwardly as an indicator of risk in this context. There is little sign of a socio-economic gradient in the pattern of excess winter deaths.\(^8\) For example, private renters and home owners are at significantly increased risk of excess winter mortality compared to social housing tenants. Older people who live in larger and harder to heat homes may be overlooked if socio-economic deprivation is used exclusively as an indicator of vulnerability.\(^9\)\(^10\)\(^11\)\(^12\) This affects the targeting of interventions. Distribution of ‘warm packs’ will have little effect if they go to people in well insulated social housing or people whose critical needs are lack of access to food and medicine.

What is already known on this topic

Very little has been published on the effectiveness of cold weather planning. The only other evaluation of the CWP in England was by the Health Protection Agency in 2012.\(^13\)\(^14\) It recommended that CWP actions be embedded in local Joint Strategic Needs Assessments, which the current study found to be in place. Other studies have focussed on local initiatives aimed at reducing excess winter mortality. Many of these did not achieve their intended benefits, partially due to the interventions not being appropriate for people’s needs.\(^15\)\(^16\) Recipients of these local initiatives were also said to be sensitive about any implication that they could not afford to ‘keep well’ during winter, finding questions about their situation embarrassing and intrusive and therefore less likely to engage.\(^13\)\(^14\)\(^17\)\(^18\)\(^19\)

What this study adds
This study is the first independent evaluation of the CWP for England. It confirms previous findings including the continuing difficulties in defining vulnerability and the lack of evidence to identify the most effective measures to target ‘at risk’ groups in community settings appropriately. These issues have also been found in evaluations of heatwave plans\textsuperscript{20}, including the UK Health Heatwave Plan.\textsuperscript{3}

The CWP action cards and cold weather alerts were found to be a useful way to engage health and social care providers, particularly where the care of people in their own homes was contracted to private organisations. However, as supported by the findings from the national survey of district nurses carried out as part of this evaluation\textsuperscript{2}, the specified CWP actions were not always undertaken and the CWP was not always reflected in local service contracts. This could have future implications for the delivery of the CWP by front line staff if it is not included in the commissioning of health and social services.

\textit{Limitations of this study}

This study took place while planning was progressing for the April 2013 start of the new organisation of the NHS following the Health and Social Care Act 2012 and so reflects local partnerships that may no longer exist. Since then, the CWP has been annually refreshed three times, with the 2015/16 version including National Institute for Health and Care Excellence (NICE) guidelines on the health risks associated with cold homes\textsuperscript{21}. This provides definitions for vulnerability to cold homes – such as people with cardiovascular diseases or pregnant women\textsuperscript{22} - which resolves some of the issues raised by interviewees. Although the CWP is evaluated locally and annually by the agencies involved, it is not known if the lack of engagement of GPs has been addressed or if local public health teams have assumed the leadership role.

Whilst this study sampled ten LA areas purposively to obtain a mix of rural and urban locations, a range of different winter weather patterns by region and areas with different levels of socio-economic deprivation, it is possible that some differences in responses to the CWP – e.g. variation in local leadership or in GP engagement - were not captured.
Finally, this part of the wider evaluation of the CWP relies heavily on interviews with staff in local agencies responsible for the delivery of the CWP. Although a great deal of research on policy implementation inevitably relies extensively on interviews with participants, it is important to recognise that what people say in response to interview questions cannot be taken as a direct indication of what they do in practice. It is possible that the CWP has less influence on local cold weather planning and response than indicated in the data reported here. The suggestion is that the accounts given by participants are likely to represent the most favourable indication of the extent to which the CWP motivates appropriate action locally.

Conclusions

The 2012/1013 CWP was reported to be welcomed by local health and social care managers involved in its implementation. They found it helped to make their organisations more proactive than reactive to cold weather. Nonetheless, there were areas where the Plan and/or its local implementation could be improved, such as finding better ways to involve general practice much more fully in the response and targeting resources particularly at socially isolated individuals in cold homes with specific interventions aimed at reducing their social isolation by building community resilience as well as helping them heat their homes better.

Acknowledgements

We thank the study participants; Rebecca Cheatle for co-ordinating, and the Royal College of Nursing for undertaking, the survey of primary care and community health services nurses among their membership; Gilliam Elam for helping with the design of the qualitative component of study and assisting with the interviews; the Advisory Group for their helpful advice and comments throughout the study; and the following for their advice and assistance: Virginia Murray, Angie Bone, Carl Petrokofsky and Kevyn Austyn from Public Health England; and Benjamin Evans, Katie Russell, Patrick Sachon, Christophe Sarran and Hazel Thornton from the Met Office.
Funding

This work is funded by the Policy Research Programme of the Department of Health for England via its core support for the Policy Research Unit in Policy Innovation Research. This is an independent report commissioned and funded by the Department of Health. The views expressed are not necessarily those of the Department.

---


22 NICE. Preventing excess winter deaths and illness associated with cold homes. Quality Standard, March 2016. (11 April 2017, accessed)
Local Health and Social Care Responses to Implementing the National Cold Weather Plan

Heffernan C, Jones L, Ritchie B, Erens B & Mays N

Dr C Heffernan, Hon Senior Clinical Lecturer Associate Professor in Public Health

Ms L Jones, Senior Research Fellow

Mr B Ritchie, Research Assistant Pilot Site Manager, CAMHS by Results Project

Prof. N Mays, Director and Professor of Health Policy

1 Policy Innovation Research Unit (PIRU), Faculty of Public Health & Policy, London School of Hygiene and Tropical Medicine, 15-17 Tavistock Place, London, WC1H 9SH, United Kingdom.

2 Department of Applied Health Research, University College London, 1-19 Torrington Place, London, WC1E 7HB, United Kingdom.

3 Evidence Based Practice Unit, University College London and Anna Freud National Centre for Children and Families, 21 Marsfield Gardens, London NW3 5SU.

4 Faculty of Public Health & Policy Department of Social and Environmental Health Research, London School of Hygiene and Tropical Medicine, 15-17 Tavistock Place, London, WC1H 9SH, United Kingdom.

Corresponding author:

Dr Catherine Heffernan, catherine.heffernan@nhs.net
Abstract

Background
The Cold Weather Plan (CWP) for England was launched by the Department of Health (DH) in 2011 to prevent avoidable harm to health by cold weather by enabling individuals to prepare and respond appropriately. This study sought to elicit the views of local decision makers involved in the implementation of the CWP in the winter of 2012/13 to establish the effects of the CWP on local planning. It was part of a multi-component independent evaluation of the CWP.

Methods
Between November 2012 and May 2013, 52 semi-structured qualitative interviews were undertaken by telephone with representatives from Primary Care Trusts (PCTS)/Shadow Clinical Commissioning Groups (CCGs) and local authorities who were involved in local CWP planning across England. Ten local authority areas were purposively sampled which varied in level of deprivation and urbanism. Fifty-two semi-structured interviews were held with health and social care managers involved in local planning between November 2012 and May 2013.

Results
Thematic analysis revealed 5 themes: (1) CWP as a framework to formalise working arrangements; (2) local leadership of CWP implementation; (3) difficulties engaging general practitioners; (4) differences defining vulnerable individuals; and (5) lack of performance monitoring.

Thematic analysis revealed that the CWP was considered a useful framework to formalise working arrangements between agencies though local leadership varied across localities. There were difficulties in engaging general practitioners, differences in defining vulnerable individuals and a lack of performance monitoring mechanisms.

Conclusions
The CWP was welcomed by local health and social care managers and improved preparedness for winter. Areas for improvement include better integration with general
practice and targeting resources at socially isolated individuals in cold homes with specific interventions aimed at reducing social isolation and building community resilience.
Introduction

The Cold Weather Plan (CWP) for England was first launched by the Department of Health (DH). The Department of Health launched the Cold Weather Plan (CWP) in 2011 with the aim to prevent avoidable harm to health by alerting people to the negative health effects of cold weather, and enabling them and local public agencies to prepare and respond appropriately.\(^1\) This annual plan, now the responsibility of Public Health England (PHE), recommends a series of steps to be taken throughout the year by the National Health Service (NHS), local authorities, social care, voluntary organisations and local communities working with people at risk. It is underpinned by a system of cold weather alerts, developed with the Met Office and accompanied by ‘action cards’, outlining the actions to be taken at each alert level by the relevant bodies. The system operates in England from 1 November to 31 March.

This study sought to elicit the views of local decision makers involved in the implementation of the CWP in the winter of 2012/13 to establish the effects of the CWP on local planning. It was part of a multi-component evaluation which looked at the extent to which the CWP was implemented at a local level, its potential cost-effectiveness, how it may be improved and the relationship between cold weather and health (morbidity and mortality).\(^2\) \(^3\) \(^4\) \(^5\)

Methods

Semi structured qualitative interviews were undertaken with representatives from Primary Care Trusts (PCTS)/Shadow Clinical Commissioning Groups (CCGs) and local authorities who were involved in local CWP planning across England (Table 1). The sampling frame was a purposive sample of ten upper tier level LA areas ensuring a mix of rural and urban locations covering a range of different winter weather patterns with at least one locality from each Government Office Region and from each quintile of the English Indices of Deprivation. A purposive sample of ten local authority/council areas was drawn, ensuring a mix of rural and urban locations, and covering a range of different winter weather patterns with at least one
For Peer Review

The Chief Executives of the local authorities (LasLAs) and PCTs in the ten localities were approached by letter and asked to generate appropriate contacts for local CWP planning and implementation. Potential participants were invited to interview by email and followed up by a telephone call if there was a non-response.

Interviews were conducted by four members of the research team by telephone and audio-recorded with participants’ consent. The topic guide for interviews contained seven main areas: (i) brief background of participants; (ii) current activities relating to cold weather planning; (iii) local cold weather plans; (iv) important issues, facilitating factors and challenges for cold weather planning and response; (v) procedures for responding to and views on the cold weather alerts; (vi) partnership working; and (vii) costs of implementation. The topic guide was used flexibly so that issues of importance could be discussed in detail.

All interviews were transcribed verbatim by an external service and the transcripts were divided into localities. Wherever possible, the findings from the interviews within a particular locality were triangulated with examinations of the local cold weather and winter plans that participants within that locality had sent to the team. Transcripts were coded using Nvivo 10 software. The codes were examined and linked together into major themes in an iterative fashion, whereby emerging themes informed further coding, which led to the refinement of themes. Three researchers independently analysed the data. Disparities in interpretation were resolved through re-examination of data and group discussions.

Ethical approval was obtained in November 2012 from the Observational Research Ethics Committee of the London School of Hygiene & Tropical Medicine. Local NHS R&D governance approvals were obtained between January and February 2013 from NHS R&D offices in the 10 localities.

Results
Fifty-two interviews were held in the ten LA areas in England between November 2012 and May 2013 (See Table I). All interviewees were supportive of the CWP. Five themes emerged: (1) CWP as a framework to formalise working arrangements; (2) variation in local leadership of CWP implementation; (3) difficulties engaging general practitioners; (4) differences defining vulnerable individuals; and (5) lack of performance monitoring mechanisms.

Table I. Organisational background of interviewees by region (n=52)

<table>
<thead>
<tr>
<th>Locality ID</th>
<th>Broad Location in England</th>
<th>IMD Quintile</th>
<th>Rural or urban</th>
<th>Local authority Managers</th>
<th>PCT/CCG Managers</th>
<th>NHS Trust</th>
<th>NHS Ambulance trust</th>
<th>Care home</th>
<th>Voluntary sector</th>
<th>General practice</th>
</tr>
</thead>
<tbody>
<tr>
<td>M1</td>
<td>Midlands</td>
<td>1</td>
<td>Urban</td>
<td>2</td>
<td>1</td>
<td>3</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>M2</td>
<td>Midlands</td>
<td>1</td>
<td>Urban</td>
<td>2</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>N1</td>
<td>North</td>
<td>3</td>
<td>Rural</td>
<td>1</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>N2</td>
<td>North</td>
<td>3</td>
<td>Urban</td>
<td>1</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>N3</td>
<td>North</td>
<td>2</td>
<td>Rural</td>
<td>1</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>N4</td>
<td>North</td>
<td>5</td>
<td>Rural</td>
<td>1</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>S1</td>
<td>South</td>
<td>4</td>
<td>Rural</td>
<td>1</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>S2</td>
<td>South</td>
<td>2</td>
<td>Urban</td>
<td>2</td>
<td>2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>S3</td>
<td>South</td>
<td>3</td>
<td>Rural</td>
<td>2</td>
<td>2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>S4</td>
<td>South</td>
<td>2</td>
<td>Urban</td>
<td>1</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>25</td>
<td>13</td>
<td>1</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

North = GOR of North East, North West, Yorkshire & The Humber

South = GOR of South East, South West, London and East of England

IMD quintile 1=most deprived; 5=least deprived
<table>
<thead>
<tr>
<th>North 2</th>
<th>3</th>
<th>2</th>
</tr>
</thead>
<tbody>
<tr>
<td>North 3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>North 4</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>South 1</td>
<td>4</td>
<td>1</td>
</tr>
<tr>
<td>South 2</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>South 3</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>South 4</td>
<td>1</td>
<td>1</td>
</tr>
</tbody>
</table>

|       | 25 | 13 | 4 | 2 | 6 | 1 | 1 |
Framework to formalise working arrangements

All interviewees felt the CWP had helped formalise processes for planning and responding to periods of cold weather, alerting “senior management to the need to have this more systematic approach to things” (LA manager, North). Interviewees reported that they were better prepared than before the CWP and that the CWP had led to more collaboration between agencies with increased joint planning and improved communications. Typical networks consist of NHS organisations, the LA, police and fire authorities, housing providers, and voluntary and community organisations. As a result managers felt that their organisations had become more proactive, rather than reactive, in their response to cold weather.

The CWP was also viewed as a compilation of good practice that could be used as a reference locally. Examples given were improvements to home heating, maximising benefits receipts for vulnerable people and implementing a good neighbour scheme for improving community resilience. The CWP suggests actions at five levels that range from year-round planning to emergency response. This comprehensiveness was commended:

I think it gave us a focus on what the outcomes were that we were trying to get from it and I think it made people realise it wasn’t just about the hospital setting and sort of NHS side of it and social care side of it, it’s far wider than that. (PCT manager, South)

Local Leadership of CWP Implementation Variation in Local Leadership

Leadership of CWP implementation varied across the localities. Participants reported variation in local leadership of CWP implementation. In most cases, implementation fell to emergency planning or resilience staff. One interviewee described it as being “handed round like a hot potato”. Interviewees reported that, given the emphasis in the CWP on preventing cold-related morbidity and mortality, overall leadership of the plan should be the future responsibility of the Director of Public Health, when transferred from the NHS to the LA in 2013.
Leadership from the LA public health department was seen as necessary for facilitating the coordination of initiatives aimed at preventing mortality and morbidity that were being implemented by different departments (housing, adult social care, communities and neighbourhoods, etc). It was maintained that the public health department would be better placed to address the wider determinants of cold related health and well-being: “this is really about public health and education and ensuring that, not just educating the people that might be vulnerable, but the people around the people who might be vulnerable.” (PCT Emergency Planner, South)

**Difficulty engaging General Practice**

General practices have a pivotal role in helping potentially vulnerable people prepare for winter and in monitoring their health. However, interviewees frequently expressed difficulty engaging GPs. There were examples of GPs referring patients to interventions aimed at reducing cold-related mortality and morbidity, such as household warmth initiatives but most managers reported very few referrals despite efforts to engage GPs. This was linked to GPs not seeing it “as part of their job” (LA manager, North) and that GPs had many competing priorities. One area utilised a ‘GP Champion’ which helped to raise awareness amongst GPs but most managers acknowledged that more work was needed to involve GPs, particularly as CCGs were to take over the former PCTs’ roles in cold weather planning from April 2013. Interviewees suggested that the CWP be published earlier in the year, thus giving the ‘lead time’ necessary to engage GPs in the provision of cold weather advice and referrals. Difficulties engaging GPs have been cited elsewhere and this study only managed to recruit one GP for interview.

**Identifying vulnerable people**

Whilst health and social care managers reported using the voluntary sector to help engage their target audience, different organisations used different definitions of ‘vulnerable people’. In many cases only people who were in receipt of services from the LA were
considered, rather than the broader population of local residents who might be vulnerable during periods of cold weather. Local managers also tended to think of vulnerability in terms of socio-economic deprivation. Typical definitions of vulnerability included “in receipt of statutory services” or “eligible for services”.

Localities employed different strategies for identifying people who might be vulnerable to cold weather. Mostly organisations used opportunistic strategies that relied on staff to typically come into contact with members of the public as part of their duties “to keep their eyes open when they visit” for people who are potentially vulnerable and referring them to relevant services (LA emergency planner, South). Some managers acknowledged that this method resulted in the exclusion of other ‘vulnerable people’ who were not in contact with services. They also reported that they were not always confident that they knew “who the risk groups are and whether the interventions that are advocated are the correct interventions” (PCT emergency planner, Midlands).

The task of identifying potentially vulnerable people was complicated by the many different organisations that hold lists of such people and difficulties with sharing data without the consent of the individual. A compromise was to compile a ‘list of lists’ that could be shared during an emergency, when data protection laws allow data to be shared between organisations. However these individual lists were used for different types of emergencies (for example flooding) with specific definitions of vulnerability that did not necessarily include all people who might be vulnerable during cold weather.

Some localities had tried to identify people who might be vulnerable during cold weather. In one locality research had revealed that excess winter mortality was higher in the least deprived areas as there were a large number of privately owned large, old and cold houses. In another locality the LA had identified a particular problem amongst residents on low incomes who were renting privately. For some residents the issues went beyond household warmth to include difficulties in getting access to food and medications during periods of snow and ice. Interviews also reported reluctance to accept help:
We had people turning round and saying, “No we don’t need these, we don’t want them’. And yet, according to the information that we had those were people that could do with that support. The people actually distributing them in some cases were able to persuade them you know ‘Just take it, it’s here if you use it great, if you don’t need it at least you’ve got it’, but you know sometimes people can be a bit dogmatic and say ‘No’ and you don’t want to go in too heavily and cause distress.

(LA resilience forum manager, Midlands)

Lack of performance monitoring

The NHS and LA commission a range of providers to deliver care to people in their homes. In this context, local health and social care commissioning managers found that the CWP, and the cold weather alerts, served as a useful way of engaging with providers on the subject of cold weather planning and encouraging them to ensure that the CWP actions were being carried out by front line staff (e.g. checking the temperature in a client’s home or undertaking home insulation assessments). However, many interviewees reported that they had no evidence if the contractors were conducting all the relevant actions. It wasn’t included in contracts nor was it part of contract monitoring procedures and there was an assumption that the providers would just do it as duty of care:

“They are professional people who know the risks. They know vulnerable people. You don’t want to teach them to suck eggs.”

(PCT emergency planner, South)

Discussion

Main findings

Overall the national CWP was viewed as providing a comprehensive range of activities related to winter and increasing the extent to which localities had a planned co-ordinated
response to cold weather. Localities felt they were more prepared for the arrival of cold
weather than they had been previously. The CWP reinforced existing practice, provided
guidance for best practice and increased partnership working between local health and
social care services.

There were concerns about identifying comprehensively who’s vulnerable with related
implications for the effectiveness of interventions. The CWP lists different categories of
‘vulnerable people’ (e.g. people with pre-existing chronic medical conditions) but such
individuals may not be vulnerable during cold weather in the absence of other risk factors
such as social isolation or poor housing. Other people may not become vulnerable until cold
weather hits. For example, they may be at increased risk of falls, respiratory diseases,
hypothermia and social isolation. Socio-economic deprivation cannot be used
straightforwardly as an indicator of risk in this context. There is no little sign of socio-
economic gradient in the pattern of excess winter deaths. For example, Private renters
and home owners are at significantly increased risk of excess winter mortality compared to
social housing tenants. Older people who live in larger and harder to heat homes may be
overlooked if socio-economic deprivation is used exclusively as an
indicator of vulnerability. This affects the use of interventions. Distribution of ‘warm
packs’ will have little effect if they go to people in well insulated social housing or people
whose critical needs are lack of access to food and medicine.

What is already known on this topic

Very little has been published on the effectiveness of cold weather planning. The only other
evaluation of the CWP in England was by the Health Protection Agency in 2012. It
recommended that CWP actions be embedded in local Joint Strategic Needs Assessments,
which this study found to be in place. Other studies have focussed on local
initiatives aimed at reducing excess winter mortality. Many of these did not achieve their
intended benefits, partially due to the interventions not being appropriate for people’s
needs. Recipients of these local initiatives were also said to be sensitive about any
implication that they could not afford to ‘keep well’ during winter, finding
questions about their situation embarrassing and intrusive and therefore less likely to engage.\textsuperscript{13, 14, 17, 18, 19}
What this study adds

This study is the first independent evaluation of the CWP for England. It confirms previous findings including the continuing difficulties in defining vulnerability and the lack of evidence to identify the most effective measures to target ‘at risk’ groups in community settings appropriately. These issues have also been found in evaluations of heatwave plans\textsuperscript{20}, including the UK Health Heatwave Plan.\textsuperscript{3}

The CWP action cards and cold weather alerts were found to be a useful way to engage with health and social care providers, particularly as the care of people in their own homes is largely contracted to external organisations where the care of people in their own homes was contracted to private organisations. However, as supported by the findings from the national survey of district nurses carried out as part of this evaluation\textsuperscript{2}, the specified CWP actions were not always undertaken and the CWP was not always reflected in local service contracts. This could have future implications for the delivery of CWP by front line staff if it is not included in the commissioning of health and social services.

Limitations of this study

This study took place while planning was progressing for the April 2013 start of the new organisation of the NHS following the Health and Social Care Act 2012 and so during the planning for the April 2013 start of the new reorganisation of the NHS and so reflects local partnerships that may no longer exist. Since then, the CWP has been annually refreshed three times, with the 2015/16 version including National Institute for Clinical Guidance (NICE) guidelines on health risks associated with cold homes\textsuperscript{21}. This provides new definitions for vulnerability to cold homes – such as people with cardiovascular diseases or pregnant women\textsuperscript{22} to cold which resolves which resolves some of the issues raised by interviewees. Although the CWP is evaluated locally and annually by the agencies involved, it is not known if the lack of engagement with GPs has been addressed or if local public health teams have assumed the leadership role.
Whilst this study sampled ten LA areas purposively to obtain a mix of rural and urban locations, a range of different winter weather patterns by region and areas with different levels of socio-economic deprivation, it is possible that some differences in responses to the CWP – e.g. variation in local leadership or in GP engagement – were not captured.

Finally, this part of the wider evaluation of the CWP relies heavily on interviews with staff in local agencies responsible for the delivery of the CWP. Although a great deal of research on policy implementation inevitably relies extensively on interviews with participants, it is important to recognise that what people say in response to interview questions cannot be taken as a direct indication of what they do in practice. It is possible that the CWP has less influence on local cold weather planning and response than indicated in the data reported here. The suggestion is that the accounts are likely to represent the most favourable indication of the extent to which the CWP motivates appropriate action locally.

Conclusions

The 2012/1013 Cold Weather Plan CWP was reported to be welcomed by local health and social care managers involved in its implementation. They found it helped to make their organisations better prepared for winter more proactive than reactive to cold weather. Nonetheless there were areas where the plan could be improved, such as finding better ways to involve integration with general practice much more fully in the response and targeting resources at social isolated individuals in cold homes with specific interventions aimed at reducing their social isolation by and building community resilience as well as helping them heat their homes better. Many of these issues remain and local implementation, while being refined, could be further sharpened.

Acknowledgements

We thank the study participants; Rebecca Cheatle for co-ordinating, and the Royal College of Nursing for undertaking, the survey of primary care and community health services nurses among their membership; Gilliam Elam for helping with the design.
of the qualitative component of study and assisting with the interviews; the Advisory
Group for their helpful advice and comments throughout the study; and, the following for
their advice and assistance with this project: Virginia Murray, Angie Bone, Carl Petrokofsky
and Kevyn Austyn from Public Health England; and Benjamin Evans, Katie Russell,
Patrick Sachon, Christophe Sarran and Hazel Thornton from the Met Office.

Funding

This work is funded by the Policy Research Programme of the Department of Health for
England via its core support for the Policy Research Unit in Policy Innovation Research.
This is an independent report commissioned and funded by the Department of Health.
The views expressed are not necessarily those of the Department.

1 NHS. Cold Weather Plan for England. Protecting health and reducing harm from cold. NHS,
211-TSO-NHS-Cold-Weather-Plan_Accessible-main-doc.pdf (7 October 2015, date accessed)

evaluation.html, (10 February 2016 date accessed).

online from 26/1/16)

4 Hajat S, Chalabi Z, Wilkinson P, Erens B, Jones L, Mays N. Public health vulnerability to
wintertime weather: time-series regression and episode analyses of national mortality and
morbidity databases to inform the Cold Weather Plan for England. Public Health, 2016 (in
press, available online from 26/1/16)

5 Jones L, Mays N. The experience of potentially vulnerable people during cold weather:
implications for policy and practice. Public Health, 2016 (in press, available online from
26/1/16)


Wright, F. Old and cold: older people and policies failing to address fuel poverty. *Social Policy and Administration* 2006, **38**(5):488-503.


22 NICE. Preventing excess winter deaths and illness associated with cold homes. Quality Standard, March 2016. (11 April 2017, accessed)