



Quantifying the impacts on the health service from underheating and the value of energy efficiency measures

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Excess Winter Deaths

“Over the winter of 2016-17 there were 31,800 excess winter deaths among the over 65s from cold-related illness such as heart attacks and strokes.....One third of all the excess winter deaths reported were caused by respiratory diseases”

ONS

“The reasons more people die in winter are complex and interlinked with inadequate heating and poorly insulated housing”

Department for Health

“Cold and damp homes can contribute to poor mental health and social isolation, which are also key factors in increased winter deaths and disease”

NHS

Measuring the benefits of energy efficiency measures

Cost benefit analysis



Measuring the health benefits of energy efficiency measures

Health Impacts of domestic energy efficiency measures
(HIDEEM) University College London, London, London School of Hygiene and Tropical Medicine, London

- Mortality / Morbidity - Quality adjusted life years
- Cost savings to health service - £m

Impact of cold homes on the health service

- Quantitative Research exploring the impact of cold homes on the health service.
- Collaboration between DWP, BEIS, NHS digital and PHE
- Quantitative Statistical Study:
 1. Identify households we think are underheating
 2. identify vulnerable households
 3. matching addresses to hospital records

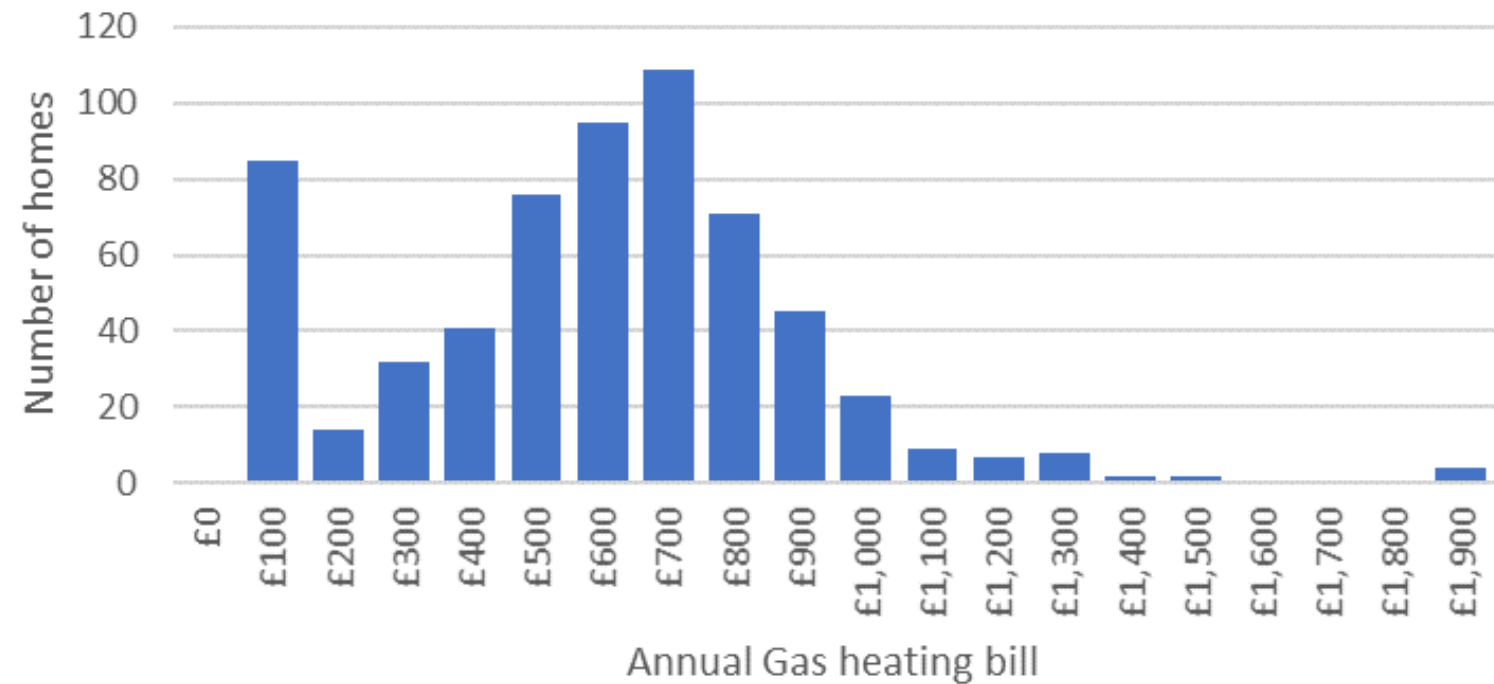
Research Questions

- Is there a difference in frequency or amount of time spent in hospital (and subsequent cost) between underheated and warm homes?
- Is there a reduction in frequency or time spent at hospital from underheated homes who subsequently improve their energy efficiency?

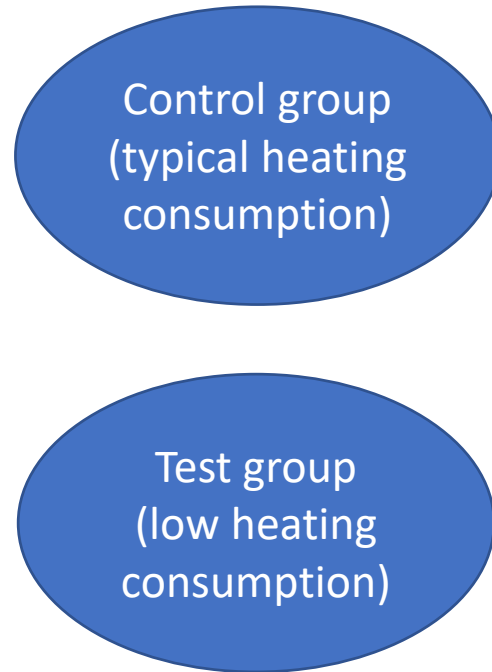
Heating requirements of a 1950s 3 bed semi



3 bedroom 1950s semi heating bill EPC E (NEED 2012)



Matching to hospital records



NHS hospital records for specific diseases

- Length of stay
- or
- Number of visits

published aggregate primary care trust (PCT) expenditure figures

Cost to the health service (£1.3bn?!)

Diseases in scope of the study

Cardiovascular diseases

Cardiopulmonary disease

Stroke

Heart Attack

Lung Cancer

Asthma

Chronic Obstructive Pulmonary disease

Common Mental Disorder

Impact of measures on hospital visits



Why are we doing this research

- Stronger economic case for energy efficiency schemes
- Research findings in late Spring / Summer 2019.



Impact of cold homes on hospital visits

- Risks of our approach
- Benefits of our quantitative approach



Further research

- UCL: Health impacts of Energy efficiency and Ambient Temperature (forthcoming)
- [Health Impacts of Energy Efficiency Measures - Cardiff & Swansea Universities](#)
- The Fuel Poverty Data Linking Project Findings Report No.1: [Initial Findings on the Impact on Health of the Warm Homes Nest Scheme](#)