FUEL POVERTY: EVIDENCE FROM AN INNER LONDON BOROUGH

A report for the Chesshire Lehmann Fund

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EXECUTIVE SUMMARY

This report seeks to improve our understanding of fuel poverty and how it affects inner city residents by analysing an existing dataset and describing findings from interviews and a focus group. This desk-based part of this research consisted of an analysis of a database containing information on the residents contacting or being contacted by Islington Council in relation to the delivery of fuel poverty measures. Primary data were collected through a focus group with members of the teams delivering measures to tackle fuel poverty and semi-structured interviews with 15 residents.

A number of conclusions can be drawn from this study. First of all, several compounding factors influence the likelihood of being fuel poor and receiving help from the Islington Council, the two most important factors appear to be age and disability. Although low income families with children are a priority group for the council, households with the oldest member being under 24 are somewhat underrepresented in the Islington database. Housing tenure is another major factor influencing the likelihood of receiving help. Residents privately renting are receiving much less support, probably due to perceived hostility from landlords to undertake energy efficiency measures, and short term tenancy agreements acting as a disincentive for tenants to increase energy efficiency. Compounding factors may relate to young households having to rent privately rather than through the Council and the fact that the elderly or those suffering from health conditions are more likely to be given priority in the list for council housing. In terms of ethnic background, residents belonging to less established ethnic groups or those from a Mixed Race background are currently the least likely to receive help to tackle fuel poverty.

Overall, interviewed households have shown an interest in the measures to tackle fuel poverty and followed advice from the Council with regard to their implementation. The most quoted factor preventing households from implementing energy-efficiency measures is related to the perception that these measures are not delivering reduced fuel expenditure, or that the piece of equipment does not work. Switching suppliers

was seen in a number of instances as an ineffective way to tackle fuel poverty, as similar price increases are frequently implemented across energy providers.

Most households appreciated the role of under-occupation on their fuel bills and some had taken pre-emptive action by choosing to live in small accommodation, while other households heated only the occupied rooms. The most common reason given for under-occupation was that younger members of the household move out leaving older members behind in the family home. Among the households with children in schooling age, access to school was by far the most important factor preventing relocation. Attachment to the neighbourhood and social network were also discussed alongside provision of health services for those affected by long-term conditions or the elderly. Responses to offers of relocation to smaller properties would clearly be influenced by packages designed to tackle these concerns.

In terms of the socio-demographic difference between the residents actively looking and those being referred for help through health based referrals, the dataset showed that households with the oldest members younger than 24 are unlikely to seek help with fuel poverty, probably due to cultural reluctance. A compounding factor in this could be that many of these households live in privately rented properties where their actions to tackle fuel poverty may be heavily constrained. Owner occupiers, on the other hand, were clearly the most proactive group, probably due to the fact that any energy efficiency improvement would increase the value of their property as well as their comfort. Disabilities, being affected by long-term illnesses and living in council housing are factors negatively influencing the likelihood of households actively seeking help.

Unfortunately, we discovered that the most common responses to energy prices increases occurred in the last few years consist of measures reducing the level of comfort such as decreasing indoor temperature or reducing the number of hours where the heating system was switched on. Finally, the level of concern in relation to a proposed decrease in the frequency of billing was high, primarily because of the difficulty in budgeting and managing the required cash flow.

1 Introduction and Policy Context

Tackling fuel poverty has been a priority of the UK Government for considerable time. In the UK Fuel Poverty Strategy, published in 2001, the Government set out the goal to seek an end to the problem of fuel poverty (DEFRA and DTI 2001). This would be reached by 2010 in the case of vulnerable households; fuel poverty in other households would be tackled once progress had been made with the vulnerable group. Vulnerable households are defined as those containing children, the elderly or someone who is disabled or suffering from a long-term condition (DEFRA and DTI 2001: 3). The approach followed by the UK Government was based on the assumption that no single measure would be sufficient to address fuel poverty. Instead, fuel poverty would be tackled by a range of measures such as programmes to improve energy efficiency, actions to maintain downward pressure on fuel bills, and social exclusion (DEFRA and DTI 2001).

Any action or policy introduced by the Government requires identification of those who are to be on the receiving end of these instruments. The definition of fuel poverty originally adopted by the UK Government was largely based on Boardman (1991: 207), according to which a fuel poor household is "unable to obtain an adequate level of energy services, particularly warmth, for 10 per cent of its income''. An adequate level of warmth is generally defined as 21ºC in the living room and 18ºC in other occupied rooms; as recommended by the World Health Organisation (DEFRA and DTI 2001: 6). It is worth mentioning that the definition focus on what people would need to spend rather than what they actually spend, reflecting the fact that poor households may have to reduce heating comfort beyond acceptable levels.

On the basis of the definition above, the record of the Government's success since the 2001 Fuel Poverty strategy has been somewhat mixed. Between 1996 and 2007 the number of vulnerable households in the UK in fuel poverty was reduced by about 1.7 million (DECC 2012a). However, rising energy prices from 2005 onwards led to a reversal in the progress of reducing fuel poverty. According to DECC (2012b) total household expenditure on energy products (excluding transport) has increased from about £15 million in in 2000-2003 to about £36 million in 2011. Average annual

domestic gas bills over the same timespan have doubled (DECC 2012c). The policies introduced by the Government have had to fight against increasingly more expensive energy pushing more and more households into fuel poverty.

The Fuel Poverty Review published in 2012 (Hills 2012), charged with examining, among others, how to best measure fuel poverty, concluded that the definition above and the related measurement of fuel poverty had significant flaws, giving a misleading impression both of trends in fuel poverty and the effectiveness of policies to tackle it. The swings in the extent of fuel poverty described above were attributed to the indicator being unduly sensitive to factors such as fuel prices, the assumptions made about adequate temperatures for people to live at, and reported income. As discussed in Hills (2012), it seems undesirable that some households with moderate or even higher incomes are counted as 'fuel poor' when energy prices are high, and that some households in poverty and with relatively high energy costs are not counted as being fuel poor when prices are low.

Hills (2012) recommended that households should be considered fuel poor if:
- They have required fuel costs that are above the median level; and
- They would be left with a residual income below the official poverty line if they were to spend that amount for fuel costs.

According to Hills (2012), income levels for fuel poverty purposes should be measured after housing costs and adjusted for household size and composition. Income threshold related to official poverty line should be set at 60 per cent of median income plus calculated household energy requirements while reasonable costs threshold should be set at the level of the contemporary median energy requirements for the population as a whole. Bills should be adjusted for household size and composition. This procedure leads to the computation of the so-called Low Income High Costs (LIHC) indicator.

Hills (2012) advised the UK Government to count both the number of households and of individuals in fuel poverty, and to adopt a new indicator of the depth of fuel poverty as represented by the average and aggregate "fuel poverty gap", defined as the amounts by which the assessed energy needs of fuel poor households exceed the

threshold for reasonable costs. According to Hills (2012), the Government should use the LIHC indicator as well as the fuel poverty gap as the basis for operational target setting, the latter giving the best focus on the scale of the problem and progress in tackling it.

This report seeks to improve our understanding of fuel poverty and how it affects inner city residents by analysing an existing dataset and describing findings from interviews and a focus group. This desk-based part of this research consisted of an analysis of a database containing information on the residents contacting or being contacted by Islington Council in relation to the delivery of fuel poverty measures. Primary data were collected through a focus group with members of the teams delivering measures to tackle fuel poverty and semi-structured interviews with 15 residents.

The report is structured as follows. Section 2 introduces the London Borough of Islington and the measures it currently implements to tackle fuel poverty. Section 3 describes the aims of this particular study and the method used to address these. Sections 4 – 9 present the results of this research, drawing on the different methods outlined in section 3. Section 4 compares the socio-demographic characteristics of the residents affected by fuel poverty to the characteristics of all Islington residents. Section 5 describes the measures advised by the teams tackling fuel poverty, and the uptake of these by residents. Section 6 focuses on the role of under-occupation as a factor aggravating the condition of fuel poverty and discusses the factors that may prevent residents from relocating to smaller properties. Section 7 discusses the impact of some specific measures, in particular heating controls, switching utility supplier and boiler replacement. Section 8 describes how the interviewed households perceive recent energy price increases and their feelings about reducing frequency of bills, as well as their knowledge of available grants. Section 9 explores the socio-demographic difference between the households proactively looking for help and those referred to the council for help. Section 10 draws the conclusions from this study.

2 Islington Context and Measures

Despite the reputation of Islington as a very sought-after area of London, the borough ranks as the fifth most deprived borough in London and the fifteenth most deprived in England (IMD 2010). The 2007 Index of Multiple Deprivation showed that over 52,000 people in Islington were income deprived (as measured by the number of people claiming means tested benefits). It is also estimated that 30% of households have an income under £10,000 a year with about 45% of children living in poverty in 2008 compared to an average of about 30% in London as a whole. When measuring fuel poverty on the basis of the 10% income threshold from Boardman (1991), a large number of households in Islington are thought to be affected. Subtracting housing costs before computing the income level used for the definition of fuel poverty would put an even larger proportion of households in fuel poverty due to the higher housing costs in Islington compared to much of London and the rest of the country. Islington's latest estimates suggest that after including housing costs around one in four households in the borough are fuel poor, i.e. around 22,000 households. This rises to 31% amongst private tenants and 53% of single pensioners in private sector housing.

Islington Council work with several hundred residents each year through a range of measures to help households affected by fuel poverty. These include: a dedicated Energy Advice Line and support service for residents to help with all domestic energy and fuel poverty issues including fuel bill and debt advice, heating control instruction home visits for the vulnerable, the Energy Doctor in the Home[1], Safe and Warm[2] grants, SHINE (Seasonal Health Interventions Network)[3] programme, an impartial fuel switching service and a tailored programme of energy saving workshops. These measures aim to address the root causes of fuel poverty: low income, poor housing conditions, high fuel prices and under occupancy as well as preventing health conditions know to be affected by the cold and requiring higher indoor temperatures to stay healthy in an attempt to reduce seasonal morbidity and mortality.

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[1] The Energy Doctor in the Home programme provides energy home visits to vulnerable residents and can install up to six small measures including draught proofing, radiator reflector panels, water saving devices etc to help keep homes warm and save money on the fuel bills.

[2] An Islington Council grant to help low income and vulnerable residents warm and safe at home https://www.islington.gov.uk/publicrecords/documents/Housing/Pdf/Safe_and_Warm_Grant_2011_12.pdf

[3] http://www.islington.gov.uk/services/parks-environment/sustainability/sus_awarmth/Pages/shine.aspx

As part of its long-term involvement in addressing fuel poverty, Islington Council has accrued an extensive understanding of the socio-economic status of the residents affected by fuel poverty. Collected data include residents' addresses, age, gender, household composition, ethnicity, income, type of tenure, dwelling age and any interventions they have had. For example, in 2011 alone the Energy Advice Team at Islington Council collected data on over 1,600 residents who were supported on various energy and fuel poverty issues. In addition, staff members often spend several hours supporting individual residents with these issues and gather a large amount of qualitative and anecdotal evidence on issues affecting residents. The council is also committed to introducing questions relating to occupancy levels in their contact with residents affected by fuel poverty so that they can investigate the relationship between these factors.

3 Methodology and Data used in this study

Islington Council has been compiling the dataset used in this study since 2008, alongside the delivery of measures to combat fuel poverty. Any resident contacting the Council being contacted by them is entered into a dataset containing information on: location; date on which the contact was initiated; age bracket; disability; ethnicity; housing tenure; number of bedrooms and people in the household; time lived at the property; and any measures the resident has received advice about.

The dataset contains about 5100 entries. This is an operational database with data entered by a plurality of individuals while delivering front-line services; hence not every entry has data for all of the variables. Data for some of the variables has been collected only for a limited amount of time, with obvious implications in terms of number of observations. Furthermore, residents are not obliged to provide a reply to the questions. Table 1 shows the number of observations for each variable in the dataset; these are analysed in section 4.

Variable	Number of Observations
Location	4,762
Contact Date	5,135
Age bracket	3,123
Disability	3,301
Ethnicity	3,361
Number of Bedrooms and People in household	140
Number of Years lived in the property	905

Table 1 Variables and number of observations contained in the dataset assessed in this study

The analysis of the dataset has been complemented by holding 15 semi-structured interviews with residents and one focus group with members of the Islington team delivering the fuel poverty measures. In order to select the households for the interviews 300 invitations were sent to residents in the dataset. When selecting respondents to take part in the interviews we gave priority to those reported to under-occupy, falling in the 16-24 age brackets and privately renting. The first criterion was selected in order to investigate the reasons behind under-occupation, the other two on the basis that these typologies of residents are under-presented in the dataset. Out of the 22 replies we received (7% response rate), 15 households were selected. The semi-structured interview contained questions on:

- the factors preventing the uptake of energy-efficiency measures;
- the best way to disseminate information on energy-efficiency measures;
- the impact of under-occupation on fuel poverty;
- the reaction to increasing energy prices.

The interview guide can be seen in the Appendix of this report.

4 Sociodemographics of Fuel Poverty in Islington

In this section the sociodemographic make up of the Islington fuel poverty dataset is compared with the overall population of Islington. This analysis covers the sociodemographic factors contained in the dataset, most specifically; ward location, age, ethnic background, housing tenure, number of years lived in the property and disabilities. These factors were discussed in the focus group with members of the Islington team delivering the fuel poverty policies of the Borough; insights from this are included below.

4.1 Location

From an economic point of view, Islington is a very diverse Borough comprising some of the most deprived and sought-after areas in North London. Figure 1 shows the distribution across wards of residents in the dataset compared with the distribution of the population of the Borough. Data for the population in the Borough has been sourced from Islington Council (2012a). If fuel poverty was equally distributed across the Borough and if residents of each ward were equally likely to contact or be contacted by the Council, each ward would have a similar percentage of residents in the dataset and in the Borough as a whole. As shown by the different length of the two bars for each ward in Figure 1 – see for example Finsbury Park – this is clearly not the case. The representation index in the same figure gives an idea of the ward's relative importance in the dataset after being adjusted for the number of residents living in that ward[4]. The larger the value of the index, the more the ward is overrepresented in the dataset. As one can see, Hillrise is the most represented ward, having about 8.5% of the residents in the dataset while being home to about 6% of the overall Islington population.
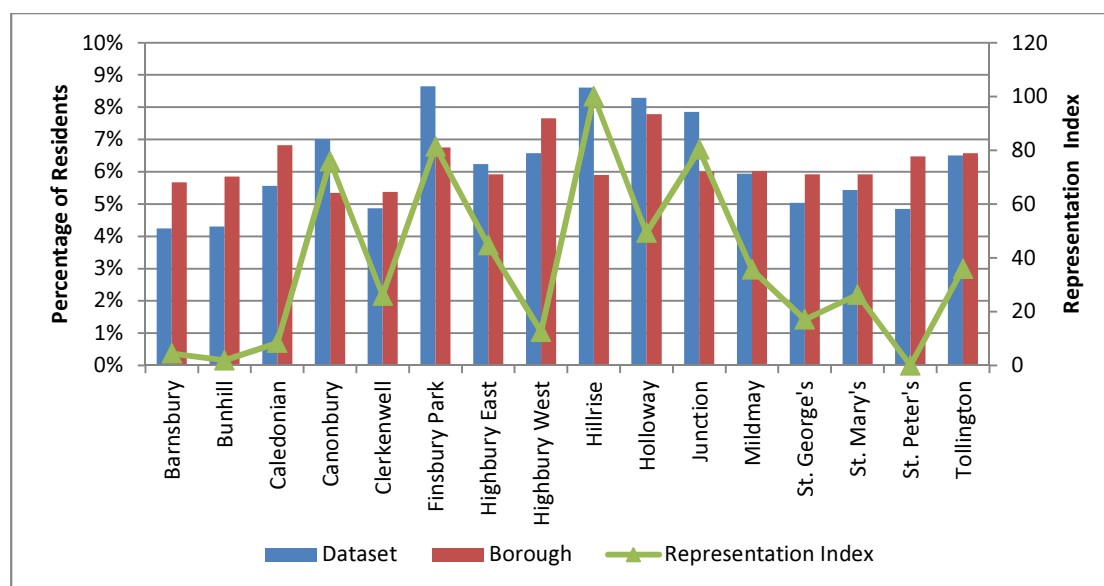

Figure 1 Distribution of residents across wards in the dataset and in the borough, and related Representation Index.

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[4] More precisely the representation index for a certain ward is computed by subtracting the percentage of the residents in living in a ward from the percentage of the residents in the database and normalising this difference by subtracting its minimum across wards, by dividing it by the range and by multiplying it by 100. This means that the most represented ward takes the value of 100 while the least represented takes the value of zero.

The fact that the distribution of the residents in the dataset is not equal to the distribution in the Borough could be due to different wards having different levels of fuel poverty. Figure 2 plots the representation index described above against the ranking for income deprivation from Greater London Authority (GLA) (2008). If overrepresentation is driven by income deprivation in the ward, one can expect a negative correlation between the two variables, i.e. the lower the income deprivation ranking, or the more deprived the ward, the higher the representation in the dataset[5]. As one can see from the figure, this is actually the case. The existence of negative correlation could be a combination of the fact that in more deprived wards there are more people in fuel poverty, by these wards being targeted by special campaigns or intervention plans or by the residents of those wards more actively making use of the public measures available to tackle fuel poverty.

During the focus group, members of staff from Islington Council pointed out that the number of people present in their dataset across wards is very much influenced by the distribution of social housing in the Borough. As social tenants are more likely to receive fuel poverty help compared to other tenure types (see below), wards with a higher concentration of social housing have a higher representation in the dataset, regardless of the deprivation in the ward. The wards with the lowest representation index in the graph tend to have higher share of private housing. As discussed below, private tenants suffering from fuel poverty are reportedly very difficult to reach and help. Members of the Council mentioned that in some cases particular wards were targeted because of the perceived level of poverty.

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[5] The Index of deprivation is based on the concept of measuring distinct dimensions of deprivation separately and then combining these to give an overall score. Seven distinct dimensions or `domains' of deprivation are included in the IMD2007, made up of 37 separate indicators. The domains are: Income deprivation; Employment deprivation; Health deprivation and disability; Education, skills and training deprivation; Barriers to housing and services; Living environment deprivation and Crime (GLA 2008).
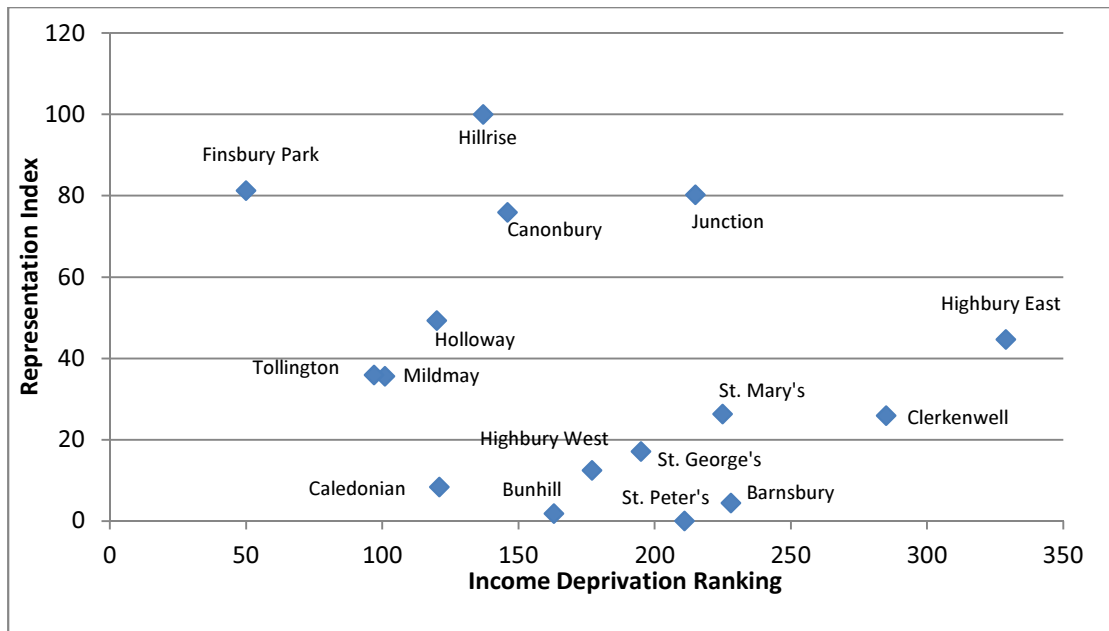
Figure 2 Correlation between income deprivation and overrepresentation in our dataset across wards comprised by the borough of Islington.

4.2 Age

Figure 3 shows the distribution of residents across age brackets in the dataset and in the Borough as a whole. Data for the Borough has been sourced from Islington Council (2012a). Apart from the fact that Islington seems to be a Borough mainly populated by people around their thirties, one can conclude that older people are clearly overrepresented in the dataset compared to their share of residents. About 50% of the residents in the dataset are over 65 compared to 8% in the Borough. While it is clearly positive to witness that the needs of the elderly are tackled so effectively by the Borough, one has to consider whether the needs of other age groups receive a comparable level of support. As one can notice in Figure 3 the 16-24 and 25-44 age brackets are clearly underrepresented in the dataset. However, while the households where the oldest household member is between 25 and 44 are those affected the least by fuel poverty, 25% of the households where the oldest member is between 16 and 24 are reported to be in fuel poverty (DECC 2012a). Bearing in mind that only 3% of households in the dataset belong to this age bracket, the reach of the council across age brackets is likely to be improved by explicitly targeting the 16-24 range and to an extent the 25-44 bracket.

Members of staff from Islington Council were not surprised by the overrepresentation of elderly people as they are one of the priority groups receiving help with fuel poverty; this is related to the health implications for elderly people who have a limited amount of heating. Although low income families with children are also a priority group for the Council, members of staff from Islington acknowledged that the youngest bracket was particularly difficult to reach, several reasons for this were discussed during the focus group. A number of households with the oldest member falling into the 16-24 bracket are likely to have very young children. In this case, work is underway to reach these households through paediatric clinics and child services. Anecdotal evidence from the focus group suggested that those in the 16-24 bracket, in fuel poverty, are often in very low paid full-time employment. This employment constrains their availability, making it difficult for the Council to reach them, yet does not lift them out of fuel poverty. Furthermore, it was suggested that attitudes amongst the 16-24 age bracket could have an impact, with this group possibly finding it more difficult to ask for help, or that fuel bill problems were often not a priority as they were often struggling with other problems such as employment or taking care of children.

A member of the focus group questioned whether a "value judgement" issue from front-line staff members could have any role to play. It was noted that these households may have different priorities, often owning the latest expensive electronic gadget, having 'luxury' items on display or discussing plans to purchase them, despite being affected by fuel poverty, due to the symbolic status attached to those items. Thus, these householders may give the front-line members of staff visiting the property the impression that they do not need help when in reality they would benefit from in-depth financial planning support. In some circumstances, Islington front-line staff members recommended that the household seek financial planning advice from organisations such as the Citizen's Advice Bureau. Young people affected by fuel poverty were also reported to be affected by more general budgeting problems and difficulties in financial planning. For this reason, they were more likely to be on pre-paid meters, therefore making their fuel poverty more severe because of the higher utility rates demanded from customers with this method of payment.
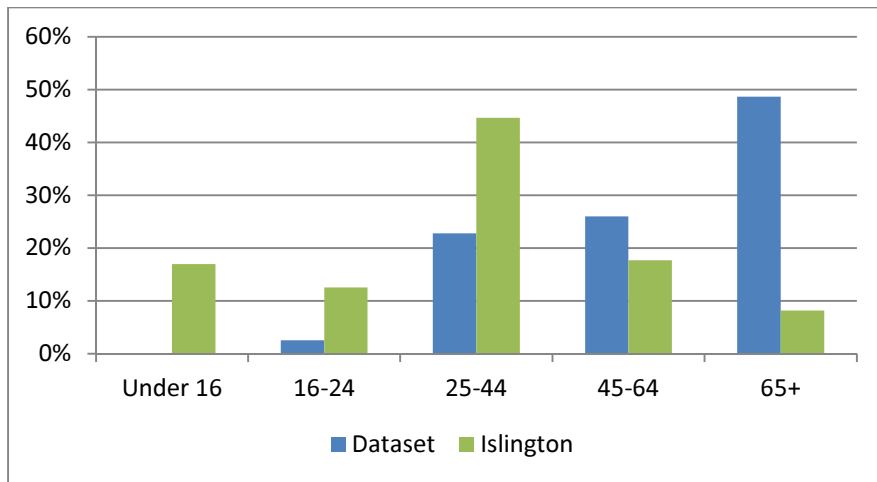
Figure 3 Distribution of residents across age brackets in the dataset, in the portion of residents being referred for help and in the borough as a whole.

4.3 Ethnic Background

In terms of ethnic background the dataset is fairly representative of the composition of the Borough. Data for the Borough has been sourced from ONS (2012). Ethnic background is not discussed in DECC (2012a). This analysis shows a similar income distribution across ethnic minorities, whilst people from a White background are on average more affluent (see Figure 5). Bearing this in mind, we would expect residents from a White background to be underrepresented in the dataset and those from ethnic minorities to be overrepresented compared to their share in the population of the Borough. It is therefore interesting to notice that:

- Black or Black British are overrepresented in our dataset, 16% versus 12% in the Borough, as we would expect;
- People from a Mixed ethnic background and from a Chinese or any other ethnic group are underrepresented, the former being 2% in our dataset versus 4% in the Borough, and the latter being 2.5% in the dataset versus 3.5% in the Borough;
- People from an Asian background do not show a markedly different representation in our dataset compared to the Borough;
- The two ethnic groups being underrepresented are also the two with the lowest incomes among those shown in Figure 5.
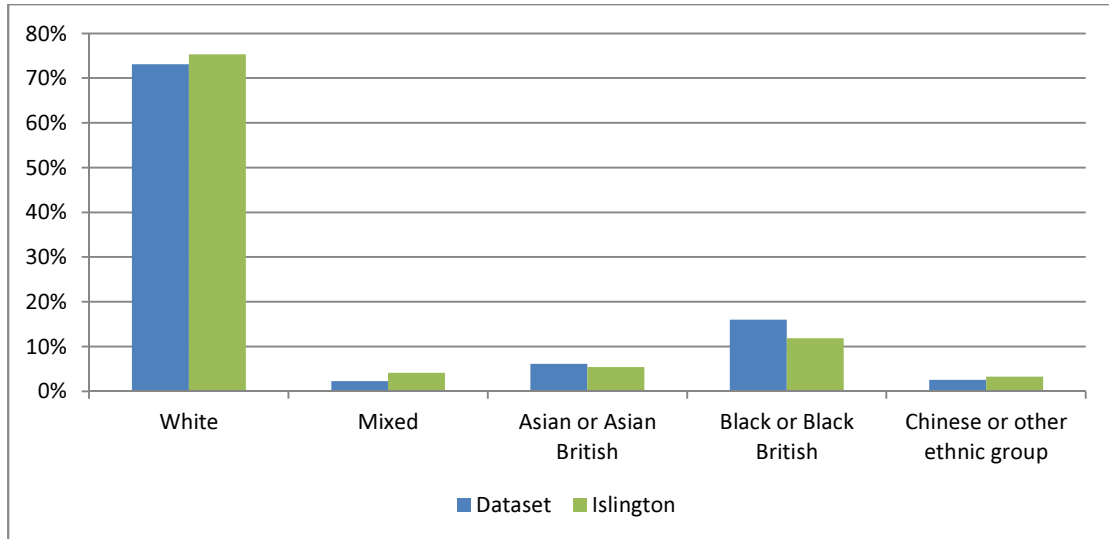
Figure 4 Distribution of residents across ethnic groups in the dataset and in the borough as a whole.
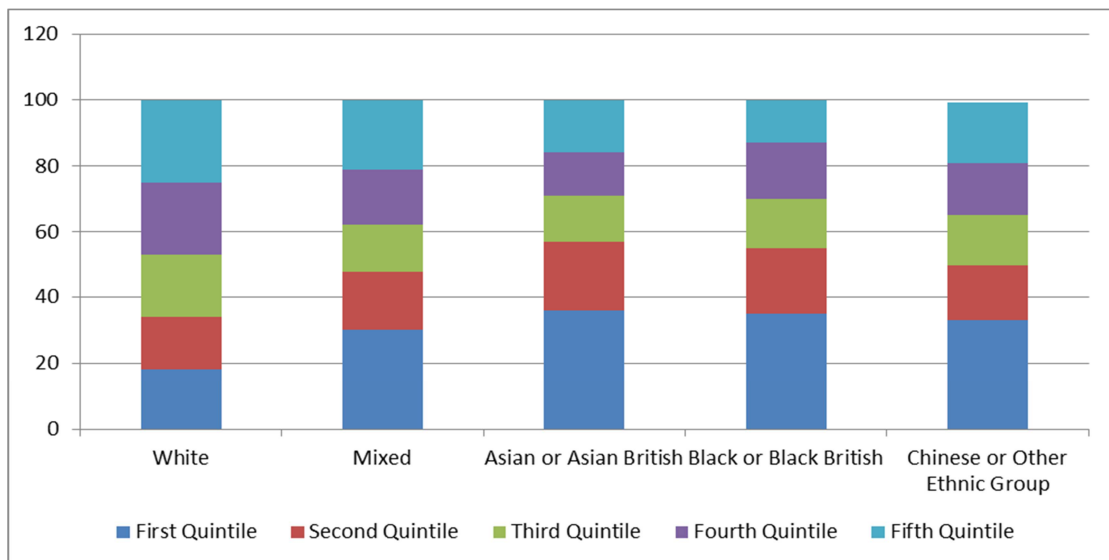

Figure 5 Percentage of British residents in each income quintile across ethnic backgrounds. Source: ONS and DWP (2011).

During the focus group, members of staff from Islington Council confirmed that language may be a barrier for those ethnicities without a considerable presence in Islington. These are likely to fall under the Chinese or Other ethnic group above, potentially explaining their limited representation in the dataset. As discussed above, a considerable share of those benefiting from help are elderly, during the focus group members of Islington Council suggested that more established ethnic groups like Asian and Black are more likely to be better represented in the dataset, as their average age is likely to be higher than those of less established ethnic backgrounds. As the Mixed race population is growing the age distribution of this ethnic

background is particularly skewed towards young people (Platt 2009), thus the underrepresentation of this ethnic group in the Islington dataset may be related to the underrepresentation of young people discussed above.

4.4 Housing Tenure

In terms of housing tenure, residents living in council rented accommodation are clearly overrepresented in the dataset, their share being 44% compared to 31% in the Borough. Data for the Borough as a whole has been sourced from Islington Council (2012b). Residents living in their own accommodation are also overrepresented, although only by 6 percentage points. The overrepresentation of these two groups occurs to the expense of those privately renting. While about a quarter of the Islington population fall into this category, only 5% of those in the dataset are privately renting. The percentage of people living in fuel poverty among those privately renting is at best very similar to the percentage among those living in social housing[6] (DECC 2012a). Thus, it may be concluded that there is an opportunity for the Council to widen the reach of their effort to tackle fuel poverty by targeting residents living in privately rented accommodation.

Figure 6 Distribution of residents across housing tenures in the dataset, in the portion of residents being referred for help and in the borough as a whole.

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[6] More precisely, the percentage of people living in fuel poverty among those privately renting is very similar to the percentage among those living in a local authority when adopting a before housing cost approach but higher by 5 percentage points when adopting an after housing cost approach.

During the focus group, members of staff from Islington Council confirmed that residents in privately rented homes where more difficult to reach than those living in other tenure types, despite the efforts from the Council. On the one hand, private tenants may not find it beneficial to engage to improve the energy efficiency of the accommodation because of the short tenancy contracts they sign. On the other hand, they may be fearful of reporting the landlord or seeing their contracts terminated if they demand substantial improvements. The staff at the focus group reported that they were aware of a number of instances where this happened, although no action was taken as the landlords had acted within the legitimacy of private tenancy laws. Members of Islington council mentioned that a number of landlords' forums are underway and that the boiler replacement scheme was introduced especially to target private tenants, although progress was naturally slow moving. It was also pointed out that the most vulnerable residents suffering from long-term conditions would be on a lower income and would be given priority in the housing list, therefore making them more likely to be in social housing.

4.5 Number of Years Lived at the Property

Figure 7 shows that 90% of the residents in the dataset have lived in the same accommodation for more than five years. Similar data for the Borough has been difficult to locate mainly because this question is not asked in the national surveys, including Census. The data plotted in Figure 7 for Islington describes the percentage of the members of elderly citizen panels that have lived in the Borough for a particular length of time, rather than in the same property. This sample is not representative of the age distribution in the Borough. We would expect that a stratified sample taking age distribution into account would significantly reduce the proportion of residents having lived in the Borough for over five years and even further reduce those having lived in the same property for a similar amount of time, as younger people are expected to be more geographically mobile. It is worth mentioning that the data for the dataset in Figure 7 is somewhat dated as the Council stopped asking this question in late 2010. Overall, it can be concluded that the residents having spent considerable time in the same property are overrepresented.
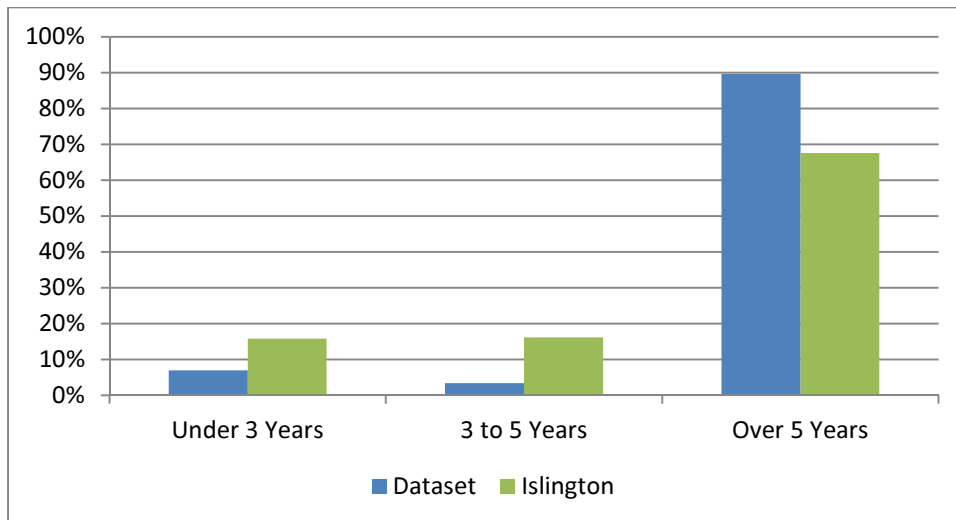
Figure 7 Distribution of residents across length of the period lived in the current accommodation in the dataset and in the Borough as a whole.

It may be the case that households spending a relatively short time in the same property are underrepresented in the dataset because they are less likely to be interested in increasing its energy efficiency. The focus group discussion revealed that underrepresentation of these residents may be related to households falling in low age brackets, as younger people are reported to move properties more often than the rest of the population. It is also likely that these short tenures are in privately rented properties, linking back to the previous discussion of private rentals being underrepresented.

4.6 Disabilities

Figure 8 shows that half of those receiving support from the Council are classified as disabled, this category includes long-term illnesses such as HIV, cancer and mental health disabilities. This is quite a departure from the overall population of Islington where disabled and long-term sick make up less than 10%. Data from the Council have been sourced from ONS (2012b) which incorporate the number of people being economically inactive due to being long-term sick or disabled. However it should be noted that the data collected by the Energy Advice team is based on self-declared perceived disability and is therefore likely to include a wider group of residents. 20% of households containing someone with a long term illness or disability are reported to be in fuel poverty, whilst 15% of households without long term illness or disability are in fuel poverty (DECC 2012a). With this in mind, it's clear that disabled residents are overrepresented in our dataset. This occurs to an extent that leads to the

conclusion that the Council has been particularly effective in targeting disabled residents but that the reach of the Council could be widened by exploring avenues to explicitly target those not affected by disabilities.
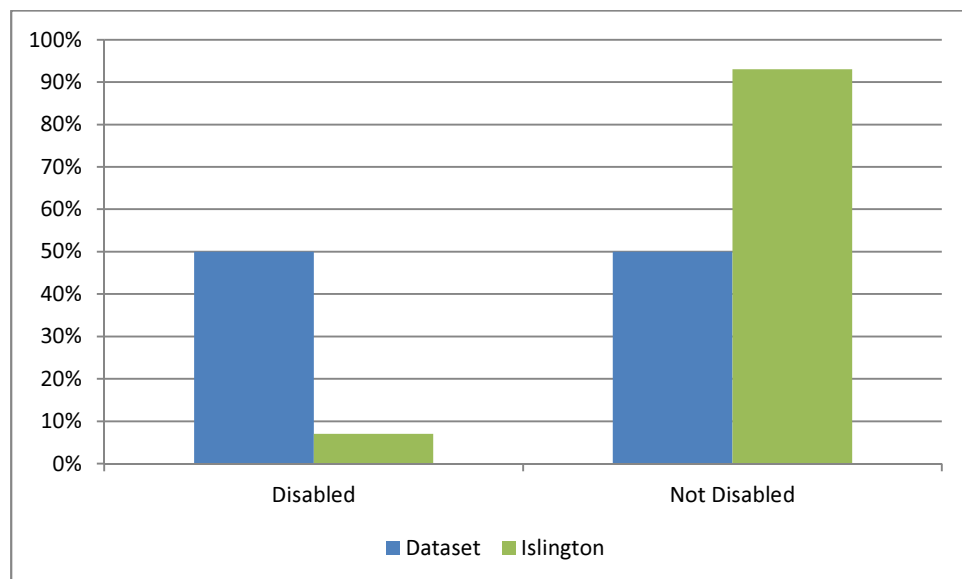

Figure 8 Percentage of disabled and not disabled residents in the dataset and in the Borough as a whole.

Members of staff from Islington Council confirmed that existing fuel poverty policies focus on the disabled as well as on the elderly group mentioned previously. This is related to the health implications of disabled people being exposed to a limited amount of heating and is congruent with the objectives of the 2001 UK Fuel Poverty Strategy. Overrepresentation of disabled people is the effect of an agreed strategy and the fact that the Council is able to help only a limited number of residents and has to prioritise those being helped based on the relative risks they face.

5 Measures

This section discusses some of the measures advised by the Islington Fuel Poverty Team. As one can see in Figure 9, each household contacting or contacted by the Council is advised about 5 measures relating to fuel poverty, on average. This suggests that they are receiving an in-depth service on fuel poverty. As shown in Figure 10, the measures discussed most often by the energy advice team are those not

requiring any capital expenditure, such as general energy efficiency advice, behavioural measures, fuel bills and heating controls. This should be expected, as any measure requiring an upfront payment is unlikely to be adopted by people suffering from fuel poverty regardless of their pay-off in the long-term. Advice on grants is discussed frequently, this is likely to be regarding the adoption of particular technological measures for which funding is available, e.g. insulation.

Of the interviewees questioned, about half of the households had adopted all measures recommended by the council. In a number of instances interviewed residents openly stated that they were willing to adopt any measure reducing energy expenditure. The most common factor for not adopting a certain measure was that it was perceived not to work, fit or that the interviewee did not know how to operate the technologies provided. In two instances it was reported that some measures were not adopted as they affected the level of comfort of some members of the household. This was related to turning off TV at night (which would not allow them to record programs), and the showerhead, which was reducing the water flow too much. In two instances, young members of the households were reported to show little interest in energy efficiency, especially when related to electronic appliances left on or on stand-by. Hassle was mentioned in two instances, quite notably in relation to switching suppliers. However, understanding of tariffs was in some instances quite limited.

Interviewer: *"Did you take up all of the things they suggested or was there anything where you said 'no, I don't want that'?*

Respondent A: *"Oh gosh no, anything that will help, I will take it."*

Respondent B: *It is something you put near the socket that powers it off when you are not using it.*

Interviewer: *But you have not used it?*

Respondent B: *I haven't used it because I don't think I can connect it to all these because I think I need a much bigger. I am not sure, I have no idea. I may try to use it.*

Interviewer: *"So, in terms of switching, you're aware that you may save money by switching supplier?"*

> **Respondent C**: *"Yes, but for how long? You know is it worth all the hassle? Not that it is a great deal of hassle because they do it all, don't they?"*
>
> **Interviewer**: *"erm, yes, I believe you can ring up, request to move and they will deal with the kind of…the changeover at their end."*
>
> **Respondent C**: *"But then, you know, if I move to somebody who is cheaper, as soon as I move, they'll put up the prices."*
>
> **Respondent D**: *"Well that would be good, the only thing about turning off televisions is that I try turning, switching everything off at the end of the night but it doesn't record if it's switched off, which they're [respondent's sons], you know, are not happy with that."*

In relation to the boiler replacement scheme, most households expressed an interest. Financial considerations were mentioned as the most important factor preventing the adoption of a newer boiler. Only three interviewees were concerned about the hassle related to the required plumbing work, noise, dust and disruption. In two cases interviewees mentioned that the long-term benefits would compensate for the short-term inconvenience. It is important to mention that in a third of instances the households being interviewed were not aware of the energy efficiency of their current boilers, therefore reducing the perceived benefits implied by adopting more efficient boilers. This could be tackled through dissemination of information.

> **Respondent A**: *"Well, of course there is disruption, because there're four people in a house, then there are workmen in here and the house is full of dust, and you know…[talking about his previous experience]. I mean I must admit, but it was a minimum, you know and it was…and also you felt that, long term you were getting something that was going to be a lot better for you and things were going to be better."*

Overall, one has the impression that the households interviewed were quite often willing to act on the advice received to reduce energy consumption, most likely due to the real hurdles faced by fuel poor residents. It is not clear however, if the rather positive responses obtained were influenced by interview bias. Despite adopting a

very neutral language with regard to the matter being discussed, the fact that respondents were contacted through Islington energy team may have influenced their perception of the interviewer's stance with regard to energy consumption and fuel poverty.
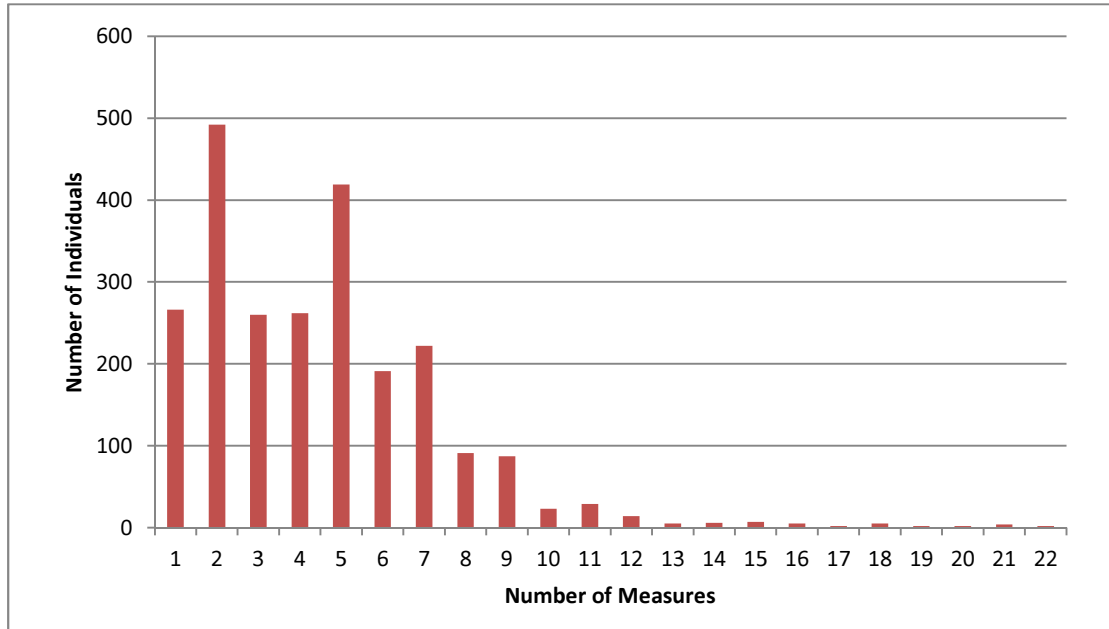

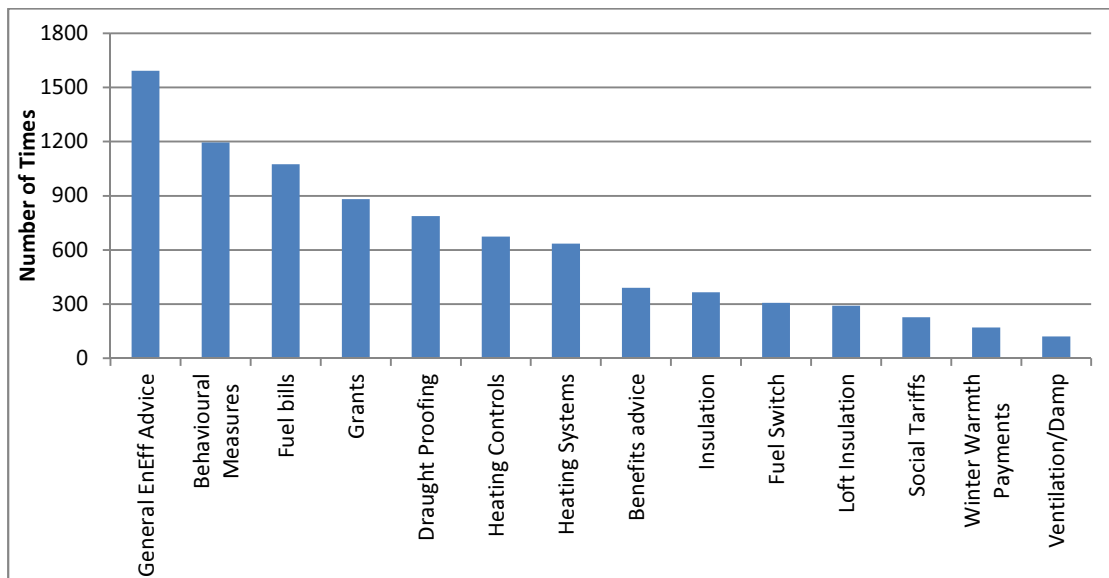**Figure 9** Number of individuals in the dataset across number of measures being advised on.

Figure 10 Number of times the top fifteen measures have been advised by members of Islington team

6 Under Occupation: its Role in Fuel Poverty and How to Tackle

This section deals with the issue of under occupation. The required amount of heat depends, among other things, on the size of one's accommodation. Thus, moving to a smaller property is one way for the fuel poor to reduce their fuel expenditure. While this is generally true, it is important to acknowledge that the size of the accommodation is only one of the factors at play; it may well be the case that fuel bills of a two bedroom detached house are higher than one three bedroom flat located on one of the top floors and surrounded by other properties.

The sample available to assess the extent of under occupation is limited, as the collection of this information started only in June 2012. Table 2 shows the number of households for each combination of number of people and rooms in the dataset. Unfortunately, the questions used to collect the data do not allow us to rigorously determine the extent of under occupation, as whether a property is under occupied or not depends on the number of bedrooms and persons in the household but also on its composition in terms of gender and age, for which we have no data[7]. In Table 2 the combinations of rooms and persons in the highlighted cells are considered to be under occupied properties. Our estimates below are conservative because it is likely that the table does not account for all under occupied properties e.g. a couple sharing a two bedroom property does not show as under occupied. As shown in the table, under-occupation seems to be a factor affecting a considerable number of households suffering fuel poverty. As the collection of these data has only recently started, it will be useful in the future to see which socio-demographic factors are related to under occupation, to design effective measures to help reduce fuel poverty caused by under occupation. Collection of further information would also be useful to validate the definition of under occupation, as described for example in Communities and Local Government (2012).

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[7] More specifically, in the Bedroom standard which is used as an indicator of occupation density. a separate bedroom is allocated to each married or cohabiting couple, any other person aged 21 or over, each pair of adolescents aged 10 - 20 of the same sex, and each pair of children under 10. Any unpaired person aged 10 - 20 is paired, if possible with a child under 10 of the same sex, or, if that is not possible, he or she is given a separate bedroom, as is any unpaired child under 10 (Communities and Local Government 2012).

		Number of Bedrooms					
		1	**2**	**3**	**4**	**5+**	Under-Occupation (%)
Number of Persons	**1**	37	16	10	3	0	**44%**
	2	4	24	12	1	0	**32%**
	3	1	6	7	1	0	**7%**
	4	0	7	4	1	2	**21%**
	5+	0	0	0	2	1	**n/a**

Table 2 Number of times that each combination of Number of Persons in the Household and Number of Bedrooms appears in in the dataset.

Members of staff from Islington Council are aware of the problem of under occupation. Elderly people, one of the groups targeted by Islington fuel poverty actions, are thought to be more likely to under occupy due to their sons and daughters having left the parents' home. In the cases where those under occupying are owner-occupiers, the focus group participants admitted that they had very few tools to influence the accommodation choice of the household. The members of staff in the focus group mentioned that when considering relocation, they have to be sensitive to issues related to the schooling of the children, social networks and health access of the elderly, as confirmed by the interviews.

Only a quarter of the households interviewed did not appreciate that they would save on their bills if they moved to a smaller house. In some cases respondents reported that they did not heat the unoccupied rooms; therefore, reducing the savings which would be delivered by moving to smaller accommodation. These were predominantly elderly people whose sons and daughters had lived in the property but then moved out. The unoccupied rooms in their accommodation were seen as a necessity by the elderly in order to accommodate their sons and daughters when they came visiting. Out of the households reported to under occupy, two stated they would not be willing to relocate, three that they might be willing and one would be very happy to do so. In the case of one household not under-occupying, it was reported that a small property, without high ceilings, was selected to reduce heating costs; therefore, showing the importance attached to this factor. Some of the interviewed households found it difficult to quantify the savings that might be delivered by moving to a smaller property. In some cases expected savings were considerably high, most likely higher than what would actually be delivered by relocating to a smaller property. Households

need to be provided with a much clearer picture on the actual savings before the option of downsizing is considered as a consequence of any Council initiative.

Interviewer: *"Do you think that living in a smaller property would have any advantages to living in this one?"*

Respondent: A: *"No, what, you mean according to bills? Well, I suppose, but that…I wouldn't move for that reason. I love my high ceilings."*

Respondent B: *"Yeah, for me, yes"*

Interviewer: *"Why do you think that is?"*

Respondent B: *"Because, because I don't need [this] big house, you know because, I don't know, for me, [it] is too much, it's more expensive you know, for the rent, for everything."*

Interviewer: *Do you have any idea of what the savings might be by moving to a smaller property?*

Respondent B: *Oh no. My God, I don't know, per week I think I'd save for electricity about £25 I don't know.*

Interviewer: *And for the gas?*

Respondent B: *I think I would save as well.*

Interviewer: *About £25 a month.*

Respondent B: *Yes.*

Respondent C: *"I don't heat them (bedrooms) the only place I heat is around here. If I heat my bedroom I cannot sleep I sweat so much, so in the three bedrooms there's no heating at all, there is heating, but I don't put them all on, I turn them all off. It's only the corridor and this place I am heating"*

Interviewer: *"and do you control them on the actual radiators?"*

Respondent C: *"Yeah. Occasionally my grandchildren will come and spend some time with me so if I had one bedroom they wouldn't be able to".*

Respondent D: *"erm... I don't know, the heating costs are like, having an extra bedroom would make your rent costs go up so that would be the more important factor there, not necessarily the energy"*

> **Respondent E**: *"To be honest when I was bidding, you know, choosing, when you get a council home you're allowed to bid for a council home. When I was bidding I deliberately chose somewhere that was not Victorian with high ceilings through thinking of the heating bills."*

In the majority of cases, the interviewed residents said they would resist an offer of relocation to a smaller house on the basis of their attachment to the community, the area and the house, the latter being mentioned by elderly people having spent considerable time in the property. The factors influencing the viability of alternatives deemed suitable for relocation vary according to the age of the occupants. Among young families, school is invariably mentioned as the most important single factor. Neighbours, the safety of the area and transport were also often mentioned. Some elderly people referred to GP and access to health services. Overall, one can see how any relocation offered in order to tackle under occupancy could be better accepted if it accommodated the previously mentioned concerns of the residents. Relocation to a different property within the area where they live in order to minimise disruption with regard to schooling and their social network seems a much more palatable option for the households we interviewed.

7 The Impact of Heating Control, Fuel Switching and Boilers

In this section we draw a qualitative conclusion on the importance of the impact of heating controls, switching to the cheapest supplier and old and inefficient boilers on fuel poverty by assessing how many times the measures related to these factors have been discussed with the respondent. Although the measures discussed by households with the energy advice team may be influenced by internal priorities or funding available across measures, we would expect a positive correlation between the number of times the measures are discussed and the impact of the underlying factors on fuel poverty.

According to Table 3, 68% of the residents in the database have been advised about heating controls by the advice team, while only 26% of the residents in the database have been advised on switching suppliers as a measure to tackle poverty by minimising expenditure on utilities. The latter is a surprising result as the level of annual switching across the general public is around 18% (OFEGM 2008). However feedback from staff suggests that the proportion of those able to switch are often lower than expected because many residents face unique barriers due to their vulnerability such as debt on the account, low credit ratings (when trying to switch from prepayment meters to credit meters), language barriers, changes in access to grants such as the Warm Home Discount and inability to understand the benefits of switching.

With regard to boilers, Islington Council has begun to implement a scheme that offers the free replacement of boilers for owner-occupiers, private tenants or council leaseholders with an F or G rated boiler, since June 2012. It is important to stress that this measure is offered to any resident meeting the criteria above, regardless of whether they are or not in fuel poverty. Since June 2012 the Borough has advised 62 residents on the scheme, 37% being owner-occupiers. As the dataset does not contain information on income of the respondents we decided to consider only those who have been referred to the Council through the SHINE scheme as fuel poor. This does not include those in fuel poverty who proactively approach the Council to receive help. According to this criterion, only 10 residents out of the 62 taking up the scheme are classified as fuel poor. This corresponds to about 15% of the residents which are in our dataset and meet the criteria for applying to the scheme. We should stress that this is a very conservative approach but notice this low percentage may be affected by the fact that people living in owner-occupied houses, arguably those more likely to take part of the boiler replacement scheme, are the group with the smallest level of fuel poverty, i.e. about 10% after housing cost have been deducted (DECC 2012a).

Factor	Percentage	How measured
Heating Controls	68%	Percentage of those assigned to Energy Doctor in the Home
Fuel Switching	26%	Percentage of residents which have been assigned at least one measure among Fuel Switch and Social Tariffs
Boilers	15%	Percentage of residents assigned to Boiler Replacement Scheme among those entered in the dataset after June 2012, with a private housing tenure and contacted through SHINE

Table 3 Impact of Heating Control, Fuel switch and boiler Replacement Scheme on the advice advised by Islington.

8 Responses to Energy Price Increases, Frequency of Billing and Grants

In the great majority of cases, the interviewed households were very aware of the recent increases in energy prices. The quotes below demonstrate a number of measures the participants have taken in response to the increase in the energy price. In 9 cases out of 15, response to price increases implied reduced comfort either through reduced room temperature, reducing number of hours when the heating was on, or the heating being switched on later in the year. Wearing extra jumpers or hats in the house was also mentioned. In some instances, reaction to increased energy prices involved changes in the eating habits of the households (two instances), showering (one instance), frequency of social outings enjoyed by the family (one instance) and warming up heat-conducive objects which would be used to make the bed more comfortable (one instance).

Respondent A: *I have got heating on maybe just one hour before I go to bed and then I turn it off and that's a good way to save energy. I have a shower every couple of days. In summer it is 2or 3 times a day you want to stay clean, you know. […] Sometimes I cook meals and freeze them and then I get home and just reheat it so you save a lot of energy rather than cooking the whole meal.*

Respondent B: *"no, no we don't put [the heating] on in the bedroom. Erm no, we put beanie things in the bed to warm the bed up and then jump in quick!" [him and wife giggle - Beanie things are heated up in the microwave].*

Respondent C: "*I always keep the temperature low anyway. I close this door here in the winter. I wrap myself up. I can go mad having to turn it up all the time. I do as much as I can. I am fairly practical and I spare [energy], I all go mad. I go and see friends or I visit my daughter or things like that because I think, O!, I won't have to put the heating on tonight."*

Respondent D: *"In the winter times I just change, you know, you have to budget, cook more soups, more casseroles, cook lasagnes, shepherds pies and then I freeze things to try and economise and just change, we don't go out as much in the winter with the kids because it is so cold. And it is literally having' to take a bit here, from here and there to make it match up with having' to put it in to the gas."*

Most households had a clear understanding of the amount they paid for utilities, some of them because they used pre-paid meters. Bills were shown to the interviewers several times by the respondents as a way to support their comments. In some cases, there was no appreciation of the relative costs of energy across different methods of payment. It is important to stress that 13 out of the 15 interviewed households stated that the reduction in the frequency of billing down to twice a year would make their payments much harder to manage. Some of the households; however, said that they would not be influenced by this as they are on pre-paid meters. In only one instance we were told that households would not be affected by a six month billing due to the fact that their direct debit would not change. In another instance the person being interviewed said that the only way to manage this would be to set up direct debit payment plan.

Respondent A: *"I don't know, because the…I ask some people, when you pay for the bills, you know, is more expensive, I don't know. The meter is much cheaper. I don't know."*

> **Interviewer**: *"Utility companies are considering reducing the number of bills they send out every year, erm, to perhaps every 6 months…"*
>
> **Respondent B**: *"No way" [Laughs]*
>
> **Interviewer**: *"…If you, erm, if you were not on the system that you're on…*
>
> **Respondent B**: *"No way. There's no way. I could think of nothing worse than to have it every six months, that would be impossible."*
>
> **Respondent C**: *"Well, I'm going to have to pay it like 6 months instead of 3 months?"*
>
> **Interviewer**: *"Potentially."*
>
> **Respondent C**: *"Well then I'll have to go on direct debit or something. That's probably what I would do."*

Only three interviewees were fully aware of grants available to reduce fuel bills. Another three interviewees showed some knowledge while the other participants seemed to assume that no financial help would be available. In 11 cases out of the 15 interviewed households, letter was the preferred way to receive information. Only one third of those being interviewed stated that they would be happy to receive information by email or other online communication tools. In only one instance were posters, for example hung at schools or in GP's surgeries, mentioned; therefore, stressing the preference of the interviewed households for targeted and individual communication channels when receiving this type of information.

9 Socio-Demographics of being Proactive

In this section we assess the socio-demographic difference between the residents actively looking for help and those "hiding". Households who have been contacted by the Council in relation to measures to tackle fuel poverty are defined as those referred to the Energy Advice Team through the Seasonal Health Interventions Network (SHINE) scheme discussed above. Vulnerable residents are referred to the Energy Advice Team via SHINE by front-line professional staff such as medical staff (GPs, hospital staff, nurses etc.), social services staff, housing staff and third sector and

community organisations such as AgeUK, MIND and religious and ethnic community groups.

SHINE is a one-stop referral system for affordable warmth and seasonal health interventions. The SHINE hub contacts all referrals and discusses the broad range of services that a household is eligible for. Interventions include advice on saving energy and grants available for heating and insulation, 'Energy Doctor in the Home' home visiting service, benefit checks, falls assessments, telecare applications, befriending services, fire safety checks, home security checks, air quality alerts for those with respiratory diseases, and cold weather alerts, the AgeUK enablement service and handyperson service. Any vulnerable resident can be referred although those aged over 75, who have cardiovascular or respiratory conditions, or those who have children under 5 at home, are given priority. In order to maintain a meaningful comparison only residents who contacted or were contacted by the council after the start of the SHINE scheme are used to make the comparisons below.

9.1 Location

Figure 11 plots the value of the representation index described previously against the income deprivation ranking of each ward for both the referred residents and those who actively looked for help. The figure shows a lower level of dispersion in the case of referred residents rather than those actively looking for help, as observations for the former tend to fall closer to a positively sloped straight line going through the points. This is particularly the case for Finsbury Park and Tollington, the two most deprived wards in the Borough, whose representation index increase by about 60 and 30 points, respectively, when only referred cases are used. Analogously, the index for Holloway and Hillrise decreases to values comparable to other similarly deprived wards. The exceptions to this trend are Clerkenwell and Highbury East, the latter having a representation index similar to the second most deprived area in the council despite being the wealthiest. Dispersion of the points around the line implies that factors other than income deprivation affect overrepresentation of a ward in the dataset. Dispersion is lower, when only taking referred cases into account, thus, one can conclude that these factors are more likely to have an impact on the residents actively looking for help.
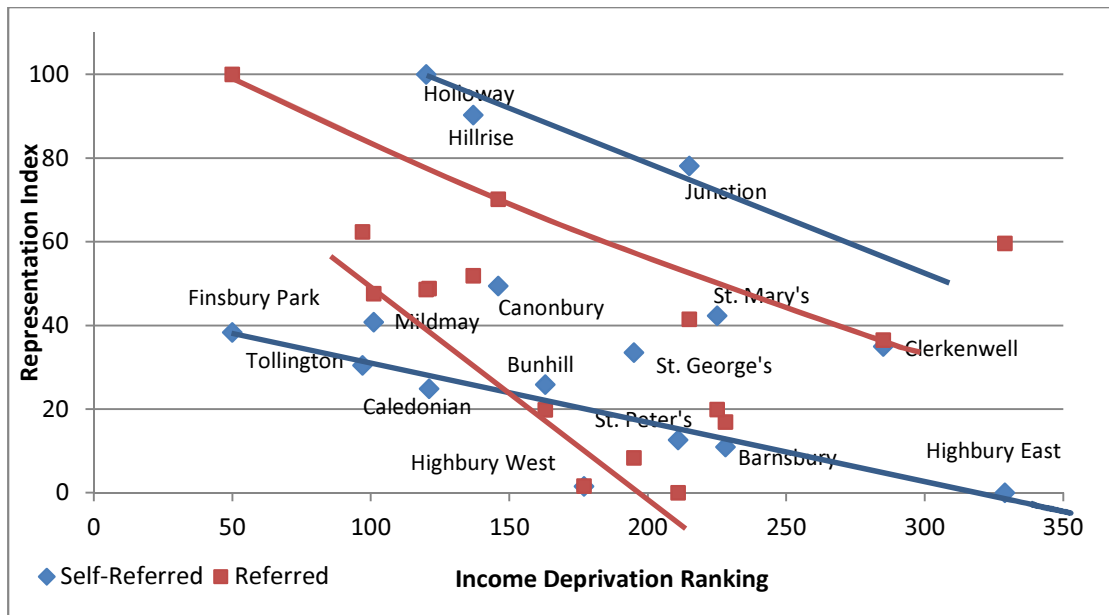
Figure 11 Correlation between income deprivation and overrepresentation in our dataset across wards comprised by the Borough of Islington.

9.2 Age

As shown in Figure 12, the share of respondents over the age of 65 marginally increases when taking into account only referred cases. This is not surprising as one of the criteria for being referred under SHINE is to be older than 55 years, with over 75 being one of the priority groups of the Council. It is interesting to notice that the share of 16-24 year olds is bigger when considering referred cases only; this demonstrates some reluctance within this category to look for help. This is somewhat surprising since one might expect this category to be highly receptive to information campaigns and adverts.
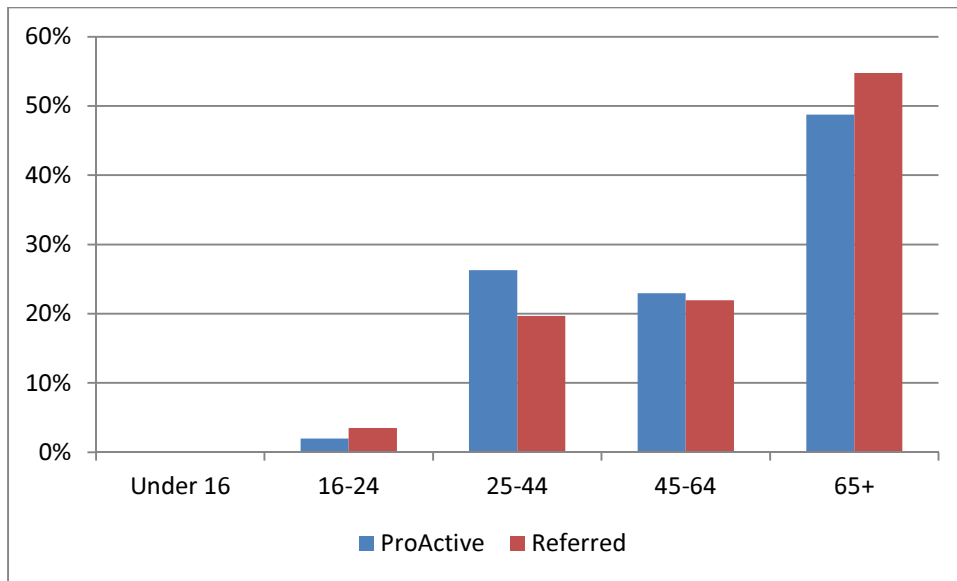
Figure 12 Distribution of residents across age brackets among the residents referred for help and those referring themselves.

During the focus group, members of staff from Islington mentioned the possibility of those falling in the 25-44 category having to be proactive because of fuel bill issues and difficulties in servicing accumulated debts. The lack of proactivity in those falling between 16-24 was imputed to cultural reluctance to ask for help but also to the fact that those in privately rented properties may have their ability to be proactive curtailed by the landlord. Younger households may also live in houseshares or bedsits, environments which would significantly influence the actions which can be taken to tackle fuel poverty and the likelihood of asking for help. Use of social media, for example twitter, as a way to reach younger residents was discussed, but members of the Islington team felt that this would consume scarce resources from the Council without immediate benefits, as members of the youngest bracket were thought unlikely to start following any twitter account from the Council.

9.3 Ethnic Background

In terms of ethnic background, for residents from a White and Asian background the percentage of those referred for help is smaller than those actively contacting the Council. The opposite occurs in the case of a Black, Mixed and Chinese or Other ethnic background. A higher percentage in the proactive residents compared to referred residents for any ethnic background can be imputed to a better than average ability to access information and measures related to fuel poverty. This is particularly

noticeable in the case of residents from an Asian background. The opposite, which can be taken as evidence of difficulties for that group to access information and effectively receive help, is particularly noticeable in the case of residents from a Chinese or Other ethnic group. It is interesting to notice that the share of referred residents form Black, and Chinese or Other is much higher than their share of Islington population.
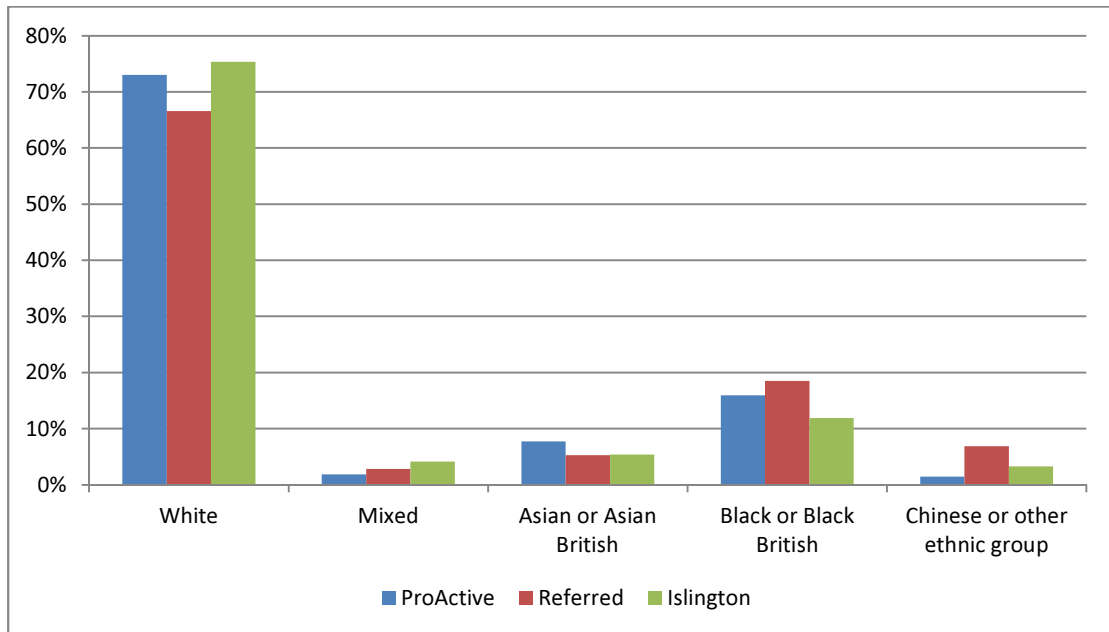

Figure 13 Distribution of residents across ethnic groups among the residents referred for help and those referring themselves.

During the focus group, members of staff from Islington Council suggested that a reason for members from the Chinese or Other ethnic group being the least proactive was that they might be more affected by language barriers than residents belonging to more established ethnic backgrounds. This factor may also to explain the fact that residents belonging to a White background are more likely to be pro-active.

9.4 Housing Tenure

A quite substantial divide in terms of housing tenure can be observed between residents referred for and those actively looking for help – see Figure 14. Among the latter, owner occupiers are about 30% of the sample but their percentage almost halves in the case of those referred for help. It is interesting to observe that an

increase of a similar size can be observed in the case of those renting from the Council. This change could be explained by:

- owner-occupiers being more proactive in seeking opportunities to tackle fuel poverty issues;
- people living in a council-rented accommodation suffering from worse health-conditions;
- better access to the SHINE program for those living in council rented accommodation – housing officers actively refer vulnerable residents to SHINE. Residents living in a council-rented accommodation are by definition known to the Council and may have better access to the SHINE reference scheme.
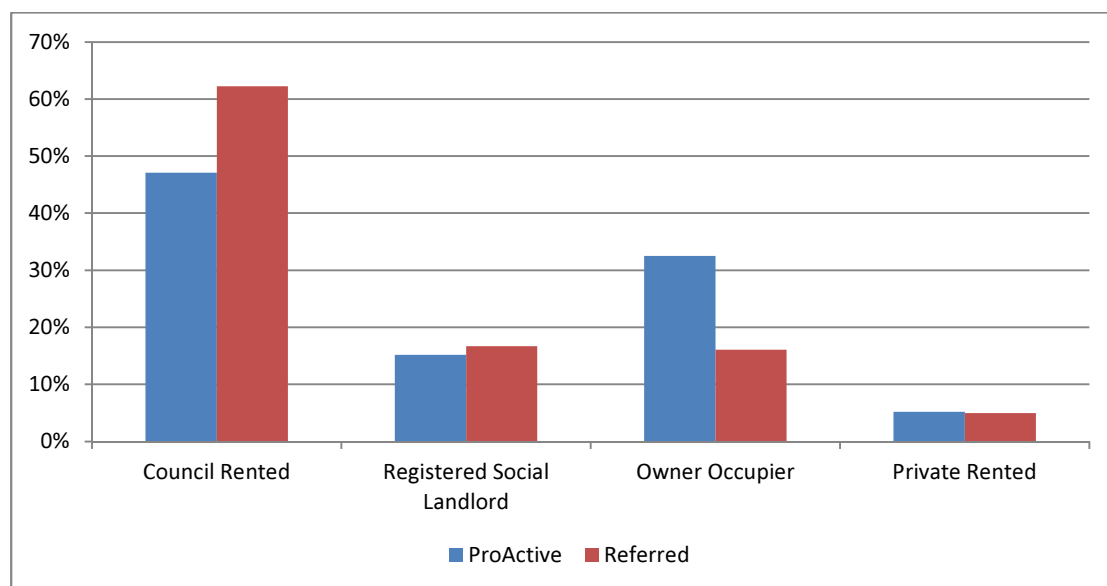

Figure 14 Distribution of residents across housing tenures among the residents referred for help and those referring themselves.

During the focus group, members of Islington Council pointed out that owner-occupiers have a clear long-term interest in their property and as such, would be expected to spend more time and effort seeking help. They also may have an greater knowledge of grants available. The focus group participants pointed out that there could be a correlation between housing tenure and health of the occupants, especially in relation to long-term conditions. These are likely to seriously impact the earning ability of the occupiers; therefore, making them more likely to be renting from public rather than private landlords. If suffering from any long-term health conditions the

occupants should be referred through SHINE; therefore, explaining the share of referred residents being particularly high in the council rented category.

9.5 Disabilities

A higher proportion of disabled residents are referred than proactive. It is reasonable to postulate that the existence of a disability constitutes a point of contact for the Council to intervene by administering other measures, like those related to fuel poverty, to support the welfare of these residents. As discussed above we take this as further evidence that the Council could widen the reach of its fuel poverty measures by targeting a more diverse group of residents.
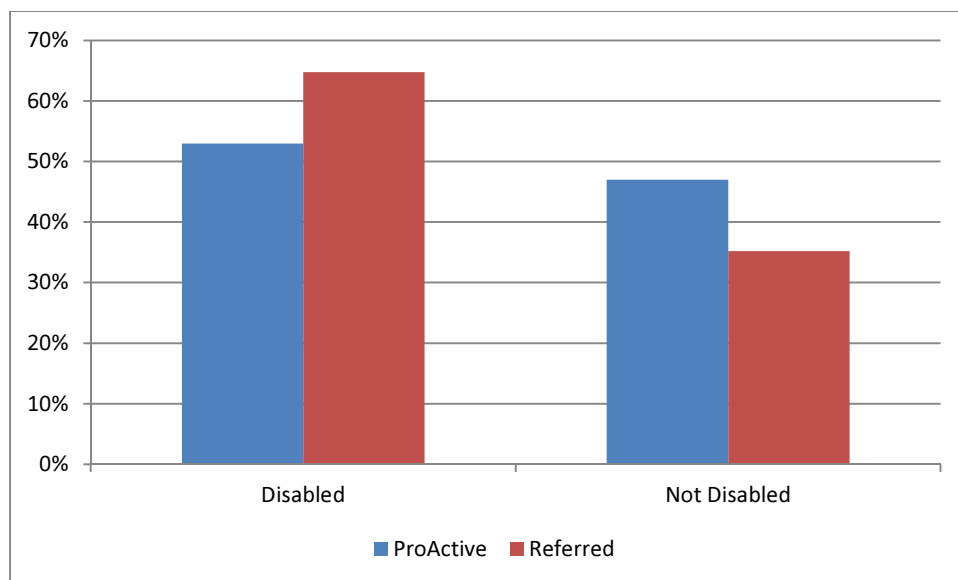

Figure 15 Distribution of residents across disabilities among the residents referred for help and those referring themselves.

The focus group participants pointed out that like in the case of the elderly, disabled people are explicitly targeted when administering fuel poverty measures. For this reason, one would expect they do not need to be as proactive as residents who are not disabled in order to get help. This explains the lower percentage of disabled people proactively looking for help in relation to fuel poverty. It may also be the case that those classified as disabled or suffering from a long-term illness are excluded based on the abilities needed to actively look for help, for example the visual or dexterous requirements of searching the internet and completing forms.

10 Conclusions

Fuel poverty has been a major factor of the energy strategy implemented by the UK Government for more than a decade. Through the analysis of a database collected by Islington Council, a focus group with members of the Council teams delivering measures to tackle fuel poverty, and semi-structured interviews with 15 households affected by fuel poverty, this small project cast some light on the experience of fuel poverty in a metropolitan area. Despite the reputation of Islington as a very sought-after area, the Borough ranks as the fifth most deprived Borough in London and the fifteenth most deprived in England, making it a vital case study for investigation.

The first conclusion from the analysis of the dataset and the focus group is that several compounding factors influence the likelihood of being fuel poor and receiving help from the Council. The two most important factors appear to be age and disability. Based on the prioritisation of vulnerable households in the UK Fuel Poverty Strategy, Islington focuses its interventions on the elderly and those affected by long-term conditions in order to minimise the health impact of fuel poverty. Although low income families with children are a priority group for the council, households with the oldest member being under 24 are somewhat underrepresented in the Islington database. Some work is underway to reach these households through paediatric clinics, children's centres etc..

Housing tenure is another major factor influencing the likelihood of receiving help. Despite being exposed to levels of fuel poverty comparable to council tenants, those privately renting are receiving much less support. Some reasons for this are related to perceived hostility from landlords to undertake energy efficiency measures, and short term tenancy agreements acting as a disincentive for tenants to increase energy efficiency. Compounding factors may relate to young households having to rent privately rather than through the Council and the fact that the elderly or those suffering from health conditions are more likely to be given priority in the list for council housing. In terms of ethnic background, residents belonging to less established ethnic groups or those from a Mixed Race background are currently the

least likely to receive help to tackle fuel poverty. In the case of the former, language barriers and access to information is likely to play a major role, while the latter is thought to be a reflection of the age distribution in the Mixed Race group being skewed towards relatively young residents.

Reflecting the policy guidance contained in the 2001 Fuel Poverty Strategy, Islington delivers a comprehensive package of measures to tackle fuel poverty; the measures requiring modest or no expenditure are the prominent ones recommended by the Council. Overall, interviewed households have shown an interest in the measures to tackle fuel poverty and followed advice from the Council with regard to their implementation. The most quoted factor preventing households from implementing energy-efficiency measures is related to the perception that these measures are not delivering reduced fuel expenditure, or that the piece of equipment does not work. Switching suppliers was seen in a number of instances as an ineffective way to tackle fuel poverty, as similar price increases are frequently implemented across energy providers.

We discovered mixed perceptions in relation to the impact of under-occupation on fuel poverty. Most households appreciated the role of this factor on their fuel bills and some had taken pre-emptive action by choosing to live in small accommodation, while other households heated only the occupied rooms. The most common reason given for under-occupation was that younger members of the household move out leaving older members behind in the family home. In some instances unoccupied rooms were seen as a necessity to host visiting children or grandchildren. Among the households with children in schooling age, access to school was by far the most important factor preventing relocation. Attachment to the neighbourhood and social network were also discussed alongside provision of health services for those affected by long-term conditions or the elderly. Responses to offers of relocation to smaller properties would clearly be influenced by packages designed to tackle these concerns.

Although participants' understanding of their energy bills was sometimes variable, most of the interviewed households showed clear awareness that energy prices have considerably increased in the last few years. Unfortunately the most common responses to this increase consisted of measures reducing the level of comfort such as

decreasing indoor temperature or reducing the number of hours where the heating system was switched on. In some instances eating habits were altered in order to reduce fuel expenditure. The level of concern in relation to a proposed decrease in the frequency of billing was high, primarily because of the difficulty in budgeting and managing the required cash flow.

Finally, we assessed the socio-demographic difference between the residents actively looking and those being referred for help through health based referrals. The dataset showed that households with the oldest members younger than 24 are unlikely to seek help with fuel poverty. These findings were clarified during the focus group, where it was suggested that this may be due to a cultural reluctance in asking for help. A compounding factor in this could be that many of these households live in privately rented properties where their actions to tackle fuel poverty may be heavily constrained. Owner occupiers, on the other hand, were clearly the most proactive group, this is probably due to the fact that any energy efficiency improvement would increase the value of their property as well as their comfort.

Disabilities, being affected by long-term illnesses and living in council housing are factors negatively influencing the likelihood of households actively seeking help. Disabilities and long-term illness may seriously impair the ability of these households to access information, potentially explaining their not being proactive. In addition, as job prospects and financial revenues are likely to be impacted by long term conditions, these households are more likely to live in council properties. Not only do they fall under a category prioritised by the Council to provide measures to tackle fuel poverty, they are also easily identifiable and they face fewer obstacles than those living in privately rented accommodation to implement energy efficiency measures. It would seem therefore logical that most of these households are referred for help rather than having to proactively looking for help.

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Appendix A: Text used in the Semi Structured Interviews

> *My name is _____, I am a PhD student from the UCL Energy Institute working with Islington Council to carry out some interviews to find out about the experiences of people who live in fuel poverty. This is so that we can understand a bit more about fuel poverty and how we can provide help.*
>
> *This project is covered by the UCL Data Protection Registration protection – No Z6364106/2012/10/07; any information we collect will be confidential and stored securely. The information will be anonymised so that it cannot be traced back to you. The information will not be passed on to any third parties; only members of the research team will have access to the data.*

1) Do you know what Fuel Poverty is?

2) If you do not know, please bear in mind that a household is considered to be fuel poor if they spend more than 10% of their income on utilities.

> *Islington Fuel Poverty team offer advice and help to reduce bills. We want to ask you some questions about this to find out whether Islington Fuel Poverty team can improve the delivery of this information.*

3) From our data, we understand that you have talked to the Islington Fuel Poverty Team about the cost of your gas and electricity. Do you remember what they suggested?

4) Did you take up all of the measures suggested by the team? If there were any you did not take up, why was this?

5) Do you know of any financial support available to help you reduce your bills?

6) Have you applied for any of this support? If not, why?

7) In the future, how would you like to receive information about financial support such as this?

8) Do you know how old your boiler is (or the rating)? Have you thought about changing your boiler? Do you think you could benefit from this?

9) Are there any factors that might prevent you from replacing your boiler?

Now we will be asking you some questions about how the price you pay for utilities. We are aware that utility prices and payments change a lot and want to understand how this affects people.

10)   Do you remember how much your latest utility bills cost? [*This is a sensitive question – highlight that the reason we are asking this is to understand whether people are aware of the cost of their bills – rather than wanting to know how much they spend per se*].

11)   Utility companies are considering reducing the number of bills they send out every year. Do you think this will affect your ability to pay them?

12)   Are you aware of increases in the price of utility bills in recent years? [*PAUSE*] [*Prompt in case they do not know much about it: The typical electricity bill has increased by about one quarter while the gas bill has increased almost by half between 2007 and 2012*].

13)   Is there anything you have done to manage this increase in prices?

Now we are going to ask you questions about your current accommodation and the fuel bills related to it. This is so that we can understand the aspects you consider important in your current accommodation.

14)   How many people live in your household? Can you please mention the gender, age and if there is a couple?

15)   How many bedrooms does your property have?

16)   Do you think living in a smaller property would have any advantages to living in this one? [*Mention utility bills as one if not explicitly mentioned*]

17)   Living in a smaller property may reduce the cost of your bills. Do you have any idea what these savings could be?

18)   If living in a smaller property helped to reduce your bills, which other factors would affect your choice of property?
   -    School/Nursery
   -    GP
   -    Social (Friendship, etc.)
   -    Property type, e.g. house/ flat
   -    Safety of neighbourhood
   -    Always been in this area
   -    Disability needs met
   -    Proximity to work
   -    Transport links

Appendix B: Informed Consent for Research Project Participation

Who is involved?

Lead Researcher: Professor Paul Ekins

Secondary Researchers: Dr. Paolo Agnoloucci, Kate Simpson and Faye Wade

We are from the UCL Energy Institute, we are working with Islington Council to carry out some interviews to find out about the experiences of people who live in fuel poverty. This is so that we can understand a bit more about fuel poverty and how to tackle it.

What does the research involve for you?

We would like to interview you to see what you think about fuel poverty and some of the things that may affect it. This will include questions about under-occupancy (living in houses with spare bedrooms), the use of energy-efficient measures and schemes to help reduce the cost of heating your home, for example switching energy supplier and Islington Council schemes such as grants and the Boiler Replacement Scheme. The interview will not take longer than 1 hour and it will take place in your house, at a time convenient for you. We may ask to audio record the interview.

How will your confidentiality be protected?

This project is registered under data protection; any information we collect will be confidential and stored securely in accordance with the Data Protection Act 1998. The information will be anonymised so that it cannot be traced back to you, this means any feature of the information that might identify you will be removed. The audio recorded interview will be typed up onto a computer where it will be stored under password protection and any paper copies will be stored in a locked filing cabinet. The information will not be passed on to any third parties; only members of the research team will have access to the data.

If you have any questions concerning how your data will be used please contact me at: p.agnolucci@ucl.ac.uk

If you are willing to participate in the research project outlined, including the recording of an interview and the publication of anonymised data in a PhD thesis and research papers, please sign here:

Sign ……………………………………………

Date …………………………………………