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Seasonal Health and Affordable Warmth Strategy

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Preface

During every winter, and increasingly in summer, people in Islington suffer from the adverse effects of extreme temperatures. Many deaths and hospital admissions are preventable with systematic and co-ordinated action. They are not inevitable, and with ever-rising fuel bills and more frequent hot summers, now is the time to act.

This strategy outlines the risks to vulnerable people and how these can be addressed. It builds on the recommendations of the Health Inequalities National Support Team but tailors the approach to Islington and builds on the work we have already undertaken. Much of this existing work is excellent but resources must be brought together in a systematic manner. We know which groups are most at risk. We know which service providers work with them. We know which interventions can have most impact. We will bring together our knowledge and our resources to protect our residents.

Summer and winter present different health and wellbeing challenges. However, the interventions that we establish will tackle those arising from extremes of temperature and adverse weather conditions. We will also improve the energy efficiency of Islington's housing stock and address the growing problem of fuel debt.

Each vulnerable resident in Islington will, as a matter of course, be referred for multidisciplinary interventions. This will require partnership working across a number of agencies and we hope such an approach will be a model for addressing a number of health inequalities in an increasingly challenging public sector environment.

The action plan, based on the recommendations arising from this strategy, will be delivered and progress will be overseen by a partnership of agencies from across the statutory and voluntary sectors. Our work on affordable warmth has been ahead of the field for some time and we hope to blaze a trail with this logical progression.

Paul Smith

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Executive Summary

The winters of 2008/09 and 2009/10 were the coldest for some time, just as energy prices have reached their highest level for twenty years. Due to climate change very hot summers are becoming more frequent and London will suffer particularly. Extremes of temperature are responsible for many hospital admissions and deaths every year, the bulk of which are preventable with concerted action.

The Health Inequalities National Support Team visited Islington in 2009 and, whilst they commended the work already being done on affordable warmth, recommended that we develop a Seasonal Excess Deaths Strategy and a shared understanding of the agenda across partners in the borough. Islington Council and NHS Islington took the view that we needed to incorporate the broader issues of seasonal ill-health and the affordable warmth agenda.

This strategy has been drawn together by a range of partners. A systematic approach to reducing ill-health and deaths caused by extremes of temperatures necessitates a co-ordinated approach.

The contributing factors leading to seasonal ill-health and death are complex and are outlined in some detail in this strategy under the following themes:

Seasonal excess mortality and morbidity

There are many additional deaths and emergency hospital admissions each winter, with a smaller but still significant increase in deaths and admissions arising from heatwaves. The identification of vulnerable people for targeted interventions is key to the prevention of excess seasonal mortality and morbidity. Widespread uptake of influenza vaccination, annual medication reviews and annual medicines utilisation reviews are examples of key health services interventions, whilst recognising that the quality of housing, existing health conditions, behaviour and safety in the home all play a part requires concerted action on a number of fronts.

Affordable warmth

Since many vulnerable people are likely to spend considerable periods at home ensuring that their homes are adequately warm is important. Islington has been at the forefront of affordable warmth work for some time and addressing fuel poverty will play a major part in tackling excess winter mortality and some excess summer mortality.

Deprivation and debt

As fuel prices have been increasing over the past few years, so has fuel debt as many households struggle to meet the costs of fuel bills. Many low income energy consumers use prepayment meters, paying a premium to do so, and many also ration their energy use or go without to save money.

Achieving multiple aims

By working to address seasonal ill-health and fuel poverty through strong local partnerships we can:

- tackle health inequality
- improve Islington's housing stock
- achieve safer, better insulated homes that are warmer in winter and cooler in summer
- address child poverty
- tackle debt
- support older people to live at home for longer
- support carbon reduction targets

Next steps

We will bring together a range of partners from across Islington Council, NHS Islington and beyond.

We will implement the recommendations of the Health Inequalities National Support Team, building on them for local conditions.

We will develop a systematic referral system.

We will build on our successful work on affordable warmth and adapt it to meet the seasonal health agenda.

We will develop our knowledge base to illustrate the extent of the problem and allow us to target resources efficiently and appropriately.

We will work to ensure that all key workers working with vulnerable residents are supported in systematically referring high risk residents for seasonal health interventions.

We will promote behavioural and building management measures to reduce the impact of extreme temperatures on vulnerable residents.

We will target our efforts at improving the homes of the most vulnerable.

We will ensure that advice and support is available to assist our residents with fuel debt and navigating the energy market.

Seasonal health

Background

Variations in temperature have been shown to have a detrimental effect on health, with higher rates of deaths and hospital admissions in winter and, slightly higher rates in periods of extreme heat.

Excess winter mortality and morbidity

Excess winter mortality is defined as the difference between the numbers of deaths during the four winter months (December – March) and the average number of deaths during the preceding four months (August – November) and the following four months (April – July).[1]

Mortality rates vary across Europe however those countries with the highest rates are Portugal, Spain, Ireland and the UK. Countries with the lowest rates are those such as Finland, Sweden and Denmark, despite the latter group having significantly lower average winter temperatures. There is an obvious link between low thermal efficiency standards and high excess winter mortality across Europe.

The highest regional and national EWM indices were in the winter of 2008/09, with about 25% more deaths per month compared to summer. Temperature records show that the 2008/09 winter was colder than in previous years, as was the 2009/10 winter. Information is currently not available to calculate EWM for the colder winters of 2008/09 or 2009/10 at a local level. However, it is expected that Islington will see a rise in the number of deaths over these cold winters as has been seen in national and regional data.[2]

Excess winter deaths are mainly due to cardiovascular disease and respiratory disease.[3] Cardiovascular deaths occur on average two days after a cold peak and deaths from respiratory disease occur on average 12 days after a cold peak.[4] Hypothermia is often mentioned in media coverage; however data show that it only contributes to less than 1% of winter deaths.[5]

Elderly people in particular can be vulnerable regardless of their social background. However, excess winter mortality is linked to poorly heated housing and low household income is a determinant of low indoor temperature. Those living in deprived communities are more likely to have many of the preconditions that lead to excess winter mortality. Chronic obstructive pulmonary disorder (COPD) and cardiovascular disease levels are both associated with socioeconomic status.[6 7]

The groups for who low temperatures pose the greatest risk are:

- Those over 75, especially those living on their own
- Those suffering from chronic and severe physical or mental illness. Some medications may also make individuals more vulnerable to the effects of cold.
- Those unable to adapt behaviour to keep warm. These can be those with Alzheimer's, those who have a disability, those who are bed-bound, or those who drink too much alcohol. Babies and the very young are also affected.
- Those living in older or otherwise energy inefficient properties

Rising temperatures and summer health

Climate change is projected to lead to more frequent heatwaves such as the one in 2003 that led to up to 2,000 deaths in the UK.[8] By the 2040s what we now consider heatwaves could be typical summers in the south-east of England.[9] It is important to remember that the number of excess summer deaths will remain a fraction of excess winter deaths even with a significant rise in average temperature.

Heat-related mortality starts in the UK when mean daily temperature exceeds about 18°C.[10] In the 2003 heatwave, mortality rose by 17% in England and 42% in London, whilst overall hospital admissions rose by only 1% in England and 6% in London. Among people aged over 75 increases in both mortality and hospital admissions were greater than the population as a whole, with 59% increase in deaths in London (23% in England) and a 16 % increase in hospital admissions in London (6% in England).[11]

Those people at greater risk during heat waves are:

- Over 75 years old (especially women), those living on their own or in a care home
- Suffering from chronic and severe illness: including heart conditions, diabetes, respiratory disease or respiratory insufficiency, Parkinson's disease or severe mental illness. Medications that potentially affect renal function, sweating, thermoregulation or electrolyte balance can make this group more vulnerable to the effects of heat
- Unable to adapt behaviour to keep warm. These can be those with Alzheimer's, those who have a disability, those who are bed-bound, or those who drink too much alcohol. Babies and the very young are also affected.
- Overexposed due to: living in a top floor flat, being homeless, activities or jobs that are in hot places or outdoors and include high levels of physical exertion.[12]

Urban heat island

One particular challenge facing Islington is its location in London's Urban Heat Island (UHI). The densely developed inner city area absorbs more heat during the day than the surrounding green belt. This is released at night leading to increased discomfort, especially in periods of intense heat. As a densely populated inner London borough, Islington is in the centre of London's UHI. Temperatures could be as much as 9°C higher in Islington than London's surrounding countryside.[13] Despite higher temperatures being recorded outside of London in the South East of England, the greatest increases in population-adjusted mortality during the 2003 heatwave occurred in London.[14] The effects of heat on mortality risk have been found to be stronger in London than other regions and in urban areas compared to rural areas.[15]

Risk factors for seasonal health

Indoor temperatures

Evidence from within the UK shows that, at the coldest time of year (December – January) there is an approximate 50% increase in mortality in the coldest homes. Low indoor temperatures are more likely if the dwelling is old, has no or inadequate central heating, is costly to heat, or is occupied by a low income household.

The age of a property is a useful predictor of temperature, particularly since buildings built after 1965 are required to have thermal insulation. One study revealed that the mean temperature of dwellings built before 1965 is 1.5°C lower than those built after 1965. Older dwellings are also twice as likely to have a hall temperature of below 16°C when the outdoor temperature is below 5°C. The government, in its Fuel Poverty Strategy, defines 18°C as the minimum living temperature for good health.

A number of other factors are important to note:

- Housing association properties were the warmest and private rented properties the coldest
- There was a 2°C difference between the homes in the highest energy efficiency quartile and those in the lowest
- Homes were colder if more than 75% of their income comes from benefits[16]

Evidence from the government's own domestic energy efficiency programme, Warm Front, suggests that energy efficiency improvements can raise household temperatures by almost 3°C.[17]

Damp and mould

Mould growth is less common in homes which have better insulation, good ventilation and air circulation and good heating not using unflued appliances. Mould growth may have detrimental psychological effects, resulting from the depression and stress associated with the constant sight and smell of mould and the difficulty in getting rid of it. Dust mites flourish in homes with high humidity and these contribute to allergen levels. Growing evidence suggests that house dust mites can cause not only asthma but also eczema.[18 19]

Outdoor exposure

Exposure to cold outdoor temperatures is also important. A strong correlation has been found between areas with high winter mortality and a low proportion of the population wearing hats and coats.[20] Indications from Russia are that the population there also protect themselves through increased physical activity as temperatures fall, with no increase in cold related mortality until temperatures fall below 0°C, as opposed to 18°C in Western Europe.[21]

Influenza

Influenza can be very serious for certain groups of people. People who are over 65 years old, or who have a long-term chronic medical condition, such as asthma or diabetes are more vulnerable to the effects of influenza which can lead to more serious illnesses such as bronchitis and pneumonia, or can make existing conditions worse. Relatively few deaths are attributed to influenza itself however, in the worst cases, seasonal influenza can result in an admission to hospital, or even death.

In 2008/09, a recent cold winter, influenza activity started early and reached moderate levels, but did not reach the epidemic levels seen in the winter of 1999/2000.[22]

Falls

Falls are the most serious and frequent home accident amongst older people as finger strength and dexterity deteriorate as temperatures drop.[23] They are a major reason for admission to a hospital or a residential care setting, even when no serious injury has occurred.[24 25] Around 30% of over 65s living in the community will fall each year (amounting to just over 5,000 in Islington every year) with this rate doubling in nursing homes.[26] Over 96% of hip fractures are fall related and around 20% of hip fracture patients die within a year as a result of their fracture and 50% lose the ability to live independently.[27]

Mental health

A study conducted in Tower Hamlets found significant contributions to depression from cold and damp homes.[28] Another survey of five cities indicated that people living in cold homes were likely to suffer from anxiety and depression. Distress was often linked to a declared inability to control the heating system and afford their fuel bills.[29] After homes were made warmer and more energy efficient, a further study found that prevalence of anxiety and depression was halved.[30]

Air quality

Higher temperatures can also worsen air quality, exacerbating respiratory problems and the conditions of those with heart disease. Poor air quality particularly affects deprived urban areas such as Islington. The Environment Agency has reviewed evidence which suggests that people in the most deprived 10% of areas in England experience the worst air quality, and 41% higher concentrations of nitrogen dioxide from transport and industry than the average.[31]

Changes in weather can have dramatic effects on ambient air quality. Sunshine and high temperatures react with nitrogen oxide in the atmosphere and can create ground level ozone which is particularly bad for health. Symptoms can include coughing, wheezing, shortness of breath, long term effects include cardiovascular disease (CVD) and chronic obstructive pulmonary disease (COPD). Excess exposure to ozone and particulates were recorded in all regions in England during the August 2003 heatwave, most notably in London and the South East. Of the excess deaths recorded during the heatwave, 21-38% could be attributed to these pollutants.[32]

Seasonal health and children and young people

Cold homes can have a significant impact on child health. Damp conditions are linked to childhood illness: mould resulting from dampness can lead to the development of asthma and this may stay with such children for life, even when the child moves into a warmer, more energy efficient home.[33] Early intervention can lead to a lifetime of benefit and reduced health costs.

There is some evidence that children from colder homes are more likely to be admitted to hospital in early childhood and are also more likely to be underweight.[34] In later childhood a New Zealand study found that children whose homes had been made more energy efficient had 15% fewer days off school, perhaps due to fewer respiratory ailments.[35] This can affect educational attainment and therefore life chances. A large scale English study found that children from cold homes were more than twice as likely to have respiratory problems and those living in damp homes were almost three times as likely to have respiratory problems.[36]

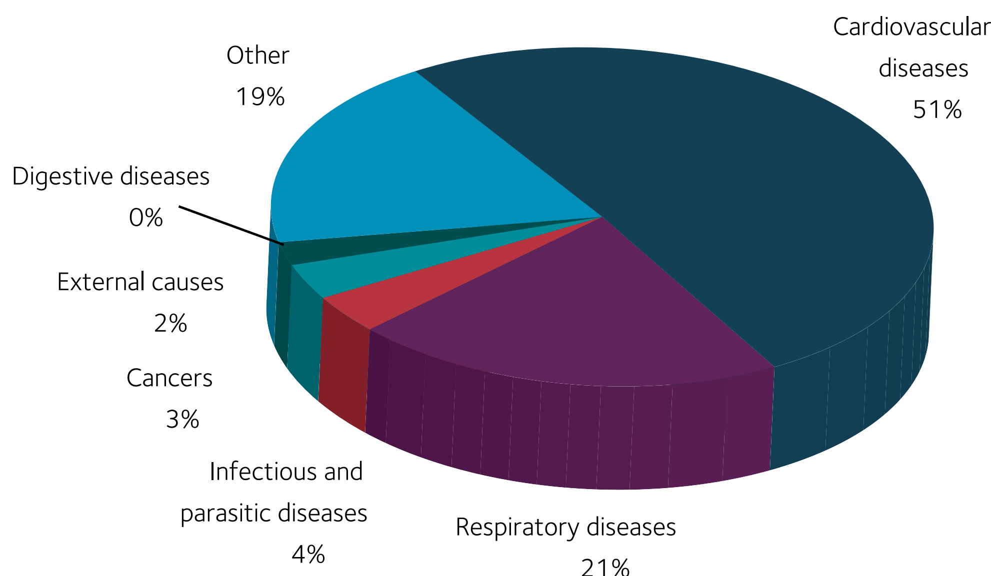
The same English study found that adolescents living in cold homes had a seven times greater multiple mental health risk, thought to be due to the lack of personal space in poorly-heated homes where the family cluster in one room.

Children's susceptibility to high temperatures varies; those who are overweight or who are taking medication may be at increased risk of adverse effects. Children under four years of age are also at increased risk. Some children with disabilities or complex health needs may be more susceptible to temperature extremes.

The Islington picture

There was no difference in the excess winter mortality (EWM) index for Islington compared to London and England (2006-2008) **(App. 1: Fig. 1)**. London and England experience year-on-year variation in excess winter mortality, but numbers of excess winter deaths at borough level are typically too small to observe any statistically significant differences in individual winters so figures are taken as an average of the five-year picture.

The elderly are at higher risk of winter mortality. In Islington between August 2003 and July 2008 the number of deaths was 23% higher among those aged 75 years and over in the winter months compared to the summer and 77% (43 EWDs per year) of EWDs occurred among this age group. There were differences in excess winter mortality by gender and age group over the period. For women, 88% (29 EWDs per year) of excess winter mortality occurred in those aged 75 years and over, and this age group was at significantly higher risk of having excess winter mortality (+28%).



◀Fig. 1: Excess winter mortality by cause of death, Islington, August 2003 to July 2008

Source: ONS, 2009

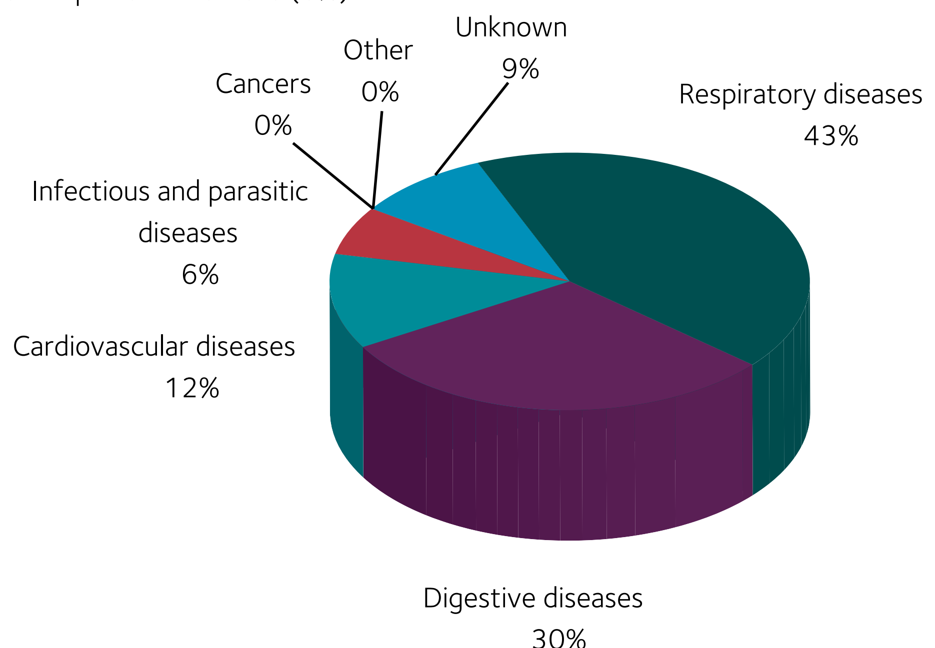
On the other hand, Islington men aged 85 years and over had a significantly higher risk of excess winter deaths (+28%), but a reasonable number of winter deaths are occurring across all male age groups, reflecting the high mortality rate among men from middle age onwards in Islington. Of the 23 EWDs among men each year, 35% (eight EWDs per year) were among those aged 85 years and above; 26% (six EWDs per year) in those aged 75-84 years; and 39% (nine EWDs per year) in those aged less than 75 years **(App. 1: Fig.2-3)**.

Emergency hospital admissions also increase in the winter months. When broken down by age, there were 374 excess winter emergency hospital admissions in Islington during 2008/09. This is 7% more compared to the summer. The main diagnosis contributing to excess winter morbidity include: respiratory disease (43%), digestive disease (30%), cardiovascular disease (12%) and infectious and parasitic diseases (6%) **(Fig. 2)**.

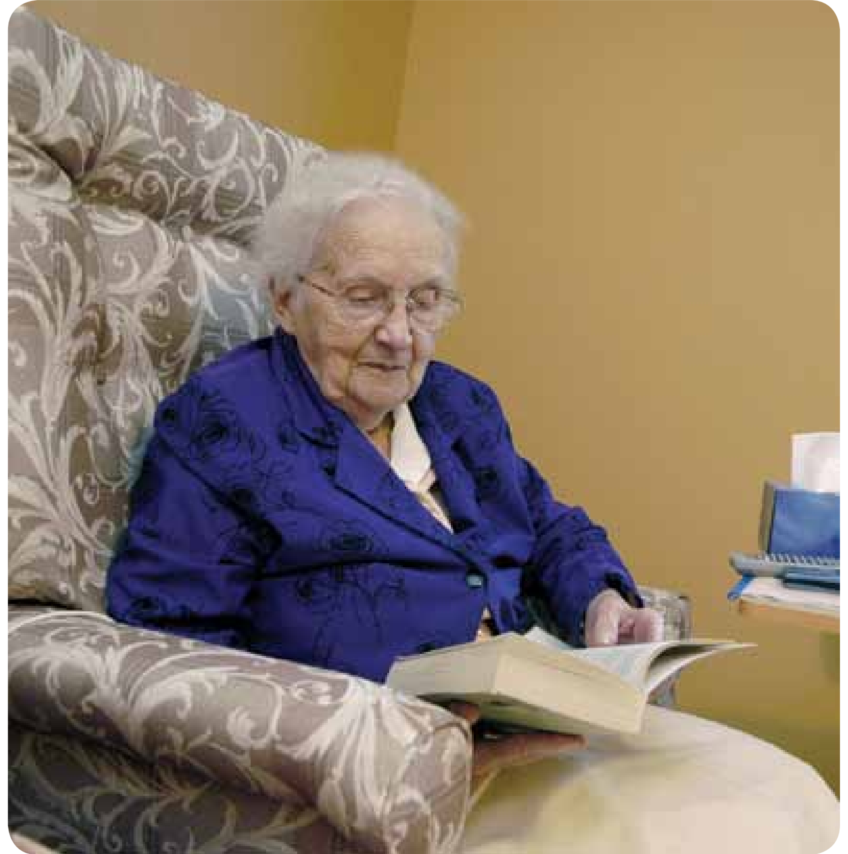
The elderly and the young are at higher risk of excess winter emergency hospital admissions. Three quarters of excess winter emergency hospital admissions occurred in the over 75 years (53%) and 0-4 years (21%) years age groups, 18% and 31% higher, respectively, compared to summer morbidity for these groups **(Fig. 3)**.

In 2009/10, there was a 71.7% uptake of seasonal influenza vaccination amongst those aged over 65 in Islington. This met the national target of 70% however there were almost 5,500 in this age group who were not vaccinated. Islington has high rates of conditions such as influenza and pneumonia, with a three times higher than expected rate of emergency admissions for these conditions.

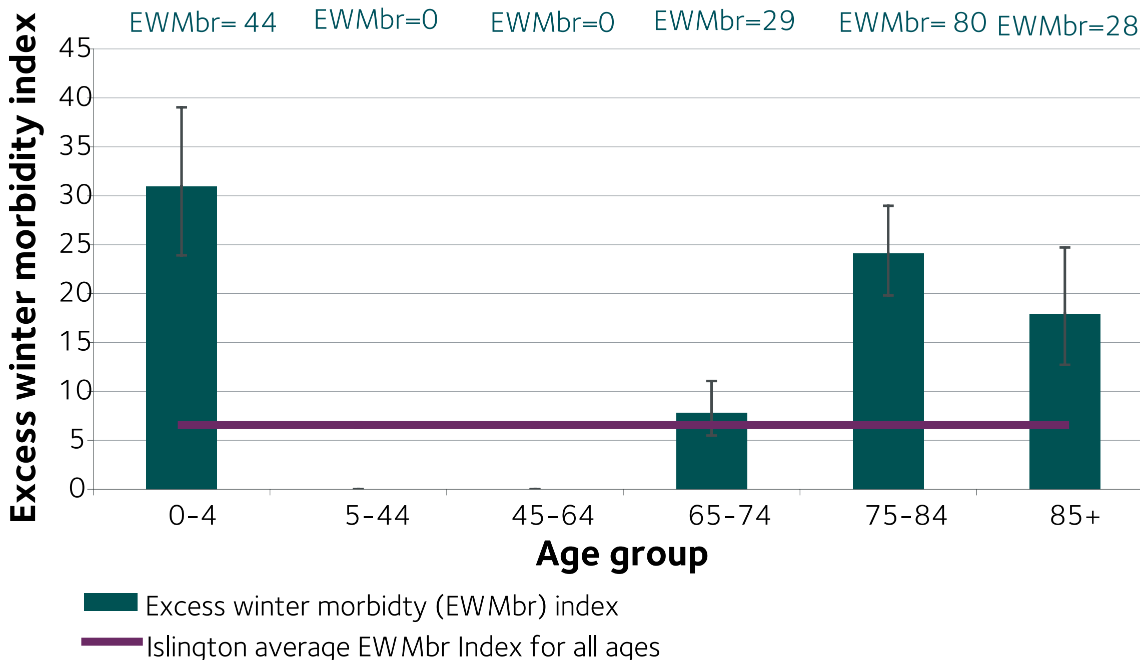
▶Fig. 2: Emergency hospital admissions, excess winter morbidity by diagnosis, persons, Islington residents, 2008/09



Source: Hospital Episodes Statistics (HES) extract, 2008/09. Copyright © 2010: The NHS Information Centre for Health and Social Care. All rights reserved.



Although there is a clear link between heat and excess mortality and morbidity, a heat wave of similar magnitude and duration as the one experienced in August 2003 would only have a small impact on mortality in Islington. Based on current death rates, 12 excess deaths over a ten day heat wave period would be expected, mainly in the elderly (75 years and above). Most of the excess heat wave deaths will be due to displacement (bringing forward of deaths in those who are already ill), with only four excess deaths expected overall in the heat wave month. The estimated effect on excess summer emergency admissions to hospital is similarly small, with an additional nine admissions of which five would be among over-75s.



◀Fig. 3: Emergency hospital admissions, excess winter morbidity index by age group, persons, Islington residents, 2008/09

NB: There are five excess winter emergency hospital admissions with age unknown

Source: Hospital Episodes Statistics (HES) extract, 2008/09. Copyright © 2010: The NHS Information Centre for Health and Social Care. All rights reserved.

The national context

The UK priority has been largely focussed on tackling excess winter deaths through tackling fuel poverty and raising incomes (see Chapters 3 and 4). The Department of Health has also worked with Primary Care Trusts to send out information on energy efficiency grants to those eligible for flu jabs and in 'Healthy Start' mailings. Every year they produce a 'Keep Warm Keep Well' booklet, with versions aimed at older people, people with disabilities and long-term health conditions, and families with children.

The Department of Health produce an annual Heatwave Plan, outlining what needs to be done by health and social care services and other bodies to raise awareness of the risks relating to severe hot weather and what preparations both individuals and organisations should make to reduce those risks. The plan also explains the responsibilities at national and local level for alerting people once a heatwave has been forecast, and for advising them how to respond during a heatwave. A Heat-Health Watch system operates from 1st June to 15th September, based on Met Office forecasts, which triggers levels of response from the Department of Health and other bodies. The threshold temperatures set for London are 32°C in the daytime and 18°C at night. These temperatures could have a significant impact on health if reached on at least two consecutive days and the intervening night.

The Health Inequalities National Support Team has identified Seasonal Excess Deaths as an area that requires systematic action across partnerships as part of its priority action list (PAL) to help meet the 2010 life expectancy target.

Current service provision

Much of Islington's current dedicated work to reduce seasonal excess mortality and morbidity is focussed on tackling fuel poverty. A number of front-line health and social care professionals have been trained in the identification of fuel poverty and the affordable warmth referral process. Nevertheless, work on respiratory conditions, influenza vaccination, falls prevention and similar areas is not fully integrated with work to warm homes and maximise incomes and this must change.

Falls prevention services in Islington are provided by a multidisciplinary team, the Reach Intermediate Care Team. Referrals can be made by anyone and the most vulnerable clients are prioritised. Falls assessments may lead to clients being signposted to a specialist, one to one interventions being arranged or referrals made to a falls group. For those with more moderate falls risk, the Community Falls Exercise Group provides support. The Reach Team works with Falls Prevention Services at the UCLH and Whittington Hospital, provides training on assessment and referral for key workers and runs awareness events, slipper exchanges and walking aid checks.

Telecare provision in Islington consists of a pendant and one or more peripherals and such peripherals perform a variety of functions. These include items such as a temperature sensor that will notify a mobile warden team if temperatures fall too low in the homes of vulnerable residents. An alarm pendant or an automatic waist worn sensor will allow them to call for help if they suffer a fall, a medication prompt will help users remember when to take medication, and sensors will send an alert if a resident with an ongoing illness has not got out of bed by a certain time.

For details on Islington's affordable warmth and income maximisation work please see Chapters 3 and 4 respectively.

Islington has a Heatwave Plan, led by NHS Islington, which outlines local responsibilities in the event of a period of high temperatures. The Heat-Health Watch system is used to trigger levels of response from appropriate bodies and advice and information is distributed to high-risk groups. Hospitals and care, residential and nursing homes are encouraged to provide cool areas and monitor indoor temperatures to reduce the risk of heat-related illness and death in vulnerable populations.

The Islington Climate Change Adaptation Strategy takes the longer term view, with an action plan prioritising actions under social and environmental themes. NHS Islington works with Islington Council to adapt to and reduce the impact of climate change, with adaptations to the built environment at the core.

The airTEXT service is available to all London residents free of charge, providing information on predicted levels of pollution so that individuals may take appropriate action in order to reduce the risk of ill-health effects.

Opportunities for development

All staff dealing with vulnerable residents should be familiar with the seasonal health and affordable warmth agenda and how it relates directly to their work.

The groups most at risk of suffering from cold temperatures can be readily established. The identity of such individuals can best be identified from key workers' caseloads and they should be offered a range of interventions designed to reduce their risk.

Annual medication reviews and medicines utilisation reviews are important in optimising the care of those most vulnerable to health deteriorations on a seasonal basis. The correct medication, with no barriers to the patient taking it, is key to preventing deterioration.

Improving the uptake of seasonal flu vaccination will reduce exacerbation of respiratory conditions and associated hospital admissions, with a potential impact on reducing respiratory-related winter deaths. There is a need to better understand why certain vulnerable elderly do not take advantage of the vaccination programme. In 2010/11, NHS Islington will be working with local GP practices who are currently not meeting the national uptake target to develop plans to increase uptake rates. The Islington Flu Strategy Group will take this work forward.

Summer mortality does not tend to be significant out with heatwaves however as such episodes become more frequent it is essential that we continue to monitor the impact of heatwaves on mortality and morbidity.

Many of the groups at risk from cold temperatures will also be at risk of higher temperatures and distinct interventions should be considered with excess heat in mind.

The airTEXT service could be expanded to provide hot and cold weather alerts, as currently operated in Wakefield. Other methods of dissemination could be used to communicate days of high pollution risk, such as media and display boards.

There are a number of building management measures that could be put in place to reduce temperatures at sites of concentration of vulnerable people e.g. care homes and day centres and these could be promoted.

Affordable warmth

Background

Inefficiently heated housing has significant impacts on health and wellbeing. Affordable warmth is generally being able to keep your home adequately warm and when households are unable to do this they are described as being in fuel poverty.

Adequate warmth is defined by the World Health Organisation. Their recommended temperature for living rooms is 21 °C and 18 °C in other rooms. If households have to spend more than 10% of their income to reach this level of warmth whilst providing hot water, lighting and cooling they are considered to be fuel poor. The Mayor of London's definition of fuel poverty extends to those who spend more than 10% of their income after housing costs.[39] This recognises the significantly higher cost of housing in London and is the definition that Islington Council subscribes to.

Fuel poverty affects some groups more than others:

- pensioners
- those who are disabled or have long-term illnesses
- the unemployed
- households with young children
- private tenants
- those living in older properties

The first four groups above are all more likely to spend long periods at home. Those experiencing fuel poverty are also unlikely to have the money to invest in energy efficiency measures or improved heating systems.

The Islington picture

The rate of fuel poverty in private housing in the borough stood at 22% in 2008. This is likely to be similar in the social housing sector as lower incomes cancel out typically higher levels of energy efficiency. With fuel price rises since 2008 the percentage is also likely to be higher in 2010. The household types within this most vulnerable to fuel poverty are single pensioners (53%) and those with support needs (45%). Those in the private rented sector are the most vulnerable of tenures, with 31% of that group in fuel poverty.[40]

▶Fig. 4: (opposite page) Fuel poverty map.

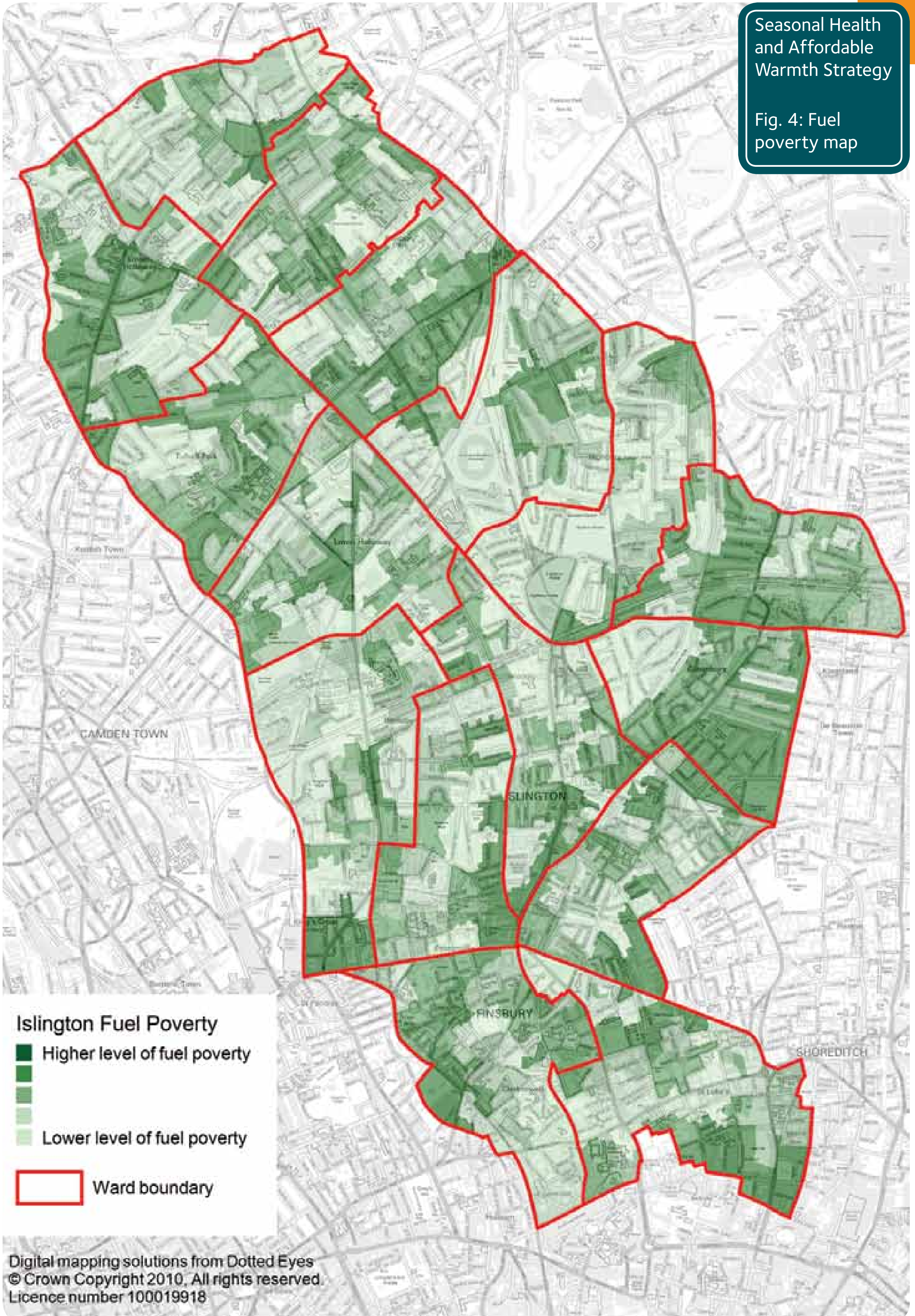


Fig. 4: Fuel poverty map

National context

The Warm Homes and Energy Conservation Act 2000, supplemented by the UK Fuel Poverty Strategy, requires the government to eradicate fuel poverty for all vulnerable households in England by 2010 and for all households in England by 2016. This legislation was passed in an era of falling fuel prices and at least the first aim is now unlikely to be met.

In 1991 the Government introduced the scheme that is now Warm Front to provide grants to householders in receipt of certain means-tested or disability benefits to make energy efficiency improvements. Along with the Winter Fuel Payment (see *Chapter 5*) this remains the main plank of central government's fuel poverty alleviation programme. The Energy Efficiency Commitment (EEC), now the Carbon Emissions Reduction Target (CERT) was introduced in 2002, requiring energy suppliers to fund energy efficiency improvements. A certain amount (currently 40%) must be spent on vulnerable households, defined here as those with members aged over 70 or who are on means-tested or disability benefits.

Vulnerable households (defined as those who are: of pensionable age; disabled: chronically sick; deaf or hearing impaired or blind or visually impaired) are entitled to join their energy supplier's Priority Services Register. This provides assistance such as meter readings if they are unable to read the meter themselves, special assistance in the event of interruption of supply and adaptors to allow them use appliances.

The Housing Act 2004 gave local authorities the powers to enforce actions against landlords under the Housing Health and Safety Rating System. There are seven relevant hazards for the purposes of this strategy: excess cold; damp and mould growth; excess heat; falls associated with baths etc; falling on level surfaces etc; falling on stairs etc; and falling between levels.

From their respective lows in 2001 and 2003 domestic gas and electricity prices had by 2009 risen 99% and 61% in real terms. Whilst there have been slight drops recently, domestic energy prices are still higher in real terms than they have been for at least two decades[41]. The energy regulator Ofgem predicts that prices will rise by a further 25% by 2020, although there may be spikes of up to 60%[42].

Current service provision

Islington Council has a number of schemes that go above and beyond national provision. The main private sector grant scheme, Safe & Warm, has been running since 2001, providing fully-funded energy efficiency and security measures to vulnerable owner-occupiers and leaseholders. The grant is provided by Residential Environmental Health, who are active in trying to identify and action the least energy efficient homes in the private rented sector. They are also committed to tackling poor private rented housing through the Housing Health and Safety Rating System.

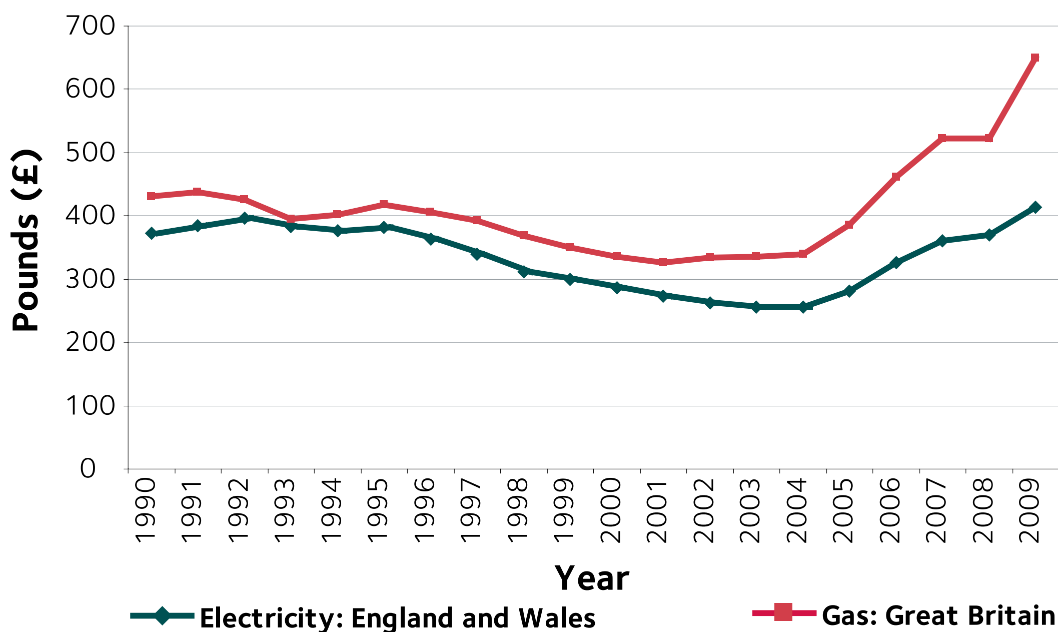


Fig. 5: Average annual bills in real terms by fuel type, all households, 1990 to 2009

Islington has also provided grants through the Climate Change Fund for households on means-tested or disability benefits to install solar panels and solid wall insulation. In addition to free electricity or hot water a number of these households will receive guaranteed payments of potentially several hundred pounds a year through the Feed-in Tariff or Renewable Heat Incentive. In 2010 the Climate Change Fund will be funding the installation of solid wall insulation in 100 council-owned Victorian properties.

For social housing we have invested significantly in improving the energy efficiency of our own stock. Through funding from the Homes and Communities Agency awarded in 2009 we are able to insulate the cavity walls of over 7,000 council units and through the Decent Homes Programme a considerable number of heating systems have been renewed and replaced with more efficient ones. In the last two quarters of 2009/10 alone, over 1,000 older boilers were replaced. Between 2004 and 2010 the Decent Homes Programme raised the average energy efficiency rating from 61 to 70 (SAP 2001), a significant increase. We have a large number of hard-to-treat high-rise or older properties and for these the Warming by Degrees scheme was devised and carried out in early 2010, installing a package of smaller energy efficiency measures in 1,250 council units. Other social housing providers are improving the energy efficiency of their stock.

Islington Council is working to deliver a number of Combined Heat and Power (CHP) networks across the borough. Large council estates present some of the best opportunities for such developments and will deliver heat and power more efficiently and at lower cost to residents, helping to alleviate fuel poverty.

For residents of all housing tenures Islington has invested in the Islington Energy Doctor Partnership. Energy Doctor in the Community, operated by the Green Living Centre, provides an intensive outreach service providing advice in community locations and presentations to community groups. Energy Doctor in the Home, operated by Groundwork, is aimed at vulnerable residents and provides a home visit where advice is given on how to save energy in their home, how to use their heating system most efficiently and the Energy Doctor also fits smaller energy saving measures such as draught proofing and reflective radiator panels.

At the heart of Islington's affordable warmth service is the Green Living Advice Team. Islington Council have provided local energy advice services to residents for over 20 years and the team provides a drop-in facility, freephone number and outreach service. Qualified energy advisors referred over 1,000 residents for the various affordable warmth schemes in 2009/10 in addition to providing advice on behavioural measures, special gas and electricity tariffs for vulnerable households, and how to deal with fuel debt. The House Warming Islington referral programme processes referrals from a range of partners in front-line service provision.

Opportunities for development

Whilst the referral programme has been successful in working with some groups there has been a limited number of referrals from the health and social care sector and a systematic referral mechanism would significantly increase referrals from these sectors.

The Islington Private Sector Stock Condition Survey 2008 revealed that fuel poverty was particularly high amongst private tenants and single pensioners. These groups require particular attention.

Progress is beginning to be made with the Cavity Wall and Solid Wall Insulation Programmes addressing hard to treat properties however Islington has a large number of older or otherwise challenging dwellings and further progress should be made with these, particularly where occupied by vulnerable residents.

A recent area-based project that took place in Bunhill and Clerkenwell wards demonstrated the effectiveness of such an approach. Contractors going door-to-door were able to secure a high take-up rate amongst residents for smaller energy saving measures and in-home advice.

Since social housing makes up around 45% of the borough's housing stock social landlords can have a huge impact on fuel poverty. Joint funding applications with Homes for Islington and other social housing providers could systematically address particular areas, be attractive to energy companies and produce economies of scale. The financial benefits to council tenants from feed-in tariffs and the renewable heat incentive could also be explored further. Requiring new developments to offset CO_2 emissions associated with building would create a fund available to improve energy efficiency in Islington homes, including social housing.

Deprivation and debt

Background

Addressing fuel poverty is a central aim of this strategy and alongside energy inefficient housing the main cause of fuel poverty is income poverty. Measures to maximise income must be taken alongside the interventions already listed, particularly at a time when welfare benefits are due to fall in real terms.

Prepayment meters

Prepayment meters are often used by households on low income as a way to budget or as a means of paying off debt. Such households face paying a poverty premium as prepayment tariffs are typically higher than standard tariffs. There are indications that the number of people using prepayment meters is increasing, and that this is due to an increased number of debt repayment arrangements.[43]

Recent evidence suggests that around half of prepayment meter users are self-rationing their energy use or other outgoings and around one sixth of customers self-disconnect, with the poorest households self-disconnecting for longest. Of those self-disconnecting two-thirds reported feeling cold and one in four felt that existing health conditions were exacerbated. Nutrition suffers as two-fifths of this group struggled to prepare hot, nutritious meals and half agreed that keeping the meter topped-up and connected was a major concern of their daily life, with one in five reporting feelings of depression or despondency.[44]

Fuel debt

There is evidence to indicate that fuel debt is increasing. From December 2008 to December 2009 some energy companies saw their numbers of customers in debt go up by as much as 45%. In this same period the average level of debt increased by 20% and the number of people with debts over £600 increased by 18%.[45] The rise in fuel debt is illustrated in **Fig. 6 (on the following page)**.

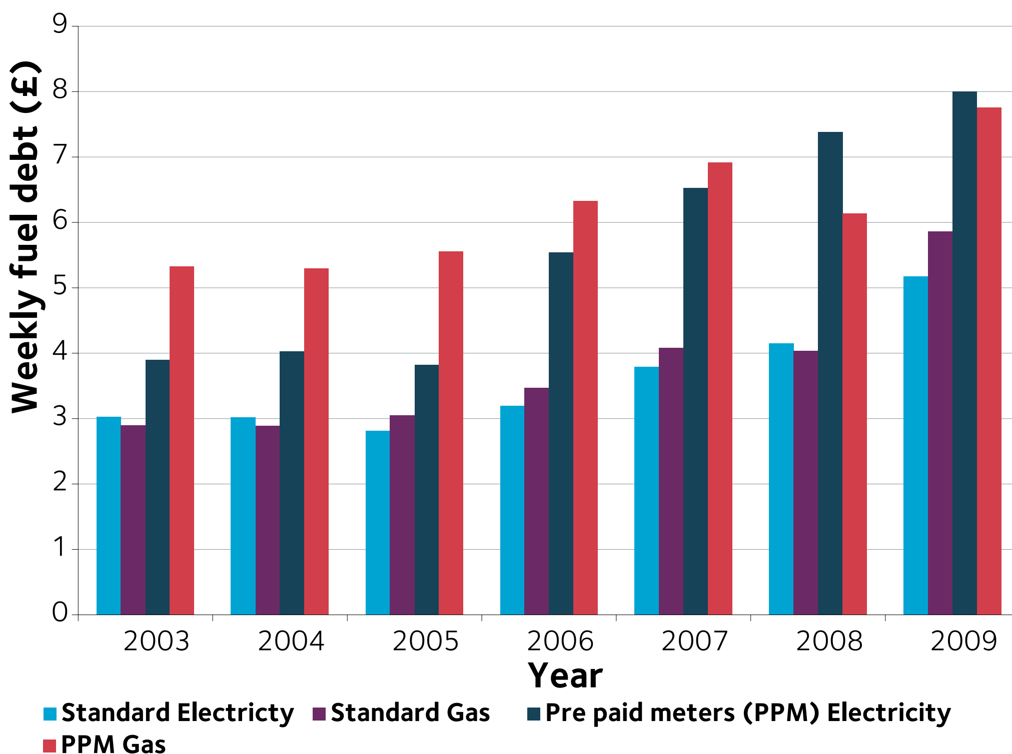
In the same period as above the Citizens Advice Bureaux in England and Wales saw fuel debt enquiries increase by a third, the largest increase for any one area of debt and the latest of several significant increases in enquiries in this area.[46] Figures from the CAB for 2008 show that one in six of all clients coming to them were in fuel debt and that these clients were spending 29% per month more on fuel than the average. Only 12% of debt clients in fuel poverty (43% of debt clients) had an income from a full time wage; 35% were disabled or had a long-term illness; and 31% were lone parents.[47]

The picture in Islington

A small scale survey carried out on one Islington Council estate indicated that 40% of households used prepayment meters for at least one fuel.[48] Assuming that this figure is replicated across all non-communally heated estates this indicates a significant proportion of Islington residents using prepayment meters. Government figures indicate that the number of London households using prepayment meters is about 50% higher than the average for Great Britain.[49] This may be due to a combination of high levels of deprivation and a large transient private rented sector.

Data from the Islington Law Centre suggests that 75% to 80% of clients in multiple debts have fuel debt issues.

Deprivation is particularly acute in Islington for many of the groups identified as vulnerable to seasonal ill-health. Of older people, 33% live in poverty.[50] Amongst children and young people the figure is 45%, the second highest rate in the country.[51] Disabled people typically have lower incomes than non-disabled people.[52]



◀Fig 6: Average weekly fuel debt by payment method and fuel type, Great Britain, 2003 to 2009

National context

The government provides a number of payments to particular groups aimed at alleviating fuel costs. The main one is the Winter Fuel Payment, paid annually to everyone over 60 without means-testing. Householders between 60 and 79 received £250 in 2009/10, whilst householders aged 80 or above received £400. The Cold Weather Payment is payable to households in receipt of certain benefits when the average temperature in their postcode area is recorded as, or forecast to be, below 0°C for seven consecutive days between November and March. The payment in 2009/10 was £25 and was triggered in Islington postcodes on one occasion that winter.

In June 2010 the Energy Rebate Scheme was introduced as a one-off and will see people over 70 in receipt of guaranteed credit element of Pension Credit receive an £80 automatic rebate off their electricity bill. This is a pilot and may be continued in future years.

Each of the main energy suppliers offers a social tariff to vulnerable customers, which customers have to actively apply for and which are not widely publicised. The exact offer and eligibility criteria vary with the supplier however they typically include a discounted tariff or one equivalent to the lowest tariff that company offers. The Energy Rebate Scheme is a pilot for an intended mandatory uniform social tariff.

Some of the main energy suppliers operate their own trust funds, allowing their customers to apply for grants to pay off fuel debt.

Those on certain means-tested benefits in debt with their energy supplier may opt to take advantage of the Fuel Direct Scheme, where money to cover debt and current fuel use is taken directly from benefits each week.

Current service provision

Various agencies in the borough are equipped to maximise the income of poorer households and a number of agencies are also able to assist with fuel debt and bill payment issues.

The Islington Council Welfare Rights and Joint Take Up Teams are able to assist with income maximisation and benefit applications and the latter can visit vulnerable residents in their own homes to do so.

Various advice agencies across the borough, such as the Islington Law Centre and Islington People's Rights, are able to assist residents in debt, including fuel debt, and the Green Living Centre assists a number of residents each year to apply for energy companies' trust funds or negotiate debt repayment arrangements.

In 2008, the Cripplegate Foundation commissioned a report, Invisible Islington, which explored the factors of ill, health, debt, isolation and lack of opportunity that make's Islington's poverty so entrenched. As a result of the group's recommendations the Islington Debt Coalition was established, drawing together members from the statutory, private and voluntary sectors to tackle the problem as part of a broader anti-poverty narrative. The Debt Coalition has been considering fuel debt as part of its work plan.

In 2010 the new Islington Council administration established the Islington Fairness Commission to focus on tackling poverty and inequality in the borough, bringing together a range of partners to explore and address the issue. The commission is expected to consider a number of issues relevant to this strategy.

Opportunities for development

It is vital that income maximisation and debt interventions are linked to the wider seasonal health and affordable warmth strategy. Vulnerable people enduring periods without heating are being put at considerable health risk. Advice agencies confronted with residents experiencing problems with fuel bills should consider the wider implications. The Islington Debt Coalition will be considering this in 2010.

What we will do next

In delivering this strategy there are four overall objectives:

1. Ensure that all relevant partners are represented and engaged.
2. Work to deliver the recommendations of the Health Inequalities National Support Team.
3. Continue to deliver our work on affordable warmth.
4. Develop our knowledge base on seasonal morbidity and mortality.

There will be an Action Plan based on the recommendations below:

1. Compile a list of key workers working with vulnerable residents.
2. Establish criteria for prioritisation of residents by risk factor.
3. Compile a list of interventions required to systematically reduce risk.
4. Develop a systematic referral system.
5. Ensure that all vulnerable residents are identified and systematically offered interventions.
6. Produce data on excess seasonal mortality and morbidity.
7. Investigate seasonal child health and work with Children's Services to address.
8. Promote both behavioural and building management measures to reduce the impact of extreme temperatures on vulnerable residents.
9. Target resources at the most vulnerable, using area-based programmes and local housing provider partnerships where appropriate.
10. Ensure that residents are aware of assistance schemes available from fuel suppliers.
11. Co-ordinate the approach to fuel debt across advice agencies in the borough.

Glossary

Adequate warmth – Defined by the World Health Organisation as temperatures of 21 °C in living rooms and 18 °C in other rooms. Such temperatures are essential to maintain good health.

Affordable warmth – Where a household spends less than 10% of its income on maintaining adequate warmth (see *Fuel poverty*).

Cardiovascular disease (CVD) – The class of diseases that involve the heart or blood vessels. Includes conditions such as coronary heart disease and stroke.

Chronic obstructive pulmonary disease (COPD) – A number of conditions such as chronic bronchitis and emphysema.

Excess winter morbidity (EWMbr) – Defined in this strategy as the number of additional emergency hospital admissions taking place in *winter* compared to the preceding April to November.

Excess winter morbidity index (EWMbrI) – Defined in this strategy as the number of emergency hospital admissions in *winter* divided by the average non-winter emergency hospital admissions then multiplied by 100. This is expressed as a percentage.

Excess winter mortality/deaths (EWM/EWDs) – The difference between the number of deaths which occurred in *winter* and the average number of deaths during the preceding four months (August to November) and the following four months (April to July).

Excess winter mortality index (EWMI) – The number of *winter* deaths divided by the average number of non-winter deaths then multiplied by 100. This is expressed as a percentage.

Fuel poverty – Where a household needs to spend 10% or more of its income on maintaining adequate warmth. The Mayor of London defines it as where a household needs to spend more than 10% of income after housing costs.

Particulates – Tiny particles of solid or liquid matter suspended in air. May also be known as particulate matter or PM. The largest source in London is road traffic.

Prepayment meters – A device allowing energy users to pay for consumption in advance. Credit is usually loaded to a key, token or card which is then fed to the meter.

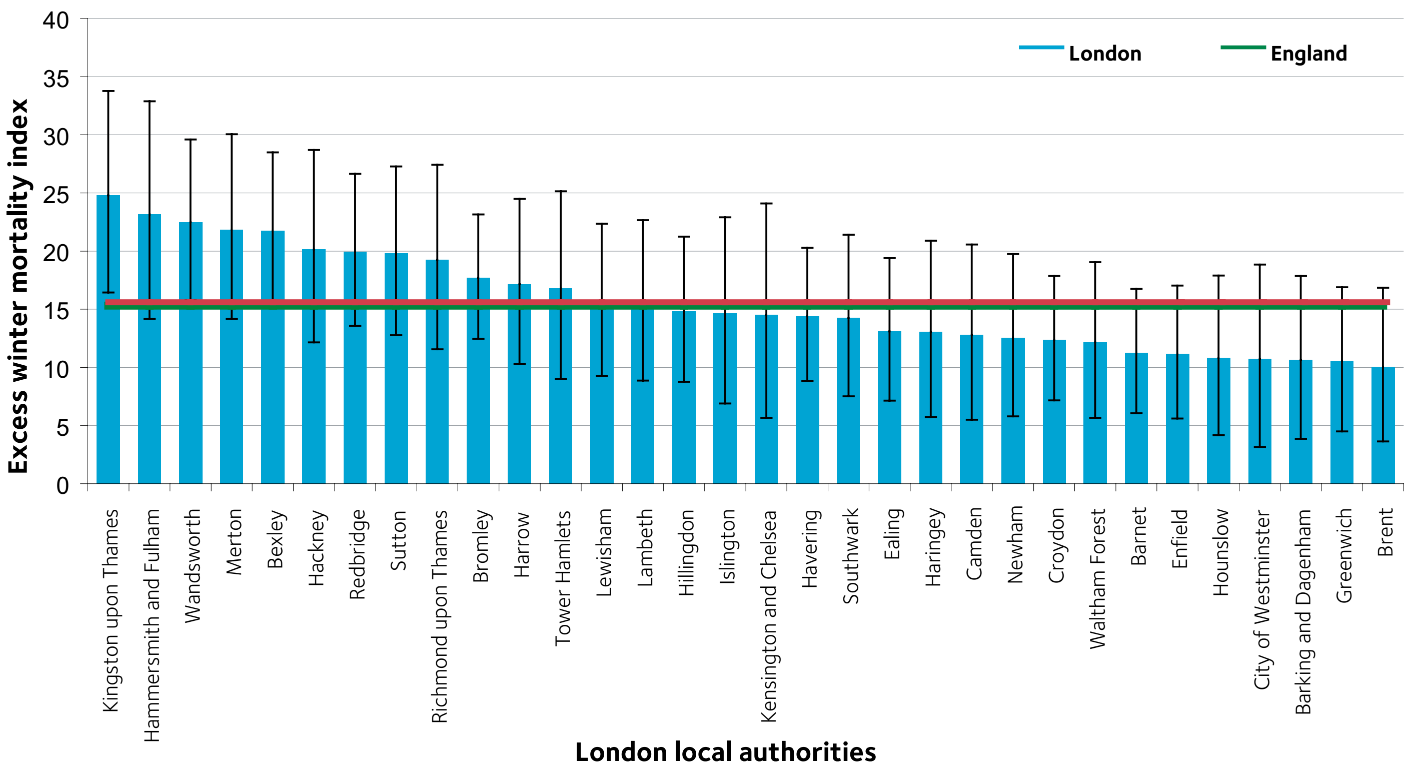
Seasonal health – A state of mental or physical wellbeing as affected by extremes of temperature.

Urban heat island – An urban area which is significantly warmer than its surrounding rural areas. The temperature difference is usually larger at night than during the day.

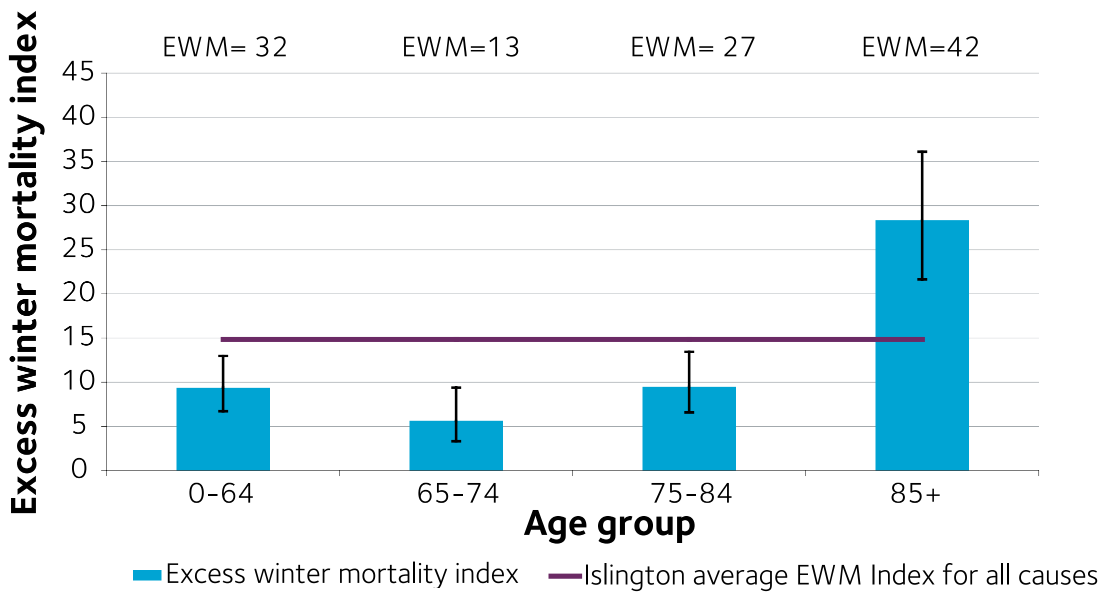
Winter – Defined for statistical purposes as December to March inclusive.

Appendix 1:
Winter mortality and morbidity in Islington

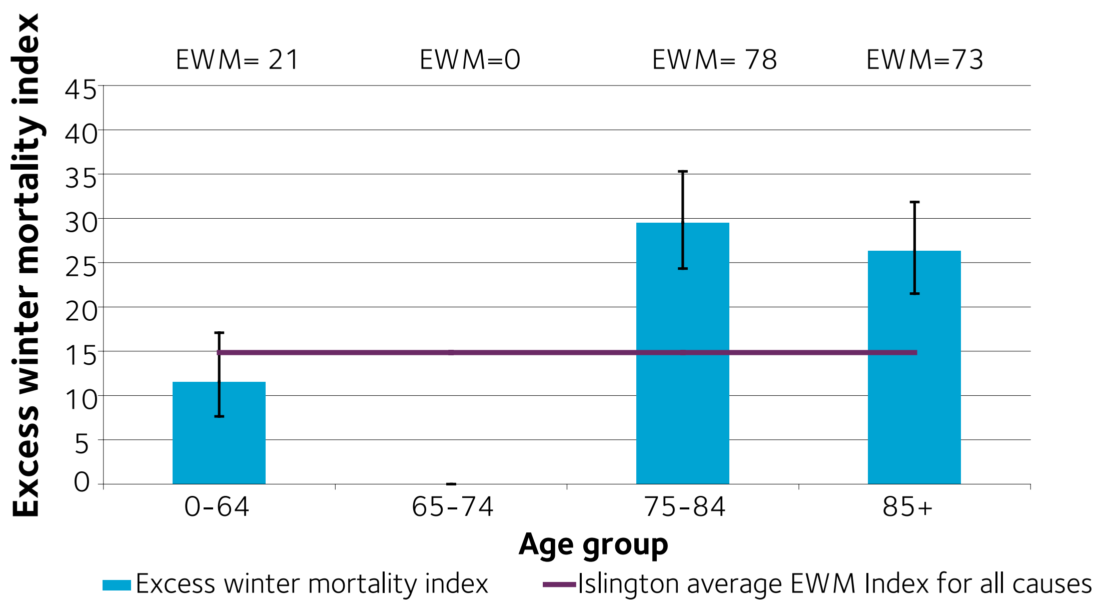
▼Fig. 1: Excess winter mortality index, London local authorities compared to London and England averages, 2006-08



Source: APHO, 2010



◀Fig 2: Excess winter mortality index by age group, men, Islington residents, August 2003 to July 2008



EWM = Excess winter mortality

◀Fig 3: Excess winter mortality index by age group, women, Islington residents, August 2003 to July 2008

Source: ONS 2009

Appendix 2:
National, regional and local strategies

National

UK Fuel Poverty Strategy (2001)

Housing Act 2004

NHS Plan White Paper 2000

National Service Frameworks

Public Health White Paper 2004 "Choosing Health"

Public Health Delivery Plan 2005

Energy White Paper 2003

Energy White Paper 2007

Climate Change Act 2008

UK Low Carbon Transition Plan (2009)

Home Energy Management Strategy (2010)

Energy Act 2010

Heatwave Plan for England 2010

Regional

London Energy Strategy (2004)

London Fuel Poverty Action Plan (2008)

London Health Inequalities Strategy (2010)

London Climate Change Mitigation and Energy Strategy (2010)

London Climate Change Adaptation Strategy (2010)

London Housing Strategy (2010)

Sustainable Development Framework for London (2005)

The London Plan (2004)

London Air Quality Strategy (2010)

Local

Affordable Warmth Strategy (2009)

Closing the Gap: Tackling Health Inequalities in Islington 2010-2030

Islington's Sustainable Community Strategy (2007)

Islington Housing Strategy 2009-2014

Homes for Islington Sustainability Strategy 2009-2012

Islington falls and bone health strategy 2008-2010

Adapting to Climate Change: A Strategy for Islington 2009-2012

Private Sector Housing Strategy 2007-2010

Local Development Framework

Islington Sustainability and Action Plan 2010-12

Islington Heatwave Plan (2010)

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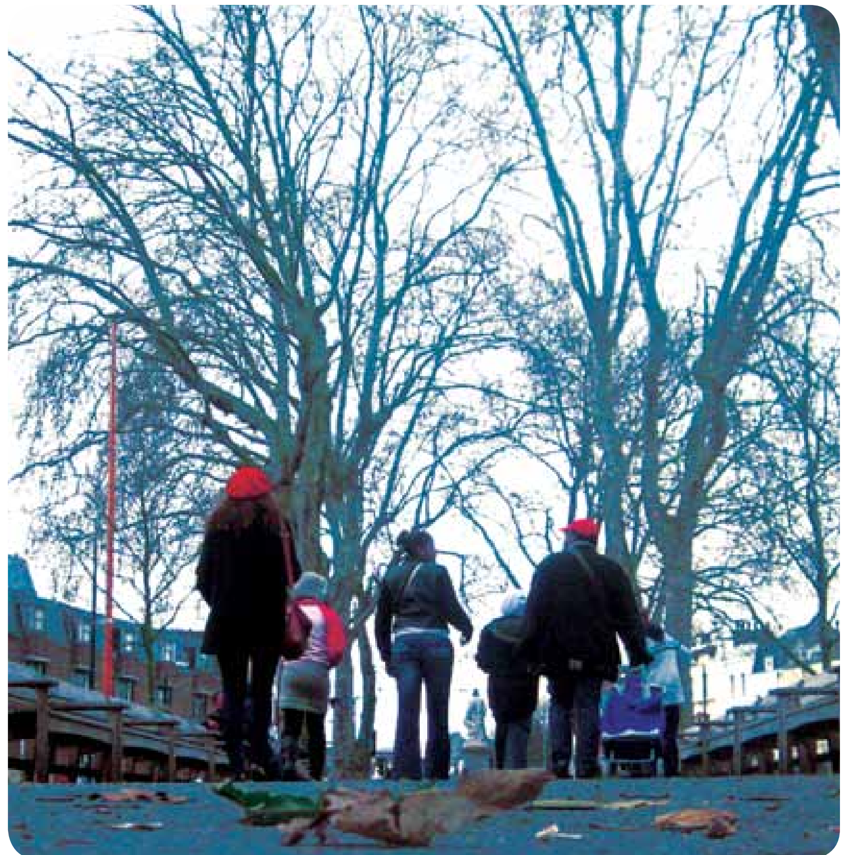

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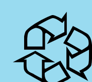

Printed on environmentally friendly paper.
Published December 2010.