Chapter 4
Fuel Poverty

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Introduction

A household is said to be in 'fuel poverty' if it needs to spend more than 10% of its income on fuel (including heating, hot water, lighting and cooking) to maintain a 'satisfactory' heat in the home[1]. Satisfactory heat is defined as 21 degrees centigrade for the main living area and 18 degrees centigrade for any other occupied rooms. Households in fuel poverty face the stark choices of spending their resources on basics such as food and clothing, or heating their homes.

A cold home has been shown to be linked to excess deaths in winter, particularly from heart attacks, strokes, respiratory infections and falls. In Kingston just over 8% of private households, or about 4,200 dwellings, are thought to be in fuel poverty[2].

Causes of fuel poverty

There are three main factors that can influence whether a household may suffer fuel poverty:

1. the energy efficiency status of the property
2. the cost of energy
3. household income.

In addition, two other factors play a role:

4. energy using behaviour, for example, correctly using the boiler
5. extended need for warmth, for example, if someone is confined to the home due to illness, disability or age.

Energy efficiency

The energy status or energy efficiency of a property is determined by a measure called the 'Standard Assessment Procedure' or SAP (Box 4.0)

Box 4.0

SAP Scores

A Standard Assessment Procedure or SAP measures the energy efficiency of a building. Factors such as double glazing, insulation and an efficient boiler all increase a building's energy efficiency. Under the 2001 methodology, a SAP score of 1 is the worst while a score of over 100 means that a building produces more energy than it needs (for example, by a wind turbine or solar panels). A home with a SAP score of 65 is considered to be energy efficient. SAP scores can be used to help determine where investments for improvements may be made.

1 DEFRA, BERR. The UK Fuel Poverty Strategy. 6th Annual Progress Report 2008. (Available at: http://www.defra.gov.uk/environment/climatechange/uk/household/fuelpoverty/pdf/fuel-poverty-6th-report.pdf

2 Building Research Establishment (BRE) estimates produced on behalf of RBK. June 2008.

In 2007, the average SAP score for all English housing stock was 50[3]. As building regulations have focused more on energy efficiency, so the SAP scores have improved[4]. The lower the SAP or energy efficiency score, the more a building costs to heat. While newer buildings show encouraging improvements in energy efficiency, the low energy efficiency of average housing shows that there is much need for further measures in some of the older housing. On a low income, it may be impossible to adequately keep an energy inefficient house warm enough for good health. Table 4.0 shows the typical energy efficiency of houses built in the UK over different decades.

Table 4.0 Energy efficiency of homes in the UK, by age of building

Dwelling age	Typical construction	Average SAP rating	% of total housing stock*
Pre-1919	Workers' cottages, brick built, slate/tile roof, rarely with cavity	39	58%
1919-1944	Standard designs started to emerge, cavities became common in the 1930s, some local attempts at planning regulations (local building codes)	43	
1945-1964	Post-war building boom, prefab housing, local authorities set spatial and health standards, cavities now predominant	48	
1965-1980	First attempts by central government to control building regulations, first thermal regulations	51	23%
Post-1980	Building Regulations now continually reviewed and improved, tightening thermal, acoustic and health and safety standards	61	19%
The future?	Energy Efficient Home	65 or higher	

* in UK in 2005

Source: Housing Corporation. Fit for the Future. The Green Homes retrofit manual. June 2008

Cost of energy

The cost of energy will play a role in determining how much heating a household can afford. For particular groups, such as pensioners on fixed incomes, fluctuations and increases in price can put adequate heating out of reach. Data shows that while energy prices remained fairly stable or even decreased from 1990 to around 2004, they have generally increased since then, with a large peak in mid-2008.

3 English House Condition Survey 2007 - Headline Report. Communities and Local Government. January 2009. http://www.communities.gov.uk/publications/corporate/statistics/ehcs2007headlinereport

4 The Housing Corporation. Fit for the Future. The Green Homes retrofit manual. June 2008. Guidance on improving environmental performance of existing housing stock. June 2008. http://www.housingcorp.gov.uk/upload/pdf/Fit_for_the_future_part_2-1_Introduction.pdf).

Household income

Household income will determine how much money is available for a home to be heated. Pensioners and people on low incomes (particularly those confined to the home throughout the day through illness or disability, people with very young children or very old people) may have to make difficult choices in deciding how income is allocated. The decreasing rates of interest on savings, which started towards the end of 2008, may directly affect the amount of income available to many pensioners in Kingston. When more than 10% of the household income is allocated to purchase of fuel to maintain a satisfactory heating regime, the household is said to be in fuel poverty.

Consequences for health

Britain has an estimated 40,000 excess winter deaths* each year[5]. Between 2000 and 2007, in Kingston in the winter months 540 more people died than was expected. This is equivalent to around 77 people a year recorded as excess winter deaths[6]. Studies have now shown that about 60% of these excess deaths are linked to the cold with others associated with influenza and other seasonal illnesses[7]. Other countries with much more severe winters, such as the Scandinavian countries, have very few excess winter deaths. It has been suggested that housing in Scandinavian countries is better insulated against the cold and this may, in part, explain some of the mortality difference.

Low indoor temperatures of people's homes are associated with increased vulnerability due to cardiovascular disease. Studies have shown that a lowering of temperature by just 1 degree can result in a rise of blood pressure of 1.3 mm Hg, increasing risk of strokes and heart attacks. Cold air also affects the normal protective function of the respiratory tract, leading to increased vulnerability to respiratory infections. Dampness in the home can increase mould growth, which can cause asthma and respiratory infections. Falls and injuries, particularly in the elderly through worsened symptoms of arthritis and decreased dexterity, are found to increase in cold homes. Increased mental health problems are also linked to cold, damp housing[8]. Studies have shown that mental health improves when the heat inside

* The estimated number of excess winter deaths is the difference between the number of deaths during the four winter months (December to March) and the average number of deaths during the preceding four months (August to November) and the following four months (April to July). Figures are rounded to the nearest 10.

5 Wilkinson P, Landon M, Armstrong B, Stevenson S, Pattenden S, McKee M, Fletcher T. Cold Comfort: The social and environmental determinants of excess winter deaths in England, 1986-96. The Policy Press 2001. Summary also available at: www.lshtm.ac.uk/php/publications/briefing6.pdf

6 Letter from Karen Dunnell, National Statistician, January 2009, in a written reply to Sarah Teather. http://www.theyworkforyou.com/wrans/?id=2009-01-14c.247032.h

7 Wilkinson P, Landon M, Armstrong B, Stevenson S, Pattenden S, McKee M, Fletcher T. Cold Comfort: The social and environmental determinants of excess winter deaths in England, 1986-96. The Policy Press 2001. Summary also available at: www.lshtm.ac.uk/php/publications/briefing6.pdf

8 NHS. Keep Warm Keep Well. Supporting Vulnerable People during Cold Weather: Advice for health and social care professionals. September 2008. Available at: www.dh.gov.uk/publications

a home is increased by improving insulation of the building[9, 10]. In an extreme cold snap, people in poor housing or without adequate heating may also be at risk of hypothermia, although deaths from this are very rare in the UK.

Local issues: How much fuel poverty is there in Kingston?

Just over 8% of Kingston households (data only includes private households), around 4,200 dwellings, were thought to be in fuel poverty in June 2008[11]. There is some variation between areas within Kingston with the highest levels of fuel poverty found in Alexandra (11%) and the lowest in Grove (5%) (Table 4.1).

Table 4.1
Energy efficiency of homes in the UK, by age of building

Ward	SAP less than 35	Fuel poverty
Alexandra	14%	11%
Berrylands	13%	8%
Beverley	14%	9%
Canbury	21%	6%
Chessington North and Hook	11%	10%
Chessington South	9%	7%
Coombe Hill	16%	6%
Coombe Vale	15%	8%
Grove	16%	5%
Norbiton	15%	8%
Old Malden	12%	10%
St James	13%	10%
St Mark's	15%	9%
Surbiton Hill	16%	7%
Tolworth and Hook Rise	11%	8%
Tudor	14%	7%

Source: Building Research Establishment (bre) estimates produced on behalf of RBK. June 2008

9 Gilbertson J, Stevens M, Stiell B, Thorogood N. Home is where the hearth is: Grant recipients' views of England's Home Energy Efficiency Scheme (Warm Front). Social Science and Medicine. Vol 63, Issue 4, August 2006: 946-956

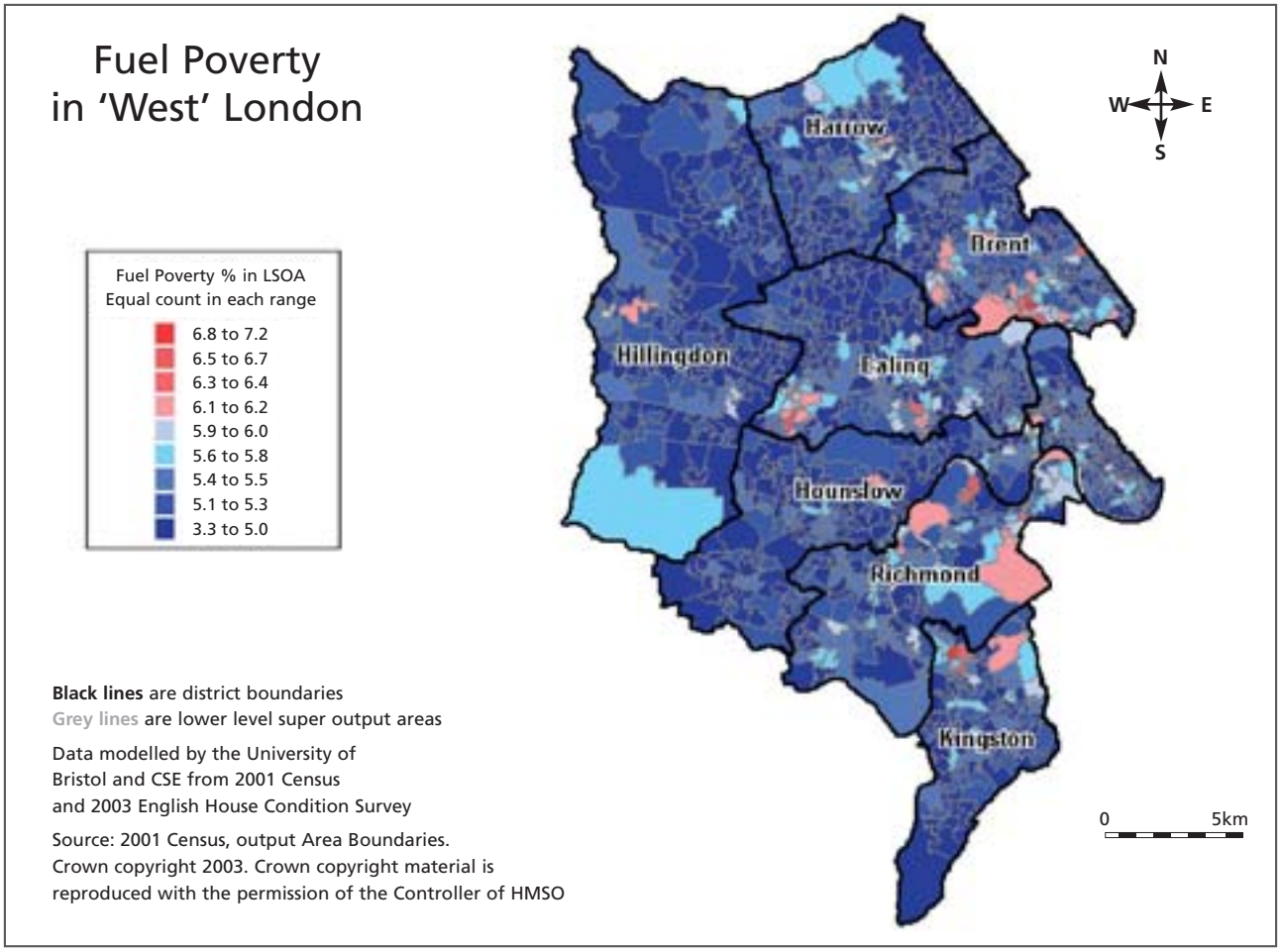
10 Howden-Chapman P, Matheson A, Crane J, Viggers H, Cunningham M, Blakely T, Cunningham C, Woodward A, Saville-Smith K, O-Dea D, Kennedy M, Baker M, Waipara N, Chapman R, Davie G. Effect of insulating existing houses on health inequality: cluster randomised study in the community. BMJ 2007; 334: 460 (3 March)

11 Building Research Establishment estimates produced on behalf of RBK, June 2008

In Kingston, most fuel poverty is thought to be concentrated in the private rented households. In addition, 'property rich-fuel poor' type households are thought to be an issue in Kingston. Data from England as a whole shows that those suffering fuel poverty are often single person households aged over 60 years on low incomes.

Figure 4.0 shows fuel poverty estimates across west London, using a combined measure from 2001 and 2003. This measure does not take full account of social housing; nevertheless it shows that households in some more affluent parts of the borough suffer fuel poverty, probably due to a high number of property rich - fuel poor households.

Figure 4.0 Fuel poverty estimates across west London, using a combined measure from 2001 and 2003



Fuel poverty is not easy to measure at the population level. However, a new indicator, 'National Indicator 187' has been developed, which aims to estimate fuel poverty at the local area and national level[12]. This monitors, through surveys, the proportion of households containing someone on income-related benefits that occupies a low energy efficient home

12 DEFRA. Guidance to local authorities and Government Offices on National Indicator 187. Version 3. February 2009. See: www.defra.gov.uk/environment/localgovindicators/ni187.htm

(a dwelling with a SAP less than 35), or occupies an energy efficient home (a dwelling of SAP of 65 or greater). All Local Authorities, including the Royal Borough of Kingston, are now required to report on fuel poverty by this measure. While not all people who suffer fuel poverty are on income related benefits, it is thought that about 60% of fuel poor households are, and therefore this indicator will capture a picture of much of the fuel poverty in England. The first surveys collecting data for this indicator were scheduled to be completed by the end of 2008[13].

Other sources of data include the 'Fuel Poverty Indicator', which used data from the 2003 English House Condition Survey (EHCS) and 2001 Census to estimate fuel poverty for different household types at the local area level. In addition, the English Housing Survey (EHS), which was launched in 2008, is a continuous national survey of housing which includes physical inspections (including energy efficiency assessments) and will provide data from 2010. This survey is commissioned by the branch of government called Communities and Local Government[14].

What can be done about fuel poverty?

Fuel poverty is best tackled by the joint working of councils, primary care trusts, landlords, and community groups that work with the affected populations. Central government also has a major role to play. Key interventions include:

- **Improving energy efficiency of buildings.** In the medium and long term, house building regulations need to be further tightened to ensure that new buildings take on board new developments in energy efficiency technology. In the immediate term, improvements in existing households energy efficiency can be made (including installing adequate insulation, efficient boilers and other measures).
- **Increasing income** of those in fuel poverty, for example by targeted payments for fuel, by increasing the minimum wage, increasing pensions, and by ensuring receipt of benefits.
- **Price of fuel.** Studies have shown that some poor people in the UK are paying more for their electricity and gas than the wealthy. This is because some of the big fuel suppliers charge more per fuel unit for customers paying by prepayment meters than those paying by direct debit or other measures. The poorest in the UK pay by prepayment meters more often than higher income customers. In addition, past debts to the fuel companies may also be collected through the meters. This higher fuel tariff directly increases the risk of fuel poverty in the poorest in this country. Campaign groups have called for this disparity in fuel tariffs to be abolished[15].
- **Information.** Educating people on how to best use energy efficiently, and how to access available grants or best fuel deals can also play a role in helping householders avoid or alleviate fuel poverty.

13 Defra http://www.defra.gov.uk/environment/localgovindicators/ni187.htm).
14 http://www.communities.gov.uk/housing/housingresearch/housingsurveys/englishhousecondition/ehcsreports/ .
15 Age Concern, Barnardos, End Child Poverty et al. Briefing for OfGem poverty summit. 23 April 2008. Report available at: http://collections.europarchive.org/tna/20080922203044/http://www.energywatch.org.uk/uploads/Ofgem_Fuel_Poverty_Summit_brief_23_April_20081.pdf)

Targeting these interventions appropriately is a key issue for local agencies. Although data is available on those receiving benefits, people living just above the benefits threshold in fuel inefficient accommodation may not be known to the council or health services, yet may be in great need. In Kingston, in particular, concern has been raised for the 'property rich-fuel poor' category, in particular, the elderly on a low pension. It is important to ensure that interventions, such as increased insulation of a house do not result in a worsening of other health risk factors (such as increased mould growth, a risk factor for asthma and other respiratory conditions, if household ventilation is restricted). The interventions can play a dual role in both reducing fuel poverty and also help the UK in its quest to meet its global carbon emission reduction obligations.

What is happening in Kingston?

The Royal Borough of Kingston has recognised the importance of addressing fuel poverty in the borough. It has joined together with a group of neighbouring and nearby London boroughs to run several schemes to try and address local fuel poverty. In addition, population groups, such as pensioners, are able to access national schemes, such as the Winter Fuel Payment (an annual payment made to households with someone aged 60 or over to help with heating costs) and the Cold Weather Payment (extra payments to people over 60 years who are receiving Pension Credit when the local weather has been very cold). The local schemes include the following:

Coldbusters is a scheme to provide free grants for items such as central heating, new boilers, upgrade of heating controls, cavity wall and loft insulation and draught proofing. The eligibility criteria include whether or not a household receives certain benefits and the age of the householder. The scheme is run jointly with a number of London boroughs in south-west London, including Richmond and Croydon (more information is available via telephone 0800 358 6668).

Warmfront is a national government-funded organisation that offers grants to make homes warmer and more energy efficient through providing grants up to the value of £3,500 (or £6,000 if oil central heating) for central heating installation and a number of other heating measures. Eligibility is determined by whether a household receives certain benefits. Tenants of social landlords are not eligible as the local authorities are directly responsible for maintaining these properties to an adequate standard. Further information is available via www.warmfront.co.uk or telephone 0800 316 2805.

Houseproud is a partnership scheme run by the Home Improvement Trust that provides assistance to homeowners aged 60 and over, or who are disabled, or who have a disabled person living with them. The scheme arranges loan financing for repairs, adaptations and improvements to housing in Kingston and nearby boroughs.

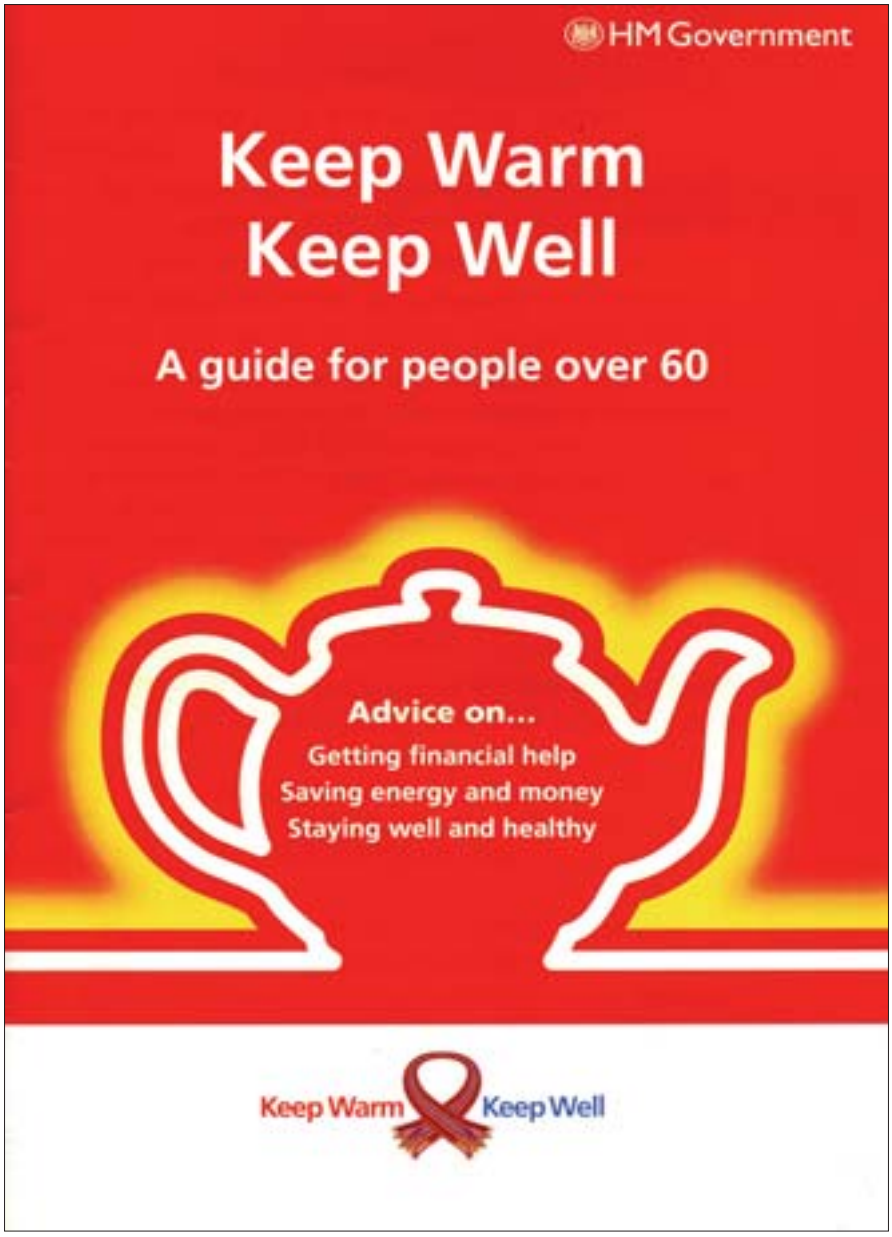
CEN (Creative Environmental Networks) is working with The Royal Borough of Kingston, other boroughs and NHS Kingston, to help older people and vulnerable households to access the grants available through Cold Busters and other schemes. Kingston has had a successful working partnership with CEN since 1999 and the partnership has included the operation and delivery of the Coldbusters and Home Visiting scheme. Home visiting teams from CEN provide assessments for households and help them complete the necessary paperwork to obtain grants or arrange for work to be carried out. The home visiting teams also provide education on energy saving measures directly to households and to community groups. (Box 4.1)

Box 4.1

Case study: a CEN home visitor working in Royal Borough of Kingston and NHS Kingston

I visited Mr H at his semi-detached two-storey Kingston home in February 2009 and found that he had no central heating, and was using only electric on-peak heaters to keep warm. Coupled with this, Mr H also had unfilled cavity walls and only two inches of loft insulation, so any warmth produced from his expensive heaters went straight out the walls and roof. Being aged over 80 and living off only a small pension he was finding the exceptionally cold winter and increased fuel prices difficult to bear. As he receives attendance allowance I informed him about the Coldbusters and Warm Front grants that could provide insulation and a central heating system for his home. Although Mr H was delighted to be put forward for cavity wall and loft insulation he had had a bad experience with a gas leak in the past which was his reason for avoiding central heating and wasn't keen on having the system installed. Instead, I put him forward for off-peak electric storage heaters and made an application for a 15% discount on his fuel through his supplier's social tariff which he was unaware he was eligible for. Although the measures are yet to be implemented, Mr H stands to save up to 50% of the heat loss in his home through his roof and walls (up to £435 off his current bills based on data from the Energy Saving Trust) and will save even more once his heating system is changed and his bills reduced by a further 15% through his new social tariff. Mr H said he hoped that these measures would make his home affordable to heat and give him the peace of mind to use his heating next winter.

Other winter warmth and winter health activities. A range of other activities are supported by NHS Kingston and other partners to help keep the local population healthy in the colder winter months. These include supporting the nationally led 'Keep Warm Keep Well' information campaign, providing influenza vaccinations to target groups and helping people give up smoking, to improve circulation and reduce chances of heart attacks and other conditions.



Addressing fuel poverty in Kingston will help prevent premature mortality in many older and vulnerable people. It can also improve the quality of life for currently fuel poor households. By making changes to improve household insulation and installing other energy efficiency measures, Kingston will also contribute to the global campaign for reducing carbon emissions.

Recommendations

1. NHS Kingston and the Royal Borough of Kingston should maintain financial support for interventions shown to be effective in alleviating fuel poverty and should continue to lever in support and measures from national schemes where possible.
2. NHS Kingston and the Royal Borough of Kingston should evaluate interventions being used locally to alleviate fuel poverty.
3. The Royal Borough of Kingston should use all available data methods for identifying homes at risk of fuel poverty.
4. NHS Kingston should set up a referral network of allied health professionals (including health visitors and social services staff) to refer vulnerable householders for fuel poverty alleviation measures.
5. NHS Kingston and Royal Borough of Kingston should further develop its partnerships with community organisations to promote fuel poverty alleviation measures and encourage energy efficiency.

A CEN Home visitor gives energy efficiency advice to a south London resident during a home visit.