

7.7 Excess seasonal mortality

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Seasonal Mortality is observed every year where people are more likely to die in conditions of extreme temperature. This is more prevalent amongst the elderly. In England, there is a larger increase in seasonal deaths in winter than in summer. Cold weather and being cold through living in a home with persistently low temperatures and lack of thermal comfort impacts on physical health and causes death from circulatory and lung diseases that would not have occurred in warmer temperatures and warmer homes.

Less mobile people on low incomes are particularly affected, with most deaths occurring in older people and in people with debilitating conditions. There is a significant link between those in Fuel Poverty and those at risk of excess winter deaths in particular. Although there has been national studies indicating that we have 11% of our residents in fuel poverty this does seem to be somewhat underestimating the depth of the situation. Recent assessments carried out on a sample of properties in the borough found that 38% of those visited were in Fuel Poverty. Although this is not an average across the borough it does mean that we do need to focus our effort on those in Fuel poverty which also suffer from illnesses exacerbated by the cold. In this borough we have a particularly high rate of chronic obstructive pulmonary disease (COPD) sufferers which will be impacted significantly.

There are also excess deaths that result from extreme weather events, either from freezing conditions (snow and ice causing falls, fractures and road traffic accidents) or from excess heat (heat waves causing overheating in the elderly or vulnerable, causing exhaustion, dehydration and confusion). These events are likely to increase in the future due to climate change and poor thermal comfort at home.

Excess winter mortality

The excess number of deaths that result from winter conditions is calculated as the average monthly deaths that occur between December and March subtract the average monthly number of deaths during the other months of the year. The elderly are more vulnerable than others during the winter; this seems to have a higher impact on Females year on year. Although excess winter mortality is associated with low temperatures, deaths are mainly not due to direct causes such as hypothermia but due to the impact on underlying conditions such as cerebrovascular disease, ischaemic heart disease and respiratory disease.

Excess winter mortality varies considerably from year to year and from place to place. Part of the variation between places is explained by the age distribution of the population; places that have a relatively large number of people over the age of 85 years who are particularly vulnerable to winter cold are more likely to see high numbers of people dying in winter. Over 43,900 died prematurely in England and Wales in 2014/15, this is the highest recorded figure since 1999/00¹. This

¹<http://www.ons.gov.uk/peoplepopulationandcommunity/birthsdeathsandmarriages/deaths/bulletins/excesswintermortalityinenglandandwales/201415provisionaland201314final> (Accessed 16 August 2016)

represents 27% more people dying in the winter months compared to non-winter months¹. In Barking and Dagenham the excess number of deaths of the 2013-2014 period was 63, giving an index of 16.6².

The year to year variation in excess winter deaths means that the 3 year figure gives a better picture of the overall position, while the single year figure gives an indication of the impact of winter temperatures in a particular year. Looking at all ages in Barking and Dagenham, in the years 2011-14, there was a pooled average of 292 deaths (EWMI 25.6), whereas in winter 2013/14 alone there were 63 deaths (EWMI 16.6).

Provisional national and regional data is available for winter 2014/15, these figures exceed those of 2013/14, partially due to the lower than average number of excess winter deaths in 2013/14. Data for 2014/15 for England includes an EWMI of 27.4 with 41,400 excess winter deaths and an EWMI of 26.3 for London with 4,000 excess winter deaths. This is considerably greater than the observed EWMI for 2013/14 at 11.3 for England and 11.6 for London and 16,470 and 1,700 excess winter deaths respectively³.

Table 7.7.1: Observed Excess Winter Mortality and Excess Winter Mortality Index, all age, outer north-east London, London and England, 2011/14⁴

Area Name	2011/14	
	Observed excess winter deaths	Excess Winter Mortality Index
Barking and Dagenham	292	25.6
Greenwich	340	23.5
Lewisham	218	15.2
London	7212	16.1
England	69,038	15.6

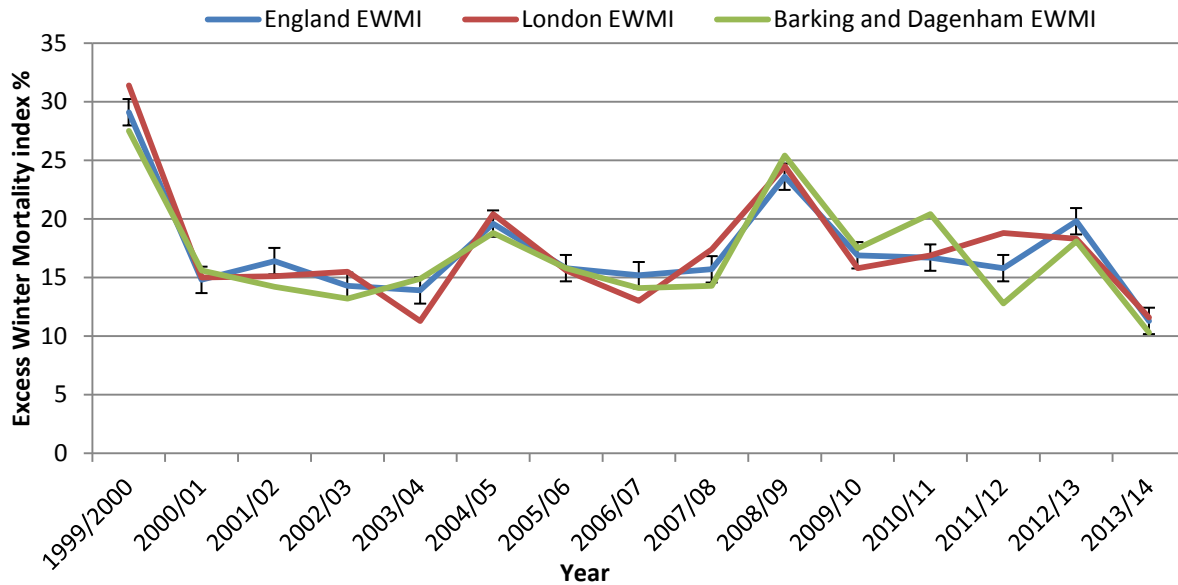
Source: Public Health Outcomes Framework

² <http://www.phoutcomes.info/public-health-outcomes-framework#page/3/gid/1000044/pat/6/par/E12000007/ati/102/are/E09000002/iid/90360/age/1/sex/4> (accessed 16 August 2016)

³ <https://www.ons.gov.uk/peoplepopulationandcommunity/birthsdeathsandmarriages/deaths/datasets/excesswintermortalityinenglandandwalesreferencetables>

⁴ <http://www.phoutcomes.info/search/excess%20mortality#page/3/gid/1/pat/6/par/E12000007/ati/101/are/E09000002/iid/90641/age/1/sex/4> (accessed 16 August 2016)

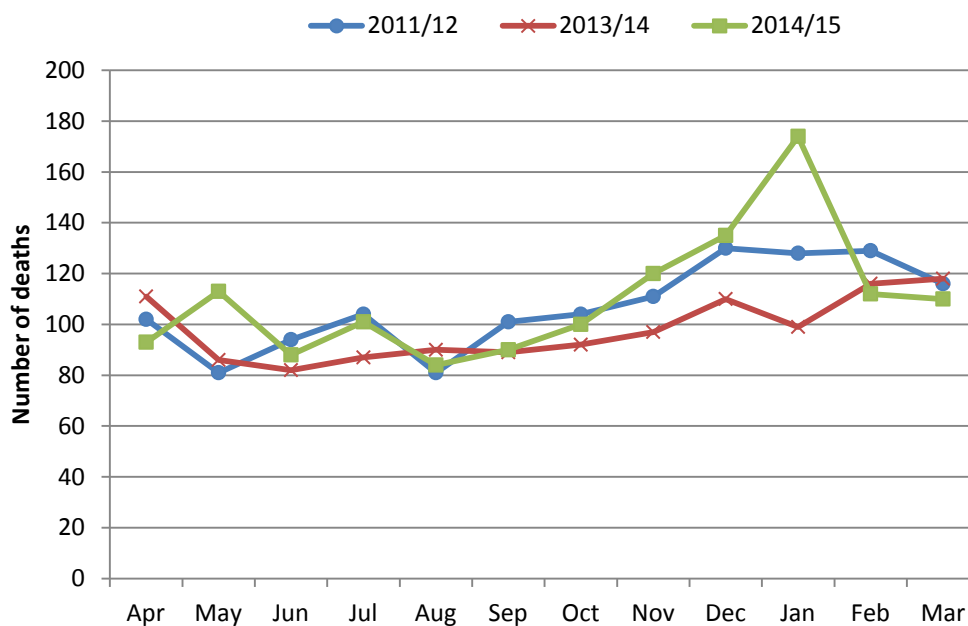
Figure 7.7.1: Excess winter mortality index, % annual trend for Barking and Dagenham, London and England, 1991/92 – 2012/14



Source: Office for National Statistics

In 2013/14, excess winter mortality index was higher in Barking and Dagenham (25.6), than in England (15.6) and London (16.1) (Table 7.7.1). These figures are important as research has shown that the excess of deaths in winter is higher in England and Wales than in other European countries that have colder climates. The potential to address winter mortality is recognised by the Cold Weather Plan published annually by the Department of Health⁵ which is an essential component of overall winter and emergency planning and aims to address the health promotion and preventive actions that should be in place during the winter.

Figure 7.7.2: Number of deaths by month, Barking and Dagenham 2011-2015



Source: NHS Barking and Dagenham, Primary Care Mortality Database (PCMD), 2015

⁵ <https://www.gov.uk/government/publications/cold-weather-plan-for-england-2014> (accessed 11 May 2015)

Figure 7.7.2 shows a peak in December 2014 - January 2015, as noted in the ONS Statistical Bulletin on Excess Winter Mortality the link between temperature extreme and EWMI is not necessarily clear, with some colder winters resulting in fewer deaths than milder winters⁶. In accordance with the Met Office weather report the winter of 2014/15 was regarded as relatively benign with average temperatures⁷. However for some observed trends weather conditions offer a clear explanation for this increase in observed EWMI, such as the winter of 2013/14, an exceptionally cold winter with the presence of prolonged snow and ice relative to other winter periods.

Locally, the number of deaths has varied between different winters, probably because some winters have been exceptionally cold with the presence of prolonged snow and ice, whereas in other years the winter has been milder.

Excess summer mortality

Sustained temperatures of above 25°C can also lead to excess deaths occurring. At 27°C or over, those with impaired sweating mechanisms find it especially difficult to keep their bodies cool. Warm nights mean people cannot cool down and lead to physiological stress as well as affecting sleep.

In 2003, Europe experienced a serious heat wave. The number of people who died because of the extreme heat was estimated at 27,000. In England, there were approximately 2,000 excess deaths - 85% of which were people aged 75 and over. Those living in care homes experienced the greatest increased risk of death. During this period Barking and Dagenham, experienced approximately seven excess deaths.

In response to this threat, the Department of Health published its first Heatwave Plan in 2004. The Heatwave Plan⁸ is re-launched each summer and public information leaflets, setting out the dangers of high temperatures and the steps that people can take to protect their own health, are distributed via GPs, pharmacies and various other organisations.

The Heatwave Plan, and its accompanying specialist advice notes, form part of a comprehensive contingency plan designed to ensure that health professionals and those caring for vulnerable older people know what action to take both in advance of, and in the event of, a heat wave. The plan's purpose is to enhance resilience in the event of a heat wave. It is an important component of overall emergency planning; and will become increasingly relevant in adapting to the impact of climate change. Guidance addresses the need to plan at every level of the system, and defines four heat wave levels, with actions identified for each level.

⁶ ONS: "Excess Winter Mortality in England and Wales: 2014/15 (provisional and 2013/14 final)" <http://www.ons.gov.uk/peoplepopulationandcommunity/birthsdeathsandmarriages/deaths/bulletins/excesswintermortalityinenglandandwales/201415provisionaland201314final> [Accessed 22 August 2016]

⁷ Met Office "Winter 2014/15" <http://www.metoffice.gov.uk/climate/uk/summaries/2015/winter> [Accessed 22 August 2016]

⁸ https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/310598/10087-2902315-TSO-Heatwave_Main_Plan_ACCESSIBLE.pdf (accessed 15 May 2015)

Supporting local people to manage temperature extremes

Guidance, advice and benefits all help to increase people's awareness of the risks associated with temperature extremes and the actions they can take to reduce the risk of harm.

There are a number of services that offer practical and financial advice so that people on low incomes can claim all the benefits for which they are eligible. Home insulation grants are available for those on low incomes and the over 60s directly through energy companies under the Energy Company Obligations Scheme, however this tends to vary periodically and in accordance with governmental targets set for energy companies to reduce carbon emissions. There is an increasing push for thermal comfort to be managed locally through improvement to council owned housing stock and more efficient form of Heating.

There are specific barriers to improving the condition of insulation and energy efficiency that may lead to thermal comfort in privately owned and let dwellings; there are no local powers to enforce action on thermal comfort through local government unless this can be proved through a HHSRS assessment by environmental Health officers. With the introduction of Private sector licensing, there is an opportunity to make sure landlords are behaving responsibly and taking up offer of insulation to improve thermal comfort.

From April 2018, no landlord will be able to let a property that has a Reduced Data Standard Assessment Procedure (RDSAP) energy rating of below E. This can lead to increased thermal comfort and provision of adequate heating in poorly insulated properties and will need to be reviewed

Advice is will be available from the Council's website⁹, which will require regular updates in line with new regulations and assistance grants that may be available. A national winter fuel payment is paid to those of pension age (for winter 2014-15 the payment will be made to those born on or before 5 July 1952¹⁰) to alleviate the additional costs of heating in winter. An additional cold weather payment is paid when there is a seven day period of very cold weather between 1 November and 31 March for those on benefits.

Environmental Health Services conduct Housing Health and Safety Rating System (HHSRS) checks on Houses in Multiple Occupation (HMOs) and in the private rented sector. These standard checks include a risk assessment of excess cold and heat issues.

Fuel poverty is considered in more detail in the relevant section of the JSNA, this has a direct impact on seasonal mortality and requires robust and collaborative efforts from different council departments and the NHS. There is an increasing trend to combat fuel poverty through the NHS and public health through front line services such as General Practitioners and district nurses. Trials in the north of the country have been very successful in reducing repeat admission to hospital and reducing

⁹ <http://www.lbbd.gov.uk/Housing/HousingAdvice/Pages/Energyefficiencygrants.aspx> (accessed 6 October 2014)

¹⁰ <https://www.gov.uk/winter-fuel-payment/eligibility> (accessed 6 October 2014)

fuel poverty which may lead to winter deaths; this is especially true for those suffering from COPD.

Excess seasonal mortality has the greatest impact on those on low incomes, those living alone, the elderly, vulnerable, disabled and those living in care homes and also on women due to their longer life expectancy.

Immunisation to protect older people and those with long term conditions against seasonal flu contributes to reducing the risk of death in winter.

School children are more likely to experience adverse health effects in hot weather. Young children produce more metabolic heat, have a decreased ability to sweat and have core temperatures that rise faster during dehydration.

Evidence on interventions to reduce winter-and cold-related mortality/morbidity remains limited. There is sufficient evidence to conclude that home energy efficiency interventions can be of health benefit to some population groups, and may be more widely beneficial to the population as a whole. (Evidence Review & Economic Analysis of Excess Winter Deaths, NICE)

The council officers should be working with public health to target intervention where possible and seek alternative methods of funding to provide reduction in seasonal mortality rates and to provide savings to the NHS in the long run such as reduced overnight stays at hospitals.

Any excess seasonal death is a tragedy and should be eliminated. However we do accept that some of this is a very important Public Health issue and a proportion of which can be avoided by providing energy efficient homes and homes that achieve higher thermal comfort. As EWD has a high correlation with Fuel Poverty, further action needs to be taken to avoid Fuel Poor Households, this requires a robust Fuel poverty action plan and interdepartmental collaboration.

We should aim for a conservative 10% reduction on EWD figures every year. This will require monitoring and regular interdepartmental collaboration.

Cold weather related initiatives

The Government provides heating benefits in relation to cold weather:

- Cold Weather Payment – eligible individuals could get a payment of £25 for each seven-day period of very cold weather between 1 November and 31 March.
- The Warm Home Discount Scheme – eligible individuals can get a £140 discount on electricity bills for the winter.
- Winter Fuel Payment – eligible individuals can get between £100 and £300 tax-free to help pay heating bills if they were born on or before 5 January 1952. This is known as a 'Winter Fuel Payment'.

NICE guidelines [NG6] Published date: March 2015 ¹¹, Next review date: March 2017

Excess winter deaths and illness and the health risks associated with cold homes

The guideline is for commissioners, managers and health, social care and voluntary sector practitioners who deal with vulnerable people who may have health problems caused, or exacerbated, by living in a cold home.

It will also be of interest to clinicians and others involved with at-risk groups, housing and energy suppliers.

This guideline makes recommendations on how to reduce the risk of death and ill health associated with living in a cold home. The aim is to help:

- Reduce preventable excess winter death rates.
- Improve health and wellbeing among vulnerable groups.
- Reduce pressure on health and social care services.
- Reduce 'fuel poverty' and the risk of fuel debt or being disconnected from gas and electricity supplies
- Improve the energy efficiency of homes.

Improving the temperature in homes, by improving energy efficiency, may also help reduce unnecessary fuel consumption.

A wide range of people are vulnerable to the cold. This includes:

- people with cardiovascular conditions
- people with respiratory conditions (in particular, chronic obstructive pulmonary disease and childhood asthma)
- people with mental health conditions
- people with disabilities
- older people (65 and older)
- households with young children (from new-born to school age)
- pregnant women
- people on a low income.

The health problems associated with cold homes are experienced during 'normal' winter temperatures, not just during extremely cold weather. Year-round action by many sectors is needed to combat these problems. This includes:

- prioritising which homes are tackled first
- shaping and influencing the decisions about how homes are improved
- developing the research agenda.

This guideline was previously called excess winter deaths and morbidity and the health risks associated with cold homes.

¹¹ NICE guidelines [NG6] Published date: March 2015, "Excess winter deaths and illness and the health risks associated with cold homes", [Online] available from: <https://www.nice.org.uk/guidance/ng6> [Last accessed: 23rd August 2016]

Recommendation for commissioner:

The recommendations in this guideline represent the view of NICE, arrived at after careful consideration of the evidence available. When exercising their judgement, professionals are expected to take this guideline fully into account, alongside the individual needs, preferences and values of their patients or service users. The application of the recommendations in this guideline is not mandatory and the guideline does not override the responsibility of healthcare professionals to make decisions appropriate to the circumstances of the individual patient, in consultation with the patient and/or their carer or guardian.

Local commissioners and/or providers have a responsibility to enable the guideline to be applied when individual health professionals and their patients or service users wish to use it. They should do so in the context of local and national priorities for funding and developing services, and in light of their duties to have due regard to the need to eliminate unlawful discrimination, to advance equality of opportunity and to reduce health inequalities. Nothing in this guideline should be interpreted in a way that would be inconsistent with compliance with those duties.

Recommendations for Commissioners (2015)

The Barking and Dagenham Affordable Warmth Strategy should closely align with the CCG winter planning approach. As such it is recommended that officer from related departments in housing, Corporate , Finance, children's service, NHS, Public Health meet on a monthly basis to discuss Affordable warmth Strategy and actions arising.

Health and Housing Safety Rating System Checks need to focus on cold weather assessments for the vulnerable and especially the elderly. An audit on the numbers of assessments conducted and the action occurring from them would be useful to monitor progress in this area.

A clear position statement on the availability of home insulation grants and help in cold weather is needed as the current Government's plans and policy changes are hard to keep up with and create confusion for residents. Eligible people should be encouraged to take-up the benefits to which they are entitled.

Front line health and social care staff who work with the vulnerable should be familiar on how to advise vulnerable people to avoid extremes of temperature, hot or cold. If this is not already in place training should be provided and robust referral systems need to be set up.

To know where to signpost vulnerable people to advise on increasing the warmth in their homes. This should be included in community and primary care contracts.

Older people and those with long term conditions should be encouraged to have seasonal flu immunisation and advice given about how to manage their conditions during periods of extreme temperatures.

The local Heatwave Plan should be reviewed annually to ensure robust arrangements for implementation when heat waves are forecast. Heatwave plans for schools needs to be developed and implemented locally.

Local services offering support for the vulnerable in heat waves could include voluntary groups offering drop-in sessions to people's homes or providing access to 'cool spaces' and respite from the heat such as churches or community halls. The same should apply in winter, offering warm heated community spaces.

The Council should seek to adopt a 'Retrofit on Prescription' service where residents with repeat overnight visits to hospital, suffering from respiratory illnesses such as COPD are targeted for retrofitting and energy efficiency works. This is a preventative measure and as such should be managed by the NHS to prevent further financial resources being spent on treatment. This has been very effective to date and should be replicated.

<http://sunderlandccg.nhs.uk/news-media/news/gentoo-group-launch-boiler-on-prescription-pilot/>).