

Excess winter deaths

Ian McCartney

There is no universally accepted definition of excess winter mortality. For some years the then Department of Health and Social Security put out figures on excess winter mortality which compared the number of deaths in the first quarter (January to March) with the Summer quarter (July to September).

Late in 1988 a paper on winter mortality was published by two statisticians at the Office of Population Censuses and Surveys. This used a different method to assess the level of excess winter deaths, looking at deaths occurring in the period December to March as "winter deaths" and comparing these with succeeding and preceding four month periods. The report made the following points about the use of different time periods for measuring winter deaths:-

"There are various ways to divide the year so as to study patterns of seasonal mortality and in particular to define winter deaths. The Office of Population Censuses and Surveys routinely publishes numbers of deaths in England and Wales by week, calendar month and quarter. Each time unit has its advantages and disadvantages. ...

Quarterly numbers of death registrations ... have tended to be used by the OPCS for the study of seasonal mortality. As with the monthly figures, the quarters are of unequal lengths and are often affected by seasonal holidays so this presents certain difficulties for analysis.

Figures for the first quarter (January to March) do not coincide with those for the winter period as normally perceived. In England and Wales there are more deaths, and it is usually colder, in December than in March. For the purposes of this study a twelve month period has been divided into three four month periods [Winter: December to March, Summer: April to July, Autumn: August to November].

Any combination of the months is bound to be arbitrary: but the method adopted here has the advantage of arithmetical simplicity, and also appears to be justified by the sharp distinction between the wide annual fluctuation in numbers of winter deaths and the smooth trend for the other two seasons." Curwen and Devis (1988)

Since this report was published, what few references in Parliamentary Questions there have been referred to excess winter mortality in terms of the

four month period December to March. For example an oral question on 7 December 1993:-

Mr Jim Cunningham: to ask the Secretary of State for Health what assessment she has made of excess winter deaths for England and Wales in 1992.

Mr Bowis: The figure is 34,845.

There are significant differences between the number of deaths occurring in the winter and in other months. Figure 1 shows the percentage increase in winter deaths (four months December to March) over the average for the surrounding summer and autumn periods (four months April to July and August to November). As you can see, the gap has narrowed over the last twenty years, but in recent years this tendency appears to have been trailing off, and there remains around a 20% winter excess - equivalent to around 35,000 additional deaths in England and Wales.

Some commentators make the point that, in spite of the reduction, seasonal variation in the UK is still relatively high compared to many other countries. There is very little data available, but a study published in the Department of Health's Health Trends showed the ratio of winter to non-winter deaths is generally much lower in other countries. For example in the period 1976 to 1984 deaths in England and Wales were on average 21% higher in the winter. In Scandinavian countries the ratio was around 10%. In fact, of the European

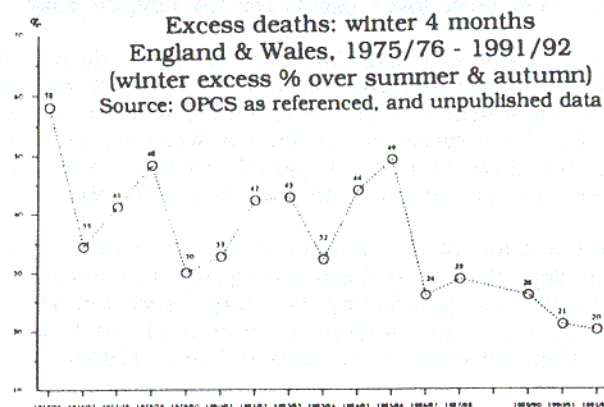


Figure 1

countries included in this study, only Portugal had a higher rate of excess winter deaths than England and Wales - the values for some of the other countries were: France 11%, West Germany 8%, Netherlands 9%, USA 9%. The fact that Portugal has a higher rate is used by Ministers to refute the hypothesis that the underlying reason for the differential is severe winters and inadequate housing/heating in the UK. However, while the relationship between winter cold and higher rates of death is not clearly understood, I think it fair to say the two are certainly associated and the UK does seem to have relatively high rate of winter mortality.

Author: Ian McCartney, Socialist M.P., Makerfield, House of Commons, London SW1A 0AA. This article was received as correspondence; the title and reference have been added by the editor.

Reference:

Curwen M and Devis T (1988) 'Winter mortality, temperature and influenza: has the relationship changed in recent years?', *Population Trends* 54: 17-20.

News, notes

New subscription rates

From 1995 the subscriptions will be (previous rates in brackets):

Individuals:	
Waged	£12 (£10)
Low waged	£5 (£5)
Unwaged	£3 (£3)
Institutions	
	£20 (£10)

Overseas subscriptions are at the same rate. 'Low waged' is self-defined. The last change of rate was in 1991.

Reminders for 1995 subscriptions at these new rates will be sent with the Autumn newsletter in October, together with standing order amendment forms to those who will need them.

New management for Radical Statistics subscriptions

As agreed at the February annual conference, Radical Statistics now has paid help to keep the subscriptions database in order, and to deal with renewals and new members. We will keep the London address and there is no planned change to systems, so most readers will probably not notice the change-over.

PS Enterprises, of Cullingworth near Bradford, will do the work for one year until Mayday 1995, renewable on an annual basis if a review in January is positive on both sides and the conference in February approves a renewal.