Public Health England

UCL Institute of Health Equity

Local action on health inequalities:

Fuel poverty and cold home-related health problems

Health equity briefing 7: September 2014

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About the UCL Institute of Health Equity

The Institute is led by Professor Sir Michael Marmot and seeks to increase health equity through action on the social determinants of health, specifically in four areas: influencing global, national and local policies; advising on and learning from practice; building the evidence base; and capacity building. The Institute builds on previous work to tackle inequalities in health led by Professor Sir Michael Marmot and his team, including the 'Commission on Social Determinants of Health', 'Fair Society Healthy Lives' (The Marmot Review) and the 'Review of Social Determinants of Health and the Health Divide for the WHO European Region'. www.instituteofhealthequity.org

About this briefing

This briefing was commissioned by PHE and written by the Institute of Health Equity (IHE). It is a summary of a more detailed evidence review on the same topic and is intended primarily for directors of public health, public health teams and local authorities. This briefing and accompanying evidence reviews are part of a series commissioned by PHE to describe and demonstrate effective, practical local action on a range of social determinants of health.

Reuben Balfour and Jessica Allen wrote this briefing for IHE.

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Fuel poverty and cold home-related health problems

Summary

1. A household is in fuel poverty if it is on a low income and faces high costs of keeping adequately warm and other basic energy services. Fuel poverty is driven by three main factors: household income, the current cost of energy and the energy efficiency of the home.
2. Fuel poverty is associated with cold homes. England's housing stock is made up of relatively energy inefficient properties which can result in homes that are difficult or costly to heat. However, households can be cold without being in fuel poverty if people choose not to heat their homes adequately where they have the means to do so.
3. A social gradient in fuel poverty exists; those on lower household incomes are more likely to be at risk of fuel poverty, contributing to social and health inequalities.
4. The most recent data on fuel poverty in England indicates that there were 2.28 million fuel-poor households in 2012.[1]
5. Cold homes can affect or exacerbate a range of health problems including respiratory problems, circulatory problems and increased risk of poor mental health. Estimates suggest that some 10% of excess winter deaths are directly attributable to fuel poverty and a fifth of excess winter deaths are attributable to the coldest quarter of homes.[2,3]
6. Cold homes can also affect wider determinants of health, such as educational performance among children and young people, as well as work absences.
7. Tackling fuel poverty and cold home-related health problems is important for improving health outcomes and reducing inequalities in health in England. Local authorities and public health are well placed to address issues relating to fuel poverty.

Introduction

This briefing paper looks at the relationship between fuel poverty, cold homes and health inequalities, as well as the actions that local authorities can take to address these issues.

A household is in fuel poverty if it cannot afford to keep the home heated to an adequate temperature. Fuel poverty is driven primarily by three factors: income, the current cost of energy and the energy efficiency of the home.[4] In addition, a property's size, age and type of heating system are important in determining whether or not a household is fuel-poor:[5] older homes tend to be much less energy efficient than newly built homes.

The relatively low standard of energy efficiency across England's older housing stock means that heating the home can be difficult and/or costly, particularly for those on low incomes.[6] Fuel poverty can lead to a property being kept at a lower temperature than might be desired.

The relationship between fuel poverty and cold homes is complex. Households on low incomes are more likely to live in the social rented sector which is, on average, more energy efficient than other housing sectors.[7,8] Therefore, it is less likely that these households will experience a

cold home. In addition, some private rented or privately owned households may maintain low household temperatures even when they can afford to heat the home to an adequate temperature. This is a particular concern for elderly populations.[2]

Fuel poverty, cold homes and health inequalities

Cold homes are associated with a range of poor health outcomes. Cold can increase the risk of respiratory problems, such as asthma and bronchitis;[9,10] circulatory problems, such as CVD and stroke;[11,12] and exacerbate existing health conditions, including asthma, diabetes and recovery following hospital discharge.[13,14] Home temperatures also have implications for mental health: cold is linked with increased risk of conditions such as depression and anxiety.[15]

Groups who are already vulnerable such as young children, older people and those with pre-existing health problems will be particularly susceptible to cold. Cold homes and poor housing condition have been linked with a range of health problems in children and young people, including respiratory health, mental health, growth and long-term health.[16] Cold home also affect other factors associated with health (wider determinants of health) such as educational performance among children and young people, and employment by increasing rates of work absences.[3]

Older people may also be particularly vulnerable to the impacts of cold homes. Among older people, cold temperatures increase risks of strokes and circulatory problems, respiratory problems, hospital admission, and lower strength and dexterity leading to an increase in the likelihood of falls and accidental injuries.[17,18]

Estimates suggest around 10% of excess winter deaths are attributable to fuel poverty.[2] Similarly, evidence suggests that more than one in five (21.5%) excess winter deaths in England and Wales are attributable to cold housing.[3] Other factors, such as influenza, may also contribute to rates of excess winter deaths which do not relate to cold homes.[3,19]

The cost of fuel poverty to the NHS in England is estimated to be £1.36 billion, not including associated social care costs.[20]

What works to tackle fuel poverty and cold home-related health problems?

The government has introduced a range of policies to address contributing factors to fuel poverty including the Green Deal, introduced in 2012, and the Energy Company Obligation, introduced in 2013. Both were introduced to improve the energy efficiency of some of England's housing stock, hopefully leading to a reduction in the amount of fuel needed to adequately warm the property. Other policies, including the warm home discount, winter fuel payments and cold weather payments, aim to help households with their energy costs.

In addition, the Cold Weather Plan for England is a framework intended to protect the population of England from harm to health from cold weather. It aims to prevent major avoidable effects of cold weather on people's health by alerting them to the negative effects and enabling them to prepare and respond appropriately.

Local authorities can complement this work in a number of ways as they have means to identify some of the most vulnerable people within their area. Temperatures can fluctuate year-on-year and tend to be lower and more severe in rural and more exposed areas, such as high ground, compared with urban areas. Low temperatures may occur in different regions of the country at different times of the year and thus the risk to health varies spatially and temporally. This reinforces

the need for continuous, year-round preparation for cold weather[21] and for locally appropriate responses.

Improve the energy efficiency of homes
Interventions to improve the energy efficiency of the home, including insulation and central heating upgrades, are likely to lead to increases in thermal conditions and reduce energy bills. Increases in the thermal condition of the home are also likely to reduce cold home-related ill-health. Local authorities can set up local schemes to improve the energy efficiency of homes and they can also encourage greater uptake of existing national schemes by householders in their area.

Provide advice on energy saving methods and reducing the cost of fuel bills
Educating households on how to save energy can help reduce fuel bills and is likely to decrease the risk of a household becoming fuel poor.

Develop a network of services to support and protect those vulnerable to cold homes and weather
Implementing services designed to provide a range of support mechanisms and advice can help support and protect those vulnerable to cold homes and weather, including information sharing across frontline services (such a as primary care, housing, social services), access to health and social care support and help with energy saving methods, provide essential support for those vulnerable to cold weather and access to benefits and cold weather payments.

It is also helpful to ensure health and care providers know how to support vulnerable patients and clients who might be living in cold housing to access housing and welfare services. Recent guides by the UK Health Forum set out actions that can be taken by public health professionals, health and wellbeing boards, and local authorities,[22] and by those working in primary care.[23]

The case studies in boxes A, B and C provide examples of local measures which have been implemented to tackle fuel poverty and cold home-related excess winter deaths.

BOX A

The affordable warmth access referral mechanism in Greater Manchester[24]

The affordable warmth access referral mechanism is a programme linking health, housing and fuel poverty services, offering advice to people living in fuel poverty. The programme aims to increase referrals from front line organisations to help people experiencing fuel poverty.

It offers a range of support services, including:

- benefit and debt advice
- support with home repairs and improvements
- energy efficiency advice
- facilitating subsidised cavity wall and loft insulation
- support with grant applications for health repairs and replacements
- fire safety checks

An evaluation of the programme was carried out by Greater Manchester public health practice unit to identify the costs and benefits of the interventions. A cost-benefit analysis was conducted on 52 household interventions and analysed the impact of warmer housing on the

quality of life. The cost of the 52 interventions was estimated to be £88,800.

The evaluation identified a number of benefits, including:

- a dramatic increase in referrals from across the social and care sectors.
- an estimated health gain compared to over £600,000 (value of total QALYs).
- an estimated 2.55 life years gained from living longer (spread across 52 participating households – 82 adults).
- an estimated gain in quality adjusted life years (QALYs) (per person helped) of between 1.67 and 31.16 (taken from six different scenarios).

The UK Public Health Association commissioned the evaluation and published it in April 2011.

BOX B

Cornwall Together[25]

Launched in 2012, the Cornwall Together initiative is a regional collective switching scheme estimated to save Cornish residents £3.7 million in fuel bills through reductions of 10-15%. Through cross sector partnerships, including the Eden Project, Cornwall Council, Community Energy Plus, Age UK, Citizens Advice Bureau, uSwitch, energyshare, Unison, St Austell Brewery, and the NHS, the scheme seeks to reduce the fuel bills for households, alleviate fuel poverty and improve public health.

The initiative helps individuals get the best possible energy deal by encouraging households to switch energy tariffs. It also aims to tackle fuel poverty through helping households spend less on energy, while investing in a Cornwall Together fuel poverty fund for the whole county. This fund is overseen by the NHS, CEP, Cornwall Council and the Eden Project.

Furthermore, the initiative raises awareness of energy efficiency issues and attempts to source energy from more sustainable and environmentally friendly forms of energy when possible.

As part of the project, a comprehensive awareness campaign was delivered targeting the most hard to reach, fuel poor and vulnerable households in Cornwall.

Evaluation of the project identified a number of positive outcomes:

- the public campaign raised awareness in two-thirds of the Cornish population
- 7,192 quotes were given and 1,174 customers switched their energy tariff (28% were classified as being fuel poor)
- it was estimated that the average household saving is £112 per household amounting to £130,000 went going back into the pockets of local residents

Cornwall Together was conceived by the Eden Project and backed by Cornwall Council, Community Energy Plus, Age UK, Citizens Advice Bureau, uSwitch, energyshare, Unison, St Austell Brewery, and the NHS. It was launched in 2012.

BOX C

Seasonal health interventions network, Islington[26]

The seasonal health interventions network (SHINE) is a multidisciplinary project in the London Borough of Islington. It aims, through a range of avenues, to reduce hospital admissions and excess winter deaths. The service has been operating in the borough since 2010.

SHINE targets a number of vulnerable groups including:

- people aged over 75
- people suffering from respiratory diseases
- people suffering from cardiovascular disease
- people who have severe mental illness or dementia
- people suffering from autoimmune disease (a condition affecting the immune system)
- people suffering from haemoglobinopathies (a condition affecting the blood)
- households on low incomes with children under age five

SHINE is made up of 400 frontline staff coming from a range of services, including housing, health, adult social care, children's services and the voluntary sector. It also receives self-referrals from vulnerable households. The residents referred to SHINE by the frontline staff are assessed by advisers who provide advice on energy saving techniques and keeping warm, and, if need be, pass residents on to appropriate interventions to address specific needs. Interventions include:

- home interventions – such as home energy improvements, fire safety and community alarm services
- health interventions – such as flu jabs, health checks and falls assessments
- financial interventions – such as benefit checks, advice with energy and utility use and debt management
- general support interventions – Age UK enablement service, vulnerable utility customers register and befriending services

In 2013, the programme was enhanced to include an emergency credit scheme to support energy meter customers in meeting their payments. In addition, with the support of European Commission funding, SHINE is developing an early intervention programme to target low-income households with children and young people to improve financial capability and home management skills.

Conclusion

There is good evidence linking fuel poverty, cold homes and negative health outcomes, though further work is needed to investigate the effectiveness of interventions to tackle health problems related to cold homes. The overall message that emerges from the interventions in this review suggests the most effective way of tackling fuel poverty is to take a holistic approach that balances home efficiency measures, such as insulation provision and energy-saving techniques, with wider welfare benefits take-up and other interventions to improve the health of vulnerable people.

Local authorities are well placed to tackle some of the issues relating to fuel poverty, as they have ways to identify households which are vulnerable to the effects of cold weather in their local area and responsibility for elements of both public health and housing; these efforts require cross-sectoral action. Health and wellbeing boards are particularly well-placed to ensure action takes place across housing, NHS, and preventive health areas and strategies, and that these areas are linked. Interventions that address fuel poverty and cold home-related health problems are likely to help local areas reduce health inequalities, save local and national services money and help level up the social gradient in health.

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