

Who experiences fuel poverty and how?



A series of policy-relevant briefings on the legacy of research supported by Eaga Charitable Trust.

Following 25 years of supporting research on fuel poverty, the Eaga Charitable Trust (Eaga CT) closed in 2019. This series of research digests presents a summary of the research evidence under five themes: homes, people, impacts, approaches and concepts. This briefing focuses on people and groups who experience fuel poverty.

Readers can find more on these issues and the full breadth of Eaga CT's output in the new online fuel poverty library: www.fuelpovertylibrary.info.

1 Low Income Households

Alongside the energy inefficiency of a property and coupled with high and rising energy costs, low income is recognised as one of the primary causes of fuel poverty. Although defined or categorised in a number of different ways, low income appears to some extent in the majority of Eaga CT studies. In policy, both of the income-based official measures (the 10% and Low Income High Cost (LIHC) indicators) and other widely used terminology such as 'affordable warmth' put financial capability at the centre of understanding and identifying fuel poverty.

Defining 'Low Income'

Several studies have explored low income in terms of its role in the measurement and modelling of fuel poverty. This has included the Fuel Poverty Index in 1998¹ and, more recently, the 2018² Index of Vulnerable Homes (IVH). There are various ways in which income thresholds can be calculated (before or after housing costs, for example) and the limitations of the different methodological approaches have been the central theme of some reports, including a 2017 study³ focused specifically on the LIHC indicator. A 2013 study⁴ argued that income-based indicators make it difficult to gain a clear picture of how fuel poverty affects certain households, such as those containing someone with a disability.

Obtaining accurate and precise financial information about households can be challenging, time-consuming, and confusing. As such, proxy indicators of low income have been widely used in research as a means of sampling and as a way of targeting measures and determining eligibility for support. The most common proxy indicator uses receipt of means-tested benefits and this has featured in a number of Eaga CT studies.

Key Points

- Fuel poverty continues to be a reality for many households in the United Kingdom and beyond. Action is needed to reduce the incidence and severity of this social issue in order to reduce the severe impact it has on health and wellbeing.
- The 'fuel poor' are not a homogenous population and, as such, the experiences of fuel poverty and its impacts vary widely between and within key demographic groups.
- What makes certain people, households or demographic groups at risk or vulnerable to fuel poverty can and has changed over time, and is shaped by policy and funding decisions.
- While low incomes are recognised as one of the key drivers of fuel poverty, the understanding and application of the term in policy and practice is problematic. Proxy indicators, such as being in receipt of means-tested benefits, provide a useful mechanism. Such approaches may however end up including people who would not otherwise be classed as fuel poor and excluding some who would.
- Households and individuals living with a physical or learning disability can be more vulnerable to the negative consequences of fuel poverty, due for example to higher energy use and costs as a result of spending more time in the home.
- Other characteristics, beyond the headline demographic indicators, can increase the risk of fuel poverty. Such factors include energy literacy, accessibility of services and availability of resources in an accessible format, among other examples. These are all critical to the design and delivery of support for those experiencing, or at risk of, fuel poverty.
- Understanding of the demographic composition of the fuel poor has shifted in recent years. Research and policy should ensure that these 'newer' groups, such as low-income households not in receipt of means-tested benefits and young adult households, are not overlooked.

- A 1997 study⁵ correlated benefits data with information on housing condition to identify vulnerable households, concluding that single adults (including single pensioners), lone parents, and families living without central heating should be prioritised for energy efficiency programmes. The report argued that, despite widespread and continued use, the category 'low income' is too general and obscures differing levels of risk.
- A 2008 study⁶ argued that the 2001 United Kingdom (UK) Fuel Poverty Strategy should have amended its definition to categorise as vulnerable any household where someone is receiving state benefits.

Energy Affordability

A number of studies have considered how energy can be made more affordable for those on a low income, whether through the installation of more efficient technologies, greater access to relevant grants or through improving householders' knowledge of how to heat their home more effectively. In 1995⁷ and 1996⁸, two studies focused on social housing in Scotland, concluding that retrofit programmes have the potential to deliver affordable warmth for low-income households, whilst emphasising the importance of understanding behavioural factors in order to get the most out of interventions.

Other studies have examined a range of affordability-related factors, such as changes to the energy market and prices, variability of cost across payment methods and the benefits of microgeneration technology.

- A review in 1998⁹ suggested that, despite industry codes and regulatory insight, recommended good practice for working with customers in financial difficulties was not being observed by energy companies. This was leading to low-income, vulnerable customers not being offered the full range of bill payment schemes, and consequently having comparatively more expensive prepayment meters installed.
- A 1999 study¹⁰ explored the ways in which low-income households were negatively impacted by the opening of gas and electric markets in the 1990s.
- A large-scale survey in 2010¹¹ emphasised how energy decisions among low-income households had to sit within broader strategies of survival on a restricted budget. Echoing findings elsewhere, prepayment meters, despite being more costly, were the preferred method of payment due to a greater sense of control. Approaches that simply aim to get people off pre-payment are therefore likely to be ineffective.
- A 2010 study¹² focusing on Feed in Tariffs (FITs) and Renewable Heat Incentive (RHI) programmes, found that low-income households arguably have the most to gain from microgeneration technology in terms of energy affordability, yet are excluded by prohibitive upfront costs. The study recommended that national energy policies on FITs and RHI should be reframed to include a focus on vulnerable households most in need.
- Studies in 2008¹³ and 2010¹⁴ noted that efforts to tackle fuel poverty and energy affordability must be part of wider initiatives addressing other forms of deprivation and financial exclusion. In the 2010 study, where one in ten participants were in fuel debt, low levels of knowledge on alternative tariffs, energy suppliers and energy efficiency were identified as a reason for households being restricted in their capacity to access more affordable fuel.
- A 2013 study¹⁵ proposed a Social Impact Bond as an alternative source of investment to help low-income households access energy efficiency measures. This was in response to the UK government substantially reducing many funded schemes and subsidies from 2010 onwards.

2 Disability

Physical disabilities, as with illness, can render individuals more sedentary, less active and thus more vulnerable to cold. In addition, particular disabilities may require above average levels of warmth simply to maintain comfort. The low level of employment among disabled people means that a far higher proportion are reliant on state benefits but are also likely to spend a considerably higher proportion of time at home, potentially leading to greater energy use and higher bills. As this implies, disability overlaps with a number of other key vulnerabilities such as low income and poverty. In combination, these factors place people with disabilities at high risk of fuel poverty.

Eaga CT has funded several studies that have investigated how people with various disabilities experience fuel poverty and the process of accessing advice, information and support.

- Information, advice and guidance resources are often designed with the general public in mind, without always recognising that this 'one size fits all' approach is inadequate. With one million people classed as having a visual impairment, a 1998 report¹⁶ explored the energy advice and information needs of this group specifically.
- A 2003 study¹⁷ resulted in the development of a toolkit that aimed to aid effective partnership working across health and housing teams when supporting people with disabilities, ill health, or experiencing fuel poverty.
- A 2011 study¹⁸ found that people with disabilities who are living in fuel poverty face multiple complex issues such as additional energy needs, the role of disability benefits, carers' energy costs and access to energy efficiency schemes. It was concluded that, alongside rising energy costs, changes to the welfare system are likely to increase the numbers of disabled people in fuel poverty.
- Another 2013 study¹⁹ warned that the impact of austerity, welfare reform policies and rising fuel prices, in parallel with a declining investment in energy efficiency, were all factors likely to magnify the disadvantages faced by disabled householders. At a local level, more intensive work is needed to identify households with disabilities that are in fuel poverty, with the health sector having a significant role to play in facilitating support.

Several studies have focused explicitly on learning disabilities:

- A resource published in 1997²⁰ entitled 'Warmth Without Waste' aimed to incorporate information on energy efficiency into general literacy and numeracy courses. Trialled in Essex with students with learning difficulties, the resource had a positive impact on learning and awareness. In 1999, following the trial, two further resources – Fuel for Numbers²¹ and Fuel for Words²² – were developed.
- In 2008²³, working with people with learning disabilities, leading charities, housing and energy workers, the "Energy – Save It" learning resource was developed. This was a DVD that used animations to promote key themes on energy use and warmth.
- A 2013 study²⁴ drew on interview data to examine levels of engagement with energy efficiency advice among adults with a learning disability who were living independently as tenants or homeowners in London. Using the 2008 'Energy – Save It' resource, the study found that, while such approaches can be effective, considerable support and reinforcement is necessary. It concluded that financial benefits are a more effective incentive for this group, in comparison to potential energy savings which may appear somewhat intangible.
- Setting out recommendations for policy, practice and research, a mixed-methods study in 2018²⁵ highlighted that there is very little evidence of the nature and extent of fuel poverty among adults with a learning disability.

3 Older People

It is generally accepted that older household members are among those most vulnerable to the negative impacts of fuel poverty. Indeed, the stereotypical visual portrayal of fuel poverty is that of an older person with cold hands in front of the fire. Excess winter deaths disproportionately affect this section of the population. However, according to national figures, the likelihood of an older person living in fuel poverty has decreased in recent years, in part a result of targeted policies such as the Winter Fuel Payment (introduced in 1997) and the Warm Homes Discount (introduced in 2011).

The health implications of fuel poverty among older people have been discussed in a number of studies. A 1998 study²⁶ focused on respiratory health (Chronic Obstructive Pulmonary Disease (COPD)) and housing conditions, considering known aggravating factors such as cold air, draughts, damp and mould. Through technical monitoring, health measures and surveys with householders (from a sample where the average age was 66 years old), the study identified four factors linked to respiratory health: number of floors, number of rooms, age of the home and tenancy arrangements. Having a large number of rooms and more than one floor was associated with a lower prevalence of certain COPD symptoms.

A 2005 study²⁷ that was focused explicitly on older people aimed to assess the relationship (if any) between levels of activity and environmental temperatures (internal and external) during winter. Certain categories of older people were found to be more likely to engage in 'high risk behaviours', such as going outside more in cold weather, wearing inadequate clothing and engaging in low levels of activity whilst outdoors. As temperatures fell, activity levels among older people rose. Unsurprisingly, the coldest indoor temperatures were observed in homes without a central heating system. However, among those with central heating, the way in which energy was paid for impacted indoor temperature: homes were on average 1.6C warmer where a 'flat' set payment rate was used, as opposed to fluctuating payments.

Several studies have focused on the effectiveness of support targeted towards older people, looking at information and advice provision as well as awareness of key issues and opportunities to access relevant schemes.

- In a 2009 study²⁸, data from focus groups and a survey highlighted that while a substantial amount of material on fuel poverty and energy efficiency was available to older people, it often held little interest to them and they rarely sought out programmes intended to make warmth more affordable. This indicated that tailored interventions with clear advice are needed, and that health professionals and General Practitioners are particularly well placed to engage with this demographic group.
- Observing that many earlier energy efficiency schemes had failed to communicate effectively with older people, a 2008 study²⁹ in Scotland focused on materials for the Government's Warm Deal and Central Heating Programme. As a result of the evaluation, which drew on feedback from older people, core messaging in the policy materials were revised and consequently found to be far more successful.
- A 2010 study³⁰ investigated willingness among older people to use Winter Fuel Payments on energy efficiency measures. However, limited intervention occurred and was attributed to difficulties in recruitment and linked to a general lack of awareness of energy efficiency schemes and ways to reduce energy expenditure among older people. Anxiety over technical aspects and practical difficulties with the technology was seen to have hindered participation, an

aspect that could have been overcome with intensive caseworker support and better co-ordination with energy suppliers and installers.

- Although not targeted specifically at older people managing energy in their own homes, a toolkit³¹ developed by Neighbourhood Energy Action (now National Energy Action) and The Abbeyfield Society was designed for use by managers in sheltered accommodation. This resource offered practical tips on how to recognise opportunities for greater energy efficiency, how to plan a range of measures and where to find information on grants and technical issues.

The UK Fuel Poverty Strategy (2001) indicated that households experiencing the most severe fuel poverty were more likely to be found under-occupying larger properties, and that older people were particularly at risk in this situation. A 2012 study³² investigated whether there was a relationship between under-occupation and fuel poverty. A range of practical measures aiming to reduce or eliminate fuel poverty in such households were tested. The research found that, while under occupancy can present health risks when it leads to partial heating, tailored advice and support focused on behavioural change could address this. Technical trials found that a combination of improved insulation, draught exclusion, and heating only part of a house can deliver notable savings on energy bills but not by enough to remove the majority of single, low-income under-occupiers from fuel poverty. This, they found, would necessitate additional measures and the cost of implementing such improvements was and remains a significant challenge.

4 Families, Children and Young People

Government policies focused on children and young people (e.g. Child Poverty and Every Child Matters strategies) have been criticised for failing to adequately address housing or energy issues. Analysis of the UK's Families and Children Study (FACS) in a 2008 study³³ indicated that aspects of substandard housing, including inadequate heating, were affecting a much greater proportion of children than had been thought. Certain groups were disproportionately affected, such as lone parent families, those with four or more children, families with Black or Asian mothers, those living in the most deprived neighbourhoods and/or in the private rented sector, those on low income and those with debt. Correlating these findings with the Every Child Matters outcomes framework, the authors indicated that children in persistent fuel poverty experienced worse outcomes.

The impact of fuel poverty on children's health has understandably been an important area of focus. In terms of respiratory health, a study in 2000³⁴ investigated the impact of a retrofit programme on the health of children with asthma living in social housing in Cornwall. Using a cost-benefit analysis, the study found that paying for new central heating system was a cost-effective investment by the local health authority, due mainly to projected savings made to the National Health Service treatment budget.

Access to support for families experiencing fuel poverty can be problematic due to a range of barriers. A 2014 study³⁵ concluded that children's centres have the potential to overcome such barriers, ensuring much-needed support reaches fuel poor families. Being located in the community, particularly in areas of high deprivation, was found to be critical. Trusted relationships with staff seen to be skilled in communication was also a key factor. However, the sustainability of such services relies fundamentally on ongoing support from local government, third sector organisations, energy firms and other local partners.

Eaga CT has also funded the development of educational materials targeted specifically at children. Resources such as The Energy Efficiency Challenge³⁶, have been effective in raising awareness of energy use, carbon emissions and behaviour change. Published in 1998, this resource was designed to be used by Girl Guides and set out a series of tasks, challenges and educational ideas.

Young adult households, those where the oldest member is younger than 25 years-old, were the focus of a 2015 study³⁷ that argued that certain vulnerable or at-risk groups have been overlooked in research and policy despite being disproportionately more likely to experience fuel poverty.

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All references are available online in the Fuel Poverty Library: www.fuelpovertylibrary.info/projects

This Topic Guide was produced by Graeme Sherriff, Phillip Martin and Danielle Butler at University of Salford as part of the Eaga CT Archive and Legacy Project.