Vulnerability to fuel and transport poverty

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1. Summary

This briefing highlights the groups of people that academic research has identified as vulnerable to experiencing fuel poverty and transport poverty. Fuel and transport poverty are distributed across the UK, although the groups affected in each place can vary and the characteristics can be different depending on the location and make up of households.

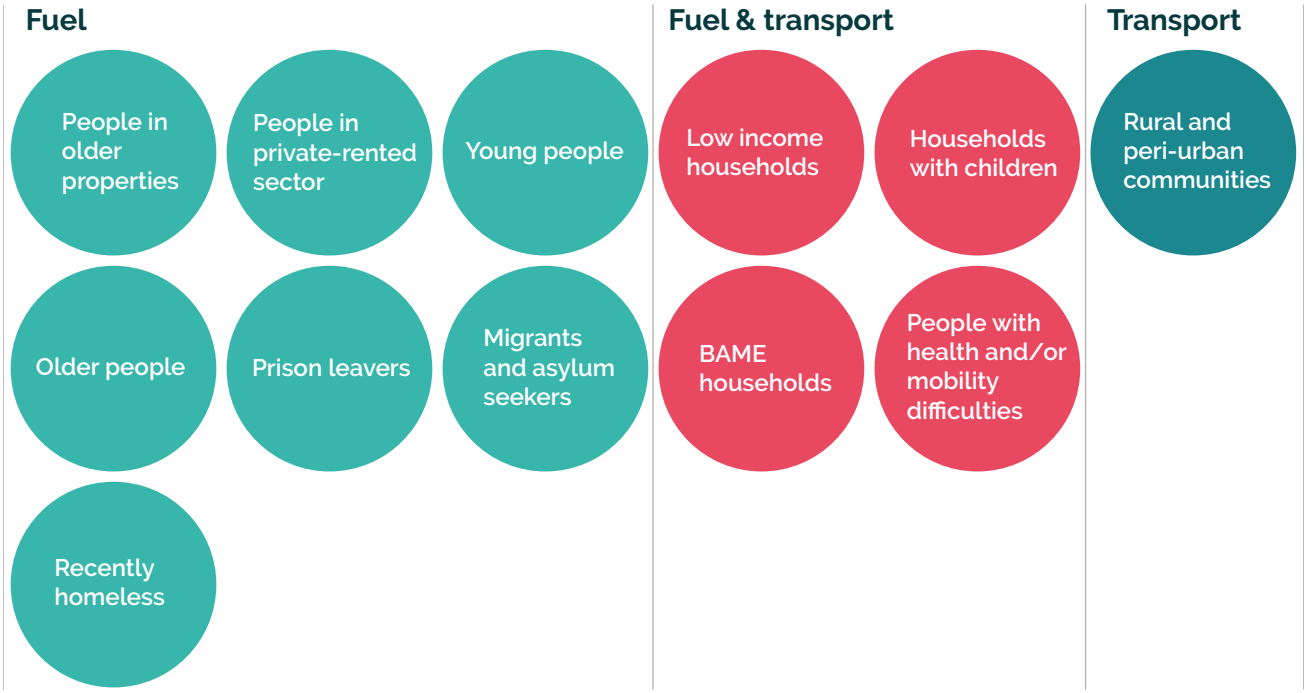

Figure 1: The groups of people vulnerable to fuel, fuel and transport, and transport poverty

At-risk groups for fuel poverty – households with low incomes (including older people, lone parents and those with health conditions) and those living in properties that are older and less energy efficient are at particular risk. In addition, those living in the private rented sector have less opportunity to take up energy efficient appliances and building improvements because they do not own the fittings or building. Research is uncovering new groups that experience fuel poverty including young people, those leaving prison, migrants, asylum seekers and the recently homeless.

At-risk groups for transport poverty – households with low incomes, including those in work, or black, Asian and minority ethnic (BAME) members, or that have children or household members with mobility problems. Rural and peri-urban communities are more at risk because they lack access to alternatives to car-use.

Groups that are vulnerable to both fuel and transport poverty – those with low-incomes, those with health and/or mobility difficulties, households with children; and BAME communities.

2. Defining vulnerability

Vulnerability is a widely used term but is often vaguely defined in policy. Here, we understand vulnerability to fuel and transport poverty as comprising three interlinked factors:[1]

- **Exposure**: the likelihood that a household will experience fuel and/or transport poverty
- **Sensitivity**: the extent to which fuel and/or transport poverty will be harmful to the well-being of individuals or households
- **Adaptive capacity**: the extent to which households are able to plan, adapt and respond to fuel and/or transport poverty

3. Fuel poverty – which groups are the most vulnerable?

There are several definitions of fuel poverty. Here we have adopted a broad and established research definition, which sees fuel poverty as 'the inability to attain sufficient levels of domestic energy services[2] (e.g. heating, cooking, showering, washing etc.)'.

At the household scale, the major factors driving exposure to fuel poverty are low incomes, poor energy efficiency of buildings and heating systems/appliances, and high domestic energy prices.[3] Therefore, low-income households and those living in older, less energy efficient properties face a greater likelihood of exposure to fuel poverty. Those who face a combination of these factors have an especially high risk. In addition, those living in the private rented sector face further challenges as they have limited options to improve the energy efficiency of the building fabric, heating system or appliances.

Furthermore, older people, those with pre-existing health conditions or disability, and single parent households are also especially vulnerable. They encounter both a higher likelihood of exposure to fuel poverty due to lower incomes, combined with a typically greater sensitivity to the problem – i.e. a lack of sufficient energy services can have highly detrimental impacts on mental and physiological health.[4,5]

More recent research has also highlighted other 'at risk' people that have received less attention in policy, including students and young adults,[6] recent migrants and asylum seekers,[7] those who are recently homeless, and those recently released from prison. These groups frequently have very limited housing choices for a variety of economic and socio-cultural reasons. They are often forced to reside in the poorest quality, least energy efficient housing (typically in the private-rented sector), and have insufficient financial resources to afford energy costs. Experiences of fuel poverty are also often gendered, with women particularly facing greater exposure to the problem and its deleterious impacts.[8,9]

Geographically, there are urban-rural differences in the types of people that are typically vulnerable to fuel poverty. Urban areas contain a greater proportion of low-income households, BAME residents, young adults and private rented sector housing. Meanwhile, rural localities have a higher proportion of older people and a greater dependence on more expensive non-gas heating fuels.

4. Transport poverty – which groups are the most vulnerable?

Here we consider an established definition of transport poverty as 'economic stress or hardship resulting from transport costs'.[10]

Those on lower incomes are more likely to face difficulties affording their transport costs. BAME households are at greater risk as they are over-represented in low-income groups. Notably, the working poor are especially vulnerable as they are more likely than other low-income households to also encounter high transport costs, because they have the additional cost of running motor vehicles for commuting purposes.[11] Hence, for some households, employment-based income is not enough to escape financial hardship. Similarly, low-income households with children or those households containing members with mobility difficulties have a higher probability of facing high transport costs, again likely owing to the heightened requirement for car ownership and usage among these groups.

Geographically, those living in rural or peri-urban locations are more likely to encounter high transport costs than those living in more densely populated urban areas, due to a lack of convenient alternatives to car usage. However, this is to some degree counteracted by the fact that in the UK incomes are, on average, higher in rural areas compared to urban areas. The end result is that the share of households encountering economic stress due to transport costs is similar for both urban and rural areas.

5. Overlapping vulnerability to fuel and transport poverty

Although there are some differences between fuel and transport poverty in terms of the groups that are most at risk of experiencing these problems, there are also clear areas of overlap:

- those with low-incomes
- those with health and/or mobility difficulties
- households with children
- BAME communities.

Geographically, it seems that both fuel and transport poverty are problems that occur in both urban and rural areas, and neither should be considered an exclusively rural or urban issue. The characteristics of urban and rural poverty can be very different. It is also crucial to recognise that vulnerability to both fuel and transport poverty will vary regionally across the UK, due to underlying inequalities in income, energy efficiency and energy prices – however, this is an under-researched issue.

The FAIR project will be providing new insights into overlapping and regional vulnerabilities by collecting data from across the UK – our findings will be available in 2021.

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About CREDS

The Centre for Research in Energy Demand Solutions (CREDS) was established as part of the UK Research and Innovation's Energy Programme in April 2018, with funding of £19.5M over five years. Its mission is to make the UK a leader in understanding the changes in energy demand needed for the transition to a secure and affordable, low carbon energy system.

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