Advisors Toolkit
Factsheet No 7.a

The Impact of Cold Temperatures on Health

A World Health Organisation (WHO) Report in 1985 established that there is a link between poor health and low indoor temperatures.

Some existing conditions can be affected badly by cold and others can be brought on as a result of prolonged exposure to the cold.

Respiratory disorders can be worsened by prolonged exposure to low indoor temperatures. People living in cold homes have an increased tendency to suffer colds, flu, bronchitis and pneumonia.

At temperatures below 12^{o}C blood tends to thicken, leading to an increase in blood pressure and increased risk of heart attack and stroke as the heart works harder to pump blood round the body.

Hypothermia is caused by longer-term exposure to the cold (though longer-term may only be a matter of a couple of hours). The chronically sick, disabled and those with lower mobility levels are particularly at risk from hypothermia.

In addition, cold conditions in a home can contribute to condensation dampness and mould growth. These have a detrimental effect on some allergies. Mould spores and dust mites in the air can cause allergic reactions, which in turn can cause problems for people with respiratory illnesses such as asthma.

In Britain, a cold spell during an otherwise mild winter can see the following depending on its duration:

- after two days a sudden rise in heart attacks, by up to a third;
- after five days there is a big rise in the number of strokes;
- twelve days into a cold spell there is a rise in respiratory illnesses.

Increased Winter Mortality

In most north European countries, more people die in the four months from December to March than during the rest of the year.

- Official figures from National Records of Scotland show there were 22,272 deaths registered across the 2024/25 winter period (December 2024 to March 2025). This equates to 2,704 excess seasonal deaths—an increase from the 1,796 excess deaths the previous winter, though in line with the broader decade average

- The number of winter deaths has fluctuated over the last ten years but has generally been increasing. This follows a decrease over the longer term.

- The seasonal increase in mortality of 2,704 for winter 2024/25 is higher than the previous winter (1,796), but it is not unusually high.

- There has been a long-term downward trend in the seasonal increase in mortality. In the 1950s and 60s, there was an average seasonal increase of over 5,200 deaths in winter, whereas over the most recent decade it has averaged around 2,700.

The full report can be found here: https://www.nrscotland.gov.uk/publications/winter-mortality-in-scotland-202425/

- The causes of death with the largest seasonal increase in winter 2024/25 were:
  - influenza (530 additional deaths),
  - dementia and Alzheimer's disease (480 additional deaths),
  - coronary (ischaemic) heart disease (300 additional deaths),
  - chronic lower respiratory disease (250 additional deaths),
  - other circulatory diseases (190 additional deaths),
  - pneumonia (170 additional deaths),
  - other respiratory system diseases (150 additional deaths),
  - other mental and behavioural disorders and nervous system diseases (150 additional deaths), and
  - cerebrovascular disease (120 additional deaths).
- The seasonal increase in influenza deaths (530 additional deaths) was the largest seasonal increase recorded for this cause in at least the past 15 years.
- Older age groups are consistently affected most by the seasonal increase in mortality in winter. In winter 2024/25, for people aged 85 and over there were 18 per cent more deaths compared to the months before and after winter. In the under 65 age group there were 9 per cent more deaths in winter.

Winter cold kills people every winter, most of them elderly.

Contributing factors include low income, inefficient heating systems, external temperature fluctuations, and excessive dampness and mould growth associated with poor housing stock.

In Scotland we have long and damp winters which are worse for health.

Factors affecting excess winter mortality are varied and complex, but there is a strong relationship between thermal standards in housing and excess winter deaths.

The UK has much higher winter deaths rates than other countries with more severe winter climates, implying that it is not outdoor exposure to cold that is the key determinant.

It is generally accepted that the majority of excess winter deaths could be prevented if everyone could be kept warm in their homes during the winter months.

Asthma and damp homes

Children are more likely to stay asthmatic if they live in a damp home, according to new research.

A German study, published in the journal Thorax, has found that dampness - long associated with wheezing and coughing - is also a risk factor for asthma, partly because it helps the growth of the house dust mites which irritate asthmatics' airways.

Night-time wheezing and shortness of breath was strongly linked to dampness in the home.

- the UK has one of the highest rates of asthma symptoms in the world
- around 5.4 million people are currently receiving treatment for asthma in the UK – 1 in 11 people https://www.asthma.org.uk/support-us/campaigns/data-visualisations/#Prevalence
- the NHS spends £1 billion per year treating asthma
- on average, 3 people per day die from asthma. As many as 90% of asthma deaths are preventable