

The impact of home energy efficiency interventions and winter fuel payments on winter- and cold-related mortality and morbidity in England: a natural equipment mixed-methods study

Ben Armstrong,¹ Oliver Bonnington,² Zaid Chalabi,¹ Michael Davies,³ Yvonne Doyle,⁴ James Goodwin,^{5,6} Judith Green,^{2,7} Shakoor Hajat,¹ Ian Hamilton,⁶ Emma Hutchinson,¹ Anna Mavrogianni,³ James Milner,¹ Ai Milojevic,¹ Roberto Picetti,¹ Nirandeeep Rehill,¹ Christophe Sarran,⁸ Clive Shrubsole,³ Phil Symonds,³ Jonathon Taylor³ and Paul Wilkinson^{1*}

¹Public Health, Environments and Society, London School of Hygiene & Tropical Medicine, London, UK

²Health Services Research and Policy, London School of Hygiene & Tropical Medicine, London, UK

³Institute for Environmental Design and Engineering, University College London, London, UK

⁴Public Health England (London), London, UK

⁵Design School, Loughborough University, Loughborough, UK

⁶Energy Institute, University College London, London, UK

⁷Department of Global Health and Social Medicine, King's College London, London, UK

⁸The Met Office (Health Programme), Exeter, UK

*Corresponding author paul.wilkinson@lshtm.ac.uk

Declared competing interests of authors: Zaid Chalabi reports grants from the National Institute for Health and Care Excellence (NICE), the Natural Environment Research Council and the Department of Energy and Climate Change during the conduct of the study. Michael Davies reports grants from the Wellcome Trust, the European Commission, the Engineering and Physical Sciences Research Council (EPSRC), NICE, the Department of Energy and Climate Change and the Department for Communities and Local Government during the conduct of the study. Ian Hamilton reports grants from Research Councils UK during the conduct of the study. Emma Hutchinson reports grants from the Irish Government (Department of Communications, Climate Action and Environment) outside the submitted work. Anna Mavrogianni reports grants from the Natural Environment Research Council (NERC); the Engineering and Physical Sciences Research Council (EPSRC); the National Institute for Health Research (NIHR); the Adaptation and Resilience in the Context of Change (ARCC) network; the Energy Technologies Institute (ETI); the Department for

Communities and Local Government (DCLG); and the Department for Environment, Food and Rural Affairs (DEFRA). She also reports personal fees from the Zero Carbon Hub (ZCH); the Greater London Authority (GLA); the Department for International Development (DfID); Vivid Economics; the Energy Saving Trust (EST); the Carbon Trust; and non-financial support from Arup Group (London, UK) during the conduct of the study, outside the submitted work. James Milner reports grants from the Irish Government (Department of Communications, Climate Action and Environment) outside the submitted work. Christophe Sarran reports grants from the Medical Research Council, NERC and NIHR outside the submitted work. Phil Symonds reports grants from EPSRC and NIHR outside the submitted work. Jonathon Taylor reports grants from the Wellcome Trust and NIHR during the conduct of the study. Paul Wilkinson reports grants from NIHR (the Policy Research Programme) during the conduct of the study and grants from the Irish Government (Department of Communications, Climate Action and Environment), Wellcome Trust, EPSRC Global Challenges Research Fund, (former) Department of Energy and Climate Change, NICE, European Climate Foundation and Natural Environment Research Council outside the submitted work.

Published October 2018

DOI: 10.3310/phr06110

Plain English summary

Home energy efficiency interventions and winter fuel payments

Public Health Research 2018; Vol. 6: No. 11

DOI: 10.3310/phr06110

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Plain English summary

England has a relatively large number of cold-related deaths and cases of illness in comparison with some neighbouring countries in continental Europe. A contributing factor may be the quality of housing, especially with respect to insulation and other home energy efficiency (HEE) measures.

In this study, we evaluated the impact of home improvements, installed in dwellings in England, 2002–10, on health by using data from a large national database. We also examined the longer-term trends in cold mortality and undertook interviews with householders in three areas of the country to gather views on HEE and the factors that were likely to motivate them to install additional measures in their own homes.

Analyses of mortality patterns have shown that the number of cold-related deaths has been falling since at least the mid-1970s. Vulnerability to cold appears to have been slightly weaker since the introduction of winter fuel payments in 1997 (although this beneficial change may, in fact, be attributable to other factors that have changed over the same period) and slightly stronger in years with higher fuel prices.

On average, the installed insulation measures improved winter indoor temperatures by around only 0.1 °C and reduced the annual number of cold-related deaths by around 300. However, improved insulation is also likely to alter the ventilation characteristics of dwellings and the consequent change in indoor air quality may have had a greater effect on health than that owing to changes in winter indoor temperatures.

The interview study suggests that householders do not think of HEE improvements in consumer terms and that taking this perspective in policy may erode commitment to environmental sustainability.

Larger-scale changes are required to the housing stock if the full potential benefits for health and important climate change targets are to be realised.

Public Health Research

ISSN 2050-4381 (Print)

ISSN 2050-439X (Online)

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This report

The research reported in this issue of the journal was funded by the PHR programme as project number 11/3005/31. The contractual start date was in April 2013. The final report began editorial review in November 2016 and was accepted for publication in September 2017. The authors have been wholly responsible for all data collection, analysis and interpretation, and for writing up their work. The PHR editors and production house have tried to ensure the accuracy of the authors' report and would like to thank the reviewers for their constructive comments on the final report document. However, they do not accept liability for damages or losses arising from material published in this report.

This report presents independent research funded by the National Institute for Health Research (NIHR). The views and opinions expressed by authors in this publication are those of the authors and do not necessarily reflect those of the NHS, the NIHR, NETSCC, the PHR programme or the Department of Health and Social Care. If there are verbatim quotations included in this publication the views and opinions expressed by the interviewees are those of the interviewees and do not necessarily reflect those of the authors, those of the NHS, the NIHR, NETSCC, the PHR programme or the Department of Health and Social Care.

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