PUBLIC HEALTH BMBC

Excess Winter Deaths in Barnsley

Final report Sept 2015

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EXCESS WINTER DEATHS

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1. Introduction

In common with the rest of England and other countries across Europe, more people die in the winter in Barnsley than in the summer.

Excess winter deaths are a statistical measure which attempts to quantify how big the effect of the winter months is in a given population. It can be expressed as the number of extra people who have died, or as an index comparing winter deaths to the number that occur at other times of the year.

These are crude measures. People die unnecessarily all year round, and it is possible for the apparent number of excess winter deaths to go down simply because the number of deaths at other times of the year has gone up. The figures take no account of the age structure of the population, which makes comparison with other areas or the national average impossible. Even comparing the picture in Barnsley over time can be difficult, as the age structure of the population may change year to year, for example with an influx of population due to a new housing development being built.

The indicative number for Barnsley in the three year period for all ages all persons from August 2010 to July 2013 was 401 extra deaths during the three year period, an average of 133 excess winter deaths per year. This was an increase of 18.6% compared to the average throughout the rest of the year during this three year period. Comparing this three year period to the data for the latest single year from August 2012 to July 2013 illustrates that there was 163 extra deaths during the winter, increase of 22.3% compared to the average throughout the rest of the year. This is the most recent data available at 2nd September 2015. The value of measuring excess winter deaths is not so much in the figures themselves, but in the principles underlying them.

It is well known that death rates are higher in the winter months, and these deaths are largely due to predictable causes:

- Long-term conditions: cold temperatures pose a particular risk to people living with long-term cardiovascular and respiratory conditions, because these diseases reduce the body's ability to make the natural physiological responses required to keep warm and well in the cold.
- Thrombosis: cold temperatures increase blood pressure and the blood's tendency to clot, which is exacerbated by physical inactivity and causes heart attacks and strokes
- Influenza and other viral infections: incidence of seasonal flu, respiratory syncytial virus and norovirus all peak in the winter months.
- Injuries: people of all ages are affected by increases in falls and road traffic accidents in winter weather.

Certain groups are most at risk:

- Older people, especially those living alone
- People with long term illnesses
- People with disabilities
- Households with low income, living in poor housing, or in rural areas
- Younger people who live alone
- People who are homeless

The most important point to note is that these risk factors are preventable, using simple measures such as protective behaviours (adequate clothing, eating well, staying active), home insulation and adequate heating, flu vaccination and alertness on the part of people and their caregivers to the increased risk of becoming unwell and the need to seek medical help early. It is also important to consider the impact of living in fuel poverty, the circumstance of a household having high heating bills in proportion to its income, in order to keep the indoor temperature at a health-protecting level alongside these risk factors.

2. Performance Indicators & Measures

A dedicated indicator for excess winter deaths appears on the Public Health Outcomes Framework, along with relevant indicators for the risk factors of fuel poverty, homelessness and flu vaccination (Figure 1). All the data presented were up to date on 02 September 2015[1]

Figure 1: Direct Public Health Outcomes Framework indicators: Barnsley

Indicator	Descriptor	Period	*Count*	Value	Status[a]
4.15i	Excess winter deaths index, all ages, all persons (single year)	Aug 2012 - Jul 2013	*163*	22.3	Similar
	Excess winter deaths index, all ages, males (single year)	Aug 2012 - Jul 2013	*49*	13.9	Similar
	Excess winter deaths index, all ages, females (single year)	Aug 2012 - Jul 2013	*114*	30.2	Similar
4.15ii	Excess winter deaths index, ages 85+ all persons (single year)	Aug 2012 - Jul 2013	*90*	32.7	Similar
	Excess winter deaths index, ages 85+ males (single year)	Aug 2012 – Jul 2013	*37*	45.7	Similar
	Excess winter deaths index, ages 85+ females (single year)	Aug 2012 – Jul 2013	*53*	32.9	Similar
4.15iii	Excess winter deaths index, all ages, all persons (3 years)	Aug 2010 – Jul 2013	*401*	18.6	Similar
	Excess winter deaths index, all ages, males (3 years)	Aug 2010 – Jul 2013	*100*	9.4	Similar
	Excess winter deaths index, all ages, females (3 years)	Aug 2010 – Jul 2013	*301*	27.4	Similar
4.15iv	Excess winter deaths index, age 85+, all persons (3 years)	Aug 2010 – Jul 2013	*213*	30.7	Similar
	Excess winter deaths index, age 85+, males (3 years)	Aug 2010 – Jul 2013	*48*	19.6	Similar
	Excess winter deaths index, age 85+, females (3 years)	Aug 2010 – Jul 2013	*165*	36.7	Similar
1.15i	Statutory homelessness acceptances per 1,000 population	2013/14	*14*	0.1	Lower
1.15ii	Statutory homelessness - households in temporary accommodation per 1,000	2013/14	*3*	0.0	Better
1.17	Fuel poverty	2013	*9,421*	9.2%	Better
3.03xiii	Population vaccination coverage - pneumococcal polysaccharide Vaccine (PPV), aged 65+	2013/14	*29,810*	66.3%	Lower
3.03xiv	Population vaccination coverage - flu, aged 65+	2014/15	*33,313*	72.0%	Lower
3.03xv	Population vaccination coverage - flu, at risk groups	2014/15	*14,889*	50.5%	Similar

[1] Public Health England. Public Health Outcomes Framework. www.phoutcomes.info Accessed 02 September 2015

a Performance is RAG-rated compared to national averages

Excess winter deaths also contribute to a number of other PHOF indicators (Figure 2) and one indicator on the NHS Outcomes Framework (Figure 3):

Figure 2: Indirect Public Health Outcomes Framework indicators: Barnsley

Indicator	Descriptor	Current status[a]
2.24i	Injuries due to falls in people aged 65 and over per 100,000	Worse in males aged 65 and over and over 80s subgroup
		Similar in females aged 65 and over and over 80s subgroup
		Males and females better in 65-79 subgroup
4.03	Mortality rate from causes considered preventable (persons) per 100,000	Worse in males and females
4.04	Under 75 mortality rate from cardiovascular disease considered preventable per 100,000	Worse in males and females
4.07	Under 75 mortality rate from respiratory disease considered preventable per 100,000	Worse in females
		Similar in males
4.08	Mortality from communicable diseases	Worse in females
		Similar in males
4.14	Hip fractures in people aged 65 and over	Similar in all persons and in all subgroups

a Performance is RAG-rated compared to national averages accurate on 02 September 2015

Figure 3: Indirect NHS Outcomes Framework indicator: Barnsley

Indicator	Descriptor	Current status
3.2	Emergency admissions for children with lower respiratory tract infections per 100,000	Worse in all persons aged under 19

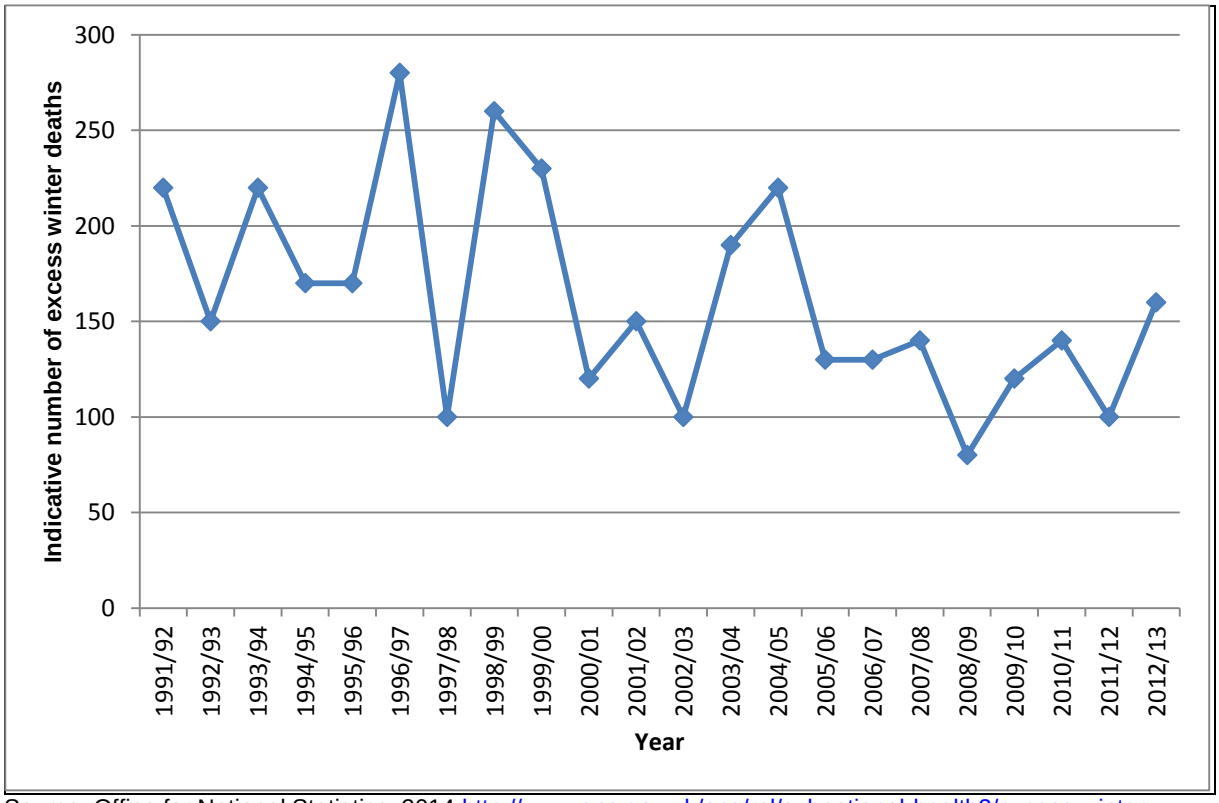
a Performance is RAG-rated compared to national averages accurate on 02 September 2015

What do we know?

3. Facts, Figures, Trends

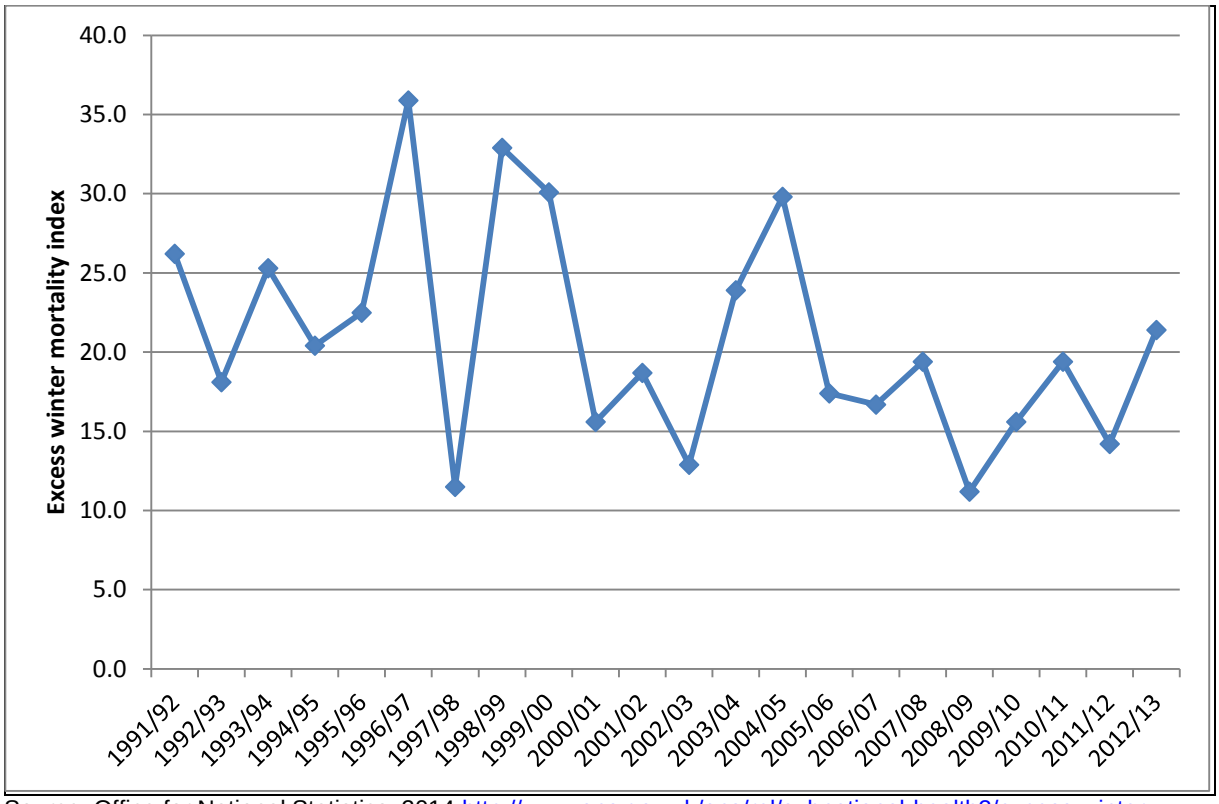
Over the last twenty years, the number of excess winter deaths in Barnsley has varied between 80 and 280 excess deaths each year (figure 4), which corresponds to between 11% and 36% more than the average over the rest of the year (figure 5). The Office of National Statistics, which publishes the figures, acknowledges that because the numbers involved are relatively small (statistically speaking), they are subject to random fluctuation and there is no consistent pattern across local authorities in different areas. The average is approximately 100 extra deaths each winter (around 17% more than the rest of the year) with no evidence of change in the trend over time.

Figure 4: Patterns of excess winter deaths in Barnsley 1991/92 to 2012/13



Source: Office for National Statistics, 2014 http://www.ons.gov.uk/ons/rel/subnational-health2/excess-winter-mortality-in-england-and-wales/2013-14--provisional--and-2012-13--final-/index.html Accessed 2nd September 2015

Figure 5: Patterns of excess winter mortality index in Barnsley 1991/92 to 2012/13



Source: Office for National Statistics, 2014 http://www.ons.gov.uk/ons/rel/subnational-health2/excess-winter-mortality-in-england-and-wales/2013-14--provisional--and-2012-13--final-/index.html Accessed 2nd September 2015

More useful than looking at the total figures is looking at the breakdown by age group and the causative conditions. This helps us identify groups of the local population are being disproportionately affected. The West Midlands Public Health Observatory published an excess winter deaths atlas until 2013. It provides data by age group and cause of death at local authority level combined for 2004 to 2011.

Most excess winter deaths in Barnsley occur in the 65-84 year age group (Figure 6). Given that the over 65 population of Barnsley is expected to increase by 17.2% between 2012 and 2020, it is reasonable to expect that the number of excess winter deaths will also increase substantially if action is not taken to address the root causes.

Figure 6: Excess winter deaths in Barnsley by age group, 2004-2011

Age group	Total number of excess winter deaths	Excess winter mortality index
Aged under 65	145	14.8%
Aged 65-84	450	16.7%
Aged 85 and over	383	24.7%
All ages	976	18.6%

Source: West Midlands Public Health Observatory Excess Winter Deaths atlas http://www.wmpho.org.uk/excesswinterdeathsinenglandatlas/Ageandconditions/atlas.html

Approximately a third of excess winter deaths between 2004 and 2011 were caused by circulatory diseases and another third by respiratory diseases (Figure 7). The excess winter mortality indices clearly show that while circulatory deaths are certainly more common in winter than at other times of year, it is respiratory illnesses in which the seasonal peak is most pronounced. Almost 60% more people die of respiratory infections and over 40% of people die from decompensation of their existing lung disease in the winter months.

Figure 7: Excess winter deaths in Barnsley by underlying cause of death, 2004-2011

Underlying cause of death	Total number of excess winter deaths	Excess winter mortality index
All circulatory deaths	309	17.6%
• Coronary heart disease	196	21.3%
• Stroke	69	15.6%
All respiratory deaths	336	43.2%
• Influenza & pneumonia	189	58.9%
• Chronic lung disease	118	42.2%

Source: West Midlands Public Health Observatory Excess Winter Deaths Atlas
http://www.wmpho.org.uk/excesswinterdeathsinenglandatlas/Ageandconditions/atlas.html

It is also useful to consider where the people live who are most affected. Figure 8 shows the geographical distribution of excess winter mortality and figures 9 and 10 provides deprivation maps for comparison. It is difficult to characterise a pattern by urban/rural split or by deprivation gradient. There is no clear cut explanation for excess winter mortality. It would appear to be due to a variety of factors, such as temperature, socio-economic circumstances, vulnerable groups, housing tenure, housing condition and personal and social behaviours. Consequently, the response needs to be similarly multi-faceted.

Figure 8: Excess winter mortality index, all ages by electoral wards, 2006-2013

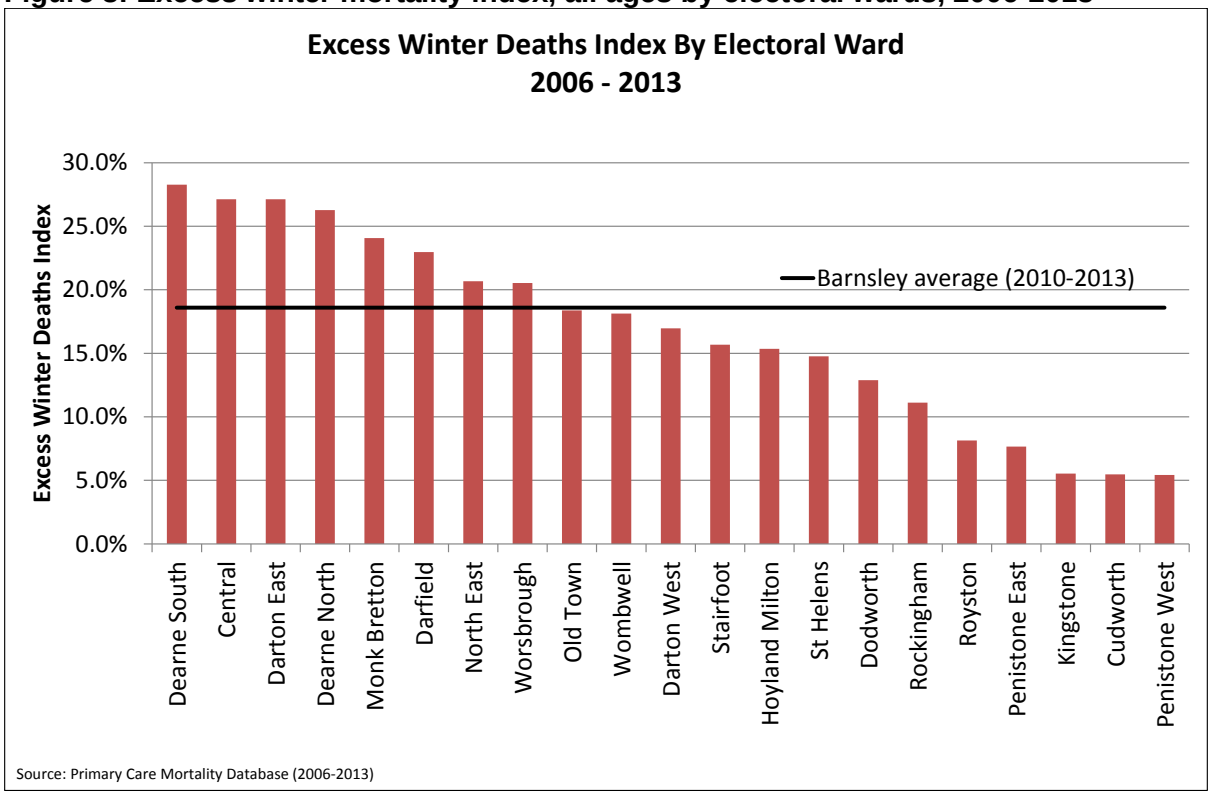


Figure 9: Pattern of deprivation across Barnsley

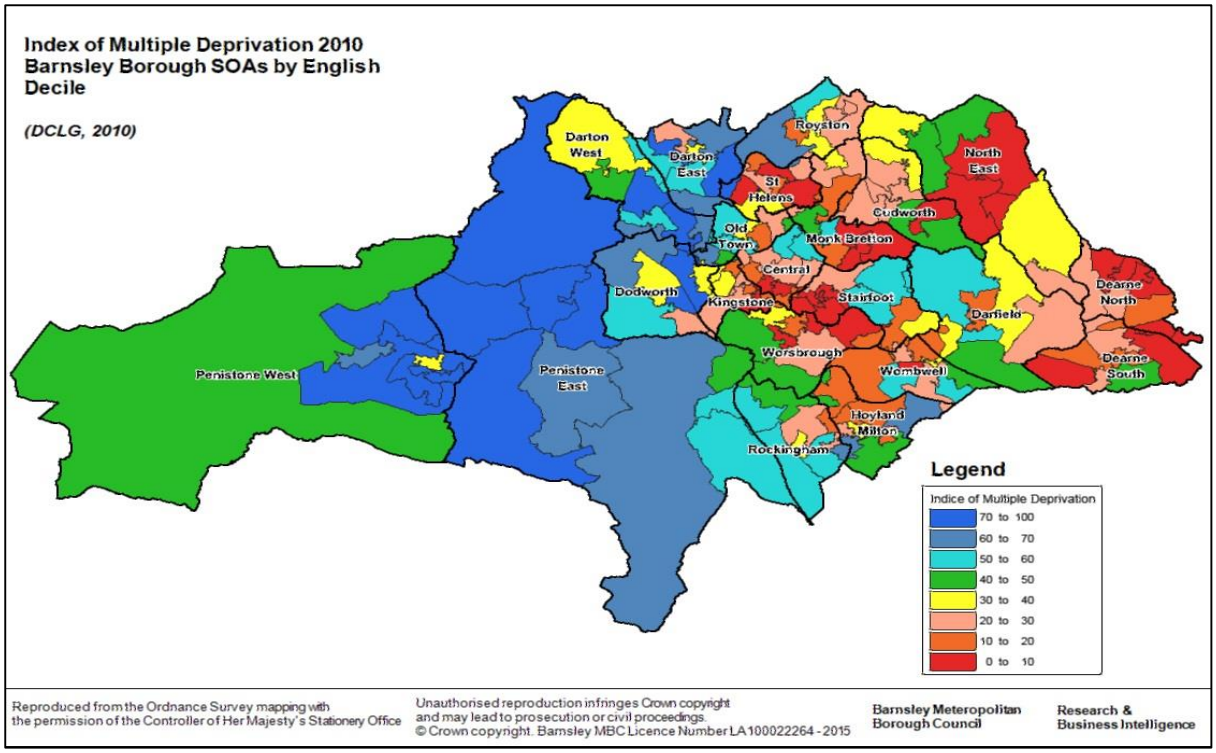
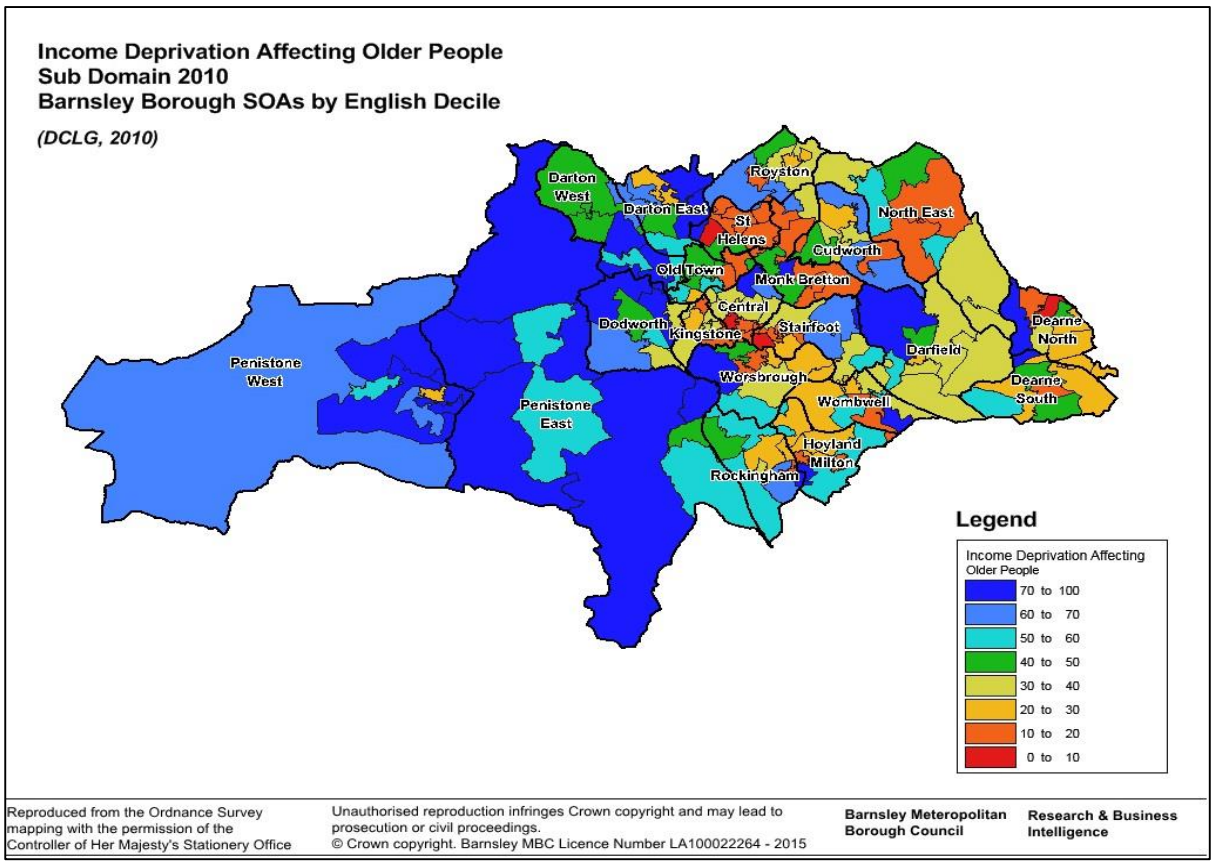


Figure 10: Pattern of deprivation affecting older people



4. The role of fuel poverty

Public Health England has investigated the national pattern of excess winter deaths week-to-week over the winter months[2]. Their analysis demonstrates that weekly peaks in excess deaths coincide with cold snaps and high circulating levels of respiratory viruses, i.e. influenza and respiratory syncytial virus.

The effects of cold temperatures are not felt exclusively by people living in cold homes, but most of the people in the vulnerable groups (over 65s, those living with long-term conditions or disabilities) will spend the majority of their time at home. The Marmot review Fair Society Healthy Lives[3] and the more recent King's Fund report into health inequalities[4] both identify warm homes as crucial to reducing the risk of death from cold temperatures, and specifically to reducing the social inequality in risk of death from the cold.

Fuel poverty describes the circumstance of a household having such high heating bills in proportion to its income, in order to keep the indoor temperature at a health-protecting level, that the household is living in poverty as a result. Statistically it is defined as a household which:

- has required fuel costs that are above average (the national median level)
- were they to spend that amount they would be left with a residual income below the official poverty line

This definition is new, and is felt to be more robust that the previous definition, in which a household was in fuel poverty if more than 10% of income needed to be spent on fuel[5]. Households can find themselves in fuel poverty because of a low income, poor energy efficiency, high unit energy costs or a combination of the three. Households at particularly high risk are those living in private rented accommodation and those who are unemployed.

It is important to note that, like the excess winter deaths measure, fuel poverty is estimated rather than counted accurately. Statistics are published annually and are calculated using a complex model, which is based on survey findings about the size and age structure of households, the type and tenure of their dwellings, average energy prices and self-reported income[6].

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[2] Public Health England (2013). Excess winter mortality report 2013 to 2014 http://www.ons.gov.uk/ons/rel/subnational-health2/excess-winter-mortality-in-england-and-wales/2013-14--provisional--and-2012-13--final-/stb.html.
Accessed 02 September 2015

[3] The Marmot Review Team (2010). Fair Society Healthy Lives. Strategic review of health inequalities post-2010. http://www.instituteofhealthequity.org/projects/fair-society-healthy-lives-the-marmot-review
Accessed 02 September 2015

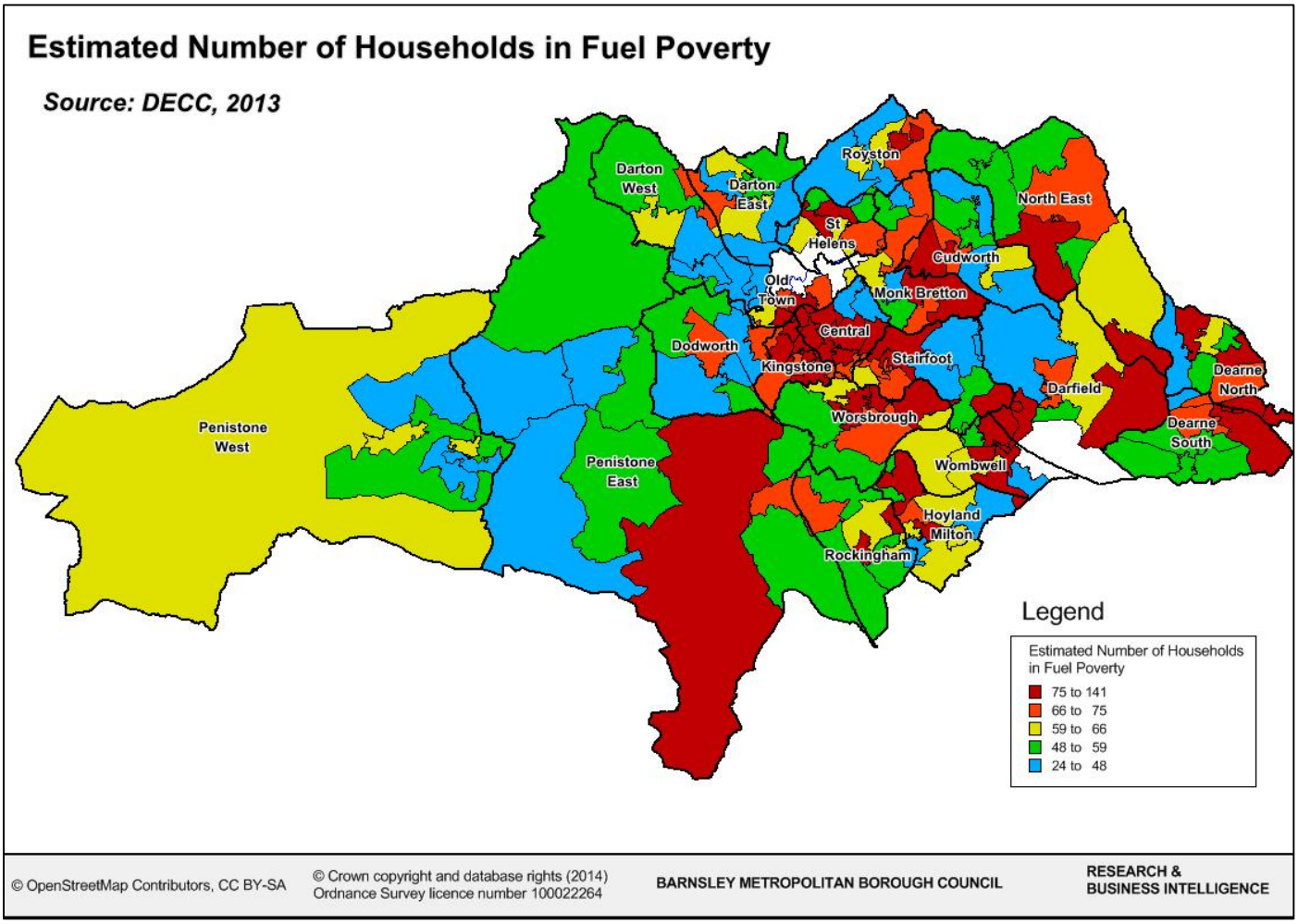
[4] David Buck and Sarah Gregory (2013). Improving the public's health. A resource for local authorities. http://www.kingsfund.org.uk/publications/improving-publics-health Accessed 02 September 2015

[5] Department of Energy and Climate Change (2013). Fuel poverty methodology handbook 2013. https://www.gov.uk/government/publications/fuel-poverty-methodology-handbook-2013 Accessed 02 September 2015

[6] Department of Energy and Climate Change (2013). The fuel poverty statistics methodology and user manual. https://www.gov.uk/government/publications/fuel-poverty-methodology-handbook-2013
Accessed 02 September 2015

The most recent statistics available at ward level are from 2013. Overall, 9,421 households or 9.2% of all households in Barnsley were estimated to be in fuel poverty. This is a lower figure than previous data for 2012 when 10,028 households or 9.7% were estimated to be in fuel poverty. The proportion varies substantially between areas as figure 11 illustrates. The highest number of fuel poor households are coloured in red. Large areas of Central ward, along with Old Town, Worsbrough, Stairfoot, Kingstone, Monk Bretton, Darfield and Dearne North have between 66 and 141 households in fuel poverty.

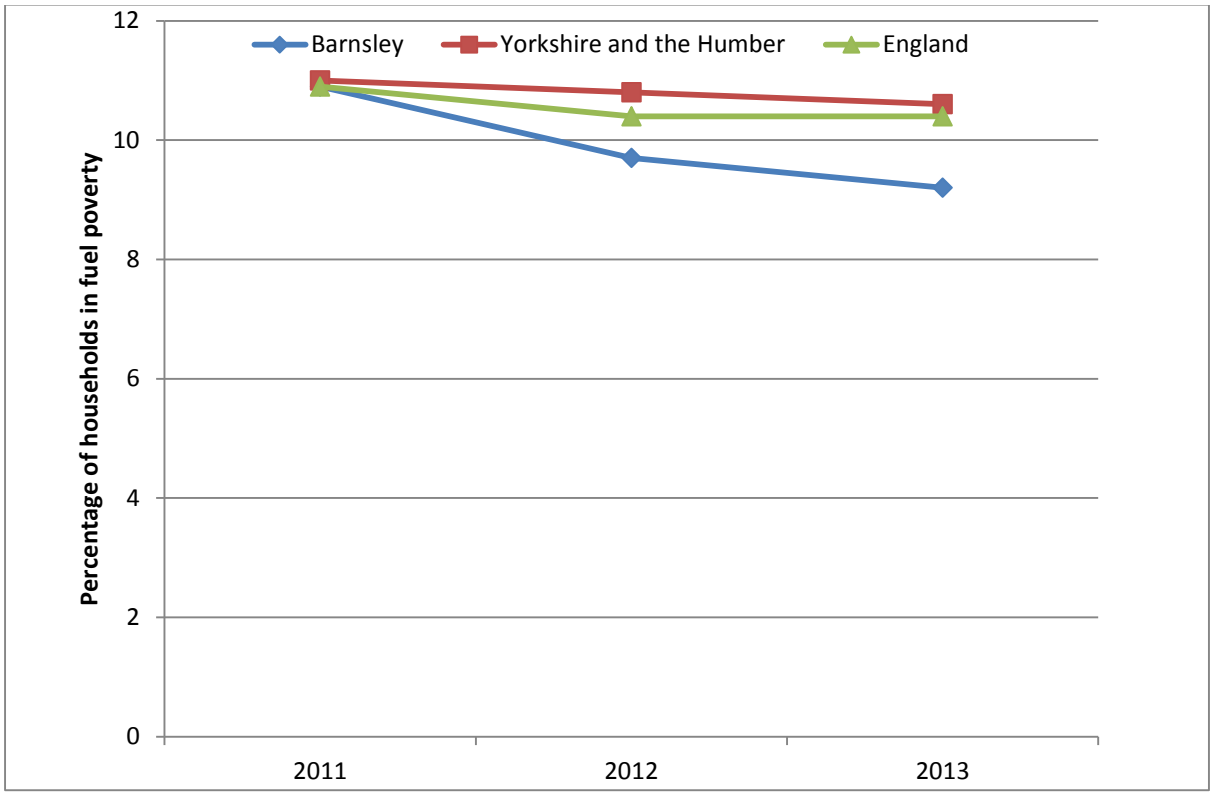
Figure 11: Estimated numbers of households in fuel poverty, Barnsley



Barnsley has a lower prevalence of fuel poverty than the regional and national averages (figure 11). The percentage of households affected has also reduced since 2010, following the national trend; the reduction may be due to improvements to housing stock or home energy efficiency[7].

[7] Department of Energy and Climate Change (2014). Annual fuel poverty statistics report, 2014. https://www.gov.uk/government/uploads/system/uploads/attachmentdata/file/319280/ Fuel Poverty Report Final.pdf Accessed 02 September 2015

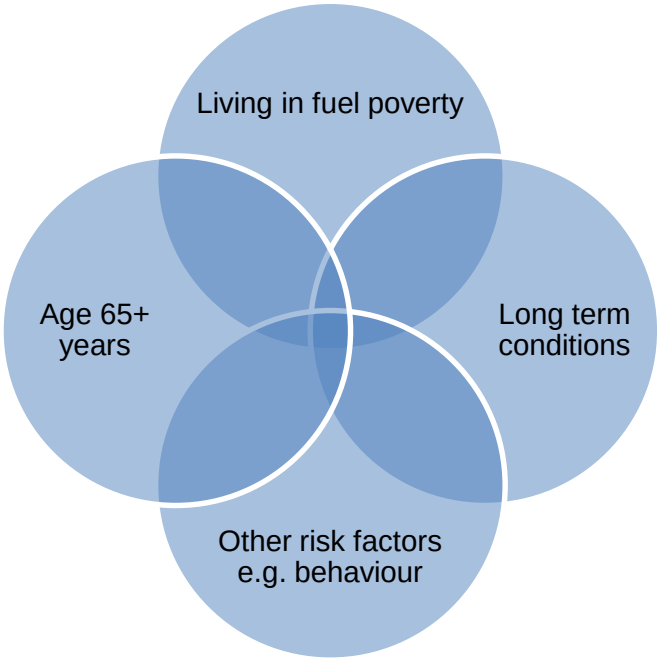
Figure 11: Percentage of households in fuel poverty in Barnsley, 2011 to 2013 with regional and national comparators



Department of Energy and Climate Change. Fuel poverty statistics.
https://www.gov.uk/government/collections/fuel-poverty-statistics Accessed 02 September 2015

Regardless of the measure used for fuel poverty, returning to its relevance as a risk factor for excess winter deaths, comparing the map in figure 11 with the distribution of excess winter deaths in figure 8 demonstrates that fuel poverty is not the whole story. Fuel poverty and other risk factors for excess winter deaths do not necessarily co-exist (figure 12) – the key to preventing excess winter deaths will be to solve fuel poverty first in those households where the risk is greatest.

Figure 12: Risk factors contributing to prevalence of excess winter deaths



The level of risk increases with the number of circles an individual falls into. Other risk factors include being in one of the vulnerable groups and behavioural factors such as wearing inappropriate clothing[8] and keeping windows open in the home[9]

5. The role of flu

The analysis by Public Health England takes account of the fact that circulating rates of respiratory viruses tend to coincide with periods of cold temperature. Using regression analysis to control for the interplay between these factors, the report demonstrates that influenza in and of itself makes a major contribution to the incidence of excess winter deaths.

Flu is a key factor in NHS winter pressures. It impacts on both those who become ill, the NHS service that provides direct care, and on the wider health and social care system that supports people in at-risk groups. Flu occurs every winter in the UK; vaccination is the best way to protect people. In addition, a range of methods aimed at reducing transmission of flu such as good hand and respiratory hygiene are vital elements to reduce the impact of flu each year.

[8] Keatinge, W.R., Donaldson, G.C., Bucher, K., Jendritsky, G. & al, e. 1997, "Cold exposure and winter mortality from ischaemic heart disease, cerebrovascular disease, respiratory disease, and all causes in warm and cold regions of Europe", The Lancet, vol. 349, no. 9062, pp. 1341-6.

[9] Gascoigne, C., Morgan, K., Gross, H. & Goodwin, J. 2010, "Reducing the health risks of severe winter weather among older people in the United Kingdom: an evidence-based intervention", Ageing and Society, vol. 30, no. 2, pp. 275-297.

At best, flu causes a severe fever illness which lasts for several days and necessitates time off work or school. At worst, it can cause hospitalisation and death through the illness itself, by causing deterioration of other long-standing conditions or through developing into pneumonia.

Vaccination against seasonal flu is available each year, free on the NHS, for several eligible groups of people (those who are at highest risk of severe illness and death if they were to contract flu):

In 2015/16, flu vaccinations will be offered at NHS expense to the following groups:

- those aged 65 years and over
- those aged six months to under 65 in clinical risk groups
- pregnant women
- all two-, three- and four-year-olds (but not five years or older) on 31 August 2015
- all children of school years 1 and 2 age
- those in long-stay residential care homes
- carers
- primary school-aged children in areas that previously participated in primary school pilots in 2014/15.

The list above is not exhaustive, and the healthcare practitioner should apply clinical judgement to take into account the risk of flu exacerbating any underlying disease.

Figure x shows the overall vaccination coverage in the 2013/14 and 2014/15. As a result of changes in reporting the uptake of seasonal flu vaccinations data is only available for two reporting periods 2013/14 and 2014/15. From this limited data, the figures for Barnsley Clinical Commissioning Group (CCG) have decreased in line with figures for the South Yorkshire & Bassetlaw Area Team and England.

Figure 13: Seasonal Influenza vaccine uptake (% eligible adults aged 65 years and over)

	2013 – 2014 (%)	**2014 – 2015 (%)**
Barnsley CCG	72.5	72.0
South Yorkshire & Bassetlaw Area Team	74.6	74.3
England	73.2	72.8

Source: Public Health England, Seasonal Flu Vaccine Uptake (GP) 2014/15 – data on GP registered patients (provisional)

Figure 14: Seasonal Influenza vaccine uptake (at risk individuals aged 6 months to under 65 years)

	2013 – 2014 (%)	**2014 – 2015 (%)**
Barnsley CCG	52.2	50.5
South Yorkshire & Bassetlaw Area Team	52.6	51.2
England	52.3	50.3

Source: Public Health England, Seasonal Flu Vaccine Uptake (GP) 2014/15 – data on GP registered patients (provisional)

6. Programmes

Several programmes and activities are in place across Barnsley which will impact on excess winter deaths, fuel poverty and protecting the elderly and vulnerable.

Lead Agency	Programme	Objectives	Overview
Barnsley council	National Energy Action (NEA) Warm & Healthy Homes Partnerships programme	This programme aims to support local health and housing partnerships to better address the needs of households at risk of cold-related illness and excess winter deaths.	Part of a consortium bid, comprised of Leeds city region local authorities and Barnsley CCG for funding from the NEA. Although the bid was unsuccessful but it provides potential for partnership working with Barnsley CCG to agree plans for future work. We aim to build a strong Health and Housing partnership in Barnsley to explore collaborative work to carry out home energy efficiency improvements in some of the most vulnerable households in the borough, whose health is being severely impacted as a result of living in cold and damp housing conditions.
Barnsley council	Energise Barnsley (Solar PV panels) scheme	The scheme due to commence mid December 2015 will install solar panels onto approximately 200 council houses and council-owned buildings. The initiative, is part of a new community energy partnership between Barnsley Council, Berneslai Homes, British Gas Solar and Generation Community. The initiative will see the council work with social enterprises and a blue chip installer to feed the surplus income generated by the scheme back into Barnsley communities.	The implementation of this scheme will contribute to alleviating impact fuel poverty and excess winter deaths.
Barnsley council	Central Heating Fund	Barnsley council has secured funding from	The aim is to incentivise the installation of first time

		the, Department of Energy and Climate Change (DECC) to be used to improve the housing of those in fuel poverty living in their area	central heating systems in fuel poor households who do not use mains gas as their primary heating fuel. Match funding has been obtained from National Grid to fund the gas connections which means the works will be free of charge to the customer. The programme is due to start in September and all work is to be completed by end of April 2016.
Barnsley council	Fuel poverty training.	A fuel poverty training course is available on Barnsley Online Learning and Development (BOLD)	This training for front line staff aims to help them identify people at risk of being in fuel poverty. This currently covers the elderly and an additional course is to be developed covering families
Barnsley council	Senior Health Improvement Officer, Place Directorate	The Place Directorate have recently recruited a Senior Health Improvement Officer to develop and deliver work to address fuel poverty and excess winter deaths.	The Senior Health Improvement Officer will work contribute to the recommendations in this report, such as reviewing the recommendations of the Excess winter deaths NICE guidance and consider how they might be applied locally to improve integrated working and target interventions to those most at risk.
Barnsley council	Energy efficiency initiatives	There are a number of on Barnsley council's website https://www2.barnsley.gov.uk/services/housing/private-housing/energy-efficiency	This aims to provide information about improving the energy efficiency of residents homes, saving money on energy bills by switching suppliers or tariff and renewable energy incentives. 500 "Beat the cold" packs were distributed to residents most in need across Area Councils 2014/15. Each pack included: thermal hat, gloves, fleece blanket and advice leaflets. During 2015/16 South Yorkshire Fire & Rescue service are developing a befriending service which will include energy efficiency advice and links to support agencies.
Barnsley council	Better Homes Barnsley	Better Homes Barnsley is the new council endorsed energy efficiency scheme which will help private homeowners and private	Launched in mid-March 2015 the scheme involves energy efficiency home improvements such as insulation, boilers and renewable energy technologies

		landlords across the borough live in warmer, healthier homes and also reduce the cost of rising fuel bills.	using the latest government funding to get the best offers for homeowners.
Berneslai Homes	Vulnerability Strategy	Something Doesn't Look Right" Vulnerability Strategy	The Vulnerability Strategy recognised the support to vulnerable customers to enable them to be both financially and socially included. There are many opportunities for Berneslai Homes' staff to identify potential cases of vulnerability and ensure appropriate action is taken by Berneslai Homes of referrals to specialist support providers.
Berneslai Homes	Energy Efficiency	Berneslai Homes seek to manage and to reduce fuel poverty amongst their tenants.	This is achieved by continuing to improve the housing stock, reducing heat lost from those homes, continuing to introduce efficient forms of heating and introducing alternative technologies to fossil fuelled energy.
Barnsley council	Adverse Weather Team	Throughout the winter period the Adverse Weather team meets on a four weekly basis or during adverse weather as required. This team is Chaired by the Assistant Director Environmental Services and is made of representatives from across the council.	The Adverse Weather Team has produced a Corporate Winter Resilience Protocol which outlines how the council responds to winter related incidents such as snow, ice or prolonged sub-zero temperatures.
South Yorkshire Housing Association (SYHA)	Boilers on prescription pilot	SYHA are currently piloting boilers on prescription in a neighbouring authority with a view to extend to Barnsley if successful.	The scheme involves GPs prescribing double glazing and loft insulation for patients living in cold, damp homes which can improve the quality of life for residents. The project, started in Sunderland found GP and outpatient visits reduced by a third after patients' homes were made warmer and cheaper to heat, reducing the burden on the NHS.
Barnsley council	Be Well Barnsley	Be Well Barnsley is an innovative service to design and deliver a suite of accessible lifestyle interventions that will support the people of Barnsley to make healthy and sustainable lifestyle change through a range of evidenced-based multi-component interventions across the Borough.	The service will aim to increase community capacity using volunteers, peer-support and community activists. The service will deliver health promotion and advice and not only to support people to make healthy lifestyle choices, but to also refer individuals and families onto additional appropriate services that will deal with the wider determinants of health.

Barnsley council	Falls and bone health multiagency group	The falls and bone health group is established to oversee and coordinate the work to prevent and reduce falls in Barnsley, with a particular focus on people aged over 65 years.	Following the development of the falls prevention and bone health strategy and implementation plan. Work is underway to review the current falls pathway. This agenda clearly links to fractures and falls which are more common in winter months.
Barnsley council	Independent Living at Home (ILAH)	ILAH is a service in Barnsley which provides pathways to independent living through which a range of interchangeable services are delivered, including assistive living technologies and re-ablement.	The services delivered in service user's homes enable people to maximise their potential to live independently, preventing or delaying the need for more costly services, helping to build social capital and capacity in other care services. In excess of 7,000 people across Barnsley and the surrounding area access the services, with 98% over the age of 65.
Barnsley CCG	Intermediate Care (including community health services, rapid response and community at home)	Intermediate Care services help residents avoid going into hospital unnecessarily, to help them be as independent as possible after discharge from hospital and to prevent residents moving into residential or nursing homes until they really need to	There are currently seven different parts to the service in Barnsley and they all work as different teams. Over the next year, the teams will come together to trial working as a single Intermediate Care service to support residents.
Barnsley CCG	Right Care Barnsley	Right Care Barnsley is a model of care coordination enables health care professionals in Barnsley to access the right care at the right time for their patients, in preference to admission of a patient as a default position.	The single 'front-door' aims to support medical patients aged 18 and over who are at risk of a hospital admission and those who need support to return home after discharge from an acute setting. It is anticipated that this will directly contribute to avoiding emergency hospital admissions in the winter months.
Barnsley CCG	Barnsley System Resilience Group (SRG)	SRG provides strategic system wide leadership in the area of urgent care. It comprises representatives from the Barnsley CCG, the local authority, principal NHS providers (including Yorkshire Ambulance Service) and NHS England. The purpose of the SRG is to develop a resilient, sustainable and integrated 24/7 model for urgent and emergency care in Barnsley and to ensure	Barnsley CCG has received £1.4 million for operational resilience and capacity schemes as part of its allocation in 2015/16. This amount is significantly less than the total invested during 2014/15. This resulted in investment of £1,450,000.00 in schemes aimed at ensuring capacity across the system, particularly over the winter period. The six schemes included additional capacity in the acute and community sector, additional social work capacity (including 7 day working), increased

		rapid and appropriate access to services.	capacity of the Independent Living at Home service, enhanced use of assistive technology, the introduction of Urgent Care Practitioners by Yorkshire Ambulance service, spot purchase beds, general medical services in care homes and additional capacity during the winter period. In addition to this, the CCG has in place routine teleconference meetings of the CCG, SYWPT, BHNFT and social care are held three times a week to implement any required contingency arrangements should system pressures require. This will continue during the winter period with the ability to escalate its meeting frequency to enable the operational management of winter across Barnsley once the winter demands on services become more pressured. The CCG has also agreed that any contract penalties applied to providers will be put into a Resilience Fund for allocation by SRG to allow additional capacity throughout the winter.
Primary care	Quality and Outcomes Framework (QOF)	The quality and outcomes framework (QOF) is part of the General Medical Services (GMS) contract for general practices and was introduced on 1 April 2004. The QOF rewards practices for the provision of 'quality care' and helps to fund further improvements in the delivery of clinical care.	The QOF incentivises many aspects of good clinical care which would contribute to reducing the susceptibility of people with long-term conditions to cold temperatures or seasonal viruses. The focus is on optimisation of treatment for secondary prevention, for example the percentage of patients with a history of myocardial infarction currently treated with an ACE inhibitor (or ARB if ACE intolerant), aspirin or an alternative anti-platelet therapy, beta-blocker and statin.
NHSE Barnsley council	Vaccination against seasonal flu 2015/16	Vaccination against seasonal flu is available each year, free on the NHS,	A flu assurance plan has been developed by NHSE and presented to the Barnsley Health Protection Board in July

		for several eligible groups of people (those who are at highest risk of severe illness and death if they were to contract flu): • those aged 65 years and over • those aged six months to under 65 in clinical risk groups • pregnant women • all two-, three- and four-year-olds (but not five years or older) on 31 August 2015 • all children of school years 1 and 2 age • those in long-stay residential care homes • carers • primary school-aged children in areas that previously participated in primary school pilots in 2014/15.	2015. A communications plan for the 2015/16 flu season has been developed by Barnsley council. A key objective of the plan is to sustain communications to maintain public confidence in the programme.

7. Impact and Effectiveness

Information on the clinical and cost effectiveness of programmes to reduce excess winter deaths is limited, partly because it is difficult to evaluate complex interventions and partly because it is difficult to evaluate simple interventions directed at complex problems.

Evidence from the Kings Fund suggests that housing and housing related care and support services can make a significant financial contribution to health and social care economies by offsetting health and social care expenditure. A number of studies have identified the savings that can be realised with early housing interventions but the return on this investment is over a long term and not within an annual budget cycle or spending review period. For example, research by the Chartered Institute of Housing found that every £1 spent adapting 100,000 homes, could save the NHS £69.37 over 10 years and that every £1 spent improving 100,000 cold homes, could save the NHS £34.19 over 10 years.[10]

8. National Strategies

For 2015/16, NHS England, the NHS Trust Development Agency, Monitor, Public Health England (PHE), and the Department of Health are joining up their winter campaigns. This will bring together PHE's successful flu vaccination, 'Catch it, kill it, bin it' and "Keep Warm, Keep Well", with NHS England's effective 'Feeling under the weather' campaign and materials to promote NHS 111, into one combined strategy[11].

This focused behaviour change programme will be developed through a single campaign approach, covering a variety of media including television, radio, outdoor and social media, as well as materials for local teams to use.

To ensure that this campaign is as effective as possible, it is important that all organisations use nationally consistent messaging to guide patients and the public. Local Systems Resilience Groups and CCGs are requested to align their local activity with the national campaign rather than initiating individual campaigns, therefore making best use of resources and avoiding duplication. National materials can be adapted for local use as needed. The national campaigns will begin in September 2015.

The National Institute for Clinical and Healthcare Excellence (NICE) has published guidelines on excess winter deaths[12]. The guideline focusses specifically on health risks associated with living in a cold home (and hence fuel poverty) but takes a broader approach to those health risks by including the effect on winter illnesses as well as deaths. For example, children living in cold homes are more likely to develop asthma; cold weather is also an important cause of depression. Taking a broader perspective enhances the importance of the issue, along with the cost effectiveness of interventions to address it.

The recommendations can be summarised as follows:

- Health and wellbeing boards should consider the effects of cold homes in their JSNA and develop a strategy to address them

[10] Reported in *Good homes in which to grow old? The role of councils in meeting the housing challenge of an ageing population*. LGA (2010)

[11] NHS Winter Campaign 2015/16 https://campaignresources.phe.gov.uk/resources/campaigns/34-nhs-winter-campaign/resources Accessed 02 September 2015

[12] NICE(2015) Excess winter deaths and morbidity and the health risks associated with cold homes http://www.nice.org.uk/guidance/NG6 Accessed 02 September 2015

- The strategy should include providing a local referral service which directs people who are risk towards multidisciplinary help to reduce their risk factors for winter illness or death

- All professionals who see people who may be at risk should be trained and alert to ask about how warm their homes are, to record their answers and to refer accordingly

- New technology should be exploited to reduce the risks from cold homes (such as temperature alert systems)

- When home energy efficiency improvements are made, technicians should ensure that vulnerable people know how to use their new equipment

- Local authorities should use their enforcement powers to require improvements to private rented accommodation which is putting vulnerable tenants at risk.

A "How to" guide for reducing the risk of seasonal excess deaths in vulnerable older people compiled by the Department of Health's Health Inequalities National Support Team in 2010[13] described nine interventions which should be offered as part of a multidisciplinary approach to reducing risk factors:

1. Assessment for affordable warmth interventions, including energy efficiency, household income and fuel cost.
2. Regular review of benefits entitlement and uptake.
3. Annual flu and pneumococcal vaccination.
4. Provision of an annual medication review (every six months if taking four+ medicines).
5. Provision of an annual medicines utilisation review (MUR) and follow-up support for adherence to therapy.
6. Implementation of a personal brief health interventions plan that includes advice and support to stop smoking, sensible drinking, healthy eating, adequate hydration and daily active living.
7. Assessment and support programme to prevent falls.
8. Assessment for appropriate assistive technologies, e.g. alarm pendants to call for help.
9. Help to develop a personal crisis contingency plan (e.g. including a buddy scheme, where no close friends or family, to watch for danger signs and provide someone to call).

Many case studies of good practice around fuel poverty or flu vaccination uptake have also been reported, such as collective energy supplier switching schemes[14]

[13] Department of Health (2010). How to reduce the risk of seasonal excess deaths systematically in vulnerable older people to impact at population level. http://www.institute.nhs.uk/images/documents/wcc/HPHL/HINST%20resources/How%20to%20reduce%20the%20risk%20of%20SEDs%20in%20older%20people.pdf Accessed 02 September 2015

[14] Councils help cut nation's household energy bills by £10 million. Local Government Association, 8th May 2013. http://www.local.gov.uk/web/guest/sector-led-improvement/-/journal content/56/10180/3984217/NEWS Accessed 02 September 2015

What is this telling us?

9. What are the key inequalities?

Older people, people who are already living with a long-term condition and other vulnerable groups are disproportionately at risk from excess winter mortality compared to the general population.

The health inequality in excess winter deaths does not follow traditional geographical or deprivation patterns; the gradient is influenced more heavily by social circumstances, such as living alone, living in an older property etc.

10. What are the unmet needs / service gaps?

Excess winter mortality is not as high in Barnsley as it is in other areas of the country. Nevertheless, dozens of people are dying each year and many more are suffering non-fatal illnesses from eminently preventable causes.

Over 9000 households are living in fuel poverty; this circumstance exacerbates the risk from cold weather for any vulnerable people living within the home.

Over 13,000 aged 65+ people and 14,500 identified at risk who were eligible for flu vaccination last winter did not take up the offer. The eligible groups are, by definition, at risk of severe illness if they contract flu and therefore at increased risk of death in the winter months.

Some of the interventions recommended in the national guidance are already provided in Barnsley, but the work is done by different organisations with further work to be done to join-up efforts and share information between services. There is also an opportunity to focus on reprioritising resources the target the private sector based on identified needs.

11. Recommendations

1. All organisations should:
    - understand the relationship between their work programmes to address excess winter deaths, both directly and through the wider determinants of health
    - appreciate that preparation for the winter months is a year-round exercise and that early planning will increase the success of time-limited interventions such as flu vaccination
    - recognise the coexistence of vulnerable people on several existing client lists.

2. The Senior Health Improvement Officer should review the recommendations of the NICE guidance and the Health Inequalities National Support Team guidance and consider how they might be applied locally to improve integrated working and target interventions to those most at risk. This will include future work to identify the contribution from the voluntary and community sector and other front line services.

3. The Senior Health Improvement Officer should also consider whether an evidence review of case studies of innovative methods for addressing excess winter mortality, with support from Public Health, would be useful. Its usefulness would be guided by the availability of funding for the implementation of any effective interventions identified.

4. Frontline workers in general practices and Barnsley council should apply the principle of Making Every Contact Count to the issues of fuel poverty and flu vaccination with all their vulnerable clients. Moreover, people receiving their flu vaccination should be prompted to consider whether they qualify for the help with fuel poverty and signposted appropriately, and vice versa.

5. The Barnsley Housing and Health task group should initially look at the current housing and health initiatives and identify priorities for work, particularly working with private sector housing. This will include developing a strong housing and health partnership with Barnsley CCG and Barnsley council to explore collaborative work.

6. NHS England and the South Yorkshire area team and the locality teams and general practices of Barnsley CCG should work with Public Health to perform implement best practice recommendations to increase coverage in the 2015/16 season.

7. Public health should provide specialist advice and support to the Senior Health Improvement Officer to evaluate the impact of these activities on proxy indicators of excess winter mortality.