
Winter Mortality in Scotland 2012/13

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A National Statistics publication for Scotland

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Main points

The main points in this report are:

- There were 19,908 deaths registered in Scotland in the four months of winter 2012/13 (December to March), compared with 19,119 in winter 2011/12.
- These statistics are available for every winter from 1951/52. Winter 2012/13 had the sixth lowest number of deaths registered in any of those 62 winters (winter 2011/12 had the lowest figure).
- Comparing the number of deaths in the four winter months with the average for the two adjacent four-month periods, the seasonal increase in mortality in winter 2012/13 was 2,000.
- The seasonal increase in mortality has been calculated for every winter from 1951/52. The figure of 2,000 for winter 2012/13 was around 600 more than the corresponding value of 1,420 for winter 2011/12, but was the fourth lowest of any of the 62 winters for which such a figure has been calculated (the 1,420 for winter 2011/12 was the lowest value).
- The long-term trend in the seasonal increase in mortality in the winter has clearly been downward: although there were unusually large figures in some years, the height of the peaks has generally been falling, and the 5-year moving average has tended to decline (although it has not changed much in recent years).
- The latest thirteen winters have had eight out of the twelve lowest seasonal increases in mortality in the 62 years for which these statistics are available. Over the 62 years covered by these statistics, the lowest seasonal increase in mortality was for winter 2011/12 (1,420), the second lowest was for winter 2005/06 (1,780), the third lowest was for winter 2001/02 (1,840), and the fourth lowest was for winter 2012/13 (2,000). The seventh and eighth lowest seasonal increases in mortality were for winter 2007/08 (2,180) and winter 2000/01 (2,220), and the eleventh and twelfth lowest were for winter 2010/11 (2,450) and winter 2002/03 (2,510).

1. Introduction

This release presents provisional data for the seasonal increase in mortality in Scotland in winter 2012/13. The Tables and Figures provide overall data for Scotland for over 60 years, breakdowns by age-group for Scotland as a whole for over 20 years and for each NHS Board and Local Authority area for 10 years, and also recent years' numbers of deaths registered for Scotland and for NHS Board and Local Authority areas.

The seasonal increase in mortality in the winter is defined as the difference between the number of deaths in the four-month 'winter' period (December to March, inclusive) and the average number of deaths in the two four-month periods which precede winter (August to November, inclusive) and follow winter (April to July, inclusive).

There is no single cause of 'additional' deaths in winter. Very few are caused by hypothermia. Most are from respiratory and circulatory diseases such as pneumonia, coronary heart disease and stroke. In only a small proportion of deaths is influenza recorded as the underlying cause.

The main change made for this edition is that, in [Table 2](#) and [Figure 3](#), data from 'Scottish Influenza Surveillance Reporting Scheme' (SISRS) has replaced 'Pandemic Influenza Primary Care Reporting' (PIPeR) as the indicator of the level of influenza activity in recent years (further information available in [Section 3](#) and the footnotes to [Table 2](#)).

2. Commentary

- 2.1 [Table 1](#) shows recent trends in the seasonal increase in mortality in the winter for Scotland as a whole. It is estimated that there were about 2,000 'additional' deaths in Scotland during winter 2012/13. This was around 600 more than the corresponding figure of 1,420 for the previous winter, but was still the fourth lowest figure in the whole series, which starts with winter 1951/52 ([paragraph 2.4](#), below).
- 2.2 [Table 1](#) also shows the extent to which the seasonal increase in mortality in the winter affects the elderly, particularly those aged 75 and over. In the past ten years, the percentage of the additional deaths accounted for by people aged 75 to 84 ranged between 29% (in 2010/11) and 40% (in 2007/08), and people aged 85 and over accounted for between 34% (in 2005/06) and 56% (in 2012/13) of the additional deaths. Overall, taking the average of the ten years' percentages, around 33% of the additional deaths were of people who were aged 75 to 84, and 41% were people aged 85 and over.
- 2.3 [Figure 1](#) shows the seasonal increase in mortality in the winter for each winter from 1951/52 individually (the bars) and as a 5-year moving average (the black line) - the latter should give a better guide to the overall trend, as it 'smooths out' most (but not all) of the effect of year-to-year fluctuations in the figures. The chart shows that there has been an overall downward trend in the number of 'additional' winter deaths over the past 60 years. Although there have been unusually large figures in some years, the height of the peaks has generally appeared to be falling, and the 5-year moving average has tended to decline. However, there are fluctuations around the overall long-term downward trend, such as the short-term rise in the moving average towards the end of the 1990s. The moving average

appears to have more-or-less 'levelled off' since the early 2000s. The average of the latest nine values of the moving average is 2,509, and those nine values have generally been around 2,500, broadly speaking. Seven of the latest nine values of the moving average have been within 100 of 2,500, the only values outwith that range being the lowest (2,346) and the highest (2,730).

- 2.4 [Table 2](#) gives the figures for the 62 winters for which these statistics are available. The 1,420 'additional' deaths in winter 2011/12 was by far the lowest figure in the whole series, even though several earlier winters were warmer than 2011/12 (in terms of their overall mean temperatures). Prior to 2011/12, winter 2005/06, with mild weather and no serious outbreaks of flu, had had the lowest number of 'additional' deaths (1,780) recorded since the series started in 1951/52. Despite being unusually cold, winter 2010/11 had what was, in historical terms, a low number of 'additional' deaths (2,450, the eleventh lowest figure). The winter of 2001/02 had the third lowest seasonal increase in mortality (1,840), and the latest winter (2012/13) had the fourth lowest figure (2,000). The winters of 2007/08 and 2000/01 had the seventh and eighth lowest figures (2,180 and 2,220, respectively) and the twelfth lowest figure was 2,510 in winter 2002/03. As a result, the latest thirteen winters had eight of the twelve lowest seasonal increases in mortality in the 62 years for which these statistics are available. The other winters which had seasonal increases in mortality which were among the twelve lowest such figures were 1966/67 (2,020 - fifth lowest), 1988/89 (2,160 - sixth lowest), 1994/95 (2,310 - ninth lowest) and 1990/91 (2,430 - tenth lowest).
- 2.5 [Table 3](#) gives a more detailed breakdown of the seasonal increase in mortality in the winter by age and NHS Board area. There are some negative figures: these are cases where a particular age-group had fewer deaths in the winter period than the average of the two adjacent non-winter periods. This happens sometimes because the number of deaths may fluctuate 'randomly' during the year. The 'all ages' figures for the seasonal increase in mortality in the winter take account of any negative values for individual age-groups. [Table 6](#) provides the same kinds of figures, but for each Local Authority area.
- 2.6 The other tables provide the numbers of deaths registered each winter, and in the adjacent four-month periods, for Scotland, NHS Board areas and Local Authority areas. They also show the seasonal increase in mortality in the winter (which is sometimes referred to as the 'seasonal difference') that is calculated from those numbers of deaths: [Section 4](#) explains how it is done.

3. Relationship with Overall Mean Winter Temperature and the Level of Influenza Activity

- 3.1 In general, there are more deaths in colder months, and mortality tends to rise as temperatures fall. As well as figures for the seasonal increase in mortality, [Table 2](#) also gives the Met Office's overall mean winter temperature for Scotland for each of the years (based on data for December to February, rather than December to March). For example, on this basis, 2010/11 was the fifth coldest winter in the 60 years from 1951/52 to 2010/11, inclusive: it had a mean winter temperature of 1.28°C (compared with the overall average of the mean winter temperatures for the 59 preceding winters, which was 2.57°C), and only four of those 59 winters had a lower mean winter temperature (1962/63: 0.16°C; 1976/77: 1.02°C; 1978/79: 0.45°C; and 2009/10: 0.39°C). Therefore, one might have expected a relatively high seasonal increase in mortality in winter 2010/11. However, that did not happen: the seasonal increase in mortality in winter 2010/11 was (at that time) the ninth lowest figure recorded since the series started in 1951/52. Similarly, although winter 2011/12 was quite mild, with a mean winter temperature of 3.56°C, there were eight other warmer winters (with mean temperatures ranging from 3.61°C in winter 2007/08 to 5.12°C in winter 1988/89) and yet winter 2011/12 had by far the lowest seasonal increase in mortality. On the basis of its average temperature, the most recent winter (2012/13) was only the 34th warmest of the 62 winters for which these figures are available, but it had the fourth lowest seasonal increase in mortality (2,000).
- 3.2 [Figure 2](#) shows that there is no clear relationship between the seasonal increase in mortality in the winter and the overall mean winter temperature in different years: part (a) shows this for all the winters for which figures are available; part (b) does so for the latest 20 winters alone. There may be a number of reasons for this lack of a clear relationship, for example, over the years improvements in home insulation and the spread of central heating will have altered the relationship between the weather outdoors and temperatures indoors. The overall mean winter temperature may not be a good indicator of the severity of a winter because it is an average over three months: it could therefore suggest that a winter with some extremely cold weeks in, say, January was a 'mild' one if the average for the three months taken together were raised by unusually warm weather in December and/or February.
- 3.3 The last winter with a high level of influenza activity was winter 1999/2000 (despite H1N1/'swine' flu, winter 2009/10 had a relatively low level of influenza activity). The seasonal increase in mortality in winter 1999/2000 was 5,190. Since then, the number of 'additional' deaths in winter has tended to fluctuate around about half of that level. [Table 2](#) also includes indicators of the level of influenza activity, which National Records of Scotland (NRS) has calculated from figures for General Practitioner consultation rates for influenza-like illnesses which were supplied by Health Protection Scotland (HPS). The 'fluspotter' surveillance scheme, which ran from 1971 to 2008, was superseded by the Pandemic Influenza Primary Care Reporting (PIPeR) sentinel scheme, which started in 2004. However, due to a change in the software used by GP practices, it was not possible to use PIPeR for the surveillance of GP consultation rates for Influenza-Like Illnesses (ILI) with effect from winter 2011/12. Since 2009/10 the Scottish Influenza Surveillance Reporting Scheme (SISRS) has provided aggregate level data on GP consultation for ILI, based on automated software extracts from 99% of Scottish GP practices. These data are now used for routine surveillance of ILI in Scotland, and data from

the PIPeR sentinel scheme have been used retrospectively to calculate comparable historical rates for SISRS for the period 2003/04 to 2008/09. The SISRS data have replaced the 'PIPeR-based' figures that appeared in the previous edition of this publication. NRS has expressed each indicator in the form of an index, with the 2004/05 value being 100 in each case (one might expect differences between the two series' index values for the other years which they have in common, because different measuring systems may produce different results). Some of the winters which had particularly high seasonal increases in mortality were in periods with unusually high levels of influenza activity (e.g. 1975/76 and 1989/90), but there have also been occasions when the relationship was less clear (e.g. 1971/72 had a very high level of influenza activity, but its seasonal increase in mortality did not differ greatly from the 5-year moving average).

- 3.4 [Figure 3](#) suggests that there is a general tendency for the seasonal increase in mortality in the winter to be higher when there are more cases of influenza: part (a) shows this using the 'fluspotter' data; part (b) does so using the 'SISRS' data. However, it will be seen that the relationship between the two numbers is not a strong one, because there are some winters which had very similar levels of influenza activity but which had markedly different seasonal increases in mortality. It should be noted that the time of the year when influenza is at its highest may not be within the four winter months (as defined for the purpose of these statistics), which may reduce the statistical correlation between influenza activity and the seasonal increase in mortality. This can be seen from HPS's regular [Influenza Updates](#) (available on their website) which include a chart comparing the latest and the previous influenza seasons' GP consultation rates for flu. For example, the updates produced in April 2010 show that influenza in the 2009/10 season peaked in early November 2009 - which was before the start of what is defined as 'winter 2009/10' for the statistics of the seasonal increase in mortality in the winter.
- 3.5 Influenza is recorded as the cause of relatively few deaths. Information about the numbers of deaths from different causes is given in the [Vital Events Reference Tables](#) on the NRS website. Table 6.1 of these shows that, in most years, there are only a few deaths for which the underlying cause is recorded as influenza (up to 2010, those deaths for which ICD-10 codes J10 and J11 were used; from the start of 2011 a new code [J09] has been used, for influenza due to identified avian influenza virus, cases of which were previously coded J10). In recent years, the largest such figure was 131 in 2000, which is small in relation to the winter 1999/2000 figure of 5,190 for the seasonal increase in mortality ([Table 1](#) of this publication). The second-largest number of deaths from influenza in recent years was 62 in 2009. This includes all the deaths for which the underlying cause was H1N1/'swine' flu that were registered in 2009. Again, this is relatively small in relation to the winter 2009/10 figure of 2,760 for the seasonal increase in mortality (given in [Table 1](#) of this publication). There were far fewer influenza deaths in most of the other years (e.g. 10 in 2008, 12 in 2010 and 19 in 2012). H1N1/'swine' flu accounted for only a small proportion of winter 2009/10's seasonal increase in mortality. The HPS [Influenza Update](#) 15 April 2010 on the Health Protection Scotland website stated that 'the total number of reports received of deaths among those with confirmed Influenza A H1N1v in Scotland remains at 69', a figure which covers the period since H1N1/'swine' flu started in Scotland in Spring 2009, so the number of H1N1/'swine' flu deaths included in the figure for the seasonal increase in mortality in winter 2009/10 will be less than that.

4. How the Seasonal Increase in Mortality in the Winter is Calculated

- 4.1 The seasonal increase in mortality in the winter is defined as the difference between the number of deaths in the four-month 'winter' period (December to March, inclusive) and the average number of deaths in the two four-month periods which precede winter (August to November) and follow winter (April to July). This is a standard definition which is used by the Office for National Statistics, the World Health Organisation and others (who may describe it as - e.g. 'excess winter deaths' or 'excess winter mortality').
- 4.2 Some of the previous editions of this publication were called 'Increased Winter Mortality' and 'Excess Winter Mortality'. The title was changed to reduce the likelihood of misunderstandings (because someone seeing, say, 'Increased Winter Mortality in Scotland, 2009/10' might wrongly infer that there had been an increase in winter mortality in that year).
- 4.3 The numbers of deaths registered each winter, and in the adjacent four-month periods, are provided in [Table 4](#), along with figures for the seasonal increase in mortality in the winter (sometimes referred to as the 'seasonal difference') which have been calculated from those numbers of deaths.
- 4.4 [Table 4](#) shows that 19,908 deaths were registered in Scotland in the four months of winter 2012/13 (December 2012 to March 2013). This was more than both the 17,773 deaths in the preceding 4-month period (August 2012 to November 2012) and the 18,045 deaths in the following 4-month period (April 2013 to July 2013). Comparing the four winter months with the average of the 4-month periods before and after the winter, and rounding the result to the nearest ten, gives a figure for increased winter mortality of 2,000 for winter 2012/13. The corresponding figures for the other winters were calculated using the same method.
- 4.5 In passing, it may be noted that the 19,119 deaths registered in Scotland in the four months of the previous winter (i.e. winter 2011/12) was the lowest number for any of the 23 winters that are shown in [Table 4](#). It was also the lowest value for any of the 62 winters for which those values have been calculated, which start with winter 1951/52. This is because, of the winters from 1951/52 to 1989/90 (which are not shown in [Table 4](#)), the one with the fewest deaths was winter 1966/67, when 21,431 deaths were registered. The 19,908 deaths registered in the most recent winter (2012/13) was the sixth lowest number in the 62 winters: the only winters with fewer deaths registered were 2011/12 (19,119 deaths), 2010/11 (19,626), 2005/06 (19,651), 2009/10 (19,688) and 2007/08 (19,900).
- 4.6 [Table 5](#) provides the same kind of information as [Table 4](#) but for each NHS Board area for the latest four years, in order to provide examples of the calculation of the seasonal increase in mortality for NHS Board areas; [Table 7](#) does the same for each Local Authority area.

5. Background: about these statistics

- 5.1 This is an annual publication. National Records of Scotland (NRS) collects the underlying data on a daily basis, as and when each event is registered. The statistics for the latest winter are all new. The figures for the previous winter may have been revised very slightly.
- 5.2 Information about (e.g.) the sources, methods, definitions and reliability of these statistics is available from the following National Records of Scotland (NRS) website pages [general background information on Vital Events statistics](#) and [background information on points which are specific to statistics about deaths](#). These figures are directly comparable with those for other parts of the United Kingdom (UK), there are no significant differences across the UK in how Vital Events data are collected and processed.
- 5.3 The figures for the latest winter, and the subsequent four month period, given here are provisional. They were produced from the information that NRS held about deaths which had been registered by (roughly) five weeks before the date on which this release was published. By law, a death which occurs in Scotland must be registered within eight days. Therefore, hardly any deaths which occurred in the winter (December to March), or in the subsequent four month period (April to July), will not have been registered in time to be included in NRS's statistical database before the tables for this release were produced. However, the figures could change slightly, because 'late' registrations occur occasionally, in unusual circumstances. NRS does not 'freeze' its statistical data for a given year until it starts to prepare the final statistics for the calendar year as a whole, which are published in the following summer.
- 5.4 Statistics of the seasonal increase in mortality in the winter inform public debate and the development of government policy on matters such as the health of the elderly population, fuel poverty and whether there is a need to improve the housing stock in terms of central heating and thermal insulation.
- 5.5 A separate document, [Increased Winter Mortality - Background Note](#) (PDF 39 Kb), published in October 2010 (available on the NRS website), gives information about some of the medical causes of the seasonal increase in mortality in the winter, describes some research studies' findings on factors that influence it, reports on a comparison of the figures for a number of European countries, mentions previous publications on this topic, and provides references to the sources of the material. The main points to note are:
- high cold-related mortality is associated with low indoor temperatures, and with people not wearing appropriate clothing when outdoors in cold weather;
 - increased winter mortality was at the same level in Scotland as the overall mean for the 14 European countries covered by a comparative study; and
 - the seasonal increase in mortality in the winter is higher in countries with a warmer winter climate, probably because their homes tend to be poorly insulated and their populations tend not to dress well for cold weather.
- 5.6 The United Kingdom Statistics Authority has designated these statistics as National Statistics, in accordance with the Statistics and Registration Service Act 2007 and signifying compliance with the Code of Practice for Official Statistics.

5.7 Designation can be broadly interpreted to mean that the statistics:

- meet identified user needs;
- are well explained and readily accessible;
- are produced according to sound methods, and
- are managed impartially and objectively in the public interest.

5.8 Once statistics have been designated as National Statistics it is a statutory requirement that the Code of Practice shall continue to be observed.

Table 1: The Seasonal Increase in Mortality in the Winter¹ by age group², Scotland, 1990/91 to 2012/13

	0-64	65-74	75-84	85+	All ages
1990/91	230	580	750	880	2,430
1991/92	350	560	1,020	950	2,890
1992/93	280	550	950	960	2,740
1993/94	350	440	990	800	2,590
1994/95	240	380	930	760	2,310
1995/96	250	860	1,420	1,120	3,650
1996/97	320	630	1,350	1,350	3,640
1997/98	170	730	950	760	2,610
1998/99	380	790	1,660	1,920	4,750
1999/2000	650	970	1,820	1,750	5,190
2000/01	260	370	820	760	2,220
2001/02	80	230	820	710	1,840
2002/03	350	300	940	920	2,510
2003/04	320	510	840	1,170	2,840
2004/05	200	430	1,030	1,090	2,760
2005/06	330	280	550	610	1,780
2006/07	190	410	980	1,180	2,750
2007/08	130	320	880	850	2,180
2008/09	370	590	1,170	1,370	3,510
2009/10	460	370	890	1,040	2,760
2010/11	410	430	720	890	2,450
2011/12	230	110	440	650	1,420
2012/13 provisional	90	190	600	1,120	2,000

Footnotes

1) The Seasonal Increase in Mortality in the Winter has been defined as the difference between the number of deaths in the four 'winter' months (December - March) and the average of the numbers of deaths in the preceding (August - November) and following (April - July) non-winter 4-month periods.

2) Because of the approximate nature of this measure, numbers have been rounded independently to the nearest 10. The sum of the age group figures may, therefore, differ from the 'all ages' total.

Table 2: The Seasonal Increase in Mortality in the Winter, mean winter temperature and indicators of level of influenza activity, Scotland, 1951/52 to 2012/13

Year	Seasonal Increase in Mortality in the Winter		Mean winter temperature ¹ (deg. C.)	Indicators of influenza activity ² (Index: 2004/05 = 100)	
	Additional deaths (Dec-Mar)	5-year moving average		'Fluspotter'	'SISRS'
1951/52	5,240		1.89		
1952/53	5,890		2.94		
1953/54	4,770	5,634	2.70		
1954/55	5,820	5,140	1.41		
1955/56	6,450	4,854	1.52		
1956/57	2,770	5,734	3.47		
1957/58	4,460	5,388	2.06		
1958/59	9,170	5,166	1.66		
1959/60	4,090	5,630	2.12		
1960/61	5,340	6,160	2.56		
1961/62	5,090	5,068	2.13		
1962/63	7,110	5,092	0.16		
1963/64	3,710	5,294	3.09		
1964/65	4,210	4,680	1.87		
1965/66	6,350	4,378	1.60		
1966/67	2,020	4,596	3.00		
1967/68	5,600	5,162	1.91		
1968/69	4,800	4,434	1.55		
1969/70	7,040	5,024	1.52		
1970/71	2,710	4,720	3.41		
1971/72	4,970	4,322	3.56	3,412	
1972/73	4,080	3,606	3.23	1,286	
1973/74	2,810	4,352	3.50	2,081	
1974/75	3,460	4,064	3.88	1,144	
1975/76	6,440	4,218	3.72	2,951	
1976/77	3,530	4,494	1.02	656	
1977/78	4,850	4,336	1.77	2,214	
1978/79	4,190	3,802	0.45	951	
1979/80	2,670	4,356	2.47	967	
1980/81	3,770	4,300	2.97	800	
1981/82	6,300	4,020	1.36	1,542	
1982/83	4,570	4,112	2.49	1,309	
1983/84	2,790	4,300	2.53	1,698	
1984/85	3,130	3,688	2.12	705	
1985/86	4,710	3,292	1.28	1,107	
1986/87	3,240	3,166	2.00	847	
1987/88	2,590	3,632	3.14	337	

Table 2, continued

Year	Seasonal Increase in Mortality in the Winter		Mean winter temperature ¹ (deg. C.)	Indicators of influenza activity ² (Index: 2004/05 = 100)	
	Additional deaths (Dec-Mar)	5-year moving average		'Fluspotter'	'SISRS'
1988/89	2,160	3,176	5.12	819	
1989/90	5,460	3,106	3.34	2,753	
1990/91	2,430	3,136	1.99	319	
1991/92	2,890	3,222	3.94	928	
1992/93	2,740	2,592	3.42	979	
1993/94	2,590	2,836	1.77	2,053	
1994/95	2,310	2,986	2.89	219	
1995/96	3,650	2,960	1.76	907	
1996/97	3,640	3,392	2.48	1,763	
1997/98	2,610	3,968	4.51	272	
1998/99	4,750	3,682	3.26	718	
1999/00	5,190	3,322	3.03	1,973	
2000/01	2,220	3,302	2.16	144	
2001/02	1,840	2,920	3.39	95	
2002/03	2,510	2,434	2.96	98	
2003/04	2,840	2,346	3.20	321	107
2004/05	2,760	2,528	3.94	100	100
2005/06	1,780	2,462	3.35	77	92
2006/07	2,750	2,596	4.34	367	221
2007/08	2,180	2,596	3.61	116	94
2008/09	3,510	2,730	2.60		230
2009/10	2,760	2,464	0.39		147
2010/11	2,450	2,428	1.28		174
2011/12	1,420		3.56		13
2012/13 prov.	2,000		2.49		37

Footnotes

1) The mean winter temperature for Scotland (for December to February), as obtained from the Met Office website (the relevant page is reached by: Home > Public > Weather > UK Climate > Climate Summaries > Download regional values, and then select the link for 'Scotland Mean Temp' which appears under the 'Year ordered statistics' heading)

2) Indicators of the numbers of GP consultations for influenza-like illness, calculated from figures which were supplied by Health Protection Scotland (HPS).

The 'fluspotter' index value was calculated from the maximum rate (per 100,000) in each flu season.

The 'fluspotter' surveillance scheme, which ran from 1971 to 2008, was superseded by the Pandemic Influenza Primary Care Reporting (PIPeR) sentinel scheme, which started in 2004. However, due to a change in the software used by GP practices, it was not possible to use PIPeR for the surveillance of GP consultation rates for influenza-like illnesses (ILI) with effect from winter 2011/12.

Since 2009/10 the Scottish Influenza Surveillance Reporting Scheme (SISRS) has provided aggregate level data on GP consultation for ILI, based on automated software extracts from 99% of Scottish GP practices. This data is now used for routine surveillance of ILI in Scotland, and data from the PIPeR sentinel scheme have been used retrospectively to calculate comparable historical rates for SISRS for the period 2003/04 to 2008/09. The 'SISRS' data replaced the 'PIPeR-based' figures that appeared in the previous edition of this publication. A technical guide providing more details on SISRS data is available from the HPS website on seasonal influenza surveillance.

Please note: since the 'fluspotter' and 'SISRS' systems measure activity using different methods and definitions, their results are not directly comparable.

Table 3: The Seasonal Increase in Mortality in the Winter and the Increased Winter Mortality Index, by age group and NHS Board area of usual residence, 2003/04 to 2012/13

Scotland

	Seasonal Increase in Mortality in the Winter ^{1,2}					Increased Winter Mortality Index ^{3,4}				
	All ages	0-64	65-74	75-84	85+	All ages	0-64	65-74	75-84	85+
2003/04	2,840	320	510	840	1,170	16	9	13	14	25
2004/05	2,760	200	430	1,030	1,090	15	5	12	18	23
2005/06	1,780	330	280	550	610	10	9	8	10	13
2006/07	2,750	190	410	980	1,180	16	5	12	18	24
2007/08	2,180	130	320	880	850	12	3	9	16	17
2008/09	3,510	370	590	1,170	1,370	21	10	18	22	28
2009/10	2,760	460	370	890	1,040	16	13	11	17	21
2010/11	2,450	410	430	720	890	14	12	13	14	17
2011/12	1,420	230	110	440	650	8	7	3	8	12
2012/13 (P)	2,000	90	190	600	1,120	11	3	6	11	20

Ayrshire & Arran

	Seasonal Increase in Mortality in the Winter ^{1,2}					Increased Winter Mortality Index ^{3,4}				
	All ages	0-64	65-74	75-84	85+	All ages	0-64	65-74	75-84	85+
2003/04	230	20	50	50	110	16	7	17	9	28
2004/05	260	10	70	80	100	19	5	25	17	27
2005/06	150	60	40	0	50	10	21	14	1	12
2006/07	220	40	30	60	90	16	14	10	14	24
2007/08	140	-10	30	40	90	10	.	9	8	23
2008/09	380	30	50	160	140	29	11	19	42	35
2009/10	190	10	10	90	70	14	4	5	23	19
2010/11	200	20	30	70	90	15	6	13	15	22
2011/12	70	-10	20	60	-10	5	.	9	16	.
2012/13 (P)	150	-30	10	80	90	10	.	4	17	21

Borders

	Seasonal Increase in Mortality in the Winter ^{1,2}					Increased Winter Mortality Index ^{3,4}				
	All ages	0-64	65-74	75-84	85+	All ages	0-64	65-74	75-84	85+
2003/04	40	-10	10	10	30	9	.	14	9	17
2004/05	60	0	10	20	30	15	1	20	15	21
2005/06	60	0	10	20	30	14	.	16	13	22
2006/07	60	10	0	10	30	15	18	5	10	24
2007/08	80	20	10	0	40	19	32	19	0	36
2008/09	100	10	20	40	30	24	15	23	34	21
2009/10	50	-10	10	20	30	12	.	9	18	25
2010/11	70	10	20	10	30	19	21	39	6	22
2011/12	40	-10	20	20	10	9	.	26	19	4
2012/13 (P)	70	0	-10	40	40	16	.	.	31	24

Dumfries & Galloway

	Seasonal Increase in Mortality in the Winter ^{1,2}					Increased Winter Mortality Index ^{3,4}				
	All ages	0-64	65-74	75-84	85+	All ages	0-64	65-74	75-84	85+
2003/04	30	0	20	0	10	5	.	16	2	8
2004/05	70	0	20	30	20	12	.	18	15	10
2005/06	60	20	30	-10	20	10	17	28	.	13
2006/07	60	0	10	30	20	10	4	5	14	11
2007/08	90	30	10	30	20	16	37	7	13	15
2008/09	140	20	30	40	40	25	23	29	25	24
2009/10	100	10	10	30	50	18	12	12	17	27
2010/11	50	20	10	10	20	8	17	7	4	9
2011/12	20	-20	-20	10	40	3	.	.	6	19
2012/13 (P)	40	0	-10	20	40	7	.	.	10	18

Table 3: continued

Fife

	Seasonal Increase in Mortality in the Winter ^{1,2}					Increased Winter Mortality Index ^{3,4}				
	All ages	0-64	65-74	75-84	85+	All ages	0-64	65-74	75-84	85+
2003/04	150	-10	20	10	130	12	.	6	2	38
2004/05	250	30	20	120	90	21	13	8	27	25
2005/06	40	10	-30	30	30	4	4	.	8	10
2006/07	150	-10	20	70	80	12	.	6	18	21
2007/08	210	10	10	80	110	17	3	3	21	33
2008/09	280	10	60	80	130	23	6	25	21	36
2009/10	190	30	40	60	60	16	14	17	16	16
2010/11	90	30	-10	50	20	7	13	.	12	6
2011/12	120	20	50	-10	60	10	8	23	.	15
2012/13 (P)	140	-10	60	30	70	11	.	27	7	16

Forth Valley

	Seasonal Increase in Mortality in the Winter ^{1,2}					Increased Winter Mortality Index ^{3,4}				
	All ages	0-64	65-74	75-84	85+	All ages	0-64	65-74	75-84	85+
2003/04	180	30	30	40	70	18	16	16	13	28
2004/05	170	20	50	80	30	18	8	24	25	12
2005/06	180	0	40	70	70	19	2	21	22	27
2006/07	150	30	10	20	90	16	14	8	7	34
2007/08	110	20	-10	40	50	12	9	.	15	21
2008/09	280	40	40	90	110	32	21	24	32	45
2009/10	100	20	20	-10	60	11	14	10	.	24
2010/11	140	30	30	30	40	15	17	18	11	17
2011/12	60	0	-10	40	30	7	.	.	14	10
2012/13 (P)	90	10	-20	40	60	9	7	.	12	22

Grampian

	Seasonal Increase in Mortality in the Winter ^{1,2}					Increased Winter Mortality Index ^{3,4}				
	All ages	0-64	65-74	75-84	85+	All ages	0-64	65-74	75-84	85+
2003/04	320	20	40	150	110	20	7	14	28	24
2004/05	250	20	60	80	90	15	7	20	14	19
2005/06	130	0	30	30	70	8	0	9	6	14
2006/07	380	40	10	140	200	23	12	4	26	40
2007/08	250	20	50	100	70	15	7	16	19	14
2008/09	270	20	50	60	150	16	5	16	11	30
2009/10	210	40	30	50	100	13	12	10	9	18
2010/11	250	20	40	80	120	15	6	15	15	22
2011/12	180	40	10	70	70	11	14	2	13	12
2012/13 (P)	170	30	30	-10	120	10	9	10	.	22

Greater Glasgow & Clyde⁵

	Seasonal Increase in Mortality in the Winter ^{1,2}					Increased Winter Mortality Index ^{3,4}				
	All ages	0-64	65-74	75-84	85+	All ages	0-64	65-74	75-84	85+
2003/04	670	100	150	190	230	15	9	15	13	22
2004/05	610	20	40	280	270	13	2	4	20	26
2005/06	450	130	50	120	160	10	13	5	8	15
2006/07	770	50	140	280	290	18	5	16	21	28
2007/08	600	30	90	260	210	14	3	10	20	20
2008/09	800	110	150	200	330	19	11	19	16	31
2009/10	570	120	70	220	160	14	13	8	18	15
2010/11	610	130	100	160	230	15	14	12	13	21
2011/12	250	40	30	50	130	6	5	4	4	11
2012/13 (P)	430	40	30	100	270	10	4	3	8	23

Table 3: continued

Highland^o

	Seasonal Increase in Mortality in the Winter ^{1,2}					Increased Winter Mortality Index ^{3,4}				
	All ages	0-64	65-74	75-84	85+	All ages	0-64	65-74	75-84	85+
2003/04	140	40	-20	60	60	12	16	.	16	19
2004/05	140	0	20	20	100	13	1	8	5	38
2005/06	80	20	-20	50	20	7	11	.	16	6
2006/07	190	30	30	60	70	16	12	12	18	21
2007/08	80	0	0	-10	80	7	0	1	.	26
2008/09	150	0	40	30	70	13	1	18	10	23
2009/10	200	40	30	50	80	19	20	13	15	25
2010/11	110	10	40	20	40	10	3	22	6	12
2011/12	90	20	-10	40	40	8	10	.	11	11
2012/13 (P)	140	20	10	60	60	13	9	4	19	15

Lanarkshire

	Seasonal Increase in Mortality in the Winter ^{1,2}					Increased Winter Mortality Index ^{3,4}				
	All ages	0-64	65-74	75-84	85+	All ages	0-64	65-74	75-84	85+
2003/04	400	60	30	160	150	22	14	8	26	38
2004/05	280	30	70	120	60	15	6	17	18	15
2005/06	290	60	50	110	70	15	13	14	19	15
2006/07	210	-10	80	80	60	11	.	21	13	13
2007/08	240	-10	40	160	50	13	.	10	28	10
2008/09	470	80	80	190	120	26	20	22	33	27
2009/10	430	110	60	140	120	23	27	14	25	26
2010/11	280	50	70	70	100	15	13	17	11	21
2011/12	210	50	-20	80	100	11	13	.	13	18
2012/13 (P)	270	30	50	110	90	14	6	13	17	17

Lothian

	Seasonal Increase in Mortality in the Winter ^{1,2}					Increased Winter Mortality Index ^{3,4}				
	All ages	0-64	65-74	75-84	85+	All ages	0-64	65-74	75-84	85+
2003/04	400	20	80	110	190	16	5	16	13	29
2004/05	390	60	70	90	170	16	12	15	11	25
2005/06	230	30	20	130	50	9	5	5	17	7
2006/07	270	0	20	120	120	11	1	4	16	18
2007/08	220	10	50	90	70	9	3	13	11	9
2008/09	420	30	70	170	150	18	5	17	24	20
2009/10	380	40	60	110	170	17	9	14	15	25
2010/11	390	90	50	150	100	17	19	11	22	14
2011/12	210	80	10	30	90	8	16	2	4	11
2012/13 (P)	290	-10	50	100	140	12	.	12	14	17

Orkney

	Seasonal Increase in Mortality in the Winter ^{1,2}					Increased Winter Mortality Index ^{3,4}				
	All ages	0-64	65-74	75-84	85+	All ages	0-64	65-74	75-84	85+
2003/04	10	0	10	0	0	20	23	71	12	2
2004/05	40	10	0	10	20	66	82	43	49	84
2005/06	-10	0	-10	0	0	.	22	.	.	2
2006/07	10	0	10	-10	10	9	.	57	.	49
2007/08	0	0	-10	10	0	1	16	.	30	13
2008/09	10	0	10	-10	10	14	9	42	.	51
2009/10	0	0	0	0	0	.	9	.	8	.
2010/11	10	10	0	10	0	19	58	.	37	11
2011/12	-10	0	0	-10	0	.	5	4	.	19
2012/13 (P)	10	0	0	0	0	9	8	.	13	15

Table 3: continued

Shetland

	Seasonal Increase in Mortality in the Winter ^{1,2}					Increased Winter Mortality Index ^{3,4}				
	All ages	0-64	65-74	75-84	85+	All ages	0-64	65-74	75-84	85+
2003/04	10	0	0	10	0	11	10	12	26	.
2004/05	0	0	-10	0	0	.	.	.	29	12
2005/06	20	0	10	0	10	29	20	131	.	47
2006/07	20	10	10	0	10	32	47	55	14	28
2007/08	10	0	0	10	0	10	4	.	50	5
2008/09	0	-10	0	0	10	2	.	29	.	28
2009/10	10	0	0	0	10	17	29	.	12	28
2010/11	10	0	0	10	0	17	36	25	43	.
2011/12	-10	0	0	0	0	.	.	.	.	.
2012/13 (P)	0	-10	0	10	0	.	.	13	44	.

Tayside

	Seasonal Increase in Mortality in the Winter ^{1,2}					Increased Winter Mortality Index ^{3,4}				
	All ages	0-64	65-74	75-84	85+	All ages	0-64	65-74	75-84	85+
2003/04	260	40	80	50	90	17	17	27	10	20
2004/05	240	10	10	110	120	17	3	3	23	28
2005/06	80	10	50	0	20	5	2	19	.	6
2006/07	280	10	60	110	110	20	2	24	25	24
2007/08	150	-20	50	60	50	10	.	19	14	11
2008/09	220	40	0	90	100	16	15	.	21	21
2009/10	300	30	50	100	130	22	11	20	24	28
2010/11	220	0	40	70	110	16	0	17	16	24
2011/12	180	10	20	70	80	12	4	8	16	16
2012/13 (P)	190	20	-10	40	140	13	7	.	8	27

Western Isles

	Seasonal Increase in Mortality in the Winter ^{1,2}					Increased Winter Mortality Index ^{3,4}				
	All ages	0-64	65-74	75-84	85+	All ages	0-64	65-74	75-84	85+
2003/04	0	10	0	-10	0	.	25	5	.	1
2004/05	10	0	0	10	0	13	0	24	29	0
2005/06	20	0	0	10	20	18	.	5	21	45
2006/07	-10	-10	-10	10	0	.	.	.	20	8
2007/08	10	10	0	20	-10	5	23	.	48	.
2008/09	10	-10	0	20	-10	8	.	12	61	.
2009/10	40	10	10	20	0	35	53	29	84	.
2010/11	0	0	0	0	-10	.	.	24	3	.
2011/12	30	10	10	0	10	20	53	22	.	29
2012/13 (P)	20	10	10	0	10	15	52	37	.	15

Footnotes

1) The Seasonal Increase in Mortality in the winter has been defined as the difference between the number of deaths in the four 'winter' months (December - March) and the average of the numbers of deaths in the preceding (August - November) and following (April - July) non-winter 4-month periods. A negative figure occurs when there were fewer deaths during the winter period than the average of the two 'non-winter' periods.

2) Because of the approximate nature of this measure, numbers have been rounded independently to the nearest 10. The sum of the age group figures may therefore appear to differ from the 'all ages' total.

3) The Increased Winter Mortality (IWM) Index is the (unrounded) number of 'additional' winter deaths divided by the (unrounded) average number of deaths in a four month 'non-winter' period, expressed as a percentage.

4) The IWM Index has not been calculated when the number of 'additional' winter deaths was negative.

5) Figures for 'Greater Glasgow & Clyde' and 'Highland' include deaths in the relevant parts of the former NHS Argyll and Clyde area.

(P) Data for the latest year are provisional.

Table 4: The Seasonal Increase in Mortality in the Winter – the underlying numbers of registrations of deaths, Scotland, 1990/91 to 2012/13

Period	Number of deaths registered			Seasonal Increase in Mortality in the Winter (or seasonal difference) ¹	
	Winter (Dec - Mar)	Preceding period (Aug - Nov)	Following period (Apr - Jul)	(actual)	(rounded)
1990/91	21,859	19,103	19,752	2,432	2,430
1991/92	22,217	19,305	19,352	2,889	2,890
1992/93	22,416	19,417	19,929	2,743	2,740
1993/94	22,504	21,104	18,732	2,586	2,590
1994/95	21,510	19,103	19,301	2,308	2,310
1995/96	22,821	19,074	19,260	3,654	3,650
1996/97	22,438	18,585	19,005	3,643	3,640
1997/98	21,320	18,311	19,105	2,612	2,610
1998/99	23,163	18,856	17,973	4,749	4,750
1999/2000	23,379	18,407	17,974	5,189	5,190
2000/01	20,388	18,061	18,281	2,217	2,220
2001/02	20,366	18,239	18,815	1,839	1,840
2002/03	21,058	18,599	18,499	2,509	2,510
2003/04	21,024	18,616	17,749	2,842	2,840
2004/05	20,658	18,064	17,736	2,758	2,760
2005/06	19,651	17,619	18,127	1,778	1,780
2006/07	20,384	17,526	17,739	2,752	2,750
2007/08	19,900	17,600	17,850	2,175	2,180
2008/09	20,532	17,075	16,969	3,510	3,510
2009/10	19,688	17,059	16,789	2,764	2,760
2010/11	19,626	17,397	16,958	2,449	2,450
2011/12	19,119	17,269	18,127	1,421	1,420
2012/13 provisional	19,908	17,773	18,045	1,999	2,000

Footnote

1) The Seasonal Increase in Mortality in the winter has been defined as the difference between the number of deaths in the four 'winter' months (December - March) and the average of the numbers of deaths in the preceding (August - November) and following (April - July) non-winter 4-month periods.

Table 5: The Seasonal Increase in Mortality in the Winter - the underlying numbers of registrations of deaths, by NHS Board area of usual residence, 2009/10 to 2012/13

NHS Board area	Period	Number of deaths registered			Seasonal Increase in Mortality in the Winter (or seasonal difference) ¹	
		Winter (Dec - Mar)	Preceding period (Aug - Nov)	Following period (Apr - Jul)	(actual)	(rounded)
Ayrshire & Arran						
	2009/10	1,521	1,340	1,320	191	190
	2010/11	1,558	1,346	1,367	202	200
	2011/12	1,446	1,372	1,386	67	70
	2012/13 provisional	1,584	1,386	1,490	146	150
Borders						
	2009/10	449	381	423	47	50
	2010/11	462	390	385	75	70
	2011/12	451	398	428	38	40
	2012/13 provisional	468	407	397	66	70
Dumfries & Galloway						
	2009/10	677	577	568	105	100
	2010/11	625	613	541	48	50
	2011/12	614	534	659	18	20
	2012/13 provisional	649	583	634	41	40
Fife						
	2009/10	1,357	1,204	1,137	187	190
	2010/11	1,301	1,211	1,210	91	90
	2011/12	1,360	1,220	1,262	119	120
	2012/13 provisional	1,393	1,252	1,252	141	140
Forth Valley						
	2009/10	988	877	904	98	100
	2010/11	1,040	899	910	136	140
	2011/12	988	887	966	62	60
	2012/13 provisional	1,082	982	1,000	91	90
Grampian						
	2009/10	1,853	1,629	1,660	209	210
	2010/11	1,902	1,667	1,630	254	250
	2011/12	1,872	1,634	1,747	182	180
	2012/13 provisional	1,892	1,685	1,753	173	170
Greater Glasgow & Clyde						
	2009/10	4,681	4,256	3,965	571	570
	2010/11	4,719	4,176	4,033	615	610
	2011/12	4,494	4,149	4,339	250	250
	2012/13 provisional	4,685	4,272	4,231	434	430

Table 5: continued

NHS Board area	Period	Number of deaths registered			Seasonal Increase in Mortality in the Winter (or seasonal difference) ¹	
		Winter (Dec - Mar)	Preceding period (Aug - Nov)	Following period (Apr - Jul)	(actual)	(rounded)
Highland						
	2009/10	1,265	1,044	1,089	199	200
	2010/11	1,225	1,142	1,087	111	110
	2011/12	1,202	1,163	1,071	85	90
	2012/13 provisional	1,238	1,100	1,097	140	140
Lanarkshire						
	2009/10	2,254	1,825	1,828	428	430
	2010/11	2,133	1,882	1,823	281	280
	2011/12	2,139	1,889	1,977	206	210
	2012/13 provisional	2,212	1,917	1,962	273	270
Lothian						
	2009/10	2,663	2,291	2,275	380	380
	2010/11	2,758	2,418	2,313	393	390
	2011/12	2,653	2,386	2,509	206	210
	2012/13 provisional	2,755	2,439	2,498	287	290
Orkney						
	2009/10	68	67	74	-3	0
	2010/11	84	72	69	14	10
	2011/12	63	67	73	-7	-10
	2012/13 provisional	87	71	89	7	10
Shetland						
	2009/10	88	68	83	13	10
	2010/11	82	67	73	12	10
	2011/12	68	77	70	-6	-10
	2012/13 provisional	67	70	66	-1	0
Tayside						
	2009/10	1,677	1,385	1,360	305	300
	2010/11	1,622	1,396	1,400	224	220
	2011/12	1,621	1,374	1,513	178	180
	2012/13 provisional	1,663	1,482	1,471	187	190
Western Isles						
	2009/10	147	115	103	38	40
	2010/11	115	118	117	-3	0
	2011/12	148	119	127	25	30
	2012/13 provisional	133	127	105	17	20

Footnote

1) The Seasonal Increase in Mortality in the winter has been defined as the difference between the number of deaths in the four 'winter' months (December - March) and the average of the numbers of deaths in the preceding (August - November) and following (April - July) non-winter 4-month periods. A negative figure occurs when there were fewer deaths during the winter period than the average of the two 'non-winter' periods.

Table 6: The Seasonal Increase in Mortality in the Winter and the Increased Winter Mortality Index, by age group and Local Authority area of usual residence, 2003/04 to 2012/13

Aberdeen City

	Seasonal Increase in Mortality in the Winter ^{1,2}					Increased Winter Mortality Index ^{3,4}				
	All ages	0-64	65-74	75-84	85+	All ages	0-64	65-74	75-84	85+
2003-04	140	10	30	50	50	21	6	28	20	29
2004-05	100	-10	40	20	50	15	.	32	10	24
2005-06	50	-20	20	40	20	8	.	12	17	10
2006-07	100	20	10	40	40	15	11	11	17	18
2007-08	70	30	10	30	10	10	21	4	15	3
2008-09	130	40	10	20	60	20	28	8	9	34
2009-10	30	20	10	-10	0	4	15	9	.	1
2010/11	120	10	10	40	60	19	7	9	18	32
2011/12	90	40	0	10	40	14	33	1	7	17
2012/13 (P)	80	20	20	-20	60	12	12	16	.	31

Aberdeenshire

	Seasonal Increase in Mortality in the Winter ^{1,2}					Increased Winter Mortality Index ^{3,4}				
	All ages	0-64	65-74	75-84	85+	All ages	0-64	65-74	75-84	85+
2003-04	130	10	10	70	40	20	7	10	32	23
2004-05	120	20	20	40	40	17	14	19	18	18
2005-06	30	10	0	-10	30	4	8	3	.	12
2006-07	220	30	10	60	130	33	20	6	27	62
2007-08	120	-10	40	50	40	16	.	33	22	17
2008-09	90	-20	20	30	50	13	.	16	16	24
2009-10	120	20	0	40	60	17	13	1	16	28
2010/11	90	0	20	30	40	13	.	18	14	17
2011/12	70	-10	10	50	20	10	.	8	24	7
2012/13 (P)	80	10	10	20	50	11	4	5	7	20

Angus

	Seasonal Increase in Mortality in the Winter ^{1,2}					Increased Winter Mortality Index ^{3,4}				
	All ages	0-64	65-74	75-84	85+	All ages	0-64	65-74	75-84	85+
2003-04	60	0	10	30	10	14	7	19	18	10
2004-05	90	0	10	30	50	22	5	18	20	36
2005-06	-20	0	-10	-10	-10	.	.	.	.	.
2006-07	100	0	30	40	40	26	3	40	31	26
2007-08	30	0	10	30	-10	6	1	7	25	.
2008-09	70	10	0	30	20	17	19	7	20	18
2009-10	100	0	20	30	50	25	.	31	28	38
2010/11	30	-10	0	0	40	8	.	2	.	37
2011/12	40	10	-10	20	20	10	10	.	15	15
2012/13 (P)	70	0	10	0	60	16	7	12	.	42

Argyll & Bute

	Seasonal Increase in Mortality in the Winter ^{1,2}					Increased Winter Mortality Index ^{3,4}				
	All ages	0-64	65-74	75-84	85+	All ages	0-64	65-74	75-84	85+
2003-04	20	10	-10	0	10	4	17	.	2	12
2004-05	80	10	10	10	50	23	18	13	12	46
2005-06	20	-10	-10	10	20	6	.	.	14	22
2006-07	20	10	-10	0	20	5	11	.	.	21
2007-08	40	0	0	0	30	11	.	3	4	32
2008-09	40	10	0	-10	40	13	24	.	.	36
2009-10	60	10	10	30	20	17	13	10	27	14
2010/11	10	-10	10	0	10	3	.	21	.	9
2011/12	30	10	0	10	10	9	16	.	12	10
2012/13 (P)	50	10	0	20	20	15	33	0	18	15

Table 6: continued

Clackmannanshire

	Seasonal Increase in Mortality in the Winter ^{1,2}					Increased Winter Mortality Index ^{3,4}				
	All ages	0-64	65-74	75-84	85+	All ages	0-64	65-74	75-84	85+
2003-04	30	0	10	10	10	20	10	29	25	16
2004-05	50	10	20	20	0	29	28	52	34	6
2005-06	30	-10	10	10	20	17	.	53	13	63
2006-07	10	0	0	0	0	8	4	12	8	7
2007-08	0	-10	0	0	10	2	.	7	.	36
2008-09	80	10	10	30	30	50	26	27	66	67
2009-10	10	0	10	-10	10	9	10	57	.	21
2010/11	10	0	0	0	10	5	.	3	.	24
2011/12	0	0	0	0	0	1	.	.	2	5
2012/13 (P)	20	0	0	20	0	8	2	.	31	.

Dumfries & Galloway

	Seasonal Increase in Mortality in the Winter ^{1,2}					Increased Winter Mortality Index ^{3,4}				
	All ages	0-64	65-74	75-84	85+	All ages	0-64	65-74	75-84	85+
2003-04	30	0	20	0	10	5	.	16	2	8
2004-05	70	0	20	30	20	12	.	18	15	10
2005-06	60	20	30	-10	20	10	17	28	.	13
2006-07	60	0	10	30	20	10	4	5	14	11
2007-08	90	30	10	30	20	16	37	7	13	15
2008-09	140	20	30	40	40	25	23	29	25	24
2009-10	100	10	10	30	50	18	12	12	17	27
2010/11	50	20	10	10	20	8	17	7	4	9
2011/12	20	-20	-20	10	40	3	.	.	6	19
2012/13 (P)	40	0	-10	20	40	7	.	.	10	18

Dundee

	Seasonal Increase in Mortality in the Winter ^{1,2}					Increased Winter Mortality Index ^{3,4}				
	All ages	0-64	65-74	75-84	85+	All ages	0-64	65-74	75-84	85+
2003-04	110	20	30	20	40	20	15	24	12	31
2004-05	100	10	-10	50	60	19	10	.	25	42
2005-06	80	20	30	20	20	16	14	27	10	17
2006-07	60	0	0	30	20	11	0	4	23	14
2007-08	60	-20	30	20	30	10	.	25	10	21
2008-09	90	10	0	50	20	17	10	4	32	16
2009-10	110	20	20	30	40	20	16	17	18	28
2010/11	50	0	10	20	30	8	.	5	11	17
2011/12	70	-10	10	40	20	12	.	12	23	15
2012/13 (P)	80	10	0	30	50	16	11	.	18	29

East Ayrshire

	Seasonal Increase in Mortality in the Winter ^{1,2}					Increased Winter Mortality Index ^{3,4}				
	All ages	0-64	65-74	75-84	85+	All ages	0-64	65-74	75-84	85+
2003-04	50	0	30	0	20	11	5	30	1	13
2004-05	150	20	40	30	50	34	26	46	19	54
2005-06	50	30	0	10	10	12	36	.	8	11
2006-07	40	0	10	10	30	8	.	7	4	25
2007-08	30	-10	-10	10	30	6	.	.	8	28
2008-09	110	10	20	40	40	27	13	24	31	38
2009-10	40	20	-10	30	10	10	19	.	21	8
2010/11	80	10	20	20	20	18	12	26	17	18
2011/12	20	0	0	20	-10	5	4	3	16	.
2012/13 (P)	20	-50	0	40	30	5	.	.	32	23

Table 6: continued

East Dunbartonshire

	Seasonal Increase in Mortality in the Winter ^{1,2}					Increased Winter Mortality Index ^{3,4}				
	All ages	0-64	65-74	75-84	85+	All ages	0-64	65-74	75-84	85+
2003-04	90	0	40	20	20	30	7	66	21	30
2004-05	70	-10	10	30	40	24	.	25	34	43
2005-06	80	10	0	30	30	26	31	5	31	35
2006-07	70	0	20	40	20	24	.	25	44	18
2007-08	70	20	10	30	10	22	43	20	25	7
2008-09	70	10	0	20	30	23	20	8	21	36
2009-10	30	0	-10	20	10	8	1	.	20	13
2010/11	70	10	10	30	20	23	19	15	34	20
2011/12	-10	0	-20	10	0	.	.	.	12	.
2012/13 (P)	80	0	0	30	50	24	6	.	30	46

East Lothian

	Seasonal Increase in Mortality in the Winter ^{1,2}					Increased Winter Mortality Index ^{3,4}				
	All ages	0-64	65-74	75-84	85+	All ages	0-64	65-74	75-84	85+
2003-04	50	-10	0	20	30	14	.	3	21	32
2004-05	60	10	0	20	30	17	9	3	16	34
2005-06	-10	10	-20	20	-20	.	25	.	19	.
2006-07	50	0	0	40	0	15	5	7	35	3
2007-08	20	10	-20	10	20	7	19	.	9	17
2008-09	60	10	20	20	10	19	18	30	22	11
2009-10	80	10	10	20	40	26	27	16	23	35
2010/11	60	10	0	30	30	21	9	.	35	30
2011/12	50	10	10	20	20	15	18	9	17	14
2012/13 (P)	30	0	0	20	20	9	.	1	18	12

East Renfrewshire

	Seasonal Increase in Mortality in the Winter ^{1,2}					Increased Winter Mortality Index ^{3,4}				
	All ages	0-64	65-74	75-84	85+	All ages	0-64	65-74	75-84	85+
2003-04	40	20	0	10	10	14	38	8	11	9
2004-05	60	10	0	20	30	23	21	9	25	30
2005-06	30	10	10	0	10	12	23	15	1	16
2006-07	30	-10	10	20	10	10	.	27	17	9
2007-08	50	20	0	20	10	18	44	.	23	13
2008-09	30	10	0	10	20	11	11	4	6	18
2009-10	40	10	-10	20	20	14	19	.	21	20
2010/11	50	0	10	0	40	19	.	18	3	50
2011/12	-10	0	0	10	-10	.	.	.	9	.
2012/13 (P)	30	0	0	10	20	11	.	0	8	23

Edinburgh

	Seasonal Increase in Mortality in the Winter ^{1,2}					Increased Winter Mortality Index ^{3,4}				
	All ages	0-64	65-74	75-84	85+	All ages	0-64	65-74	75-84	85+
2003-04	250	10	50	60	130	17	3	20	12	32
2004-05	180	20	20	30	100	12	9	9	5	24
2005-06	210	30	60	80	30	15	10	28	19	7
2006-07	140	0	-20	40	110	10	1	.	10	25
2007-08	160	20	30	50	50	11	9	13	12	11
2008-09	210	-20	20	80	120	15	.	10	20	28
2009-10	210	30	20	40	120	16	11	11	10	28
2010/11	190	50	30	80	30	14	19	15	19	7
2011/12	80	20	10	10	40	6	6	5	2	8
2012/13 (P)	160	0	20	30	120	11	.	7	6	24

Table 6: continued

Eilean Siar

	Seasonal Increase in Mortality in the Winter ^{1,2}					Increased Winter Mortality Index ^{3,4}				
	All ages	0-64	65-74	75-84	85+	All ages	0-64	65-74	75-84	85+
2003-04	0	10	0	-10	0	.	25	5	.	1
2004-05	10	0	0	10	0	13	0	24	29	0
2005-06	20	0	0	10	20	18	.	5	21	45
2006-07	-10	-10	-10	10	0	.	.	.	20	8
2007-08	10	10	0	20	-10	5	23	.	48	.
2008-09	10	-10	0	20	-10	8	.	12	61	.
2009-10	40	10	10	20	0	35	53	29	84	.
2010/11	0	0	0	0	-10	.	.	24	3	.
2011/12	30	10	10	0	10	20	53	22	.	29
2012/13 (P)	20	10	10	0	10	15	52	37	.	15

Falkirk

	Seasonal Increase in Mortality in the Winter ^{1,2}					Increased Winter Mortality Index ^{3,4}				
	All ages	0-64	65-74	75-84	85+	All ages	0-64	65-74	75-84	85+
2003-04	70	10	10	10	40	14	13	11	4	34
2004-05	90	0	20	50	20	18	.	25	30	12
2005-06	100	10	10	60	20	19	8	7	38	17
2006-07	40	0	-10	10	40	9	2	.	4	30
2007-08	30	10	0	20	10	7	5	.	13	7
2008-09	90	10	20	10	50	19	14	18	6	43
2009-10	60	10	10	10	30	12	15	12	5	18
2010/11	100	30	20	20	20	19	34	21	14	15
2011/12	60	10	-10	20	30	13	11	.	14	24
2012/13 (P)	40	10	-10	20	30	8	7	.	9	18

Fife

	Seasonal Increase in Mortality in the Winter ^{1,2}					Increased Winter Mortality Index ^{3,4}				
	All ages	0-64	65-74	75-84	85+	All ages	0-64	65-74	75-84	85+
2003-04	150	-10	20	10	130	12	.	6	2	38
2004-05	250	30	20	120	90	21	13	8	27	25
2005-06	40	10	-30	30	30	4	4	.	8	10
2006-07	150	-10	20	70	80	12	.	6	18	21
2007-08	210	10	10	80	110	17	3	3	21	33
2008-09	280	10	60	80	130	23	6	25	21	36
2009-10	190	30	40	60	60	16	14	17	16	16
2010/11	90	30	-10	50	20	7	13	.	12	6
2011/12	120	20	50	-10	60	10	8	23	.	15
2012/13 (P)	140	-10	60	30	70	11	.	27	7	16

Glasgow

	Seasonal Increase in Mortality in the Winter ^{1,2}					Increased Winter Mortality Index ^{3,4}				
	All ages	0-64	65-74	75-84	85+	All ages	0-64	65-74	75-84	85+
2003-04	340	70	70	90	110	14	12	13	12	22
2004-05	280	-10	10	170	110	12	.	1	25	22
2005-06	190	60	20	50	60	8	11	4	7	12
2006-07	480	60	80	150	190	22	10	16	23	41
2007-08	250	20	0	130	90	11	4	0	20	17
2008-09	460	40	110	140	160	22	8	27	22	33
2009-10	300	80	30	100	90	15	16	6	17	19
2010/11	280	100	0	80	100	14	19	0	13	20
2011/12	220	50	40	50	80	11	11	11	7	14
2012/13 (P)	240	30	30	80	90	12	6	8	13	18

Table 6: continued

Highland

	Seasonal Increase in Mortality in the Winter ^{1,2}					Increased Winter Mortality Index ^{3,4}				
	All ages	0-64	65-74	75-84	85+	All ages	0-64	65-74	75-84	85+
2003-04	130	20	0	60	50	16	15	.	24	22
2004-05	60	-10	10	0	60	8	.	6	1	33
2005-06	50	30	-10	40	0	7	22	.	16	.
2006-07	170	20	30	70	50	22	13	25	29	20
2007-08	40	0	0	-10	50	5	2	1	.	23
2008-09	100	-10	40	40	30	14	.	29	18	17
2009-10	140	30	20	20	70	20	25	14	10	31
2010/11	100	20	30	20	30	13	10	22	10	13
2011/12	50	10	-10	20	30	7	8	.	10	12
2012/13 (P)	90	0	10	40	40	12	2	5	19	15

Inverclyde

	Seasonal Increase in Mortality in the Winter ^{1,2}					Increased Winter Mortality Index ^{3,4}				
	All ages	0-64	65-74	75-84	85+	All ages	0-64	65-74	75-84	85+
2003-04	80	20	10	20	40	24	18	13	20	45
2004-05	60	10	20	10	30	19	10	21	11	38
2005-06	40	20	10	-10	20	11	19	10	.	26
2006-07	50	0	10	0	30	16	3	22	5	35
2007-08	70	10	20	10	20	21	12	41	12	29
2008-09	50	10	0	10	30	16	15	.	9	41
2009-10	30	10	10	0	0	8	17	23	1	.
2010/11	50	0	20	10	20	16	.	33	10	26
2011/12	0	0	-10	-10	10	.	4	.	.	9
2012/13 (P)	40	20	-10	0	30	15	56	.	4	29

Midlothian

	Seasonal Increase in Mortality in the Winter ^{1,2}					Increased Winter Mortality Index ^{3,4}				
	All ages	0-64	65-74	75-84	85+	All ages	0-64	65-74	75-84	85+
2003-04	60	20	20	10	10	25	37	32	15	25
2004-05	70	20	30	20	10	28	53	52	17	8
2005-06	30	0	0	0	30	10	0	.	1	41
2006-07	40	0	20	20	10	17	.	40	27	11
2007-08	30	-10	20	20	0	10	.	35	24	.
2008-09	30	10	10	10	0	10	10	15	15	3
2009-10	-10	-10	-10	20	-10	.	.	.	24	.
2010/11	10	0	0	0	10	5	1	.	4	16
2011/12	40	20	0	0	10	16	52	5	1	18
2012/13 (P)	20	0	10	20	-10	7	.	22	29	.

Moray

	Seasonal Increase in Mortality in the Winter ^{1,2}					Increased Winter Mortality Index ^{3,4}				
	All ages	0-64	65-74	75-84	85+	All ages	0-64	65-74	75-84	85+
2003-04	50	0	0	30	10	17	9	.	36	14
2004-05	30	10	0	20	10	10	17	.	14	9
2005-06	50	10	10	10	20	16	16	18	5	28
2006-07	60	0	-10	40	30	21	.	.	45	36
2007-08	60	10	0	20	30	21	11	7	22	36
2008-09	50	0	20	10	30	17	.	31	6	34
2009-10	70	0	20	20	30	24	5	32	19	38
2010/11	50	10	10	10	10	15	23	19	10	13
2011/12	20	10	-10	0	10	7	28	.	0	13
2012/13 (P)	10	10	0	-10	10	3	12	8	.	10

Table 6: continued

North Ayrshire

	Seasonal Increase in Mortality in the Winter ^{1,2}					Increased Winter Mortality Index ^{3,4}				
	All ages	0-64	65-74	75-84	85+	All ages	0-64	65-74	75-84	85+
2003-04	100	10	10	50	30	20	6	12	30	26
2004-05	40	-10	10	10	30	9	.	10	7	25
2005-06	50	30	0	0	10	9	27	2	3	8
2006-07	130	40	20	30	40	26	36	22	23	27
2007-08	80	0	30	10	50	15	4	27	3	33
2008-09	130	0	40	60	30	25	.	37	43	22
2009-10	60	-20	20	30	20	12	.	22	19	18
2010/11	60	20	10	20	20	13	20	12	9	12
2011/12	20	-10	0	30	0	4	.	3	20	0
2012/13 (P)	80	0	20	30	20	15	2	21	20	15

North Lanarkshire

	Seasonal Increase in Mortality in the Winter ^{1,2}					Increased Winter Mortality Index ^{3,4}				
	All ages	0-64	65-74	75-84	85+	All ages	0-64	65-74	75-84	85+
2003-04	240	30	30	90	90	22	14	10	24	45
2004-05	150	30	30	60	30	14	12	11	16	14
2005-06	140	40	30	60	10	12	15	12	16	4
2006-07	100	-20	50	50	30	9	.	19	16	10
2007-08	150	-10	40	100	30	14	.	17	31	11
2008-09	230	40	50	110	30	22	17	21	33	13
2009-10	280	80	50	120	40	27	32	22	37	15
2010/11	180	50	50	30	50	17	20	21	9	20
2011/12	120	40	-10	40	50	11	15	.	12	19
2012/13 (P)	190	20	40	70	60	17	10	16	21	22

Orkney

	Seasonal Increase in Mortality in the Winter ^{1,2}					Increased Winter Mortality Index ^{3,4}				
	All ages	0-64	65-74	75-84	85+	All ages	0-64	65-74	75-84	85+
2003-04	10	0	10	0	0	20	23	71	12	2
2004-05	40	10	0	10	20	66	82	43	49	84
2005-06	-10	0	-10	0	0	.	22	.	.	2
2006-07	10	0	10	-10	10	9	.	57	.	49
2007-08	0	0	-10	10	0	1	16	.	30	13
2008-09	10	0	10	-10	10	14	9	42	.	51
2009-10	0	0	0	0	0	.	9	.	8	.
2010/11	10	10	0	10	0	19	58	.	37	11
2011/12	-10	0	0	-10	0	.	5	4	.	19
2012/13 (P)	10	0	0	0	0	9	8	.	13	15

Perth & Kinross

	Seasonal Increase in Mortality in the Winter ^{1,2}					Increased Winter Mortality Index ^{3,4}				
	All ages	0-64	65-74	75-84	85+	All ages	0-64	65-74	75-84	85+
2003-04	90	20	30	0	40	18	29	40	1	20
2004-05	50	-10	10	40	20	10	.	7	22	9
2005-06	20	-10	30	-20	10	3	.	33	.	7
2006-07	120	0	30	40	50	23	4	37	22	30
2007-08	70	0	20	20	30	14	5	23	11	18
2008-09	70	10	-10	10	50	14	19	.	8	29
2009-10	100	20	10	40	40	21	22	14	26	21
2010/11	150	10	40	50	40	32	19	54	42	23
2011/12	70	10	20	20	30	15	12	20	11	17
2012/13 (P)	40	0	-10	20	30	7	2	.	9	17

Table 6: continued

Renfrewshire

	Seasonal Increase in Mortality in the Winter ^{1,2}					Increased Winter Mortality Index ^{3,4}				
	All ages	0-64	65-74	75-84	85+	All ages	0-64	65-74	75-84	85+
2003-04	110	0	20	50	50	17	0	13	22	32
2004-05	20	10	-20	10	20	3	4	.	6	12
2005-06	30	30	-10	0	10	5	18	.	2	7
2006-07	80	10	10	40	20	13	10	4	23	13
2007-08	80	-20	30	30	30	13	.	29	18	21
2008-09	90	20	10	10	50	15	17	10	4	32
2009-10	80	10	20	40	10	12	9	13	18	8
2010/11	20	-10	30	20	-10	4	.	23	9	.
2011/12	30	0	0	0	30	5	2	0	.	15
2012/13 (P)	0	-10	0	-20	30	0	.	1	.	16

Scottish Borders

	Seasonal Increase in Mortality in the Winter ^{1,2}					Increased Winter Mortality Index ^{3,4}				
	All ages	0-64	65-74	75-84	85+	All ages	0-64	65-74	75-84	85+
2003-04	40	-10	10	10	30	9	.	14	9	17
2004-05	60	0	10	20	30	15	1	20	15	21
2005-06	60	0	10	20	30	14	.	16	13	22
2006-07	60	10	0	10	30	15	18	5	10	24
2007-08	80	20	10	0	40	19	32	19	0	36
2008-09	100	10	20	40	30	24	15	23	34	21
2009-10	50	-10	10	20	30	12	.	9	18	25
2010/11	70	10	20	10	30	19	21	39	6	22
2011/12	40	-10	20	20	10	9	.	26	19	4
2012/13 (P)	70	0	-10	40	40	16	.	.	31	24

Shetland

	Seasonal Increase in Mortality in the Winter ^{1,2}					Increased Winter Mortality Index ^{3,4}				
	All ages	0-64	65-74	75-84	85+	All ages	0-64	65-74	75-84	85+
2003-04	10	0	0	10	0	11	10	12	26	.
2004-05	0	0	-10	0	0	.	.	.	29	12
2005-06	20	0	10	0	10	29	20	131	.	47
2006-07	20	10	10	0	10	32	47	55	14	28
2007-08	10	0	0	10	0	10	4	.	50	5
2008-09	0	-10	0	0	10	2	.	29	.	28
2009-10	10	0	0	0	10	17	29	.	12	28
2010/11	10	0	0	10	0	17	36	25	43	.
2011/12	-10	0	0	0	0	.	.	.	.	.
2012/13 (P)	0	-10	0	10	0	.	.	13	44	.

South Ayrshire

	Seasonal Increase in Mortality in the Winter ^{1,2}					Increased Winter Mortality Index ^{3,4}				
	All ages	0-64	65-74	75-84	85+	All ages	0-64	65-74	75-84	85+
2003-04	80	10	10	0	60	16	11	11	.	44
2004-05	70	0	20	40	10	15	2	20	26	7
2005-06	50	0	40	-10	20	10	.	52	.	17
2006-07	50	0	0	20	30	11	4	.	14	19
2007-08	30	-10	10	20	10	6	.	8	13	8
2008-09	140	20	-10	70	60	34	26	.	52	49
2009-10	90	10	0	40	40	21	21	1	29	27
2010/11	60	-10	0	30	50	14	.	.	18	37
2011/12	30	-10	20	20	0	6	.	25	12	.
2012/13 (P)	50	10	-10	0	40	10	14	.	1	25

Table 6: continued

South Lanarkshire

	Seasonal Increase in Mortality in the Winter ^{1,2}					Increased Winter Mortality Index ^{3,4}				
	All ages	0-64	65-74	75-84	85+	All ages	0-64	65-74	75-84	85+
2003-04	200	30	10	90	70	19	14	5	25	26
2004-05	180	-10	50	90	50	17	.	21	24	21
2005-06	180	20	30	70	70	18	9	12	21	26
2006-07	150	20	50	30	50	14	8	26	10	18
2007-08	130	-10	10	90	40	12	.	2	28	13
2008-09	290	40	50	100	100	31	21	25	32	40
2009-10	180	30	20	50	90	18	15	7	15	32
2010/11	160	10	20	60	70	16	3	11	18	26
2011/12	100	20	0	20	60	9	8	.	7	18
2012/13 (P)	110	0	30	40	50	10	1	12	10	15

Stirling

	Seasonal Increase in Mortality in the Winter ^{1,2}					Increased Winter Mortality Index ^{3,4}				
	All ages	0-64	65-74	75-84	85+	All ages	0-64	65-74	75-84	85+
2003-04	70	10	10	20	20	23	26	19	24	23
2004-05	30	10	0	10	10	12	14	6	12	16
2005-06	50	10	20	0	20	19	20	33	4	28
2006-07	100	20	20	10	50	36	51	33	12	59
2007-08	70	20	0	20	30	30	58	.	32	38
2008-09	110	20	10	50	30	46	33	34	73	36
2009-10	30	10	-10	0	30	11	16	.	.	37
2010/11	30	0	10	10	10	13	.	22	12	17
2011/12	0	-10	0	10	-10	.	.	1	17	.
2012/13 (P)	30	0	-10	0	40	11	11	.	1	43

West Dunbartonshire

	Seasonal Increase in Mortality in the Winter ^{1,2}					Increased Winter Mortality Index ^{3,4}				
	All ages	0-64	65-74	75-84	85+	All ages	0-64	65-74	75-84	85+
2003-04	-20	-20	10	-10	0	.	.	9	.	.
2004-05	60	20	10	0	30	15	18	22	.	33
2005-06	50	0	20	20	20	15	2	25	13	22
2006-07	20	-10	0	20	10	5	.	4	14	12
2007-08	60	0	20	10	30	17	2	29	4	41
2008-09	50	10	10	0	20	13	18	12	1	22
2009-10	70	0	20	20	20	22	6	36	22	30
2010/11	80	30	30	0	30	26	53	45	.	30
2011/12	20	-10	10	10	20	5	.	12	7	18
2012/13 (P)	10	-10	0	-10	30	3	.	.	.	33

Table 6: continued**West Lothian**

	Seasonal Increase in Mortality in the Winter ^{1,2}					Increased Winter Mortality Index ^{3,4}				
	All ages	0-64	65-74	75-84	85+	All ages	0-64	65-74	75-84	85+
2003-04	50	10	10	20	10	10	6	8	12	14
2004-05	80	10	20	30	30	18	4	18	21	28
2005-06	0	-20	-30	30	10	0	.	.	24	13
2006-07	40	0	10	20	0	9	2	14	15	4
2007-08	10	-10	20	0	0	3	.	26	2	.
2008-09	120	30	20	60	10	28	27	26	42	12
2009-10	90	10	40	20	30	22	7	37	18	29
2010/11	120	40	20	40	30	29	33	19	33	28
2011/12	40	30	-10	10	20	9	30	.	3	15
2012/13 (P)	80	0	20	40	20	17	1	22	25	18

Footnotes

1) The Seasonal Increase in Mortality in the winter has been defined as the difference between the number of deaths in the four 'winter' months (December - March) and the average of the numbers of deaths in the preceding (August - November) and following (April - July) non-winter 4-month periods. A negative figure occurs when there were fewer deaths during the winter period than the average of the two 'non-winter' periods.

2) Because of the approximate nature of this measure, numbers have been rounded independently to the nearest 10. The sum of the age group figures may therefore appear to differ from the 'all ages' total.

3) The Increased Winter Mortality (IWM) Index is the (unrounded) number of 'additional' winter deaths divided by the (unrounded) average number of deaths in a four month 'non-winter' period, expressed as a percentage.

4) The IWM Index has not been calculated when the number of 'additional' winter deaths was negative.

(P) Data for the latest year are provisional.

Table 7: The Seasonal Increase in Mortality in the Winter - the underlying numbers of registrations of deaths, by Local Authority area of usual residence, 2009/10 to 2012/13

Local Authority	Period	Number of deaths registered			Seasonal Increase in Mortality in the Winter (or seasonal difference) ¹	
		Winter (Dec - Mar)	Preceding period (Aug - Nov)	Following period (Apr - Jul)	(actual)	(rounded)
Aberdeen City						
	2009/10	692	666	667	26	30
	2010/11	755	649	623	119	120
	2011/12	732	600	684	90	90
	2012/13 provisional	751	661	675	83	80
Aberdeenshire						
	2009/10	813	689	705	116	120
	2010/11	796	725	688	90	90
	2011/12	794	718	731	70	70
	2012/13 provisional	812	708	758	79	80
Angus						
	2009/10	488	372	409	98	100
	2010/11	424	387	398	32	30
	2011/12	461	404	436	41	40
	2012/13 provisional	487	395	445	67	70
Argyll & Bute						
	2009/10	400	328	358	57	60
	2010/11	359	351	344	12	10
	2011/12	379	332	365	31	30
	2012/13 provisional	383	357	309	50	50
Clackmannanshire						
	2009/10	159	144	149	13	10
	2010/11	168	161	158	9	10
	2011/12	155	149	159	1	0
	2012/13 provisional	199	173	195	15	20
Dumfries & Galloway						
	2009/10	677	577	568	105	100
	2010/11	625	613	541	48	50
	2011/12	614	534	659	18	20
	2012/13 provisional	649	583	634	41	40
Dundee						
	2009/10	635	548	507	108	110
	2010/11	609	571	552	48	50
	2011/12	601	515	557	65	70
	2012/13 provisional	605	541	500	85	80

Table 7: continued

Local Authority	Period	Number of deaths registered			Seasonal Increase in Mortality in the Winter (or seasonal difference) ¹	
		Winter (Dec - Mar)	Preceding period (Aug - Nov)	Following period (Apr - Jul)	(actual)	(rounded)
East Ayrshire						
	2009/10	450	433	382	43	40
	2010/11	496	422	418	76	80
	2011/12	444	428	420	20	20
	2012/13 provisional	489	438	493	24	20
East Dunbartonshire						
	2009/10	334	314	303	26	30
	2010/11	367	313	282	70	70
	2011/12	298	310	308	-11	-10
	2012/13 provisional	397	345	293	78	80
East Lothian						
	2009/10	382	312	294	79	80
	2010/11	370	331	282	64	60
	2011/12	356	291	330	46	50
	2012/13 provisional	378	371	322	32	30
East Renfrewshire						
	2009/10	306	283	256	37	40
	2010/11	317	273	261	50	50
	2011/12	271	265	295	-9	-10
	2012/13 provisional	317	287	285	31	30
Edinburgh						
	2009/10	1,499	1,292	1,286	210	210
	2010/11	1,551	1,377	1,339	193	190
	2011/12	1,490	1,372	1,448	80	80
	2012/13 provisional	1,545	1,333	1,444	157	160
Eilean Siar						
	2009/10	147	115	103	38	40
	2010/11	115	118	117	-3	0
	2011/12	148	119	127	25	30
	2012/13 provisional	133	127	105	17	20
Falkirk						
	2009/10	538	482	477	59	60
	2010/11	583	473	503	95	100
	2011/12	554	465	519	62	60
	2012/13 provisional	566	516	537	40	40

Table 7: continued

Local Authority	Period	Number of deaths registered			Seasonal Increase in Mortality in the Winter (or seasonal difference) ¹	
		Winter (Dec - Mar)	Preceding period (Aug - Nov)	Following period (Apr - Jul)	(actual)	(rounded)
Fife						
	2009/10	1,357	1,204	1,137	187	190
	2010/11	1,301	1,211	1,210	91	90
	2011/12	1,360	1,220	1,262	119	120
	2012/13 provisional	1,393	1,252	1,252	141	140
Glasgow						
	2009/10	2,302	2,098	1,908	299	300
	2010/11	2,356	2,111	2,036	283	280
	2011/12	2,305	2,033	2,138	220	220
	2012/13 provisional	2,296	2,077	2,035	240	240
Highland						
	2009/10	865	716	731	142	140
	2010/11	866	791	743	99	100
	2011/12	823	831	706	55	50
	2012/13 provisional	855	743	788	90	90
Inverclyde						
	2009/10	367	329	352	27	30
	2010/11	364	319	307	51	50
	2011/12	336	341	335	-2	0
	2012/13 provisional	351	305	308	45	40
Midlothian						
	2009/10	256	259	263	-5	-10
	2010/11	284	275	267	13	10
	2011/12	288	236	260	40	40
	2012/13 provisional	290	266	277	19	20
Moray						
	2009/10	348	274	288	67	70
	2010/11	351	293	319	45	50
	2011/12	346	316	332	22	20
	2012/13 provisional	329	316	320	11	10
North Ayrshire						
	2009/10	546	489	489	57	60
	2010/11	550	467	510	62	60
	2011/12	516	478	514	20	20
	2012/13 provisional	587	498	522	77	80

Table 7: continued

Local Authority	Period	Number of deaths registered			Seasonal Increase in Mortality in the Winter (or seasonal difference) ¹	
		Winter (Dec - Mar)	Preceding period (Aug - Nov)	Following period (Apr - Jul)	(actual)	(rounded)
North Lanarkshire						
	2009/10	1,310	1,017	1,044	280	280
	2010/11	1,242	1,100	1,030	177	180
	2011/12	1,211	1,091	1,100	116	120
	2012/13 provisional	1,283	1,055	1,130	191	190
Orkney						
	2009/10	68	67	74	-3	0
	2010/11	84	72	69	14	10
	2011/12	63	67	73	-7	-10
	2012/13 provisional	87	71	89	7	10
Perth & Kinross						
	2009/10	555	469	445	98	100
	2010/11	592	438	456	145	150
	2011/12	562	456	522	73	70
	2012/13 provisional	577	549	529	38	40
Renfrewshire						
	2009/10	714	668	604	78	80
	2010/11	622	604	594	23	20
	2011/12	656	601	651	30	30
	2012/13 provisional	665	645	682	2	0
Scottish Borders						
	2009/10	449	381	423	47	50
	2010/11	462	390	385	75	70
	2011/12	451	398	429	38	40
	2012/13 provisional	468	407	397	66	70
Shetland						
	2009/10	88	68	83	13	10
	2010/11	82	67	73	12	10
	2011/12	68	77	70	-6	-10
	2012/13 provisional	67	70	66	-1	0
South Ayrshire						
	2009/10	525	418	449	92	90
	2010/11	512	457	439	64	60
	2011/12	486	466	452	27	30
	2012/13 provisional	508	450	475	46	50

Table 7: continued

Local Authority	Period	Number of deaths registered			Seasonal Increase in Mortality in the Winter (or seasonal difference) ¹	
		Winter (Dec - Mar)	Preceding period (Aug - Nov)	Following period (Apr - Jul)	(actual)	(rounded)
South Lanarkshire						
	2009/10	1,213	1,044	1,017	183	180
	2010/11	1,170	996	1,029	158	160
	2011/12	1,180	1,048	1,121	96	100
	2012/13 provisional	1,218	1,122	1,088	113	110
Stirling						
	2009/10	293	248	278	30	30
	2010/11	287	267	243	32	30
	2011/12	277	275	287	-4	0
	2012/13 provisional	311	293	266	32	30
West Dunbartonshire						
	2009/10	387	326	308	70	70
	2010/11	413	341	317	84	80
	2011/12	374	347	365	18	20
	2012/13 provisional	370	348	371	11	10
West Lothian						
	2009/10	525	429	432	95	90
	2010/11	553	434	425	124	120
	2011/12	520	486	472	41	40
	2012/13 provisional	542	471	455	79	80

Footnote

1) The Seasonal Increase in Mortality in the winter has been defined as the difference between the number of deaths in the four 'winter' months (December - March) and the average of the numbers of deaths in the preceding (August - November) and following (April - July) non-winter 4-month periods. A negative figure occurs when there were fewer deaths during the winter period than the average of the two 'non-winter' periods.

Figure 1: Seasonal Increase in Mortality in the Winter, Scotland, 1951/52 to 2012/13

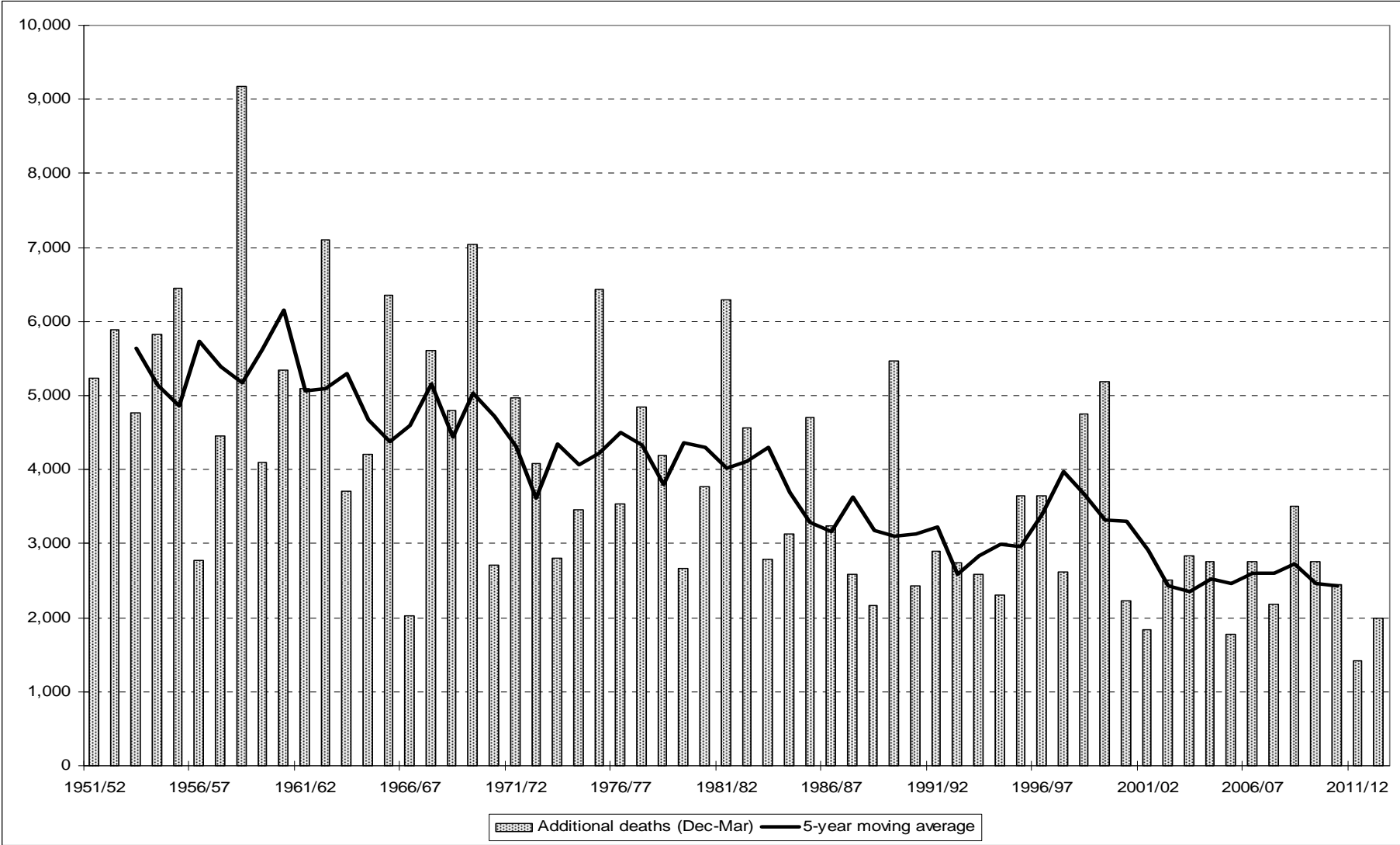
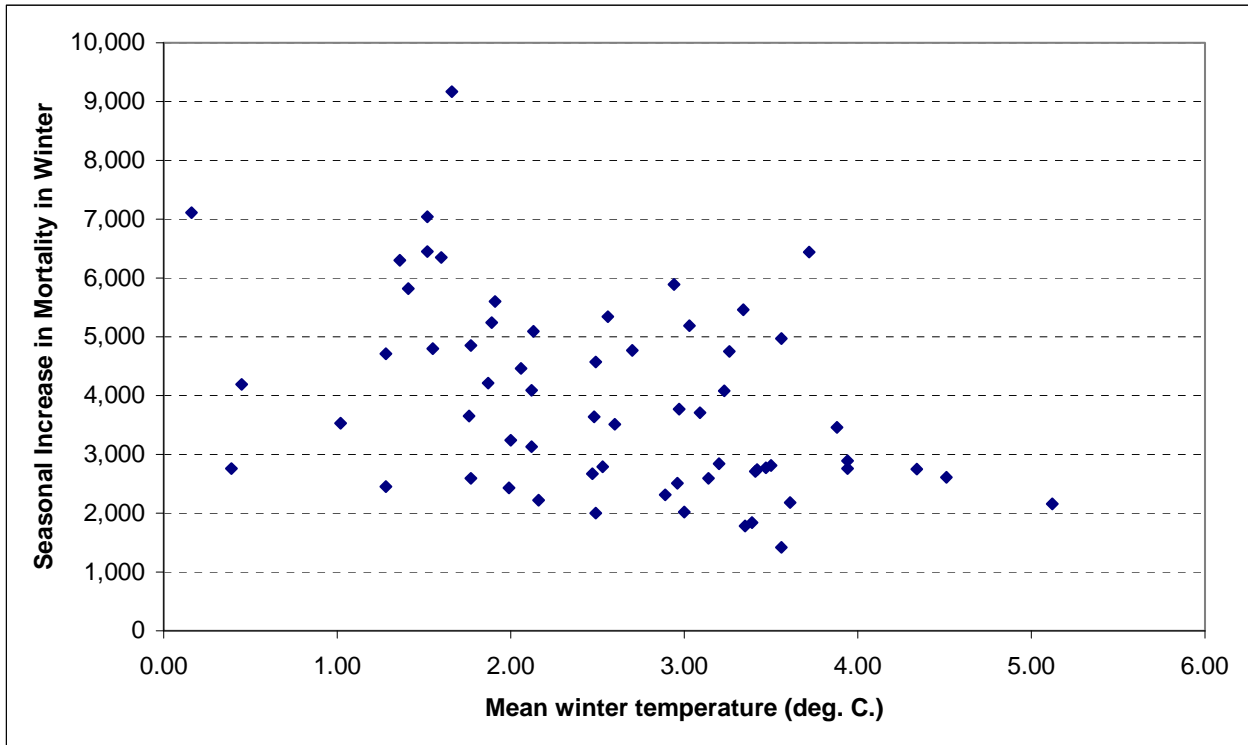


Figure 2: Seasonal Increase in Mortality in the Winter and mean winter temperature (deg.C.), Scotland: (a) winter 1951/52 to winter 2012/13; and (b) winter 1993/94 to winter 2012/13

(a) winter 1951/52 to winter 2012/13



(b) winter 1993/94 to winter 2012/13

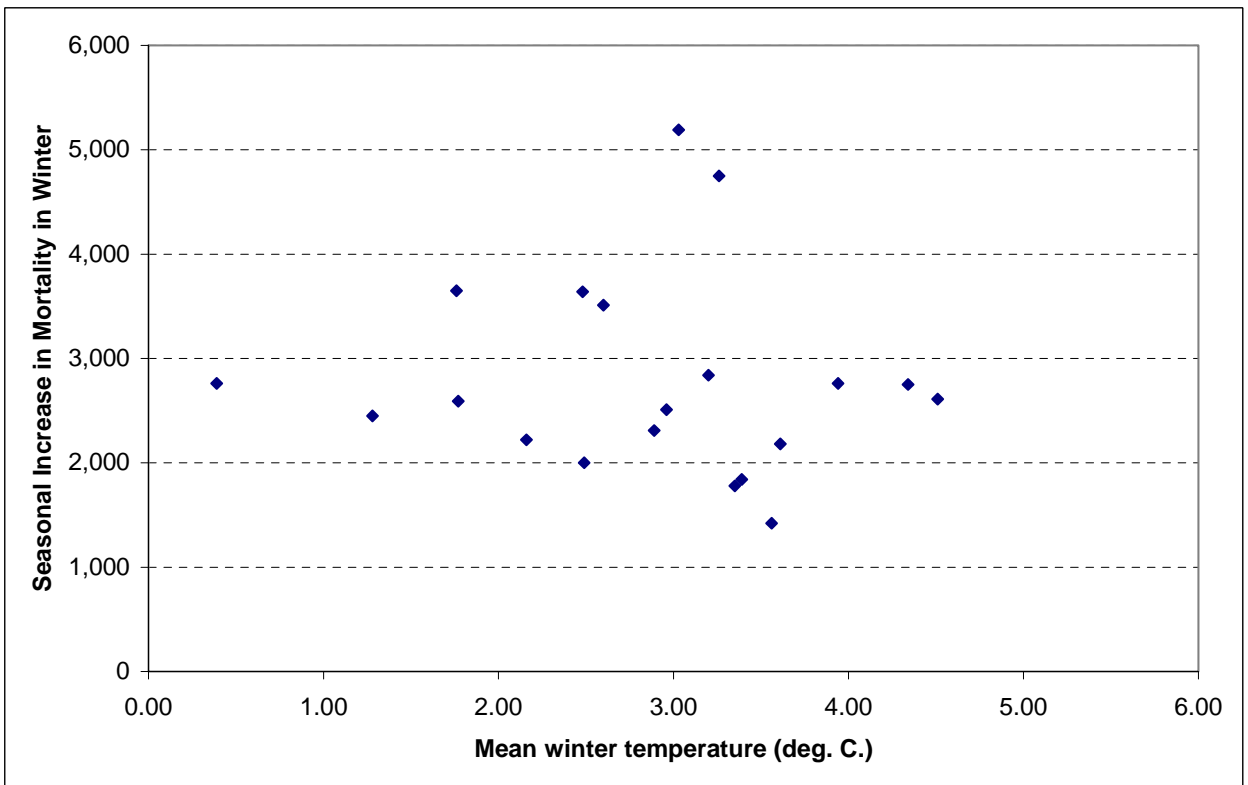
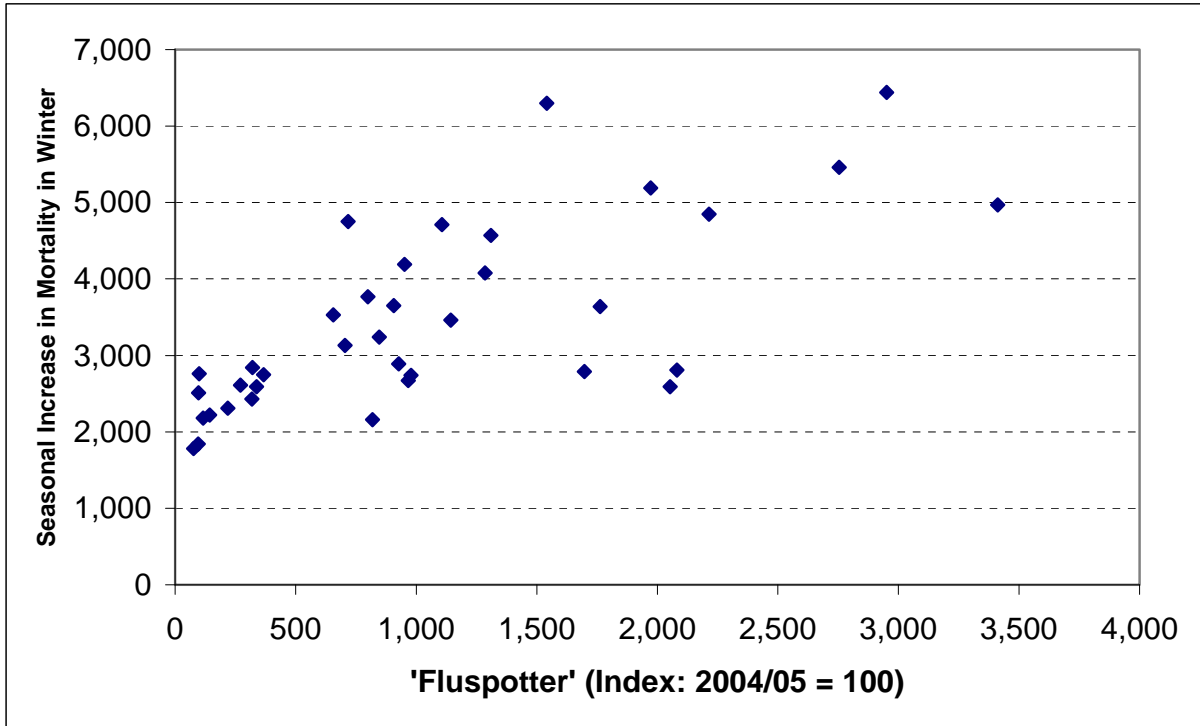
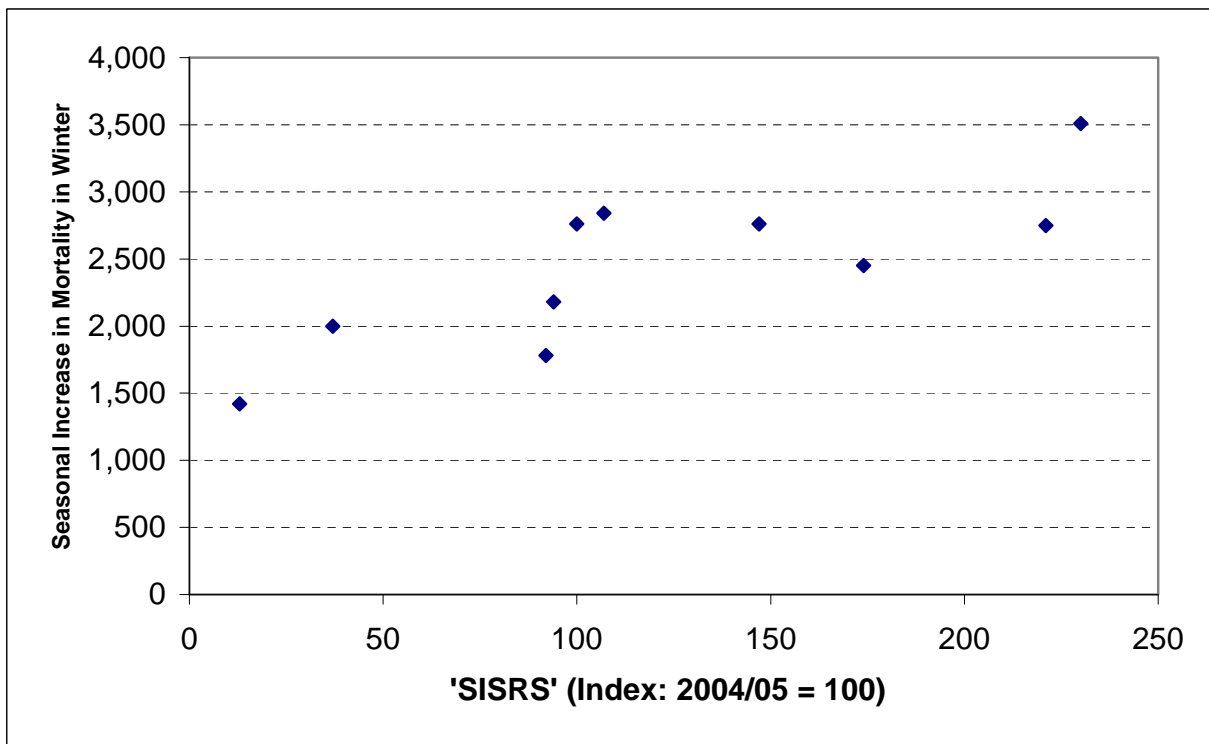


Figure 3: Seasonal Increase in Mortality in the Winter and indicators of influenza activity, Scotland: (a) winters and 'flu seasons - 1971/72 to 2007/08, inclusive; and (b) winters - 2003/04 to 2012/13, inclusive.

(a) winters and 'flu seasons' - 1971/72 to 2007/08, inclusive



(b) winters - 2003/04 to 2012/13, inclusive



Notes on statistical publications

National Statistics

The United Kingdom Statistics Authority (UKSA) has designated these statistics as National Statistics, in line with the Statistics and Registration Service Act 2007 and signifying compliance with the Code of Practice for Official Statistics (available on the [UKSA](#) website).

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- meet identified user needs;
- are well explained and readily accessible;
- are produced according to sound methods; and
- are managed impartially and objectively in the public interest.

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