Cold homes and respiratory ill-health in England and Sweden

A comparison of health service statistics

Summary
- New analysis shows that hospital admissions per population for pneumonia and chronic cold-home related respiratory diseases are significantly higher in England than in Sweden, despite Sweden’s much colder winters.
- A large body of research shows cold homes increase the risk and severity of respiratory conditions considerably.
- Housing stock and fuel poverty data makes clear that Swedish homes are much more energy efficient than UK homes, leading to lower levels of fuel poverty despite higher energy prices.
- England’s poor quality housing stock is, therefore, likely to be a significant factor in our much higher levels of hospitalisation for respiratory conditions.
- A large-scale, publicly-funded energy efficiency scheme would bring millions of households out of fuel poverty, and, in reducing a key risk factor for respiratory diseases, would make a considerable difference to the winter strain placed on our over-stretched NHS.

The link between cold homes and respiratory ill-health
There is extensive evidence that living in a cold home can make healthy people unwell, and turn manageable conditions into life-threatening ones. Cold air can make the respiratory tract less able to withstand infection, and cold, damp homes are more likely to encourage mould growth, which lowers people’s resistance to respiratory diseases¹. A number of studies have shown a clear relationship between living in a cold home, and increased likelihood of contact with the NHS during the winter due to a respiratory problem.² Children living in cold homes have been found to be more than twice as likely to suffer from respiratory problems as those living in a warm home³. Conversely, analysis of the now-closed Warm Front national insulation programme in the UK showed that a majority of participants suffering from breathing problems reported improvements in breathing once they had had their insulation installed.⁴

What hospital admissions statistics tell us
Data from the Health and Social Care Information Centre (HSCIC), and the Swedish National Board of Health and Welfare shows that over the past five years, admissions in England for chronic lower respiratory diseases have been 40% higher than in Sweden, per population⁵. This pattern is followed by data for pneumonia, for which hospital admissions have been 27% higher

¹ Marmot Review Team for Friends of the Earth (2011) The Health Impacts of Cold Homes and Fuel Poverty
² ibid
³ See ref number 19 in marmot report
⁴ Gilbertson J, Stevens M, Stiell B and Thorogood N (2006) Home is where the hearth is: grant recipients’ views of England’s home energy efficiency scheme (Warm Front)
⁵ The raw data shows there have been, on average, 369 hospital admissions each year per 100,000 population for all chronic lower respiratory diseases in England, compared with 263 annual admissions per 100,000 population in Sweden.

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in England over the past five years than in Sweden. Perhaps most shockingly, hospital admissions for asthma are on average 126% higher in England than Sweden, meaning the rate of hospitalisation for asthma is more than twice as high in England than in Sweden.

The strain placed on our NHS
The HSCIC admissions data also makes clear the effect of cold home-related respiratory diseases on hospital bed availability. With an average length of stay of five days for chronic lower respiratory diseases in 2013/14 and 10 days for pneumonia, together these diseases accounted for a total of 3.2 million bed-days in the NHS in 2013/14. At a bed-day cost of £275\(^6\) this means they cost the NHS £875m in bed costs alone. This doesn’t include other hospital costs, or primary or social care costs. Cold homes are not only implicated in increasing risk and severity of respiratory conditions, but others too, including strokes, heart attacks, and falls in the home, which are more likely to occur, particularly in older people, when they are cold. National Energy Action recently wrote to the Prime Minister to say that the overall cost of cold homes to the NHS – not including social care – is around £1.5bn per year.

Fuel poverty, excess winter deaths, and gas prices in the UK and Sweden
Research from the Association for the Conservation of Energy has shown that the percentage of people in the UK who cannot afford to heat their homes adequately is four times the percentage in Sweden\(^7\), and that the UK historically has also had a higher proportion of excess winter deaths than Sweden. These figures are surprising, given Sweden’s much longer and colder winters, and higher energy prices. The average temperature in Stockholm in February ranges between -1\(°\)C and -5\(°\)C, whereas the average February temperature in London ranges between 2\(°\)C and 7\(°\)C. In 2013, Sweden had the highest per-unit household gas prices in the EU, at €0.123/kWh, more than twice the unit price in the UK.

The World Health Organisation estimates that around 30% of excess winter deaths can be attributed to cold homes. This means that even in the relatively mild winter of 2012/13, when there was a record low of 18,200 excess winter deaths in England and Wales, over 5000 people died because they were unable to afford to keep their home warm.

Comparison between UK and Swedish housing stock
Previous analysis has shown that walls in the UK are so badly insulated that they lose, on average, three times more heat than those in Sweden\(^8\). Furthermore, the UK has almost twice as many people – relative to the population – living in substandard homes with a ‘leaking roof, damp walls, floors or foundation, or rot in the window frames or floor’. The poor state of our housing stock is a key reason why so many more people in the UK struggle to afford to heat their homes.

Conclusion: Housing insulation is the best remedy
A large-scale energy efficiency programme is the only way to end cold homes in the UK, for good. Friends of the Earth is calling for an energy efficiency programme which would bring four million homes up to a good standard (Energy Performance Certificate C) by 2020, including two million homes occupied by low-income households. By the end of the next parliament, we’d like to see the UK on track to bringing all low-income homes up to this level by 2025, and all homes by 2035. Not only would this save billions of pounds every year for our NHS. It would also bring millions of households out of fuel poverty, increase the UK’s GDP, and create around 100,000 jobs all over the country, and ultimately, bring a tidy profit back to the Treasury.

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\(^6\) Source: NHS reference costs 2012/13
\(^7\) Association for the Conservation of Energy (2013): Energy efficiency and excess winter deaths: Comparing the UK and Sweden
\(^8\) Ibid

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