

**PM_{2.5} AND DAILY MORTALITY IN THE WEST
MIDLANDS CONURBATION, UK**

REPORT

**COMMISSIONED BY THE DEPARTMENT OF HEALTH ON
BEHALF OF THE EXPERT PANEL ON AIR QUALITY
STANDARDS (EPAQS) - FEBRUARY 1999**

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ANNEX

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Contents

Data descriptions and correlations	Page 1
Key to tables of full results	5
Exposure-response relationships	31

List of tables

Table 1	Descriptive statistics for outcomes and environmental variables	2
Table 2	Inter-site correlations for individual pollutants: particulates	3
Table 3	Inter-site correlations for individual pollutants: gases	3
Table 4	Correlations between individual pollutants and fractions: particulates	3
Table 5	Correlations between individual pollutant summaries: gases	4
Table 6	Correlations between particulates and gases	4
Table 7	Correlations between pollutants and meteorology	4
Table 8	All Causes All Ages Mortality: single day lags	7
Table 9	All Causes All Ages Mortality: cumulative day lags	8
Table 10	All Causes Ages 65+ Mortality: single day lags	9
Table 11	All Causes Ages 65+ Mortality: cumulative day lags	10
Table 12	All Respiratory All Ages Mortality: single day lags	11
Table 13	All Respiratory All Ages Mortality: cumulative day lags	12
Table 14	All Respiratory Ages 65+ Mortality: single day lags	13
Table 15	All Respiratory Ages 65+ Mortality: cumulative day lags	14
Table 16	All Cardiovascular All Ages Mortality: single day lags	15
Table 17	All Cardiovascular All Ages Mortality: cumulative day lags	16
Table 18	All Cardiovascular Ages 65+ Mortality: single day lags	17
Table 19	All Cardiovascular Ages 65+ Mortality: cumulative day lags	18
Table 20	All Causes All Ages Mortality: seasonal results for single day lags	19
Table 21	All Causes All Ages Mortality: seasonal results for cumulative day lags	20
Table 22	All Causes Ages 65+ Mortality: seasonal results for single day lags	21
Table 23	All Causes Ages 65+ Mortality: seasonal results for cumulative day lags	22
Table 24	All Respiratory All Ages Mortality: seasonal results for single day lags	23
Table 25	All Respiratory All Ages Mortality: seasonal results for cumulative day lags	24
Table 26	All Respiratory Ages 65+ Mortality: seasonal results for single day lags	25
Table 27	All Respiratory Ages 65+ Mortality: seasonal results for cumulative day lags	26

List of tables (continued)	Page
Table 28 All Cardiovascular All Ages Mortality: seasonal results for single day lags	27
Table 29 All Cardiovascular All Ages Mortality: seasonal results for cumulative day lags	28
Table 30 All Cardiovascular Ages 65+ Mortality: seasonal results for single day lags	29
Table 31 All Cardiovascular Ages 65+ Mortality: seasonal results for cumulative day lags	30
Table 32 P-values for approximate F-tests for particulate measures entered into the core model as loess terms, with near-optimum (minimum AIC) smoothing parameter	31

List of figures

Figures 1, 2 and 3 are each composed of 7 dose-response curves and have suffixes corresponding to particulate measures as follows:

- .1 PM₁₀
- .2 PM_{2.5}
- .3 PM_{2.5-10}
- .4 Black Smoke
- .5 SO₄
- .6 Primary Fraction
- .7 Secondary Fraction

Figure 1 All Causes All Ages: Dose Response Relationship	32
Figure 2 All Respiratory All Ages: Dose Response Relationship	35
Figure 3 All Cardiovascular All Ages: Dose Response Relationship	38

Data descriptions and correlations

Table 1 presents summary statistics for the outcome, pollutant and meteorological variables in the study. The distribution of daily counts for each of the three cause of death groups and two age groups is given. The pollutants are described for the available days of data for both measurements at individual locations and the calculated study average. PM_{10} , $PM_{2.5}$ and black smoke were measured. The coarse fraction was estimated by subtracting $PM_{2.5}$ from PM_{10} (the few negative values resultant were set to missing). The primary and secondary fractions and the sulphate were estimated data. The gases were each measured. The temperature and humidity data were obtained from Birmingham University though data from Birmingham Airport was used to fill in the few gaps that were present.

Tables 2 and 3 show the Pearson correlation coefficients between sites measuring the same pollutants for particulates and gases respectively. The averaging method for the data is indicated in the footnote. Tables 4 and 5 show the Pearson correlations between pollutant summaries for particles and gases respectively. Table 6 displays the correlations between particulate measures and gases while table 7 shows the correlations between each of the pollutant summaries and both temperature and humidity. It should be recognised that the correlations between $PM_{2.5}$, $PM_{2.5-10}$ and each of the other variables are based on series of a maximum length of 700 days.

Table 1. Descriptive statistics for outcomes and environmental variables.

	N	mean	std.	min.	10 th	50 th	90 th	max.
Mortality (Daily Count)								
All-cause - All age	823	61.4	11.4	30	48	60	77	105
- 65+	823	51.0	10.3	21	39	50	64	92
Cardiovascular - All age	823	27.8	6.6	9	20	27	36	52
- 65+	823	24.0	6.1	7	16	24	32	47
Respiratory - All age	823	9.5	4.5	0	5	9	15	36
- 65+	823	8.8	4.2	0	4	8	14	32
Pollutants								
<i>PM₁₀ (µg/m³), Daily 24 hr.</i>								
Birmingham Central	798	24.1	13.6	5	12	20	40	113
Birmingham East	795	22.8	13.4	4	11	19	38	112
Hodge Hill	687	23.3	12.8	2.4	10.7	20	38.8	107
Study Average	823	23.3	12.9	4	11.4	20	38.3	102.3
<i>Black Smoke (µg/m³), Daily 24 hr.</i>								
Sedgley 5	817	18.0	9.6	1	7	17	29	75
Walsall 18	781	11.0	9.2	1	4	9	21	74
Wednesbury 2	612	8.8	9.8	1	2	6	19	107
Study Average	823	13.2	9.0	1.8	5.1	10.9	23.6	71.9
<i>PM_{2.5} (µg/m³), Daily 24 hr.</i>								
Hodge Hill	675	14.5	9.7	2.1	6	11.7	25.8	82.8
<i>PM_{2.5-10} (µg/m³), Daily 24 hr.</i>								
Hodge Hill	665	8.7	5.3	0.1	3.1	7.8	15.2	57.2
<i>Primary Fraction (µg/m³), Daily 24 hr.</i>								
	804	7.0	6.5	0.6	2.1	5.3	13.8	63.5
<i>Secondary Frac. (µg/m³), Daily 24 hr.</i>								
	814	8.9	7.4	1.2	3.2	6.5	18.6	54.4
<i>SO₄ (µg/m³), Daily 24 hr.</i>								
Stoke Ferry+ High Muffles	814	3.7	3.1	0.5	1.3	2.7	7.7	22.6
<i>NO₂ (ppb), Daily 1 hr</i>								
Birmingham Central	815	39.1	16.9	8	22	37	56	177
Birmingham East	789	36.4	16.7	9	21	34	52	189
Hodge Hill	746	38.3	16.9	7	23	36	53	257
Walsall Alumwell	684	34.4	15.0	8.3	20	32.3	49.8	156.5
Study Average	823	37.2	15.1	10.7	22.9	34.9	51.7	176.1
<i>O₃ (ppb), Daily 8 hr.</i>								
Birmingham Central	802	22.7	13.0	0.9	6	22.35	36.6	85.8
Birmingham East	803	25.2	14.7	1	7	25.1	39.3	94.1
Study Average	823	24.0	13.8	0.4	6.7	24	37.5	89.9
<i>SO₂ (ppb) Daily 24 hr.</i>								
Birmingham Central	805	7.4	6.5	1	2	5	14	72
Birmingham East	786	5.1	4.8	0	1	4	10	59
Sedgley 5	817	8.9	3.9	2	4	9	14	45
Walsall 18	762	6.3	5.9	2	2	4	13	74
Hodge Hill	656	8.5	6.3	0.6	2.7	6.8	16.4	65
Study Average	823	7.2	4.7	1.9	3.3	5.8	12.3	59.8
<i>CO (ppm) Daily 8 hr.</i>								
Birmingham Central	778	0.9	0.6	0.2	0.4	0.7	1.4	9.7
Birmingham East	796	0.7	0.9	0.1	0.2	0.4	1.3	10.2
Study Average	821	0.8	0.7	0.2	0.3	0.6	1.3	10

Meteorological

Temperature (°C)	823	9.3	5.2	-3.4	2.4	9.3	16.1	22.6
Relative Humidity (%)	823	78.7	10.0	51	65.5	79.5	91.5	99

Table 2 Inter-site correlations for individual pollutants: particulates

Particulate	Site	BC	BE	WE	WA
**PM ₁₀	BE	0.95			
	HH	0.89	0.99		
**BS	WA			0.78	
	SE			0.56	0.72

Table 3 Inter-site correlations for individual pollutants: gases

Gas	Site	BC	BE	WA	HH
*NO ₂	BE	0.86			
	WA	0.73	0.84		
	HH	0.76	0.83	0.70	
†O ₃	BE	0.93			
†CO	BE	0.83			
**SO ₂	BE	0.90			
	WA	0.91	0.61		
	HH	0.82	0.91	0.55	
	SE	0.71	0.67	0.48	0.61

Table 4 Correlations between individual pollutants and fractions: particulates

Particulate	‡SO ₄	**BS	**PM ₁₀	**PM _{2.5}	‡PFR	‡SFR
**BS	0.30					
**PM ₁₀	0.64	0.64				
**PM _{2.5}	0.64	0.67	0.92			
‡PFR	0.30	0.85	0.60	0.59		
‡SFR	1.00	0.30	0.64	0.64	0.29	
‡‡PM _{2.5-10}	0.10	0.18	0.56	0.34	0.18	0.10

Key to sites: BC = Birmingham Central, BE = Birmingham East, WA = Walsall,
HH = Hodge Hill, WE = Wednesbury, SE = Sedgley

Key to pollutant measures: ** 24hr average
* 1hr maximum
† 8hr maximum moving average
‡ Estimated
‡‡ Calculated

Table 5 Correlations between individual pollutant summaries: gases

Gas	*NO ₂	†O ₃	†CO
†O ₃	0.08		
†CO	0.73	-0.29	
**SO ₂	0.52	-0.22	0.49

Table 6 Correlations between particulates and gases

Particulate	*NO ₂	†O ₃	†CO	**SO ₂
‡SO ₄	0.30	0.00	0.17	0.19
**BS	0.65	-0.35	0.77	0.50
**PM ₁₀	0.62	-0.06	0.55	0.55
**PM _{2.5}	0.61	-0.11	0.54	0.52
‡PFR	0.60	-0.31	0.68	0.46
‡SFR	0.30	0.00	0.17	0.19
‡‡PM _{2.5-10}	0.25	0.19	0.10	0.31

Table 7 Correlations between pollutants and meteorology

The correlation between temperature and humidity is -0.35

Pollutants	**Temperature	**Humidity
‡SO ₄	-0.08	0.10
**BS	-0.24	0.18
**PM ₁₀	-0.06	-0.06
**PM _{2.5}	-0.15	0.08
‡PFR	-0.21	0.12
‡SFR	-0.08	0.10
‡‡PM _{2.5-10}	0.21	-0.32
*NO ₂	-0.06	-0.09
†O ₃	0.44	-0.59
†CO	-0.19	-0.19
**SO ₂	-0.13	-0.13

Key to sites: BC = Birmingham Central, BE = Birmingham East, WA = Walsall,
HH = Hodge Hill, WE = Wednesbury, SE = Sedgley

Key to pollutant measures: ** 24hr average
* 1hr maximum
† 8hr maximum moving average
‡ Estimated
‡‡ Calculated

Key to tables of full results

Tables 8-31 present the results of all of the analyses carried out. For each outcome and age group (6 in all), all of the pollutants were explored as single and cumulative lag measures both all-year and seasonally (cool and warm seasons).

Tables 8-19 present the all-year results. The even numbered tables are for single-day lags and the odd numbered tables present the cumulative lag results. The column headings in these tables have the following meaning:

Poll&Lag: The pollutant and lag fitted to the core model

Cent1090: The 10th to the 90th intercentile range of the pollutant

Est.: The estimated coefficient of the pollutant

Se(Est.): The estimated standard error of the pollutant coefficient

%RR1090: The percentage change in relative risk of outcome (90th centile relative to 10th)

LCL1090: The lower limit of the 95% confidence interval around %RR1090

UCL1090: The upper limit of the 95% confidence interval around %RR1090

%RR10: The percentage change in relative risk for a 10 unit increase in the pollutant (100 ppb for CO)

LCL10: The lower limit of the 95% confidence interval around %RR10

UCL10: The upper limit of the 95% confidence interval around %RR10

Pvalue: Test of slope of pollutant coefficient

The formulae used to calculate %RR1090 and their confidence limits are:

$$\%RR1090 = 100 * (\exp (\text{Cent1090} * \text{Est.}) - 1)$$

$$95\% \text{ Confidence Interval} = 100 * (\exp (\text{Cent1090} * (\text{Est.} \pm 1.96 * \text{Se}(\text{Est.}))) - 1)$$

In the case of %RR10, Cent1090 is replaced by 10 except where CO is the pollutant and Cent1090 is replaced by 0.1

Additionally, tables 20-31 present the seasonal results. Again, the even numbered tables give the single lag results and the odd numbered tables give the cumulative lags. The above quantities appear twice in separate blocks. The left-hand block has .c suffixes, referring to cool season results. The right-hand block has .w suffixes, referring to the warm season results (April to September inclusive). The right-most column *Pvalue.cw* is the P-value obtained from testing the coefficient of the interaction between the season dummy variable and the pollutant.

The single-lag results are presented for the current day, the previous day, two days and three days previously, denoted by the suffixes 0, 1, 2 and 3 on the pollutant name. Cumulative lags are the mean of the current and the previous day, the mean of the current and two preceding days and the mean of the current and three preceding days. For particle measures the mean of the current and previous four

and five days are reported as well. These are denoted by the suffixes *01*, *02*, *03*, *04* and *05*.

The pollutants are abbreviated as follows:

no2mx = NO₂ 1 hr maximum (ppb)

o3m8 = O₃ 8 hr maximum moving average (ppb)

so2av = SO₂ 24 hr average (ppb)

so4av = SO₄ 24 hr average (µg/m³)

com8 = CO 8hr maximum moving average (ppm)

pm10av = PM₁₀ 24 hr average (µg/m³)

smkav = Black Smoke 24hr average (µg/m³)

pfrav = Primary particulate fraction 24hr average (µg/m³)

sfrav = Secondary particulate fraction 24hr average (µg/m³)

pmcoarse = PM₁₀ – PM_{2.5} 24hr average (µg/m³)

pm25av = PM_{2.5} 24hr average (µg/m³)

NB that the PM_{2.5} and thus the PM_{2.5-10} coefficient estimates were obtained from time series starting on 1/11/94 and finishing on 30/9/96. Thus, separate core models were constructed. The original coarse fraction (modelled) had 8% of days with measures below zero and 7% of days missing. This measure was disregarded for the purposes of this study.

More emphasis should be placed on findings significant at the 1% level and beyond, given the multitude of significance tests reported in these tables. Furthermore, consistency of results in terms of size and direction of effect across lags gives more credibility to findings.

Table 8 All Causes All Ages Mortality: single day lags

<i>Poll&Lag</i>	<i>Cent1090</i>	<i>Est.</i>	<i>Se(Est.)</i>	<i>%RR1090</i>	<i>LCL1090</i>	<i>UCL1090</i>	<i>%RR10</i>	<i>LCL10</i>	<i>UCL10</i>	<i>Pvalue</i>
no2mxl0	28.8	0.0004780	0.0003160	1.39	-0.41	3.21	0.48	-0.14	1.10	0.1310
no2mxl1	28.8	0.0003670	0.0003160	1.06	-0.72	2.88	0.37	-0.25	0.99	0.2460
no2mxl2	28.8	0.0000980	0.0003170	0.28	-1.50	2.09	0.10	-0.52	0.72	0.7580
no2mxl3	28.8	0.0002830	0.0003150	0.82	-0.96	2.63	0.28	-0.33	0.90	0.3700
o3m8l0	30.8	0.0011550	0.0004550	3.62	0.82	6.51	1.16	0.26	2.07	0.0113
o3m8l1	30.8	0.0003280	0.0004760	1.01	-1.85	3.96	0.33	-0.60	1.27	0.4910
o3m8l2	30.8	0.0003070	0.0004770	0.95	-1.91	3.90	0.31	-0.63	1.25	0.5190
o3m8l3	30.8	0.0003570	0.0004440	1.11	-1.57	3.85	0.36	-0.51	1.24	0.4220
so2avl0	9.0	0.0002040	0.0010260	0.18	-1.61	2.01	0.20	-1.79	2.24	0.8420
so2avl1	9.0	-0.0005390	0.0010240	-0.48	-2.26	1.33	-0.54	-2.51	1.48	0.5990
so2avl2	9.0	-0.0002040	0.0010210	-0.18	-1.97	1.63	-0.20	-2.18	1.81	0.8420
so2avl3	9.0	-0.0009590	0.0010270	-0.86	-2.64	0.95	-0.95	-2.93	1.06	0.3500
so4avl0	6.4	-0.0007310	0.0015750	-0.47	-2.41	1.52	-0.73	-3.75	2.38	0.6420
so4avl1	6.4	-0.0006220	0.0015740	-0.40	-2.34	1.59	-0.62	-3.64	2.49	0.6930
so4avl2	6.4	-0.0001850	0.0015740	-0.12	-2.07	1.87	-0.18	-3.22	2.94	0.9060
so4avl3	6.4	-0.0000780	0.0015760	-0.05	-2.01	1.95	-0.08	-3.12	3.06	0.9610
com8l0	1.0	0.0075280	0.0065820	0.76	-0.54	2.06	0.08	-0.05	0.20	0.2530
com8l1	1.0	0.0052190	0.0066140	0.52	-0.77	1.83	0.05	-0.08	0.18	0.4300
com8l2	1.0	-0.0037210	0.0067650	-0.37	-1.68	0.96	-0.04	-0.17	0.10	0.5820
com8l3	1.0	0.0071600	0.0066450	0.72	-0.58	2.04	0.07	-0.06	0.20	0.2820
pm10avl0	26.9	0.0000940	0.0003730	0.25	-1.70	2.24	0.09	-0.63	0.83	0.8010
pm10avl1	26.9	0.0000130	0.0003700	0.03	-1.90	2.01	0.01	-0.71	0.74	0.9720
pm10avl2	26.9	-0.0003780	0.0003700	-1.01	-2.93	0.94	-0.38	-1.10	0.35	0.3070
pm10avl3	26.9	-0.0003470	0.0003710	-0.93	-2.85	1.03	-0.35	-1.07	0.38	0.3500
smkavl0	18.5	0.0003210	0.0005600	0.60	-1.43	2.66	0.32	-0.77	1.43	0.5670
smkavl1	18.5	0.0001680	0.0005640	0.31	-1.72	2.38	0.17	-0.93	1.28	0.7660
smkavl2	18.5	-0.0003500	0.0005700	-0.64	-2.68	1.43	-0.35	-1.46	0.77	0.5400
smkavl3	18.5	0.0001310	0.0005700	0.24	-1.81	2.34	0.13	-0.98	1.26	0.8180
pfravl0	11.6	0.0002530	0.0007580	0.29	-1.42	2.04	0.25	-1.22	1.75	0.7380
pfravl1	11.6	0.0010280	0.0007510	1.20	-0.51	2.94	1.03	-0.44	2.53	0.1710
pfravl2	11.6	-0.0000230	0.0007620	-0.03	-1.74	1.72	-0.02	-1.51	1.48	0.9760
pfravl3	11.6	0.0003510	0.0007610	0.41	-1.31	2.16	0.35	-1.13	1.86	0.6440
sfravl0	15.3	-0.0003050	0.0006530	-0.47	-2.40	1.50	-0.30	-1.57	0.98	0.6410
sfravl1	15.3	-0.0002810	0.0006530	-0.43	-2.36	1.54	-0.28	-1.55	1.00	0.6670
sfravl2	15.3	-0.0000770	0.0006530	-0.12	-2.06	1.86	-0.08	-1.35	1.21	0.9070
sfravl3	15.3	-0.0000270	0.0006540	-0.04	-1.98	1.94	-0.03	-1.30	1.26	0.9670
pmcoarse0	12.1	0.000269	0.001106	0.33	-2.27	2.99	0.27	-1.88	2.47	0.808
pmcoarse1	12.1	-0.000137	0.001120	-0.17	-2.78	2.52	-0.14	-2.30	2.08	0.903
pmcoarse2	12.1	-0.000812	0.001119	-0.98	-3.57	1.68	-0.81	-2.96	1.39	0.468
pmcoarse3	12.1	-0.001441	0.001101	-1.73	-4.26	0.87	-1.43	-3.54	0.72	0.191
pm25avl0	19.8	0.0005180	0.0005500	1.03	-1.10	3.21	0.52	-0.56	1.61	0.3470
pm25avl1	19.8	0.0000670	0.0005540	0.13	-2.00	2.31	0.07	-1.01	1.16	0.9030
pm25avl2	19.8	-0.0000920	0.0005550	-0.18	-2.31	1.99	-0.09	-1.17	1.00	0.8690
pm25avl3	19.8	0.0000320	0.0005550	0.06	-2.07	2.24	0.03	-1.05	1.13	0.9540

Table 9 All Causes All Ages Mortality: cumulative day lags

Poll&Lag	Cent1090	Est.	Se(Est.)	%RR1090	LCL1090	UCL1090	%RR10	LCL10	UCL10	Pvalue
no2mxl01	25.5	0.0005430	0.0003550	1.39	-0.39	3.21	0.54	-0.15	1.25	0.1270
no2mxl02	23.5	0.0004980	0.0003920	1.18	-0.63	3.02	0.50	-0.27	1.27	0.2040
no2mxl03	21.8	0.0005860	0.0004270	1.28	-0.55	3.15	0.59	-0.25	1.43	0.1710
o3m8l01	28.6	0.0010050	0.0005230	2.92	-0.06	5.97	1.01	-0.02	2.05	0.0549
o3m8l02	27.9	0.0010090	0.0005780	2.86	-0.34	6.16	1.01	-0.12	2.16	0.0809
o3m8l03	26.8	0.0010540	0.0006090	2.87	-0.37	6.21	1.06	-0.14	2.27	0.0839
so2avl01	8.5	-0.0002230	0.0011690	-0.19	-2.12	1.77	-0.22	-2.48	2.09	0.8490
so2avl02	7.8	-0.0002980	0.0012960	-0.23	-2.19	1.76	-0.30	-2.80	2.27	0.8180
so2avl03	7.2	-0.0007440	0.0014100	-0.53	-2.49	1.46	-0.74	-3.45	2.04	0.5980
so4avl01	5.8	-0.0006640	0.0016730	-0.38	-2.26	1.53	-0.66	-3.87	2.65	0.6910
so4avl02	5.2	-0.0005900	0.0017520	-0.31	-2.07	1.49	-0.59	-3.94	2.89	0.7370
so4avl03	4.8	-0.0004100	0.0018210	-0.20	-1.89	1.53	-0.41	-3.90	3.21	0.8220
so4avl04	4.7	-0.0001810	0.0018860	-0.08	-1.81	1.67	-0.18	-3.80	3.58	0.9240
so4avl05	4.7	0.0002940	0.0019320	0.14	-1.63	1.94	0.29	-3.43	4.17	0.8790
com8l01	1.0	0.0085350	0.0075320	0.81	-0.59	2.24	0.09	-0.06	0.23	0.2570
com8l02	0.9	0.0050970	0.0085180	0.46	-1.04	1.98	0.05	-0.12	0.22	0.5500
com8l03	0.9	0.0086200	0.0094180	0.75	-0.85	2.38	0.09	-0.10	0.27	0.3600
pm10avl01	24.4	0.0000680	0.0004140	0.17	-1.80	2.17	0.07	-0.74	0.88	0.8690
pm10avl02	24.2	-0.0001440	0.0004490	-0.35	-2.45	1.80	-0.14	-1.02	0.74	0.7490
pm10avl03	23.0	-0.0002840	0.0004800	-0.65	-2.78	1.52	-0.28	-1.22	0.66	0.5540
pm10avl04	21.9	-0.0003860	0.0005090	-0.84	-2.99	1.35	-0.39	-1.37	0.61	0.4480
pm10avl05	21.2	-0.0003630	0.0005350	-0.77	-2.95	1.46	-0.36	-1.40	0.69	0.4980
smkavl01	16.7	0.0003280	0.0006420	0.55	-1.54	2.68	0.33	-0.93	1.60	0.6100
smkavl02	14.8	0.0000760	0.0007150	0.11	-1.94	2.21	0.08	-1.32	1.49	0.9160
smkavl03	14.2	0.0001350	0.0007830	0.19	-1.97	2.40	0.14	-1.39	1.68	0.8630
smkavl04	13.8	-0.0002840	0.0008470	-0.39	-2.65	1.92	-0.28	-1.93	1.39	0.7380
smkavl05	13.1	-0.0002910	0.0009050	-0.38	-2.67	1.96	-0.29	-2.04	1.49	0.7480
pfravl01	10.6	0.0008510	0.0008660	0.91	-0.89	2.74	0.86	-0.84	2.58	0.3260
pfravl02	9.9	0.0006740	0.0009560	0.67	-1.18	2.56	0.68	-1.19	2.58	0.4810
pfravl03	9.8	0.0008110	0.0010400	0.80	-1.20	2.83	0.81	-1.22	2.89	0.4360
pfravl04	9.6	0.0004210	0.0011200	0.40	-1.69	2.54	0.42	-1.76	2.65	0.7070
pfravl05	9.4	-0.0000440	0.0011930	-0.04	-2.21	2.18	-0.04	-2.35	2.32	0.9710
sfravl01	13.9	-0.0002860	0.0006940	-0.40	-2.26	1.50	-0.29	-1.63	1.08	0.6800
sfravl02	12.5	-0.0002530	0.0007270	-0.32	-2.08	1.48	-0.25	-1.66	1.18	0.7280
sfravl03	11.5	-0.0001800	0.0007560	-0.21	-1.89	1.51	-0.18	-1.65	1.31	0.8120
sfravl04	11.2	0.0000740	0.0008010	0.08	-1.66	1.86	0.07	-1.48	1.66	0.9270
sfravl05	10.5	0.0003420	0.0008310	0.36	-1.34	2.09	0.34	-1.28	1.99	0.6810
pmcoarse01	11.2	-0.000515	0.001309	-0.58	-3.39	2.32	-0.51	-3.03	2.07	0.694
pmcoarse02	10.5	-0.000909	0.001468	-0.95	-3.90	2.09	-0.91	-3.72	1.99	0.536
pmcoarse03	9.9	-0.001896	0.001591	-1.86	-4.84	1.22	-1.88	-4.89	1.23	0.234
pmcoarse04	9.3	-0.002410	0.001690	-2.22	-5.18	0.84	-2.38	-5.56	0.91	0.154
pmcoarse05	9.2	-0.002672	0.001775	-2.43	-5.50	0.75	-2.64	-5.97	0.81	0.133
pm25avl01	17.7	0.0003320	0.0006050	0.59	-1.50	2.73	0.33	-0.85	1.53	0.5830
pm25avl02	17.4	0.0002770	0.0006530	0.48	-1.73	2.75	0.28	-1.00	1.57	0.6720
pm25avl03	16.7	0.0003060	0.0007030	0.51	-1.77	2.85	0.31	-1.07	1.70	0.6630
pm25avl04	16.0	0.0002860	0.0007520	0.46	-1.88	2.86	0.29	-1.18	1.77	0.7030
pm25avl05	15.7	0.0003650	0.0007960	0.57	-1.86	3.07	0.37	-1.19	1.94	0.6470

Table 10 All Causes Ages 65+ Mortality: single day lags

<i>Poll&Lag</i>	<i>Cent1090</i>	<i>Est.</i>	<i>Se(Est.)</i>	<i>%RR1090</i>	<i>LCL1090</i>	<i>UCL1090</i>	<i>%RR10</i>	<i>LCL10</i>	<i>UCL10</i>	<i>Pvalue</i>
no2mxl0	28.8	0.0005830	0.0003450	1.69	-0.27	3.69	0.58	-0.09	1.27	0.0913
no2mxl1	28.8	0.0005020	0.0003430	1.46	-0.49	3.44	0.50	-0.17	1.18	0.1440
no2mxl2	28.8	0.0000510	0.0003470	0.15	-1.80	2.13	0.05	-0.63	0.73	0.8820
no2mxl3	28.8	0.0001290	0.0003460	0.37	-1.57	2.35	0.13	-0.55	0.81	0.7080
o3m8l0	30.8	0.0014110	0.0004970	4.44	1.35	7.62	1.42	0.44	2.41	0.0047
o3m8l1	30.8	0.0004140	0.0005210	1.28	-1.85	4.52	0.41	-0.61	1.45	0.4270
o3m8l2	30.8	0.0002650	0.0005220	0.82	-2.31	4.05	0.27	-0.76	1.30	0.6120
o3m8l3	30.8	0.0005490	0.0004860	1.71	-1.24	4.74	0.55	-0.40	1.51	0.2590
so2avl0	9.0	0.0000850	0.0011240	0.08	-1.89	2.08	0.09	-2.09	2.31	0.9390
so2avl1	9.0	-0.0006580	0.0011210	-0.59	-2.54	1.39	-0.66	-2.81	1.55	0.5570
so2avl2	9.0	-0.0005780	0.0011170	-0.52	-2.46	1.46	-0.58	-2.73	1.62	0.6050
so2avl3	9.0	-0.0017030	0.0011280	-1.52	-3.46	0.46	-1.69	-3.84	0.51	0.1310
so4avl0	6.4	-0.0000520	0.0017110	-0.03	-2.16	2.14	-0.05	-3.35	3.36	0.9760
so4avl1	6.4	-0.0002040	0.0017120	-0.13	-2.25	2.04	-0.20	-3.50	3.20	0.9050
so4avl2	6.4	0.0005910	0.0017080	0.38	-1.75	2.55	0.59	-2.72	4.02	0.7300
so4avl3	6.4	-0.0002450	0.0017130	-0.16	-2.28	2.01	-0.25	-3.54	3.16	0.8860
com8l0	1.0	0.0075120	0.0071640	0.75	-0.65	2.18	0.08	-0.07	0.22	0.2950
com8l1	1.0	0.0074610	0.0071810	0.75	-0.66	2.18	0.07	-0.07	0.22	0.2990
com8l2	1.0	-0.0050590	0.0073870	-0.50	-1.93	0.95	-0.05	-0.20	0.09	0.4940
com8l3	1.0	0.0035960	0.0072940	0.36	-1.06	1.81	0.04	-0.11	0.18	0.6220
pm10avl0	26.9	0.0002810	0.0004050	0.76	-1.37	2.93	0.28	-0.51	1.08	0.4880
pm10avl1	26.9	0.0002070	0.0004030	0.56	-1.55	2.71	0.21	-0.58	1.00	0.6080
pm10avl2	26.9	-0.0004200	0.0004040	-1.12	-3.21	1.00	-0.42	-1.20	0.37	0.2980
pm10avl3	26.9	-0.0005570	0.0004050	-1.49	-3.57	0.64	-0.56	-1.34	0.24	0.1690
smkavl0	18.5	0.0003060	0.0006100	0.57	-1.63	2.82	0.31	-0.89	1.51	0.6170
smkavl1	18.5	0.0002880	0.0006140	0.53	-1.68	2.80	0.29	-0.91	1.50	0.6390
smkavl2	18.5	-0.0005430	0.0006230	-1.00	-3.21	1.26	-0.54	-1.75	0.68	0.3840
smkavl3	18.5	-0.0002380	0.0006240	-0.44	-2.67	1.84	-0.24	-1.45	0.99	0.7030
pfravl0	11.6	0.0000280	0.0008270	0.03	-1.83	1.93	0.03	-1.58	1.66	0.9730
pfravl1	11.6	0.0009940	0.0008200	1.16	-0.71	3.06	1.00	-0.61	2.64	0.2260
pfravl2	11.6	-0.0004820	0.0008360	-0.56	-2.43	1.35	-0.48	-2.10	1.16	0.5640
pfravl3	11.6	-0.0001760	0.0008340	-0.20	-2.08	1.71	-0.18	-1.79	1.47	0.8330
sfravl0	15.3	-0.0000230	0.0007100	-0.03	-2.14	2.12	-0.02	-1.40	1.38	0.9740
sfravl1	15.3	-0.0001010	0.0007110	-0.15	-2.26	2.00	-0.10	-1.48	1.30	0.8870
sfravl2	15.3	0.0002530	0.0007090	0.39	-1.72	2.55	0.25	-1.13	1.66	0.7210
sfravl3	15.3	-0.0000980	0.0007110	-0.15	-2.26	2.00	-0.10	-1.48	1.30	0.8900
pmcoarse0	12.1	0.000888	0.001229	1.08	-1.82	4.07	0.89	-1.51	3.35	0.470
pmcoarse1	12.1	0.000081	0.001223	0.10	-2.76	3.04	0.08	-2.29	2.51	0.947
pmcoarse2	12.1	-0.001150	0.001207	-1.38	-4.17	1.48	-1.14	-3.46	1.22	0.341
pmcoarse3	12.1	-0.002034	0.001199	-2.43	-5.17	0.38	-2.01	-4.29	0.32	0.090
pm25avl0	19.8	0.0008780	0.0005980	1.75	-0.58	4.14	0.88	-0.29	2.07	0.1430
pm25avl1	19.8	0.0005950	0.0005990	1.18	-1.14	3.56	0.60	-0.58	1.78	0.3210
pm25avl2	19.8	0.0000660	0.0006010	0.13	-2.18	2.49	0.07	-1.11	1.25	0.9120
pm25avl3	19.8	0.0001770	0.0006000	0.35	-1.96	2.72	0.18	-0.99	1.36	0.7680

Table 11 All Causes Ages 65+ Mortality: cumulative day lags

<i>Poll&Lag</i>	<i>Cent1090</i>	<i>Est.</i>	<i>Se(Est.)</i>	<i>%RR1090</i>	<i>LCL1090</i>	<i>UCL1090</i>	<i>%RR10</i>	<i>LCL10</i>	<i>UCL10</i>	<i>Pvalue</i>
no2mxl01	25.5	0.0006950	0.0003860	1.79	-0.16	3.77	0.70	-0.06	1.46	0.0722
no2mxl02	23.5	0.0006010	0.0004280	1.42	-0.56	3.44	0.60	-0.24	1.45	0.1610
no2mxl03	21.8	0.0006050	0.0004670	1.33	-0.68	3.37	0.61	-0.31	1.53	0.1960
o3m8l01	28.6	0.0012320	0.0005720	3.59	0.32	6.96	1.24	0.11	2.38	0.0314
o3m8l02	27.9	0.0011740	0.0006320	3.33	-0.18	6.96	1.18	-0.06	2.44	0.0636
o3m8l03	26.8	0.0012950	0.0006660	3.53	-0.03	7.22	1.30	-0.01	2.64	0.0523
so2avl01	8.5	-0.0003820	0.0012810	-0.32	-2.43	1.83	-0.38	-2.85	2.15	0.7660
so2avl02	7.8	-0.0006380	0.0014190	-0.50	-2.63	1.68	-0.64	-3.36	2.17	0.6530
so2avl03	7.2	-0.0014150	0.0015440	-1.01	-3.15	1.17	-1.40	-4.34	1.63	0.3600
so4avl01	5.8	-0.0000480	0.0018190	-0.03	-2.07	2.06	-0.05	-3.55	3.58	0.9790
so4avl02	5.2	0.0002420	0.0019020	0.13	-1.80	2.09	0.24	-3.43	4.05	0.8990
so4avl03	4.8	0.0002310	0.0019760	0.11	-1.73	1.99	0.23	-3.58	4.19	0.9070
so4avl04	4.7	0.0004080	0.0020450	0.19	-1.68	2.10	0.41	-3.54	4.52	0.8420
so4avl05	4.7	0.0010110	0.0020940	0.48	-1.44	2.43	1.02	-3.05	5.25	0.6290
com8l01	1.0	0.0100840	0.0081860	0.96	-0.56	2.51	0.10	-0.06	0.26	0.2180
com8l02	0.9	0.0057270	0.0092800	0.52	-1.12	2.18	0.06	-0.12	0.24	0.5370
com8l03	0.9	0.0073230	0.0102860	0.64	-1.11	2.42	0.07	-0.13	0.28	0.4770
pm10avl01	24.4	0.0003120	0.0004500	0.77	-1.38	2.96	0.31	-0.57	1.20	0.4880
pm10avl02	24.2	0.0000310	0.0004890	0.07	-2.22	2.42	0.03	-0.92	0.99	0.9500
pm10avl03	23.0	-0.0002250	0.0005230	-0.52	-2.83	1.85	-0.23	-1.24	0.80	0.6660
pm10avl04	21.9	-0.0004090	0.0005540	-0.89	-3.22	1.49	-0.41	-1.48	0.68	0.4600
pm10avl05	21.2	-0.0004410	0.0005830	-0.93	-3.30	1.50	-0.44	-1.57	0.70	0.4500
smkavl01	16.7	0.0003970	0.0006980	0.67	-1.61	2.99	0.40	-0.97	1.78	0.5700
smkavl02	14.8	0.0000280	0.0007800	0.04	-2.19	2.33	0.03	-1.49	1.57	0.9710
smkavl03	14.2	-0.0000930	0.0008550	-0.13	-2.48	2.27	-0.09	-1.75	1.59	0.9130
smkavl04	13.8	-0.0006790	0.0009260	-0.93	-3.38	1.58	-0.68	-2.46	1.14	0.4640
smkavl05	13.1	-0.0007110	0.0009890	-0.93	-3.41	1.62	-0.71	-2.62	1.24	0.4720
pfravl01	10.6	0.0006660	0.0009460	0.71	-1.25	2.71	0.67	-1.18	2.55	0.4810
pfravl02	9.9	0.0002530	0.0010470	0.25	-1.76	2.31	0.25	-1.78	2.33	0.8090
pfravl03	9.8	0.0001620	0.0011390	0.16	-2.01	2.37	0.16	-2.05	2.42	0.8870
pfravl04	9.6	-0.0004020	0.0012270	-0.39	-2.66	1.94	-0.40	-2.77	2.02	0.7430
pfravl05	9.4	-0.0007860	0.0013060	-0.74	-3.10	1.68	-0.78	-3.29	1.79	0.5470
sfravl01	13.9	-0.0000250	0.0007540	-0.03	-2.07	2.04	-0.02	-1.49	1.46	0.9740
sfravl02	12.5	0.0000970	0.0007890	0.12	-1.79	2.08	0.10	-1.44	1.66	0.9020
sfravl03	11.5	0.0000890	0.0008200	0.10	-1.73	1.97	0.09	-1.51	1.71	0.9130
sfravl04	11.2	0.0003620	0.0008680	0.41	-1.49	2.34	0.36	-1.33	2.08	0.6770
sfravl05	10.5	0.0005410	0.0009010	0.57	-1.28	2.45	0.54	-1.22	2.33	0.5480
pmcoarse01	11.2	0.000241	0.001442	0.27	-2.85	3.50	0.24	-2.55	3.12	0.867
pmcoarse02	10.5	-0.000380	0.001595	-0.40	-3.61	2.93	-0.38	-3.45	2.79	0.812
pmcoarse03	9.9	-0.001498	0.001722	-1.47	-4.71	1.88	-1.49	-4.76	1.90	0.385
pmcoarse04	9.3	-0.002233	0.001827	-2.05	-5.26	1.26	-2.21	-5.65	1.36	0.222
pmcoarse05	9.2	-0.002601	0.001914	-2.36	-5.68	1.06	-2.57	-6.15	1.16	0.174
pm25avl01	17.7	0.0009140	0.0006560	1.63	-0.66	3.97	0.92	-0.37	2.22	0.1640
pm25avl02	17.4	0.0007820	0.0007070	1.37	-1.05	3.84	0.78	-0.60	2.19	0.2690
pm25avl03	16.7	0.0007920	0.0007580	1.33	-1.15	3.88	0.79	-0.69	2.30	0.2970
pm25avl04	16.0	0.0007710	0.0008080	1.24	-1.29	3.84	0.77	-0.81	2.38	0.3400
pm25avl05	15.7	0.0008580	0.0008540	1.36	-1.27	4.05	0.86	-0.81	2.56	0.3150

Table 12 All Respiratory All Ages Mortality: single day lags

<i>Poll&Lag</i>	<i>Cent1090</i>	<i>Est.</i>	<i>Se(Est.)</i>	<i>%RR1090</i>	<i>LCL1090</i>	<i>UCL1090</i>	<i>%RR10</i>	<i>LCL10</i>	<i>UCL10</i>	<i>Pvalue</i>
no2mxl0	28.8	0.0009980	0.0007860	2.92	-1.55	7.58	1.00	-0.54	2.57	0.2050
no2mxl1	28.8	0.0007070	0.0007760	2.06	-2.32	6.63	0.71	-0.81	2.25	0.3630
no2mxl2	28.8	-0.0006510	0.0007480	-1.86	-5.91	2.37	-0.65	-2.09	0.82	0.3840
no2mxl3	28.8	-0.0003260	0.0007600	-0.94	-5.10	3.41	-0.33	-1.80	1.17	0.6680
o3m8l0	30.8	0.0012010	0.0012230	3.77	-3.62	11.72	1.21	-1.19	3.66	0.3270
o3m8l1	30.8	-0.0000120	0.0012070	-0.04	-7.06	7.52	-0.01	-2.35	2.38	0.9920
o3m8l2	30.8	-0.0016570	0.0010770	-4.98	-10.96	1.41	-1.64	-3.70	0.46	0.1240
o3m8l3	30.8	-0.0003010	0.0010920	-0.92	-7.24	5.83	-0.30	-2.41	1.86	0.7830
so2avl0	9.0	-0.0010520	0.0024330	-0.94	-5.10	3.40	-1.05	-5.65	3.79	0.6660
so2avl1	9.0	-0.0024300	0.0024180	-2.16	-6.25	2.10	-2.40	-6.92	2.34	0.3150
so2avl2	9.0	0.0025330	0.0024450	2.31	-2.01	6.82	2.57	-2.23	7.60	0.3010
so2avl3	9.0	-0.0017020	0.0024240	-1.52	-5.64	2.78	-1.69	-6.25	3.10	0.4830
so4avl0	6.4	-0.0028150	0.0039530	-1.79	-6.54	3.21	-2.78	-10.03	5.06	0.4770
so4avl1	6.4	-0.0027100	0.0039710	-1.72	-6.50	3.30	-2.67	-9.96	5.20	0.4950
so4avl2	6.4	-0.0031390	0.0039580	-1.99	-6.74	3.00	-3.09	-10.32	4.73	0.4280
so4avl3	6.4	-0.0036610	0.0039570	-2.32	-7.05	2.66	-3.59	-10.79	4.18	0.3550
com8l0	1.0	0.0090620	0.0153250	0.91	-2.08	3.99	0.09	-0.21	0.39	0.5540
com8l1	1.0	0.0097870	0.0157120	0.98	-2.08	4.14	0.10	-0.21	0.41	0.5340
com8l2	1.0	-0.0062720	0.0156980	-0.63	-3.64	2.48	-0.06	-0.37	0.25	0.6900
com8l3	1.0	-0.0063390	0.0156820	-0.63	-3.64	2.47	-0.06	-0.37	0.24	0.6860
pm10avl0	26.9	0.0001700	0.0009230	0.46	-4.31	5.47	0.17	-1.63	2.00	0.8540
pm10avl1	26.9	-0.0010480	0.0008920	-2.78	-7.25	1.90	-1.04	-2.76	0.70	0.2400
pm10avl2	26.9	-0.0008520	0.0009000	-2.27	-6.79	2.48	-0.85	-2.58	0.92	0.3440
pm10avl3	26.9	-0.0010260	0.0008970	-2.72	-7.22	1.99	-1.02	-2.75	0.74	0.2530
smkavl0	18.5	-0.0002970	0.0013330	-0.55	-5.24	4.38	-0.30	-2.87	2.34	0.8240
smkavl1	18.5	0.0003860	0.0013540	0.72	-4.11	5.79	0.39	-2.24	3.09	0.7750
smkavl2	18.5	-0.0010730	0.0013470	-1.97	-6.64	2.94	-1.07	-3.64	1.58	0.4260
smkavl3	18.5	-0.0027200	0.0013250	-4.91	-9.37	-0.23	-2.68	-5.18	-0.12	0.0405
pfravl0	11.6	0.0009170	0.0018160	1.07	-3.02	5.33	0.92	-2.61	4.58	0.6140
pfravl1	11.6	0.0006280	0.0018170	0.73	-3.35	4.98	0.63	-2.89	4.28	0.7300
pfravl2	11.6	-0.0016290	0.0018430	-1.87	-5.90	2.33	-1.62	-5.11	2.00	0.3770
pfravl3	11.6	-0.0031720	0.0018300	-3.61	-7.54	0.48	-3.12	-6.54	0.42	0.0835
sfravl0	15.3	-0.0011540	0.0016400	-1.75	-6.47	3.20	-1.15	-4.27	2.08	0.4820
sfravl1	15.3	-0.0011580	0.0016480	-1.76	-6.49	3.22	-1.15	-4.29	2.09	0.4820
sfravl2	15.3	-0.0013250	0.0016430	-2.01	-6.72	2.94	-1.32	-4.44	1.91	0.4200
sfravl3	15.3	-0.0014730	0.0016420	-2.23	-6.93	2.71	-1.46	-4.58	1.76	0.3700
pmcoarse0	12.1	-0.005124	0.002835	-6.01	-12.12	0.52	-4.99	-10.13	0.43	0.071
pmcoarse1	12.1	-0.004424	0.002884	-5.21	-11.48	1.50	-4.33	-9.59	1.24	0.125
pmcoarse2	12.1	-0.004531	0.002847	-5.33	-11.52	1.28	-4.43	-9.62	1.06	0.112
pmcoarse3	12.1	-0.004801	0.002798	-5.64	-11.70	0.83	-4.69	-9.77	0.69	0.087
pm25avl0	19.8	0.0006680	0.0014480	1.33	-4.21	7.19	0.67	-2.15	3.57	0.6450
pm25avl1	19.8	-0.0008080	0.0014220	-1.59	-6.87	4.00	-0.80	-3.53	2.00	0.5700
pm25avl2	19.8	-0.0016600	0.0014100	-3.23	-8.39	2.21	-1.65	-4.33	1.11	0.2400
pm25avl3	19.8	-0.0020620	0.0013990	-4.00	-9.07	1.36	-2.04	-4.69	0.68	0.1410

Table 13 All Respiratory All Ages Mortality: cumulative day lags

<i>Poll&Lag</i>	<i>Cent1090</i>	<i>Est.</i>	<i>Se(Est.)</i>	<i>%RR1090</i>	<i>LCL1090</i>	<i>UCL1090</i>	<i>%RR10</i>	<i>LCL10</i>	<i>UCL10</i>	<i>Pvalue</i>
no2mxl01	25.5	0.0010970	0.0008860	2.84	-1.62	7.50	1.10	-0.64	2.87	0.2160
no2mxl02	23.5	0.0005180	0.0009640	1.23	-3.17	5.82	0.52	-1.36	2.44	0.5910
no2mxl03	21.8	0.0003020	0.0010450	0.66	-3.74	5.26	0.30	-1.73	2.38	0.7730
o3m8l01	28.6	0.0007510	0.0013750	2.17	-5.41	10.36	0.75	-1.93	3.51	0.5850
o3m8l02	27.9	-0.0004150	0.0014140	-1.15	-8.51	6.79	-0.41	-3.14	2.38	0.7690
o3m8l03	26.8	-0.0004990	0.0014710	-1.33	-8.66	6.60	-0.50	-3.32	2.41	0.7350
so2avl01	8.5	-0.0022660	0.0027450	-1.91	-6.29	2.68	-2.24	-7.36	3.16	0.4090
so2avl02	7.8	-0.0005500	0.0030630	-0.43	-4.98	4.35	-0.55	-6.34	5.60	0.8580
so2avl03	7.2	-0.0013200	0.0033190	-0.95	-5.48	3.80	-1.31	-7.53	5.32	0.6910
so4avl01	5.8	-0.0031030	0.0042130	-1.78	-6.38	3.04	-3.06	-10.74	5.29	0.4620
so4avl02	5.2	-0.0038720	0.0044040	-1.99	-6.30	2.51	-3.80	-11.75	4.88	0.3800
so4avl03	4.8	-0.0044340	0.0045700	-2.11	-6.23	2.20	-4.34	-12.53	4.63	0.3320
so4avl04	4.7	-0.0039740	0.0047420	-1.85	-6.05	2.53	-3.90	-12.43	5.47	0.4020
so4avl05	4.7	-0.0035510	0.0048740	-1.66	-5.97	2.86	-3.49	-12.28	6.19	0.4660
com8l01	1.0	0.0126170	0.0177390	1.21	-2.08	4.60	0.13	-0.22	0.47	0.4770
com8l02	0.9	0.0069580	0.0199360	0.63	-2.85	4.23	0.07	-0.32	0.46	0.7270
com8l03	0.9	0.0031910	0.0220440	0.28	-3.42	4.12	0.03	-0.40	0.47	0.8850
pm10avl01	24.4	-0.0005720	0.0010080	-1.39	-6.02	3.48	-0.57	-2.51	1.41	0.5710
pm10avl02	24.2	-0.0008890	0.0010840	-2.13	-7.03	3.04	-0.89	-2.97	1.24	0.4120
pm10avl03	23.0	-0.0012290	0.0011510	-2.79	-7.70	2.39	-1.22	-3.42	1.03	0.2860
pm10avl04	21.9	-0.0012250	0.0012230	-2.65	-7.63	2.60	-1.22	-3.56	1.18	0.3170
pm10avl05	21.2	-0.0014350	0.0012800	-3.00	-8.02	2.30	-1.42	-3.87	1.08	0.2630
smkavl01	16.7	0.0000520	0.0015250	0.09	-4.79	5.21	0.05	-2.89	3.09	0.9730
smkavl02	14.8	-0.0005480	0.0016890	-0.81	-5.55	4.17	-0.55	-3.78	2.80	0.7460
smkavl03	14.2	-0.0018500	0.0018180	-2.59	-7.40	2.46	-1.83	-5.27	1.73	0.3090
smkavl04	13.8	-0.0022400	0.0019550	-3.04	-8.04	2.22	-2.22	-5.89	1.60	0.2520
smkavl05	13.1	-0.0025520	0.0020700	-3.29	-8.30	1.99	-2.52	-6.40	1.52	0.2180
pfravl01	10.6	0.0008970	0.0020690	0.96	-3.29	5.39	0.90	-3.11	5.08	0.6650
pfravl02	9.9	-0.0003550	0.0022860	-0.35	-4.67	4.17	-0.35	-4.72	4.21	0.8770
pfravl03	9.8	-0.0017620	0.0024700	-1.71	-6.27	3.06	-1.75	-6.39	3.13	0.4760
pfravl04	9.6	-0.0023140	0.0026490	-2.20	-6.95	2.80	-2.29	-7.23	2.92	0.3830
pfravl05	9.4	-0.0035150	0.0027930	-3.25	-8.10	1.86	-3.45	-8.60	1.98	0.2090
sfravl01	13.9	-0.0012940	0.0017480	-1.78	-6.35	3.01	-1.29	-4.61	2.16	0.4590
sfravl02	12.5	-0.0016140	0.0018270	-2.00	-6.29	2.49	-1.60	-5.06	1.99	0.3770
sfravl03	11.5	-0.0018350	0.0018960	-2.09	-6.18	2.19	-1.82	-5.40	1.90	0.3340
sfravl04	11.2	-0.0015760	0.0020160	-1.75	-6.00	2.69	-1.56	-5.38	2.40	0.4340
sfravl05	10.5	-0.0014180	0.0020960	-1.48	-5.64	2.86	-1.41	-5.38	2.73	0.4990
pmcoarse01	11.2	-0.007097	0.003215	-7.64	-13.93	-0.89	-6.85	-12.54	-0.79	0.028
pmcoarse02	10.5	-0.008248	0.003513	-8.30	-14.69	-1.42	-7.92	-14.04	-1.35	0.019
pmcoarse03	9.9	-0.009624	0.003715	-9.09	-15.41	-2.29	-9.17	-15.55	-2.32	0.010
pmcoarse04	9.3	-0.009729	0.003947	-8.65	-14.99	-1.84	-9.27	-16.03	-1.97	0.014
pmcoarse05	9.2	-0.011909	0.004021	-10.38	-16.65	-3.64	-11.23	-17.96	-3.95	0.003
pm25avl01	17.7	-0.0000340	0.0015700	-0.06	-5.36	5.53	-0.03	-3.06	3.09	0.9820
pm25avl02	17.4	-0.0009730	0.0016670	-1.68	-7.11	4.07	-0.97	-4.15	2.32	0.5600
pm25avl03	16.7	-0.0017210	0.0017670	-2.83	-8.30	2.95	-1.71	-5.05	1.76	0.3300
pm25avl04	16.0	-0.0015460	0.0018970	-2.44	-8.08	3.54	-1.53	-5.13	2.20	0.4150
pm25avl05	15.7	-0.0018020	0.0020020	-2.79	-8.60	3.39	-1.79	-5.56	2.14	0.3680

Table 14 All Respiratory Ages 65+ Mortality: single day lags

<i>Poll&Lag</i>	<i>Cent1090</i>	<i>Est.</i>	<i>Se(Est.)</i>	<i>%RR1090</i>	<i>LCL1090</i>	<i>UCL1090</i>	<i>%RR10</i>	<i>LCL10</i>	<i>UCL10</i>	<i>Pvalue</i>
no2mxl0	28.8	0.0008610	0.0007980	2.51	-2.01	7.23	0.86	-0.70	2.45	0.2810
no2mxl1	28.8	0.0007250	0.0007930	2.11	-2.36	6.78	0.73	-0.83	2.31	0.3610
no2mxl2	28.8	-0.0005970	0.0007670	-1.71	-5.87	2.64	-0.60	-2.08	0.91	0.4360
no2mxl3	28.8	-0.0006110	0.0007720	-1.74	-5.93	2.63	-0.61	-2.10	0.91	0.4290
o3m8l0	30.8	0.0007370	0.0011980	2.30	-4.84	9.97	0.74	-1.60	3.13	0.5390
o3m8l1	30.8	-0.0001730	0.0012200	-0.53	-7.59	7.07	-0.17	-2.53	2.24	0.8880
o3m8l2	30.8	-0.0013150	0.0011820	-3.97	-10.58	3.13	-1.31	-3.57	1.01	0.2660
o3m8l3	30.8	0.0001920	0.0011570	0.59	-6.19	7.87	0.19	-2.05	2.49	0.8680
so2avl0	9.0	-0.0000560	0.0024720	-0.05	-4.31	4.40	-0.06	-4.78	4.91	0.9820
so2avl1	9.0	-0.0027700	0.0024750	-2.46	-6.63	1.89	-2.73	-7.34	2.10	0.2630
so2avl2	9.0	0.0020630	0.0024850	1.87	-2.49	6.44	2.08	-2.77	7.18	0.4070
so2avl3	9.0	-0.0037730	0.0024750	-3.34	-7.47	0.98	-3.70	-8.26	1.08	0.1280
so4avl0	6.4	-0.0031650	0.0040060	-2.01	-6.81	3.05	-3.12	-10.43	4.80	0.4300
so4avl1	6.4	-0.0010190	0.0040490	-0.65	-5.57	4.53	-1.01	-8.57	7.16	0.8010
so4avl2	6.4	-0.0034480	0.0040240	-2.18	-7.00	2.88	-3.39	-10.72	4.54	0.3920
so4avl3	6.4	-0.0059520	0.0039950	-3.74	-8.44	1.21	-5.78	-12.88	1.90	0.1370
com8l0	1.0	0.0043680	0.0157100	0.44	-2.61	3.58	0.04	-0.26	0.35	0.7810
com8l1	1.0	0.0096340	0.0159460	0.97	-2.14	4.17	0.10	-0.22	0.41	0.5460
com8l2	1.0	-0.0030630	0.0160280	-0.31	-3.39	2.88	-0.03	-0.34	0.28	0.8490
com8l3	1.0	-0.0190160	0.0163340	-1.88	-4.97	1.31	-0.19	-0.51	0.13	0.2450
pm10avl0	26.9	0.0003480	0.0009420	0.94	-3.95	6.08	0.35	-1.49	2.22	0.7120
pm10avl1	26.9	-0.0010670	0.0009120	-2.83	-7.39	1.96	-1.06	-2.81	0.72	0.2420
pm10avl2	26.9	-0.0007110	0.0009200	-1.89	-6.54	2.98	-0.71	-2.48	1.10	0.4400
pm10avl3	26.9	-0.0016110	0.0009060	-4.24	-8.71	0.45	-1.60	-3.33	0.17	0.0758
smkavl0	18.5	-0.0002670	0.0013550	-0.49	-5.26	4.52	-0.27	-2.88	2.42	0.8440
smkavl1	18.5	0.0002450	0.0013710	0.45	-4.42	5.58	0.25	-2.41	2.98	0.8580
smkavl2	18.5	-0.0005780	0.0013760	-1.06	-5.88	4.00	-0.58	-3.22	2.14	0.6740
smkavl3	18.5	-0.0035660	0.0013510	-6.38	-10.86	-1.68	-3.50	-6.03	-0.91	0.0085
pfravl0	11.6	0.0006710	0.0018440	0.78	-3.36	5.10	0.67	-2.90	4.38	0.7160
pfravl1	11.6	0.0002070	0.0018500	0.24	-3.89	4.55	0.21	-3.36	3.91	0.9110
pfravl2	11.6	-0.0012430	0.0018780	-1.43	-5.55	2.87	-1.24	-4.81	2.47	0.5080
pfravl3	11.6	-0.0041020	0.0018720	-4.65	-8.62	-0.50	-4.02	-7.48	-0.43	0.0287
sfravl0	15.3	-0.0012900	0.0016620	-1.95	-6.72	3.06	-1.28	-4.44	1.99	0.4380
sfravl1	15.3	-0.0004570	0.0016800	-0.70	-5.58	4.43	-0.46	-3.68	2.88	0.7860
sfravl2	15.3	-0.0014380	0.0016700	-2.18	-6.96	2.85	-1.43	-4.60	1.85	0.3900
sfravl3	15.3	-0.0024260	0.0016580	-3.64	-8.32	1.27	-2.40	-5.52	0.83	0.1440
pmcoarse0	12.1	-0.004075	0.002742	-4.81	-10.80	1.59	-3.99	-9.02	1.31	0.138
pmcoarse1	12.1	-0.003902	0.002764	-4.61	-10.66	1.85	-3.83	-8.90	1.53	0.159
pmcoarse2	12.1	-0.004099	0.002740	-4.84	-10.83	1.55	-4.02	-9.04	1.28	0.135
pmcoarse3	12.1	-0.005230	0.002683	-6.13	-11.92	0.03	-5.10	-9.96	0.03	0.052
pm25avl0	19.8	0.0007600	0.0013740	1.52	-3.76	7.08	0.76	-1.92	3.51	0.5810
pm25avl1	19.8	-0.0004720	0.0013610	-0.93	-6.03	4.44	-0.47	-3.09	2.22	0.7290
pm25avl2	19.8	-0.0007890	0.0013580	-1.55	-6.60	3.78	-0.79	-3.39	1.89	0.5620
pm25avl3	19.8	-0.0014660	0.0013460	-2.86	-7.81	2.35	-1.45	-4.02	1.18	0.2770

Table 15 All Respiratory Ages 65+ Mortality: cumulative day lags

<i>Poll&Lag</i>	<i>Cent1090</i>	<i>Est.</i>	<i>Se(Est.)</i>	<i>%RR1090</i>	<i>LCL1090</i>	<i>UCL1090</i>	<i>%RR10</i>	<i>LCL10</i>	<i>UCL10</i>	<i>Pvalue</i>
no2mxl01	25.5	0.0010240	0.0009030	2.65	-1.88	7.38	1.03	-0.74	2.83	0.2570
no2mxl02	23.5	0.0005010	0.0009860	1.19	-3.31	5.89	0.50	-1.42	2.46	0.6110
no2mxl03	21.8	0.0001450	0.0010670	0.32	-4.16	5.00	0.14	-1.93	2.26	0.8920
o3m8l01	28.6	0.0003610	0.0013610	1.04	-6.38	9.05	0.36	-2.28	3.08	0.7910
o3m8l02	27.9	-0.0004200	0.0014700	-1.17	-8.80	7.10	-0.42	-3.25	2.49	0.7750
o3m8l03	26.8	-0.0002710	0.0015580	-0.72	-8.53	7.74	-0.27	-3.27	2.82	0.8620
so2avl01	8.5	-0.0018360	0.0028060	-1.55	-6.04	3.16	-1.82	-7.07	3.73	0.5130
so2avl02	7.8	-0.0004230	0.0031280	-0.33	-4.98	4.55	-0.42	-6.34	5.87	0.8920
so2avl03	7.2	-0.0022080	0.0033750	-1.58	-6.15	3.22	-2.18	-8.44	4.50	0.5130
so4avl01	5.8	-0.0023760	0.0042850	-1.37	-6.06	3.56	-2.35	-10.21	6.21	0.5790
so4avl02	5.2	-0.0033740	0.0044790	-1.74	-6.12	2.85	-3.32	-11.44	5.55	0.4520
so4avl03	4.8	-0.0049220	0.0046400	-2.34	-6.51	2.02	-4.80	-13.08	4.26	0.2890
so4avl04	4.7	-0.0045420	0.0048090	-2.11	-6.35	2.32	-4.44	-13.04	5.00	0.3450
so4avl05	4.7	-0.0037910	0.0049420	-1.77	-6.14	2.81	-3.72	-12.61	6.07	0.4430
com8l01	1.0	0.0093720	0.0180810	0.89	-2.45	4.35	0.09	-0.26	0.45	0.6040
com8l02	0.9	0.0061550	0.0203300	0.56	-2.99	4.23	0.06	-0.34	0.46	0.7620
com8l03	0.9	-0.0040320	0.0225910	-0.35	-4.12	3.56	-0.04	-0.48	0.40	0.8580
pm10avl01	24.4	-0.0004740	0.0010310	-1.15	-5.91	3.84	-0.47	-2.46	1.56	0.6450
pm10avl02	24.2	-0.0007420	0.0011110	-1.78	-6.82	3.54	-0.74	-2.88	1.45	0.5050
pm10avl03	23.0	-0.0013660	0.0011730	-3.09	-8.09	2.17	-1.36	-3.60	0.94	0.2440
pm10avl04	21.9	-0.0015220	0.0012440	-3.28	-8.31	2.03	-1.51	-3.88	0.92	0.2210
pm10avl05	21.2	-0.0018100	0.0013010	-3.76	-8.83	1.58	-1.79	-4.27	0.74	0.1650
smkavl01	16.7	-0.0000160	0.0015450	-0.03	-4.96	5.16	-0.02	-3.00	3.06	0.9920
smkavl02	14.8	-0.0003280	0.0017160	-0.48	-5.32	4.59	-0.33	-3.62	3.08	0.8490
smkavl03	14.2	-0.0020490	0.0018460	-2.87	-7.73	2.25	-2.03	-5.51	1.58	0.2670
smkavl04	13.8	-0.0028530	0.0019810	-3.86	-8.88	1.43	-2.81	-6.51	1.04	0.1500
smkavl05	13.1	-0.0032420	0.0021040	-4.16	-9.20	1.16	-3.19	-7.10	0.88	0.1240
pfravl01	10.6	0.0004820	0.0021030	0.51	-3.78	5.00	0.48	-3.57	4.71	0.8190
pfravl02	9.9	-0.0004600	0.0023230	-0.45	-4.84	4.13	-0.46	-4.89	4.18	0.8430
pfravl03	9.8	-0.0023660	0.0025100	-2.29	-6.89	2.54	-2.34	-7.03	2.59	0.3460
pfravl04	9.6	-0.0032610	0.0026920	-3.08	-7.87	1.95	-3.21	-8.18	2.04	0.2260
pfravl05	9.4	-0.0045460	0.0028410	-4.18	-9.07	0.97	-4.44	-9.62	1.03	0.1100
sfravl01	13.9	-0.0009820	0.0017780	-1.36	-6.02	3.54	-0.98	-4.37	2.53	0.5810
sfravl02	12.5	-0.0013990	0.0018580	-1.73	-6.11	2.84	-1.39	-4.92	2.27	0.4520
sfravl03	11.5	-0.0020350	0.0019250	-2.31	-6.46	2.02	-2.01	-5.64	1.75	0.2910
sfravl04	11.2	-0.0017290	0.0020430	-1.92	-6.22	2.58	-1.71	-5.57	2.30	0.3980
sfravl05	10.5	-0.0016120	0.0021220	-1.68	-5.88	2.71	-1.60	-5.61	2.58	0.4480
pmcoarse01	11.2	-0.005906	0.003128	-6.40	-12.61	0.25	-5.73	-11.34	0.23	0.060
pmcoarse02	10.5	-0.006894	0.003438	-6.98	-13.34	-0.16	-6.66	-12.74	-0.16	0.045
pmcoarse03	9.9	-0.008515	0.003644	-8.08	-14.36	-1.35	-8.16	-14.49	-1.36	0.020
pmcoarse04	9.3	-0.009196	0.003851	-8.20	-14.42	-1.52	-8.79	-15.42	-1.64	0.017
pmcoarse05	9.2	-0.011246	0.003948	-9.83	-16.03	-3.17	-10.64	-17.29	-3.45	0.005
pm25avl01	17.7	0.0002900	0.0014970	0.51	-4.57	5.87	0.29	-2.61	3.28	0.8460
pm25avl02	17.4	-0.0003330	0.0016000	-0.58	-5.86	5.00	-0.33	-3.41	2.84	0.8350
pm25avl03	16.7	-0.0009940	0.0017000	-1.65	-6.97	3.98	-0.99	-4.23	2.37	0.5590
pm25avl04	16.0	-0.0007410	0.0018250	-1.18	-6.68	4.64	-0.74	-4.23	2.88	0.6850
pm25avl05	15.7	-0.0008200	0.0019310	-1.28	-6.97	4.76	-0.82	-4.50	3.01	0.6710

Table 16 All Cardiovascular All Ages Mortality: single day lags

<i>Poll&Lag</i>	<i>Cent1090</i>	<i>Est.</i>	<i>Se(Est.)</i>	<i>%RR1090</i>	<i>LCL1090</i>	<i>UCL1090</i>	<i>%RR10</i>	<i>LCL10</i>	<i>UCL10</i>	<i>Pvalue</i>
no2mxl0	28.8	0.0009630	0.0004740	2.81	0.10	5.60	0.97	0.03	1.91	0.0427
no2mxl1	28.8	0.0005830	0.0004710	1.69	-0.98	4.43	0.58	-0.34	1.52	0.2160
no2mxl2	28.8	0.0005210	0.0004720	1.51	-1.16	4.25	0.52	-0.40	1.46	0.2700
no2mxl3	28.8	0.0001120	0.0004670	0.32	-2.29	3.00	0.11	-0.80	1.03	0.8110
o3m8l0	30.8	0.0005740	0.0006840	1.78	-2.33	6.07	0.58	-0.76	1.93	0.4010
o3m8l1	30.8	-0.0001400	0.0006980	-0.43	-4.54	3.85	-0.14	-1.50	1.23	0.8410
o3m8l2	30.8	0.0005540	0.0007070	1.72	-2.53	6.15	0.56	-0.83	1.96	0.4330
o3m8l3	30.8	0.0003090	0.0006540	0.96	-2.95	5.03	0.31	-0.97	1.60	0.6360
so2avl0	9.0	-0.0000450	0.0014920	-0.04	-2.64	2.62	-0.05	-2.93	2.92	0.9760
so2avl1	9.0	-0.0003730	0.0014860	-0.33	-2.91	2.31	-0.37	-3.23	2.57	0.8020
so2avl2	9.0	-0.0011060	0.0014860	-0.99	-3.55	1.64	-1.10	-3.94	1.82	0.4570
so2avl3	9.0	-0.0017090	0.0014870	-1.53	-4.08	1.09	-1.69	-4.52	1.21	0.2510
so4avl0	6.4	-0.0029710	0.0022790	-1.88	-4.65	0.96	-2.93	-7.17	1.51	0.1930
so4avl1	6.4	-0.0011050	0.0022840	-0.70	-3.51	2.18	-1.10	-5.43	3.43	0.6290
so4avl2	6.4	0.0017020	0.0022930	1.10	-1.77	4.04	1.72	-2.75	6.39	0.4580
so4avl3	6.4	0.0018870	0.0022890	1.22	-1.65	4.16	1.91	-2.57	6.58	0.4100
com8l0	1.0	0.0239380	0.0094350	2.42	0.55	4.33	0.24	0.05	0.43	0.0114
com8l1	1.0	0.0141750	0.0095790	1.43	-0.46	3.35	0.14	-0.05	0.33	0.1390
com8l2	1.0	0.0003330	0.0098280	0.03	-1.88	1.98	0.00	-0.19	0.20	0.9730
com8l3	1.0	0.0132360	0.0097270	1.33	-0.58	3.28	0.13	-0.06	0.32	0.1740
pm10avl0	26.9	-0.0000580	0.0005440	-0.15	-2.98	2.75	-0.06	-1.12	1.01	0.9160
pm10avl1	26.9	0.0006830	0.0005450	1.85	-1.03	4.82	0.69	-0.38	1.77	0.2100
pm10avl2	26.9	-0.0002030	0.0005360	-0.55	-3.32	2.31	-0.20	-1.25	0.85	0.7050
pm10avl3	26.9	-0.0005130	0.0005330	-1.37	-4.10	1.44	-0.51	-1.55	0.53	0.3370
smkavl0	18.5	0.0008110	0.0008190	1.51	-1.46	4.57	0.81	-0.79	2.45	0.3220
smkavl1	18.5	0.0005460	0.0008190	1.01	-1.94	4.06	0.55	-1.05	2.18	0.5050
smkavl2	18.5	0.0001650	0.0008240	0.31	-2.65	3.35	0.17	-1.44	1.80	0.8410
smkavl3	18.5	0.0001100	0.0008300	0.20	-2.77	3.26	0.11	-1.50	1.75	0.8950
pfravl0	11.6	0.0004610	0.0010980	0.54	-1.94	3.08	0.46	-1.68	2.65	0.6740
pfravl1	11.6	0.0018530	0.0010950	2.17	-0.34	4.75	1.87	-0.29	4.08	0.0909
pfravl2	11.6	0.0002050	0.0011090	0.24	-2.26	2.80	0.21	-1.95	2.41	0.8530
pfravl3	11.6	-0.0000440	0.0011110	-0.05	-2.54	2.51	-0.04	-2.20	2.16	0.9680
sfravl0	15.3	-0.0012530	0.0009450	-1.90	-4.64	0.92	-1.24	-3.06	0.60	0.1850
sfravl1	15.3	-0.0004560	0.0009480	-0.70	-3.48	2.17	-0.46	-2.29	1.41	0.6300
sfravl2	15.3	0.0007310	0.0009520	1.12	-1.72	4.05	0.73	-1.13	2.63	0.4430
sfravl3	15.3	0.0007750	0.0009500	1.19	-1.65	4.12	0.78	-1.08	2.67	0.4150
pmcoarse0	12.1	-0.000449	0.001620	-0.54	-4.29	3.35	-0.45	-3.56	2.76	0.782
pmcoarse1	12.1	0.000221	0.001610	0.27	-3.49	4.17	0.22	-2.89	3.43	0.891
pmcoarse2	12.1	0.000022	0.001580	0.03	-3.65	3.85	0.02	-3.03	3.17	0.989
pmcoarse3	12.1	-0.002464	0.001577	-2.94	-6.50	0.76	-2.43	-5.40	0.63	0.119
pm25avl0	19.8	0.0004300	0.0007930	0.85	-2.20	4.01	0.43	-1.12	2.00	0.5880
pm25avl1	19.8	0.0005460	0.0007880	1.09	-1.96	4.23	0.55	-0.99	2.11	0.4890
pm25avl2	19.8	0.0005110	0.0007870	1.02	-2.02	4.15	0.51	-1.03	2.07	0.5160
pm25avl3	19.8	-0.0003650	0.0007940	-0.72	-3.73	2.39	-0.36	-1.90	1.20	0.6460

Table 17 All Cardiovascular All Ages Mortality: cumulative day lags

<i>Poll&Lag</i>	<i>Cent1090</i>	<i>Est.</i>	<i>Se(Est.)</i>	<i>%RR1090</i>	<i>LCL1090</i>	<i>UCL1090</i>	<i>%RR10</i>	<i>LCL10</i>	<i>UCL10</i>	<i>Pvalue</i>
no2mxl01	25.5	0.0009970	0.0005350	2.57	-0.13	5.35	1.00	-0.05	2.07	0.0628
no2mxl02	23.5	0.0011060	0.0005950	2.63	-0.14	5.48	1.11	-0.06	2.30	0.0633
no2mxl03	21.8	0.0010530	0.0006510	2.32	-0.49	5.21	1.06	-0.22	2.36	0.1060
o3m8l01	28.6	0.0003000	0.0007780	0.86	-3.44	5.35	0.30	-1.22	1.84	0.7000
o3m8l02	27.9	0.0005540	0.0008620	1.56	-3.12	6.46	0.56	-1.13	2.27	0.5210
o3m8l03	26.8	0.0006330	0.0009090	1.71	-3.03	6.69	0.64	-1.14	2.44	0.4860
so2avl01	8.5	-0.0002760	0.0016970	-0.23	-3.02	2.63	-0.28	-3.54	3.10	0.8710
so2avl02	7.8	-0.0008410	0.0018780	-0.65	-3.47	2.24	-0.84	-4.42	2.88	0.6550
so2avl03	7.2	-0.0015860	0.0020340	-1.14	-3.93	1.74	-1.57	-5.42	2.43	0.4360
so4avl01	5.8	-0.0022350	0.0024230	-1.29	-3.97	1.47	-2.21	-6.75	2.55	0.3570
so4avl02	5.2	-0.0008720	0.0025400	-0.45	-3.00	2.16	-0.87	-5.68	4.19	0.7310
so4avl03	4.8	0.0000820	0.0026400	0.04	-2.42	2.56	0.08	-4.97	5.40	0.9750
so4avl04	4.7	0.0002750	0.0027310	0.13	-2.36	2.68	0.28	-4.95	5.79	0.9200
so4avl05	4.7	0.0015570	0.0028040	0.73	-1.83	3.37	1.57	-3.86	7.31	0.5790
com8l01	1.0	0.0254580	0.0108920	2.45	0.39	4.55	0.25	0.04	0.47	0.0197
com8l02	0.9	0.0219700	0.0123980	2.00	-0.21	4.25	0.22	-0.02	0.46	0.0768
com8l03	0.9	0.0277990	0.0138220	2.45	0.06	4.89	0.28	0.01	0.55	0.0446
pm10avl01	24.4	0.0004060	0.0006080	0.99	-1.90	3.98	0.41	-0.78	1.61	0.5050
pm10avl02	24.2	0.0002140	0.0006560	0.52	-2.56	3.70	0.21	-1.07	1.51	0.7440
pm10avl03	23.0	-0.0000480	0.0006960	-0.11	-3.19	3.07	-0.05	-1.40	1.32	0.9460
pm10avl04	21.9	-0.0002210	0.0007340	-0.48	-3.57	2.70	-0.22	-1.65	1.22	0.7630
pm10avl05	21.2	-0.0001530	0.0007730	-0.32	-3.48	2.93	-0.15	-1.66	1.37	0.8430
smkavl01	16.7	0.0009050	0.0009360	1.52	-1.54	4.68	0.91	-0.93	2.78	0.3340
smkavl02	14.8	0.0008400	0.0010390	1.25	-1.76	4.35	0.84	-1.19	2.92	0.4190
smkavl03	14.2	0.0008140	0.0011380	1.16	-1.99	4.42	0.82	-1.41	3.09	0.4750
smkavl04	13.8	0.0002030	0.0012240	0.28	-2.98	3.66	0.20	-2.17	2.64	0.8680
smkavl05	13.1	0.0003560	0.0013110	0.47	-2.86	3.91	0.36	-2.19	2.97	0.7860
pfravl01	10.6	0.0015490	0.0012590	1.66	-0.97	4.35	1.56	-0.91	4.10	0.2190
pfravl02	9.9	0.0014410	0.0013890	1.44	-1.26	4.21	1.45	-1.27	4.25	0.3000
pfravl03	9.8	0.0012070	0.0015110	1.19	-1.71	4.17	1.21	-1.74	4.26	0.4250
pfravl04	9.6	0.0006770	0.0016220	0.65	-2.37	3.77	0.68	-2.47	3.93	0.6770
pfravl05	9.4	0.0002340	0.0017180	0.22	-2.90	3.44	0.23	-3.09	3.67	0.8920
sfravl01	13.9	-0.0009350	0.0010050	-1.29	-3.96	1.45	-0.93	-2.86	1.04	0.3530
sfravl02	12.5	-0.0003740	0.0010540	-0.47	-3.00	2.14	-0.37	-2.41	1.71	0.7230
sfravl03	11.5	0.0000180	0.0010950	0.02	-2.42	2.52	0.02	-2.11	2.19	0.9870
sfravl04	11.2	0.0004090	0.0011610	0.46	-2.07	3.05	0.41	-1.85	2.72	0.7250
sfravl05	10.5	0.0007540	0.0012080	0.79	-1.68	3.33	0.76	-1.60	3.17	0.5330
pmcoarse01	11.2	-0.000675	0.001895	-0.75	-4.80	3.46	-0.67	-4.29	3.09	0.722
pmcoarse02	10.5	-0.000645	0.002094	-0.67	-4.86	3.70	-0.64	-4.64	3.52	0.758
pmcoarse03	9.9	-0.002765	0.002263	-2.70	-6.88	1.67	-2.73	-6.95	1.68	0.222
pmcoarse04	9.3	-0.003291	0.002401	-3.01	-7.17	1.32	-3.24	-7.69	1.43	0.171
pmcoarse05	9.2	-0.002840	0.002513	-2.58	-6.90	1.94	-2.80	-7.47	2.11	0.259
pm25avl01	17.7	0.0005060	0.0008670	0.90	-2.09	3.98	0.51	-1.19	2.23	0.5590
pm25avl02	17.4	0.0007400	0.0009300	1.30	-1.87	4.56	0.74	-1.08	2.60	0.4270
pm25avl03	16.7	0.0005310	0.0009980	0.89	-2.35	4.24	0.53	-1.42	2.52	0.5950
pm25avl04	16.0	0.0005230	0.0010630	0.84	-2.46	4.26	0.52	-1.55	2.64	0.6230
pm25avl05	15.7	0.0007290	0.0011230	1.15	-2.28	4.71	0.73	-1.46	2.97	0.5160

Table 18 All Cardiovascular Ages 65+ Mortality: single day lags

<i>Poll&Lag</i>	<i>Cent1090</i>	<i>Est.</i>	<i>Se(Est.)</i>	<i>%RR1090</i>	<i>LCL1090</i>	<i>UCL1090</i>	<i>%RR10</i>	<i>LCL10</i>	<i>UCL10</i>	<i>Pvalue</i>
no2mxl0	28.8	0.0009850	0.0005200	2.88	-0.10	5.94	0.99	-0.03	2.02	0.0585
no2mxl1	28.8	0.0007920	0.0005180	2.31	-0.64	5.35	0.80	-0.22	1.82	0.1270
no2mxl2	28.8	0.0006450	0.0005180	1.87	-1.06	4.90	0.65	-0.37	1.67	0.2130
no2mxl3	28.8	0.0000610	0.0005100	0.18	-2.67	3.10	0.06	-0.93	1.07	0.9050
o3m8l0	30.8	0.0006960	0.0007540	2.17	-2.38	6.92	0.70	-0.78	2.20	0.3560
o3m8l1	30.8	-0.0001090	0.0007800	-0.33	-4.92	4.47	-0.11	-1.62	1.43	0.8890
o3m8l2	30.8	0.0006110	0.0007930	1.90	-2.86	6.89	0.61	-0.94	2.19	0.4410
o3m8l3	30.8	0.0004040	0.0007310	1.25	-3.12	5.82	0.40	-1.02	1.85	0.5810
so2avl0	9.0	-0.0004660	0.0016380	-0.42	-3.25	2.50	-0.47	-3.61	2.78	0.7760
so2avl1	9.0	0.0003870	0.0016420	0.35	-2.52	3.30	0.39	-2.79	3.67	0.8140
so2avl2	9.0	-0.0010660	0.0016250	-0.95	-3.75	1.92	-1.06	-4.16	2.14	0.5120
so2avl3	9.0	-0.0023510	0.0016240	-2.09	-4.86	0.75	-2.32	-5.38	0.84	0.1480
so4avl0	6.4	-0.0026570	0.0025390	-1.69	-4.77	1.50	-2.62	-7.35	2.35	0.2960
so4avl1	6.4	-0.0003990	0.0025560	-0.26	-3.40	2.99	-0.40	-5.27	4.72	0.8760
so4avl2	6.4	0.0022610	0.0025490	1.46	-1.74	4.75	2.29	-2.70	7.53	0.3750
so4avl3	6.4	0.0011870	0.0025220	0.76	-2.38	4.00	1.19	-3.69	6.32	0.6380
com8l0	1.0	0.0218030	0.0103280	2.20	0.16	4.29	0.22	0.02	0.42	0.0351
com8l1	1.0	0.0188080	0.0103940	1.90	-0.16	4.00	0.19	-0.02	0.39	0.0707
com8l2	1.0	0.0026470	0.0107000	0.27	-1.82	2.39	0.03	-0.18	0.24	0.8050
com8l3	1.0	0.0101960	0.0106580	1.02	-1.06	3.16	0.10	-0.11	0.31	0.3390
pm10avl0	26.9	-0.0000110	0.0006000	-0.03	-3.14	3.18	-0.01	-1.18	1.17	0.9850
pm10avl1	26.9	0.0009620	0.0006020	2.62	-0.59	5.93	0.97	-0.22	2.17	0.1110
pm10avl2	26.9	-0.0002520	0.0005910	-0.67	-3.72	2.47	-0.25	-1.40	0.91	0.6700
pm10avl3	26.9	-0.0007760	0.0005850	-2.06	-5.04	1.00	-0.77	-1.90	0.37	0.1850
smkavl0	18.5	0.0005370	0.0008920	1.00	-2.22	4.32	0.54	-1.20	2.31	0.5480
smkavl1	18.5	0.0008210	0.0008960	1.53	-1.72	4.88	0.82	-0.93	2.61	0.3600
smkavl2	18.5	0.0001960	0.0009020	0.36	-2.87	3.70	0.20	-1.56	1.98	0.8280
smkavl3	18.5	-0.0002830	0.0009060	-0.52	-3.74	2.80	-0.28	-2.04	1.50	0.7550
pfravl0	11.6	0.0003950	0.0011990	0.46	-2.24	3.23	0.40	-1.94	2.78	0.7420
pfravl1	11.6	0.0020570	0.0011920	2.41	-0.32	5.23	2.08	-0.28	4.49	0.0848
pfravl2	11.6	0.0003550	0.0012110	0.41	-2.31	3.22	0.36	-2.00	2.77	0.7690
pfravl3	11.6	-0.0000980	0.0012130	-0.11	-2.83	2.68	-0.10	-2.45	2.31	0.9350
sfravl0	15.3	-0.0011230	0.0010530	-1.70	-4.76	1.45	-1.12	-3.14	0.95	0.2870
sfravl1	15.3	-0.0001650	0.0010610	-0.25	-3.38	2.97	-0.17	-2.22	1.93	0.8760
sfravl2	15.3	0.0009730	0.0010580	1.50	-1.67	4.77	0.98	-1.10	3.09	0.3580
sfravl3	15.3	0.0004790	0.0010460	0.74	-2.38	3.95	0.48	-1.56	2.56	0.6470
pmcoarse0	12.1	-0.000636	0.001747	-0.77	-4.80	3.43	-0.63	-3.98	2.83	0.716
pmcoarse1	12.1	0.000741	0.001735	0.90	-3.17	5.14	0.74	-2.63	4.23	0.670
pmcoarse2	12.1	0.000475	0.001706	0.58	-3.41	4.73	0.48	-2.83	3.89	0.781
pmcoarse3	12.1	-0.002856	0.001715	-3.40	-7.25	0.61	-2.82	-6.03	0.51	0.096
pm25avl0	19.8	0.0005460	0.0008540	1.09	-2.21	4.49	0.55	-1.12	2.24	0.5220
pm25avl1	19.8	0.0011040	0.0008450	2.21	-1.09	5.62	1.11	-0.55	2.80	0.1920
pm25avl2	19.8	0.0005610	0.0008470	1.12	-2.15	4.50	0.56	-1.09	2.25	0.5080
pm25avl3	19.8	-0.0003030	0.0008550	-0.60	-3.84	2.76	-0.30	-1.96	1.38	0.7230

Table 19 All Cardiovascular Ages 65+ Mortality: cumulative day lags

<i>Poll&Lag</i>	<i>Cent1090</i>	<i>Est.</i>	<i>Se(Est.)</i>	<i>%RR1090</i>	<i>LCL1090</i>	<i>UCL1090</i>	<i>%RR10</i>	<i>LCL10</i>	<i>UCL10</i>	<i>Pvalue</i>
no2mxl01	25.5	0.0011470	0.0005880	2.97	-0.01	6.04	1.15	0.00	2.33	0.0513
no2mxl02	23.5	0.0013040	0.0006550	3.11	0.05	6.27	1.31	0.02	2.62	0.0468
no2mxl03	21.8	0.0012140	0.0007170	2.68	-0.42	5.88	1.22	-0.19	2.65	0.0909
o3m8l01	28.6	0.0004090	0.0008670	1.18	-3.62	6.22	0.41	-1.28	2.13	0.6370
o3m8l02	27.9	0.0006760	0.0009690	1.90	-3.35	7.45	0.68	-1.22	2.61	0.4860
o3m8l03	26.8	0.0007950	0.0010260	2.15	-3.21	7.81	0.80	-1.21	2.85	0.4390
so2avl01	8.5	-0.0000540	0.0018710	-0.05	-3.11	3.12	-0.05	-3.65	3.68	0.9770
so2avl02	7.8	-0.0006370	0.0020670	-0.50	-3.59	2.70	-0.64	-4.58	3.47	0.7580
so2avl03	7.2	-0.0017210	0.0022340	-1.23	-4.30	1.93	-1.71	-5.92	2.69	0.4410
so4avl01	5.8	-0.0016380	0.0027130	-0.95	-3.95	2.16	-1.62	-6.72	3.75	0.5460
so4avl02	5.2	-0.0001800	0.0028460	-0.09	-2.95	2.85	-0.18	-5.60	5.55	0.9500
so4avl03	4.8	0.0004140	0.0029510	0.20	-2.54	3.02	0.41	-5.23	6.39	0.8880
so4avl04	4.7	0.0006010	0.0030480	0.28	-2.49	3.14	0.60	-5.23	6.80	0.8440
so4avl05	4.7	0.0018610	0.0031240	0.88	-1.98	3.82	1.88	-4.17	8.31	0.5520
com8l01	1.0	0.0271940	0.0118650	2.62	0.37	4.91	0.27	0.04	0.51	0.0222
com8l02	0.9	0.0248720	0.0135060	2.26	-0.14	4.73	0.25	-0.02	0.51	0.0659
com8l03	0.9	0.0289470	0.0150880	2.55	-0.05	5.22	0.29	-0.01	0.59	0.0554
pm10avl01	24.4	0.0006110	0.0006740	1.50	-1.72	4.83	0.61	-0.71	1.95	0.3650
pm10avl02	24.2	0.0003540	0.0007280	0.86	-2.56	4.40	0.35	-1.07	1.80	0.6270
pm10avl03	23.0	-0.0000470	0.0007720	-0.11	-3.52	3.43	-0.05	-1.55	1.48	0.9510
pm10avl04	21.9	-0.0003370	0.0008130	-0.74	-4.14	2.79	-0.34	-1.91	1.26	0.6790
pm10avl05	21.2	-0.0003580	0.0008550	-0.76	-4.22	2.83	-0.36	-2.01	1.33	0.6760
smkavl01	16.7	0.0009070	0.0010220	1.53	-1.81	4.98	0.91	-1.09	2.95	0.3750
smkavl02	14.8	0.0008630	0.0011360	1.29	-2.00	4.68	0.87	-1.35	3.14	0.4480
smkavl03	14.2	0.0006460	0.0012430	0.92	-2.51	4.47	0.65	-1.77	3.13	0.6040
smkavl04	13.8	-0.0000580	0.0013360	-0.08	-3.63	3.60	-0.06	-2.64	2.59	0.9650
smkavl05	13.1	-0.0000680	0.0014300	-0.09	-3.69	3.65	-0.07	-2.83	2.77	0.9620
pfravl01	10.6	0.0016050	0.0013730	1.72	-1.15	4.66	1.62	-1.08	4.39	0.2430
pfravl02	9.9	0.0015520	0.0015160	1.55	-1.39	4.58	1.56	-1.41	4.63	0.3060
pfravl03	9.8	0.0013010	0.0016500	1.28	-1.88	4.54	1.31	-1.91	4.64	0.4310
pfravl04	9.6	0.0007310	0.0017710	0.70	-2.60	4.12	0.73	-2.70	4.29	0.6800
pfravl05	9.4	0.0000400	0.0018760	0.04	-3.36	3.56	0.04	-3.57	3.79	0.9830
sfravl01	13.9	-0.0006870	0.0011260	-0.95	-3.94	2.13	-0.68	-2.85	1.53	0.5420
sfravl02	12.5	-0.0000830	0.0011800	-0.10	-2.95	2.83	-0.08	-2.37	2.26	0.9440
sfravl03	11.5	0.0001550	0.0012240	0.18	-2.55	2.98	0.16	-2.22	2.59	0.8990
sfravl04	11.2	0.0005060	0.0012960	0.57	-2.25	3.47	0.51	-2.01	3.09	0.6960
sfravl05	10.5	0.0008050	0.0013440	0.85	-1.90	3.68	0.81	-1.81	3.50	0.5490
pmcoarse01	11.2	-0.000378	0.002044	-0.42	-4.79	4.15	-0.38	-4.29	3.70	0.853
pmcoarse02	10.5	-0.000093	0.002261	-0.10	-4.64	4.66	-0.09	-4.42	4.43	0.967
pmcoarse03	9.9	-0.002354	0.002449	-2.30	-6.84	2.45	-2.33	-6.90	2.48	0.337
pmcoarse04	9.3	-0.003226	0.002598	-2.96	-7.44	1.75	-3.17	-7.98	1.88	0.215
pmcoarse05	9.2	-0.002564	0.002721	-2.33	-7.01	2.58	-2.53	-7.59	2.81	0.346
pm25avl01	17.7	0.0009390	0.0009320	1.68	-1.56	5.02	0.94	-0.88	2.80	0.3140
pm25avl02	17.4	0.0010400	0.0010010	1.83	-1.59	5.36	1.05	-0.92	3.05	0.2990
pm25avl03	16.7	0.0008070	0.0010750	1.36	-2.15	4.99	0.81	-1.29	2.96	0.4530
pm25avl04	16.0	0.0007570	0.0011450	1.22	-2.35	4.92	0.76	-1.48	3.05	0.5090
pm25avl05	15.7	0.0009440	0.0012100	1.49	-2.22	5.34	0.95	-1.42	3.37	0.4350

Table 20 All Causes All Ages Mortality: seasonal results for single day lags

Poll&Lag	Cent1090.c	Est.c	Se(Est.)c	%RR1090.c	LCL1090.c	UCL1090.c	%RR10.c	LCL10.c	UCL10.c	Pvalue.c	Cent1090.w	Est.w	Se(Est.)w	%RR1090.w	LCL1090.w	UCL1090.w	%RR10.w	LCL10.w	UCL10.w	Pvalue.w	Pvalue.c w
no2mx0	24.6	0.0001690	0.0003880	0.42	-1.45	2.31	0.17	-0.59	0.93	0.6630	31.7	0.0012170	0.0005430	3.93	0.49	7.50	1.22	0.15	2.31	0.0252	0.1120
no2mx1	24.6	0.0002430	0.0003870	0.60	-1.26	2.50	0.24	-0.51	1.01	0.5300	31.7	0.0007250	0.0005470	2.33	-1.09	5.86	0.73	-0.35	1.81	0.1850	0.4690
no2mx2	24.6	-0.0001190	0.0003920	-0.29	-2.16	1.61	-0.12	-0.88	0.65	0.7620	31.7	0.0006650	0.0005490	2.13	-1.30	5.67	0.67	-0.41	1.76	0.2260	0.2450
no2mx3	24.6	0.0000930	0.0003890	0.23	-1.63	2.13	0.09	-0.67	0.86	0.8100	31.7	0.0007610	0.0005480	2.44	-0.99	5.99	0.76	-0.31	1.85	0.1660	0.3210
o3m8I0	26.1	-0.0000500	0.0006870	-0.13	-3.58	3.44	-0.05	-1.39	1.31	0.9420	32.5	0.0018820	0.0005590	6.31	2.59	10.16	1.90	0.79	3.02	0.0008	0.0202
o3m8I1	26.1	0.0001360	0.0007120	0.36	-3.24	4.08	0.14	-1.25	1.54	0.8480	32.5	0.0004300	0.0005790	1.41	-2.27	5.22	0.43	-0.70	1.58	0.4580	0.7280
o3m8I2	26.1	-0.0002350	0.0007260	-0.61	-4.23	3.15	-0.23	-1.64	1.20	0.7460	32.5	0.0005950	0.0005730	1.95	-1.70	5.74	0.60	-0.53	1.73	0.2990	0.3290
o3m8I3	26.1	-0.0006090	0.0007000	-1.58	-5.04	2.01	-0.61	-1.96	0.77	0.3840	32.5	0.0008450	0.0005500	2.79	-0.75	6.45	0.85	-0.23	1.94	0.1250	0.0856
so2avl0	9.3	0.0001230	0.0011850	0.11	-2.03	2.30	0.12	-2.18	2.48	0.9180	8.6	0.0007160	0.0019600	0.62	-2.65	4.00	0.72	-3.08	4.66	0.7150	0.7920
so2avl1	9.3	-0.0002540	0.0011800	-0.24	-2.36	1.93	-0.25	-2.53	2.08	0.8290	8.6	-0.0009930	0.0019710	-0.85	-4.09	2.50	-0.99	-4.74	2.91	0.6150	0.7450
so2avl2	9.3	0.0000430	0.0011770	0.04	-2.08	2.21	0.04	-2.24	2.38	0.9710	8.6	-0.0005990	0.0019780	-0.51	-3.78	2.86	-0.60	-4.38	3.33	0.7620	0.7780
so2avl3	9.3	-0.0015930	0.0011960	-1.47	-3.60	0.70	-1.58	-3.86	0.75	0.1830	8.6	0.0011030	0.0019670	0.95	-2.34	4.36	1.11	-2.72	5.08	0.5750	0.2360
so4avl0	7.1	-0.0036990	0.0018650	-2.59	-5.09	-0.03	-3.63	-7.09	-0.04	0.0477	5.5	0.0074080	0.0031580	4.16	0.67	7.77	7.69	1.23	14.57	0.0192	0.0029
so4avl1	7.1	-0.0034140	0.0018650	-2.39	-4.90	0.17	-3.36	-6.82	0.24	0.0675	5.5	0.0068170	0.0031620	3.82	0.34	7.42	7.06	0.62	13.90	0.0314	0.0061
so4avl2	7.1	-0.0028580	0.0018680	-2.01	-4.52	0.57	-2.82	-6.31	0.81	0.1270	5.5	0.0058490	0.0031570	3.27	-0.19	6.84	6.02	-0.34	12.79	0.0643	0.0194
so4avl3	7.1	-0.0032210	0.0018610	-2.26	-4.76	0.30	-3.17	-6.64	0.43	0.0840	5.5	0.0068020	0.0031510	3.81	0.35	7.40	7.04	0.63	13.86	0.0312	0.0069
com8I0	1.3	0.0051000	0.0068630	0.67	-1.08	2.44	0.05	-0.08	0.19	0.4580	0.5	0.0569750	0.0280110	2.89	0.10	5.75	0.57	0.02	1.13	0.0423	0.0717
com8I1	1.3	0.0056780	0.0068720	0.74	-1.01	2.52	0.06	-0.08	0.19	0.4090	0.5	0.0018960	0.0286490	0.09	-2.68	2.94	0.02	-0.54	0.58	0.9470	0.8980
com8I2	1.3	-0.0041540	0.0070540	-0.54	-2.31	1.27	-0.04	-0.18	0.10	0.5560	0.5	0.0108270	0.0285890	0.54	-2.24	3.40	0.11	-0.45	0.67	0.7050	0.6100
com8I3	1.3	0.0076480	0.0069020	1.00	-0.76	2.79	0.08	-0.06	0.21	0.2680	0.5	0.0049740	0.0287220	0.25	-2.53	3.11	0.05	-0.51	0.61	0.8630	0.9280
pm10avl0	30.1	-0.0005260	0.0004370	-1.57	-4.08	1.00	-0.52	-1.37	0.33	0.2290	23.9	0.0018760	0.0007330	4.59	1.06	8.24	1.89	0.44	3.37	0.0107	0.0051
pm10avl1	30.1	-0.0004000	0.0004350	-1.20	-3.70	1.37	-0.40	-1.24	0.45	0.3580	23.9	0.0012400	0.0007390	3.01	-0.50	6.64	1.25	-0.21	2.73	0.0939	0.0579
pm10avl2	30.1	-0.0007090	0.0004360	-2.11	-4.59	0.44	-0.71	-1.55	0.15	0.1040	23.9	0.0006130	0.0007410	1.48	-1.99	5.06	0.61	-0.84	2.09	0.4090	0.1280
pm10avl3	30.1	-0.0009220	0.0004380	-2.74	-5.22	-0.19	-0.92	-1.76	-0.06	0.0357	23.9	0.0012980	0.0007350	3.15	-0.34	6.76	1.31	-0.14	2.78	0.0777	0.0104
smkavl0	24.0	-0.0001170	0.0005940	-0.28	-3.03	2.55	-0.12	-1.27	1.05	0.8440	11.1	0.0049800	0.0016460	5.68	1.96	9.54	5.11	1.77	8.55	0.0026	0.0030
smkavl1	24.0	-0.0001170	0.0005970	-0.28	-3.04	2.56	-0.12	-1.28	1.06	0.8450	11.1	0.0033430	0.0016600	3.78	0.10	7.60	3.40	0.09	6.82	0.0443	0.0454
smkavl2	24.0	-0.0003730	0.0006020	-0.89	-3.66	1.95	-0.37	-1.54	0.81	0.5350	11.1	0.0002510	0.0016650	0.28	-3.29	3.98	0.25	-2.97	3.58	0.8800	0.7190
smkavl3	24.0	-0.0001120	0.0006000	-0.27	-3.04	2.59	-0.11	-1.28	1.07	0.8530	11.1	0.0028250	0.0016560	3.19	-0.47	6.97	2.87	-0.42	6.26	0.0885	0.0892
pfravl0	14.7	-0.0000490	0.0008080	-0.07	-2.37	2.28	-0.05	-1.62	1.55	0.9520	6.6	0.0034860	0.0023150	2.33	-0.69	5.44	3.55	-1.05	8.35	0.1330	0.1470
pfravl1	14.7	0.0007130	0.0008080	1.05	-1.27	3.43	0.72	-0.87	2.32	0.3780	6.6	0.0040160	0.0023280	2.69	-0.36	5.83	4.10	-0.54	8.96	0.0849	0.1790
pfravl2	14.7	-0.0001040	0.0008160	-0.15	-2.47	2.22	-0.10	-1.69	1.51	0.8990	6.6	0.0004560	0.0023690	0.30	-2.73	3.42	0.46	-4.10	5.23	0.8470	0.8230
pfravl3	14.7	0.0000010	0.0008160	0.00	-2.32	2.38	0.00	-1.59	1.61	0.9990	6.6	0.0029540	0.0023530	1.97	-1.09	5.12	3.00	-1.64	7.86	0.2100	0.2340
sfravl0	17.2	-0.0015340	0.0007740	-2.60	-5.11	-0.03	-1.52	-3.00	-0.02	0.0477	13.3	0.0030730	0.0013100	4.17	0.67	7.79	3.12	0.51	5.80	0.0192	0.0029

sfravl1	17.2	-0.0014330	0.0007740	-2.43	-4.95	0.15	-1.42	-2.91	0.08	0.0646	13.3	0.0027870	0.0013120	3.78	0.29	7.39	2.83	0.22	5.51	0.0339	0.0064
sfravl2	17.2	-0.0011840	0.0007750	-2.02	-4.54	0.58	-1.18	-2.67	0.34	0.1270	13.3	0.0024270	0.0013090	3.28	-0.18	6.87	2.46	-0.14	5.12	0.0641	0.0194
sfravl3	17.2	-0.0013180	0.0007730	-2.24	-4.76	0.34	-1.31	-2.79	0.20	0.0886	13.3	0.0027980	0.0013080	3.79	0.31	7.39	2.84	0.23	5.51	0.0328	0.0075
pmcoarse0	11.7	-0.003182	0.001819	-3.65	-7.59	0.45	-3.13	-6.53	0.38	0.081	11.9	0.002964	0.001405	3.59	0.25	7.04	3.01	0.21	5.88	0.04	0.008
pmcoarse1	11.7	-0.001344	0.001808	-1.56	-5.56	2.61	-1.34	-4.77	2.22	0.457	11.9	0.001349	0.001450	1.62	-1.76	5.11	1.36	-1.48	4.28	0.35	0.245
pmcoarse2	11.7	-0.000801	0.001808	-0.93	-4.96	3.26	-0.80	-4.25	2.78	0.658	11.9	-0.000463	0.001468	-0.55	-3.90	2.92	-0.46	-3.29	2.44	0.75	0.885
pmcoarse3	11.7	-0.004041	0.001799	-4.62	-8.47	-0.60	-3.96	-7.29	-0.51	0.025	11.9	0.000429	0.001440	0.51	-2.81	3.95	0.43	-2.37	3.31	0.77	0.054
pm25avl0	23.3	-0.0001940	0.0006480	-0.45	-3.35	2.54	-0.19	-1.45	1.08	0.7650	15.7	0.0026900	0.0011110	4.31	0.81	7.94	2.73	0.51	4.99	0.0157	0.0257
pm25avl1	23.3	-0.0005780	0.0006510	-1.34	-4.23	1.64	-0.58	-1.84	0.70	0.3750	15.7	0.0022520	0.0011160	3.60	0.10	7.22	2.28	0.06	4.54	0.0441	0.0296
pm25avl2	23.3	-0.0004350	0.0006490	-1.01	-3.90	1.97	-0.43	-1.69	0.84	0.5030	15.7	0.0009760	0.0011210	1.54	-1.90	5.11	0.98	-1.21	3.22	0.3840	0.2780
pm25avl3	23.3	-0.0005670	0.0006530	-1.31	-4.21	1.67	-0.57	-1.83	0.72	0.3850	15.7	0.0019410	0.0011230	3.09	-0.41	6.72	1.96	-0.26	4.23	0.0845	0.0545

Table 21 All Causes All Ages Mortality: seasonal results for cumulative day lags

Poll&Lag	Cent1090.c	Est.c	Se(Est.)c	%RR1090.c	LCL1090.c	UCL1090.c	%RR10.c	LCL10.c	UCL10.c	Pvalue.c	Cent1090.w	Est.w	Se(Est.)w	%RR1090.w	LCL1090.w	UCL1090.w	%RR10.w	LCL10.w	UCL10.w	Pvalue.w	Pvalue.c
no2mxl01	22.3	0.0002670	0.0004420	0.60	-1.33	2.56	0.27	-0.60	1.14	0.5460	28.4	0.0012150	0.0005970	3.51	0.13	7.01	1.22	0.04	2.41	0.0422	0.1970
no2mxl02	20.0	0.0001540	0.0004980	0.31	-1.63	2.29	0.15	-0.82	1.14	0.7570	27.2	0.0012910	0.0006420	3.57	0.09	7.18	1.30	0.03	2.58	0.0449	0.1600
no2mxl03	18.9	0.0001830	0.0005530	0.35	-1.69	2.42	0.18	-0.90	1.27	0.7410	25.2	0.0014620	0.0006870	3.75	0.29	7.33	1.47	0.12	2.85	0.0335	0.1460
o3m8l01	24.1	0.0000760	0.0007840	0.18	-3.46	3.96	0.08	-1.45	1.63	0.9230	30.3	0.0015450	0.0006330	4.79	0.93	8.81	1.56	0.31	2.82	0.0148	0.1120
o3m8l02	22.6	-0.0000400	0.0008700	-0.09	-3.87	3.83	-0.04	-1.73	1.68	0.9630	27.0	0.0015680	0.0006860	4.32	0.60	8.18	1.58	0.22	2.96	0.0225	0.1070
o3m8l03	20.7	-0.0003260	0.0009280	-0.67	-4.34	3.14	-0.33	-2.12	1.50	0.7250	27.5	0.0017420	0.0007230	4.91	0.90	9.08	1.76	0.33	3.21	0.0162	0.0503
so2avl01	9.3	-0.0000900	0.0013550	-0.08	-2.52	2.41	-0.09	-2.71	2.60	0.9470	7.6	-0.0001680	0.0022080	-0.13	-3.36	3.21	-0.17	-4.40	4.25	0.9390	0.9760
so2avl02	8.5	-0.0000490	0.0015050	-0.04	-2.52	2.50	-0.05	-2.95	2.94	0.9740	7.0	-0.0004460	0.0024340	-0.31	-3.59	3.07	-0.44	-5.08	4.42	0.8550	0.8880
so2avl03	7.8	-0.0008680	0.0016480	-0.67	-3.15	1.86	-0.86	-4.02	2.39	0.5990	6.6	0.0001220	0.0026260	0.08	-3.26	3.54	0.12	-4.90	5.41	0.9630	0.7460
so4avl01	6.3	-0.0039960	0.0019730	-2.49	-4.83	-0.08	-3.92	-7.56	-0.13	0.0432	5.1	0.0089810	0.0034480	4.69	1.14	8.36	9.40	2.25	17.05	0.0094	0.0013
so4avl02	5.8	-0.0041900	0.0020600	-2.40	-4.66	-0.09	-4.10	-7.90	-0.15	0.0423	4.7	0.0099270	0.0036640	4.78	1.30	8.37	10.44	2.78	18.66	0.0069	0.0010
so4avl03	5.5	-0.0045610	0.0021350	-2.48	-4.70	-0.21	-4.46	-8.38	-0.38	0.0330	4.2	0.0114980	0.0038610	4.95	1.66	8.34	12.18	4.01	21.00	0.0030	0.0004
so4avl04	5.4	-0.0046210	0.0021980	-2.46	-4.71	-0.17	-4.52	-8.54	-0.31	0.0359	3.7	0.0125380	0.0040570	4.75	1.71	7.88	13.36	4.69	22.74	0.0021	0.0003
so4avl05	5.5	-0.0040420	0.0022280	-2.20	-4.52	0.18	-3.96	-8.06	0.33	0.0700	3.5	0.0132700	0.0042610	4.75	1.74	7.86	14.19	5.04	24.14	0.0019	0.0004
com8l01	1.1	0.0071790	0.0078670	0.79	-0.90	2.52	0.07	-0.08	0.23	0.3620	0.4	0.0391350	0.0317140	1.78	-1.03	4.66	0.39	-0.23	1.02	0.2180	0.3270
com8l02	1.0	0.0037930	0.0089350	0.39	-1.40	2.22	0.04	-0.14	0.21	0.6710	0.4	0.0378370	0.0350380	1.64	-1.32	4.69	0.38	-0.31	1.07	0.2810	0.3450
com8l03	1.0	0.0076010	0.0099060	0.80	-1.23	2.88	0.08	-0.12	0.27	0.4430	0.4	0.0392190	0.0383930	1.68	-1.52	4.99	0.39	-0.36	1.15	0.3070	0.4240
pm10avl01	28.2	-0.0006020	0.0004880	-1.68	-4.30	1.00	-0.60	-1.55	0.36	0.2180	21.6	0.0019960	0.0008190	4.41	0.85	8.09	2.02	0.39	3.67	0.0150	0.0070
pm10avl02	27.9	-0.0008650	0.0005320	-2.38	-5.18	0.50	-0.86	-1.89	0.18	0.1040	20.9	0.0019460	0.0008930	4.15	0.41	8.03	1.96	0.20	3.76	0.0296	0.0077
pm10avl03	25.8	-0.0011880	0.0005700	-3.02	-5.77	-0.18	-1.18	-2.28	-0.07	0.0376	20.1	0.0023350	0.0009560	4.81	0.93	8.83	2.36	0.46	4.30	0.0148	0.0019
pm10avl04	24.2	-0.0014590	0.0006060	-3.47	-6.20	-0.66	-1.45	-2.61	-0.27	0.0162	19.7	0.0026790	0.0010150	5.42	1.37	9.63	2.72	0.69	4.78	0.0084	0.0006
pm10avl05	23.2	-0.0014190	0.0006380	-3.24	-6.00	-0.39	-1.41	-2.63	-0.17	0.0263	18.5	0.0025890	0.0010730	4.91	0.90	9.07	2.62	0.49	4.80	0.0161	0.0017
smkavl01	19.7	-0.0001620	0.0006820	-0.32	-2.91	2.34	-0.16	-1.49	1.18	0.8120	10.0	0.0058000	0.0019180	5.97	2.06	10.03	5.97	2.06	10.03	0.0026	0.0029
smkavl02	18.6	-0.0003630	0.0007630	-0.67	-3.40	2.13	-0.36	-1.84	1.14	0.6340	8.7	0.0051990	0.0021600	4.63	0.84	8.55	5.34	0.97	9.89	0.0163	0.0139
smkavl03	17.3	-0.0004140	0.0008370	-0.71	-3.49	2.14	-0.41	-2.03	1.23	0.6210	7.8	0.0064810	0.0023700	5.18	1.44	9.07	6.70	1.85	11.77	0.0064	0.0057
smkavl04	16.1	-0.0009310	0.0009070	-1.49	-4.27	1.37	-0.93	-2.67	0.85	0.3050	7.6	0.0072720	0.0025850	5.68	1.69	9.83	7.54	2.23	13.13	0.0050	0.0026
smkavl05	14.6	-0.0010670	0.0009710	-1.55	-4.24	1.23	-1.06	-2.93	0.84	0.2720	6.8	0.0080870	0.0027890	6.17	2.30	10.19	9.21	3.40	15.34	0.0017	0.0008
pfravl01	13.1	0.0004680	0.0009340	0.62	-1.77	3.06	0.47	-1.35	2.33	0.6160	5.9	0.0046890	0.0026140	2.81	-0.26	5.96	4.80	-0.43	10.31	0.0732	0.1270
pfravl02	12.1	0.0003200	0.0010380	0.39	-2.05	2.89	0.32	-1.70	2.38	0.7580	5.3	0.0043610	0.0028860	2.34	-0.68	5.45	4.46	-1.29	10.54	0.1310	0.1870
pfravl03	11.6	0.0002510	0.0011390	0.29	-2.27	2.92	0.25	-1.96	2.51	0.8260	4.9	0.0054410	0.0031380	2.70	-0.35	5.84	5.59	-0.71	12.29	0.0833	0.1200
pfravl04	11.2	-0.0004370	0.0012280	-0.49	-3.14	2.23	-0.44	-2.80	1.99	0.7220	4.8	0.0073250	0.0033660	3.58	0.35	6.91	7.60	0.73	14.94	0.0298	0.0309

pfravi05	10.8	-0.0010890	0.0013090	-1.17	-3.87	1.61	-1.08	-3.59	1.49	0.4050	4.4	0.0087380	0.0035880	3.92	0.75	7.19	9.13	1.72	17.08	0.0151	0.0105
sfravi01	15.2	-0.0016610	0.0008190	-2.49	-4.84	-0.09	-1.65	-3.21	-0.06	0.0427	12.2	0.0037000	0.0014310	4.62	1.10	8.26	3.77	0.90	6.72	0.0099	0.0014
sfravi02	14.0	-0.0017420	0.0008540	-2.42	-4.69	-0.10	-1.73	-3.36	-0.07	0.0417	11.3	0.0041070	0.0015210	4.75	1.28	8.34	4.19	1.13	7.34	0.0071	0.0010
sfravi03	13.2	-0.0018950	0.0008860	-2.47	-4.68	-0.21	-1.88	-3.57	-0.16	0.0327	10.0	0.0047490	0.0016030	4.86	1.62	8.21	4.86	1.62	8.21	0.0031	0.0004
sfravi04	13.0	-0.0017400	0.0009270	-2.24	-4.52	0.10	-1.72	-3.49	0.08	0.0609	8.9	0.0054890	0.0017510	5.01	1.85	8.26	5.64	2.08	9.33	0.0018	0.0003
sfravi05	12.6	-0.0013190	0.0009520	-1.65	-3.93	0.69	-1.31	-3.13	0.55	0.1660	8.7	0.0055060	0.0018740	4.91	1.61	8.31	5.66	1.85	9.61	0.0034	0.0014
pmcoarse01	11.4	-0.004120	0.002112	-4.59	-8.99	0.02	-4.04	-7.93	0.02	0.052	11.1	0.002901	0.001728	3.27	-0.54	7.23	2.94	-0.49	6.49	0.09	0.011
pmcoarse02	10.5	-0.004557	0.002383	-4.67	-9.24	0.12	-4.46	-8.82	0.11	0.056	10.3	0.002491	0.002001	2.60	-1.46	6.83	2.52	-1.42	6.62	0.21	0.026
pmcoarse03	10.1	-0.006594	0.002601	-6.44	-11.14	-1.50	-6.38	-11.03	-1.48	0.012	9.7	0.002470	0.002243	2.42	-1.85	6.89	2.50	-1.91	7.11	0.27	0.011
pmcoarse04	9.9	-0.008668	0.002827	-8.22	-13.12	-3.05	-8.30	-13.25	-3.08	0.002	8.8	0.002885	0.002431	2.57	-1.64	6.96	2.93	-1.86	7.95	0.24	0.003
pmcoarse05	9.7	-0.009164	0.003020	-8.51	-13.61	-3.10	-8.76	-14.00	-3.19	0.003	8.0	0.002102	0.002570	1.70	-2.32	5.88	2.12	-2.89	7.40	0.41	0.007
pm25avi01	22.7	-0.0005870	0.0007120	-1.32	-4.40	1.85	-0.59	-1.96	0.81	0.4100	15.3	0.0030730	0.0012220	4.81	1.04	8.73	3.12	0.68	5.62	0.0121	0.0102
pm25avi02	22.4	-0.0005880	0.0007680	-1.31	-4.58	2.08	-0.59	-2.07	0.92	0.4440	13.5	0.0027510	0.0013250	3.78	0.21	7.49	2.79	0.15	5.49	0.0382	0.0305
pm25avi03	22.2	-0.0007800	0.0008250	-1.72	-5.18	1.88	-0.78	-2.37	0.84	0.3450	12.8	0.0034390	0.0014230	4.50	0.84	8.30	3.50	0.65	6.42	0.0159	0.0110
pm25avi04	21.4	-0.0010430	0.0008810	-2.21	-5.75	1.47	-1.04	-2.73	0.69	0.2370	11.9	0.0040670	0.0015140	4.96	1.32	8.73	4.15	1.11	7.29	0.0074	0.0038
pm25avi05	19.6	-0.0009130	0.0009290	-1.77	-5.22	1.80	-0.91	-2.70	0.91	0.3260	10.9	0.0039850	0.0016180	4.44	0.89	8.11	4.07	0.82	7.42	0.0141	0.0092

Table 22 All Causes Ages 65+ Mortality: seasonal results for single day lags

Poll&Lag	Cent1090.c	Est.c	Se(Est.)c	%RR1090.c	LCL1090.c	UCL1090.c	%RR10.c	LCL10.c	UCL10.c	Pvalue.c	Cent1090.w	Est.w	Se(Est.)w	%RR1090.w	LCL1090.w	UCL1090.w	%RR10.w	LCL10.w	UCL10.w	Pvalue.w	Pvalue.c
no2mxl0	24.6	0.0002040	0.0004220	0.50	-1.52	2.57	0.20	-0.62	1.04	0.6300	31.7	0.0014820	0.0005950	4.81	1.01	8.76	1.49	0.32	2.68	0.0129	0.0762
no2mxl1	24.6	0.0002560	0.0004210	0.63	-1.39	2.69	0.26	-0.57	1.09	0.5440	31.7	0.0011510	0.0005990	3.72	-0.07	7.65	1.16	-0.02	2.35	0.0550	0.2180
no2mxl2	24.6	-0.0001240	0.0004270	-0.30	-2.34	1.77	-0.12	-0.96	0.72	0.7720	31.7	0.0005260	0.0006050	1.68	-2.07	5.57	0.53	-0.66	1.73	0.3840	0.3790
no2mxl3	24.6	-0.0000850	0.0004260	-0.21	-2.24	1.86	-0.08	-0.92	0.75	0.8420	31.7	0.0006660	0.0006030	2.14	-1.62	6.03	0.67	-0.51	1.87	0.2690	0.3090
o3m8l0	26.1	0.0000170	0.0007450	0.04	-3.70	3.93	0.02	-1.43	1.49	0.9820	32.5	0.0022720	0.0006120	7.66	3.55	11.94	2.30	1.08	3.53	0.0002	0.0126
o3m8l1	26.1	0.0000630	0.0007740	0.16	-3.72	4.21	0.06	-1.44	1.59	0.9350	32.5	0.0006290	0.0006350	2.07	-1.98	6.28	0.63	-0.61	1.89	0.3220	0.5380
o3m8l2	26.1	-0.0004810	0.0007900	-1.25	-5.16	2.82	-0.48	-2.01	1.07	0.5420	32.5	0.0006850	0.0006290	2.25	-1.76	6.43	0.69	-0.55	1.94	0.2760	0.2090
o3m8l3	26.1	-0.0000660	0.0007640	-0.17	-4.00	3.81	-0.07	-1.55	1.44	0.9310	32.5	0.0008660	0.0006040	2.86	-1.03	6.89	0.87	-0.32	2.07	0.1520	0.3140
so2avi0	9.3	-0.0001930	0.0012980	-0.18	-2.51	2.21	-0.19	-2.70	2.38	0.8820	8.6	0.0011570	0.0021490	1.00	-2.59	4.73	1.16	-3.01	5.52	0.5910	0.5840
so2avi1	9.3	-0.0004860	0.0012910	-0.45	-2.77	1.92	-0.49	-2.97	2.07	0.7070	8.6	-0.0007940	0.0021660	-0.68	-4.24	3.01	-0.79	-4.91	3.51	0.7140	0.9020
so2avi2	9.3	-0.0000940	0.0012810	-0.09	-2.39	2.27	-0.09	-2.57	2.45	0.9410	8.6	-0.0016560	0.0021790	-1.41	-4.97	2.27	-1.64	-5.75	2.65	0.4480	0.5320
so2avi3	9.3	-0.0021450	0.0013100	-1.97	-4.29	0.39	-2.12	-4.60	0.42	0.1020	8.6	-0.0001440	0.0021670	-0.12	-3.71	3.59	-0.14	-4.30	4.19	0.9470	0.4230
so4avi0	7.1	-0.0034090	0.0020170	-2.39	-5.09	0.39	-3.35	-7.10	0.55	0.0914	5.5	0.0089250	0.0034500	5.03	1.20	9.01	9.34	2.19	16.98	0.0099	0.0024
so4avi1	7.1	-0.0033250	0.0020270	-2.33	-5.05	0.46	-3.27	-7.04	0.65	0.1010	5.5	0.0078140	0.0034680	4.39	0.56	8.37	8.13	1.02	15.73	0.0245	0.0064
so4avi2	7.1	-0.0024610	0.0020270	-1.73	-4.46	1.08	-2.43	-6.23	1.52	0.2250	5.5	0.0075290	0.0034580	4.23	0.41	8.19	7.82	0.76	15.38	0.0297	0.0142
so4avi3	7.1	-0.0042490	0.0020270	-2.97	-5.67	-0.20	-4.16	-7.89	-0.28	0.0364	5.5	0.0086420	0.0034500	4.87	1.04	8.84	9.03	1.90	16.65	0.0124	0.0015
com8l0	1.3	0.0036860	0.0074560	0.48	-1.41	2.41	0.04	-0.11	0.18	0.6210	0.5	0.0816790	0.0303720	4.17	1.11	7.32	0.82	0.22	1.42	0.0073	0.0126
com8l1	1.3	0.0064430	0.0074660	0.84	-1.06	2.78	0.06	-0.08	0.21	0.3880	0.5	0.0293860	0.0311070	1.48	-1.57	4.62	0.29	-0.32	0.91	0.3450	0.4720
com8l2	1.3	-0.0044040	0.0076640	-0.57	-2.49	1.39	-0.04	-0.19	0.11	0.5660	0.5	-0.0124690	0.0316240	-0.62	-3.65	2.51	-0.12	-0.74	0.50	0.6930	0.8040
com8l3	1.3	0.0050400	0.0075410	0.66	-1.26	2.61	0.05	-0.10	0.20	0.5040	0.5	-0.0191510	0.0317240	-0.95	-3.98	2.17	-0.19	-0.81	0.43	0.5460	0.4580
pm10avi0	30.1	-0.0004760	0.0004740	-1.42	-4.14	1.37	-0.48	-1.40	0.45	0.3150	23.9	0.0024810	0.0008010	6.11	2.20	10.17	2.51	0.92	4.13	0.0020	0.0016
pm10avi1	30.1	-0.0003280	0.0004720	-0.98	-3.70	1.81	-0.33	-1.25	0.60	0.4870	23.9	0.0018070	0.0008080	4.41	0.54	8.44	1.82	0.22	3.45	0.0255	0.0236
pm10avi2	30.1	-0.0006910	0.0004740	-2.06	-4.76	0.72	-0.69	-1.61	0.24	0.1450	23.9	0.0004060	0.0008150	0.98	-2.81	4.91	0.41	-1.19	2.02	0.6190	0.2490
pm10avi3	30.1	-0.0012260	0.0004780	-3.62	-6.30	-0.87	-1.22	-2.14	-0.29	0.0105	23.9	0.0013830	0.0008060	3.36	-0.47	7.34	1.39	-0.20	3.01	0.0867	0.0060
smkavi0	24.0	-0.0002580	0.0006460	-0.62	-3.59	2.45	-0.26	-1.51	1.01	0.6900	11.1	0.0061780	0.0017980	7.10	2.99	11.37	6.37	2.69	10.19	0.0006	0.0006
smkavi1	24.0	-0.0000710	0.0006490	-0.17	-3.17	2.92	-0.07	-1.33	1.21	0.9130	11.1	0.0041820	0.0018150	4.75	0.69	8.97	4.27	0.63	8.05	0.0215	0.0246
smkavi2	24.0	-0.0005240	0.0006570	-1.25	-4.25	1.85	-0.52	-1.80	0.77	0.4250	11.1	-0.0003960	0.0018300	-0.44	-4.32	3.61	-0.39	-3.90	3.24	0.8290	0.9460
smkavi3	24.0	-0.0005060	0.0006570	-1.21	-4.21	1.89	-0.51	-1.78	0.78	0.4410	11.1	0.0027100	0.0018160	3.05	-0.94	7.21	2.75	-0.85	6.47	0.1360	0.0893

pfrav0	14.7	-0.0005660	0.0008820	-0.83	-3.32	1.72	-0.56	-2.27	1.17	0.5220	6.6	0.0056840	0.0025150	3.82	0.50	7.26	5.85	0.76	11.20	0.0241	0.0184
pfrav1	14.7	0.0003710	0.0008850	0.55	-1.98	3.14	0.37	-1.35	2.13	0.6750	6.6	0.0066480	0.0025320	4.49	1.12	7.96	6.87	1.70	12.31	0.0088	0.0191
pfrav2	14.7	-0.0005130	0.0008960	-0.75	-3.28	1.84	-0.51	-2.24	1.25	0.5670	6.6	-0.0004780	0.0026140	-0.31	-3.63	3.11	-0.48	-5.45	4.75	0.8550	0.9900
pfrav3	14.7	-0.0004920	0.0008940	-0.72	-3.25	1.87	-0.49	-2.22	1.27	0.5830	6.6	0.0023930	0.0025850	1.59	-1.75	5.05	2.42	-2.64	7.74	0.3550	0.2890
sfrav0	17.2	-0.0014130	0.0008370	-2.40	-5.12	0.39	-1.40	-3.01	0.23	0.0916	13.3	0.0037010	0.0014310	5.04	1.20	9.04	3.77	0.90	6.72	0.0099	0.0024
sfrav1	17.2	-0.0013920	0.0008410	-2.37	-5.10	0.44	-1.38	-3.00	0.26	0.0983	13.3	0.0032160	0.0014390	4.37	0.53	8.36	3.27	0.40	6.22	0.0257	0.0065
sfrav2	17.2	-0.0010230	0.0008420	-1.74	-4.49	1.08	-1.02	-2.64	0.63	0.2240	13.3	0.0031550	0.0014350	4.29	0.46	8.26	3.21	0.34	6.15	0.0282	0.0135
sfrav3	17.2	-0.0017460	0.0008410	-2.96	-5.67	-0.17	-1.73	-3.34	-0.10	0.0383	13.3	0.0035470	0.0014330	4.83	0.99	8.82	3.61	0.74	6.56	0.0135	0.0017
pmcoarse0	11.7	-0.003633	0.001991	-4.16	-8.44	0.32	-3.57	-7.26	0.27	0.069	11.9	0.004659	0.001528	5.70	2.00	9.54	4.77	1.68	7.95	0.002	0.001
pmcoarse1	11.7	-0.002128	0.001964	-2.46	-6.75	2.04	-2.11	-5.80	1.74	0.279	11.9	0.002395	0.001563	2.89	-0.79	6.71	2.42	-0.67	5.61	0.126	0.071
pmcoarse2	11.7	-0.000564	0.001964	-0.66	-5.03	3.92	-0.56	-4.32	3.34	0.774	11.9	-0.000925	0.001585	-1.09	-4.68	2.63	-0.92	-3.95	2.21	0.560	0.887
pmcoarse3	11.7	-0.004892	0.001972	-5.56	-9.74	-1.19	-4.77	-8.39	-1.02	0.013	11.9	0.000217	0.001559	0.26	-3.32	3.97	0.22	-2.80	3.33	0.889	0.044
pm25av0	23.3	-0.0000480	0.0007040	-0.11	-3.27	3.15	-0.05	-1.42	1.34	0.9460	15.7	0.0037500	0.0012030	6.06	2.21	10.07	3.82	1.40	6.30	0.0019	0.0068
pm25av1	23.3	-0.0002310	0.0007050	-0.54	-3.69	2.72	-0.23	-1.60	1.16	0.7430	15.7	0.0031740	0.0012020	5.11	1.29	9.07	3.23	0.82	5.69	0.0085	0.0155
pm25av2	23.3	-0.0002150	0.0007050	-0.50	-3.65	2.75	-0.22	-1.58	1.17	0.7600	15.7	0.0009290	0.0012240	1.47	-2.28	5.36	0.93	-1.46	3.38	0.4480	0.4210
pm25av3	23.3	-0.0006360	0.0007100	-1.47	-4.62	1.78	-0.63	-2.01	0.76	0.3710	15.7	0.0026210	0.0012180	4.20	0.37	8.18	2.66	0.23	5.14	0.0317	0.0221

Table 23 All Causes Ages 65+ Mortality: seasonal results for cumulative day lags

Poll&Lag	Cent1090.c	Est.c	Se(Est.)c	%RR1090.c	LCL1090.c	UCL1090.c	%RR10.c	LCL10.c	UCL10.c	Pvalue.c	Cent1090.w	Est.w	Se(Est.)w	%RR1090.w	LCL1090.w	UCL1090.w	%RR10.w	LCL10.w	UCL10.w	Pvalue.w	Pvalue.c
no2mxl01	22.3	0.0002960	0.0004800	0.66	-1.43	2.80	0.30	-0.64	1.24	0.5370	28.4	0.0016400	0.0006540	4.77	1.02	8.65	1.65	0.36	2.96	0.0123	0.0944
no2mxl02	20.0	0.0001760	0.0005420	0.35	-1.76	2.51	0.18	-0.88	1.25	0.7450	27.2	0.0015570	0.0007050	4.33	0.48	8.32	1.57	0.18	2.98	0.0274	0.1190
no2mxl03	18.9	0.0001140	0.0006020	0.21	-2.00	2.48	0.11	-1.06	1.30	0.8510	25.2	0.0016500	0.0007530	4.25	0.44	8.20	1.66	0.17	3.18	0.0288	0.1110
o3m8l01	24.1	0.0000800	0.0008510	0.19	-3.75	4.30	0.08	-1.57	1.76	0.9250	30.3	0.0019250	0.0006920	6.01	1.74	10.45	1.94	0.57	3.34	0.0055	0.0657
o3m8l02	22.6	-0.0001670	0.0009440	-0.38	-4.45	3.88	-0.17	-2.00	1.70	0.8600	27.0	0.0019150	0.0007510	5.31	1.20	9.57	1.93	0.44	3.44	0.0110	0.0546
o3m8l03	20.7	-0.0001740	0.0010090	-0.36	-4.35	3.80	-0.17	-2.13	1.82	0.8630	27.5	0.0020390	0.0007930	5.77	1.35	10.39	2.06	0.49	3.66	0.0103	0.0545
so2av01	9.3	-0.0004580	0.0014830	-0.43	-3.08	2.30	-0.46	-3.31	2.48	0.7570	7.6	0.0002430	0.0024240	0.18	-3.37	3.87	0.24	-4.41	5.12	0.9200	0.8020
so2av02	8.5	-0.0004330	0.0016450	-0.37	-3.06	2.40	-0.43	-3.59	2.83	0.7920	7.0	-0.0006500	0.0026770	-0.45	-4.04	3.27	-0.65	-5.73	4.70	0.8080	0.9440
so2av03	7.8	-0.0014900	0.0018010	-1.16	-3.84	1.60	-1.48	-4.90	2.06	0.4080	6.6	-0.0006290	0.0028900	-0.41	-4.07	3.38	-0.63	-6.10	5.16	0.8280	0.7970
so4av01	6.3	-0.0037960	0.0021370	-2.36	-4.91	0.25	-3.72	-7.67	0.39	0.0761	5.1	0.0105100	0.0037710	5.51	1.60	9.56	11.08	3.17	19.60	0.0055	0.0012
so4av02	5.8	-0.0038330	0.0022300	-2.20	-4.65	0.31	-3.76	-7.88	0.54	0.0859	4.7	0.0118840	0.0040040	5.74	1.92	9.72	12.62	4.12	21.81	0.0031	0.0008
so4av03	5.5	-0.0045930	0.0023120	-2.49	-4.89	-0.03	-4.49	-8.72	-0.06	0.0473	4.2	0.0139020	0.0042150	6.01	2.40	9.76	14.92	5.80	24.81	0.0010	0.0002
so4av04	5.4	-0.0049430	0.0023790	-2.63	-5.05	-0.15	-4.82	-9.16	-0.28	0.0381	3.7	0.0158570	0.0044170	6.04	2.70	9.49	17.18	7.46	27.78	0.0004	0.0000
so4av05	5.5	-0.0043050	0.0024100	-2.34	-4.84	0.23	-4.21	-8.63	0.42	0.0744	3.5	0.0170530	0.0046380	6.15	2.83	9.58	18.59	8.29	29.88	0.0003	0.0001
com8l01	1.1	0.0068290	0.0085550	0.75	-1.09	2.63	0.07	-0.10	0.24	0.4250	0.4	0.0733510	0.0344110	3.36	0.27	6.54	0.74	0.06	1.42	0.0333	0.0602
com8l02	1.0	0.0034240	0.0097280	0.35	-1.60	2.34	0.03	-0.16	0.23	0.7250	0.4	0.0548430	0.0382830	2.39	-0.86	5.74	0.55	-0.20	1.31	0.1520	0.1920
com8l03	1.0	0.0059210	0.0108050	0.62	-1.59	2.89	0.06	-0.15	0.27	0.5840	0.4	0.0430900	0.0420870	1.85	-1.66	5.48	0.43	-0.39	1.26	0.3060	0.3910
pm10av01	28.2	-0.0005240	0.0005290	-1.47	-4.31	1.46	-0.52	-1.55	0.51	0.3220	21.6	0.0027400	0.0008940	6.10	2.16	10.19	2.78	0.99	4.60	0.0023	0.0019
pm10av02	27.9	-0.0007940	0.0005770	-2.19	-5.23	0.95	-0.79	-1.91	0.34	0.1690	20.9	0.0024410	0.0009770	5.23	1.10	9.53	2.47	0.53	4.45	0.0127	0.0050
pm10av03	25.8	-0.0012640	0.0006190	-3.21	-6.19	-0.13	-1.26	-2.45	-0.05	0.0417	20.1	0.0028110	0.0010480	5.81	1.54	10.27	2.85	0.76	4.98	0.0074	0.0010
pm10av04	24.2	-0.0016970	0.0006580	-4.02	-6.97	-0.98	-1.68	-2.94	-0.41	0.0101	19.7	0.0033070	0.0011110	6.73	2.25	11.41	3.36	1.14	5.64	0.0030	0.0002
pm10av05	23.2	-0.0017460	0.0006930	-3.97	-6.95	-0.90	-1.73	-3.06	-0.39	0.0119	18.5	0.0032510	0.0011750	6.20	1.77	10.82	3.30	0.95	5.71	0.0058	0.0003
smkav01	19.7	-0.0002280	0.0007410	-0.45	-3.26	2.44	-0.23	-1.67	1.23	0.7590	10.0	0.0072070	0.0020950	7.47	3.15	11.98	7.47	3.15	11.98	0.0006	0.0007
smkav02	18.6	-0.0005030	0.0008310	-0.93	-3.89	2.12	-0.50	-2.11	1.13	0.5450	8.7	0.0060390	0.0023650	5.39	1.23	9.73	6.23	1.41	11.26	0.0108	0.0083
smkav03	17.3	-0.0007430	0.0009130	-1.28	-4.29	1.83	-0.74	-2.50	1.05	0.4160	7.8	0.0072080	0.0025950	5.78	1.67	10.06	7.47	2.14	13.08	0.0056	0.0036
smkav04	16.1	-0.0014470	0.0009900	-2.30	-5.31	1.80	-1.44	-3.33	0.49	0.1440	7.6	0.0080340	0.0028290	6.30	1.91	10.87	8.37	2.52	14.54	0.0046	0.0015
smkav05	14.6	-0.0016170	0.0010610	-2.33	-5.25	0.68	-1.60	-3.63	0.46	0.1280	6.8	0.0096000	0.0030510	6.75	2.49	11.18	10.08	3.69	16.86	0.0017	0.0005
pfrav01	13.1	-0.0001190	0.0010230	-0.16	-2.74	2.50	-0.12	-2.10	1.90	0.9070	5.9	0.0077050	0.0028450	4.65	1.26	8.15	8.01	2.15	14.20	0.0069	0.0095

pfrav02	12.1	-0.0004060	0.0011360	-0.49	-3.14	2.23	-0.41	-2.80	1.84	0.7210	5.3	0.0062740	0.0031510	3.38	0.05	6.82	6.48	0.10	13.26	0.0468	0.0460
pfrav03	11.6	-0.0006480	0.0012460	-0.75	-3.52	2.10	-0.65	-3.04	1.81	0.6030	4.9	0.0068580	0.0034270	3.42	0.07	6.88	7.10	0.14	14.54	0.0457	0.0399
pfrav04	11.2	-0.0015530	0.0013430	-1.72	-4.58	1.22	-1.54	-4.10	1.08	0.2480	4.8	0.0085330	0.0036770	4.18	0.64	7.85	8.91	1.33	17.05	0.0206	0.0103
pfrav05	10.8	-0.0020830	0.0014300	-2.22	-5.14	0.78	-2.06	-4.77	0.72	0.1460	4.4	0.0097480	0.0039200	4.38	0.91	7.97	10.24	2.09	19.04	0.0131	0.0048
sfrav01	15.2	-0.0015740	0.0008870	-2.36	-4.91	0.25	-1.56	-3.26	0.16	0.0762	12.2	0.0043430	0.0015650	5.44	1.57	9.46	4.44	1.28	7.69	0.0056	0.0012
sfrav02	14.0	-0.0015910	0.0009250	-2.21	-4.67	0.31	-1.58	-3.35	0.22	0.0857	11.3	0.0049340	0.0016620	5.73	1.91	9.70	5.06	1.69	8.53	0.0031	0.0008
sfrav03	13.2	-0.0019070	0.0009590	-2.49	-4.88	-0.04	-1.89	-3.72	-0.03	0.0471	10.0	0.0057570	0.0017490	5.93	2.36	9.62	5.93	2.36	9.62	0.0010	0.0002
sfrav04	13.0	-0.0017690	0.0010030	-2.27	-4.74	0.26	-1.75	-3.67	0.20	0.0782	8.9	0.0067320	0.0019080	6.17	2.70	9.77	6.96	3.04	11.04	0.0004	0.0001
sfrav05	12.6	-0.0014480	0.0010310	-1.81	-4.28	0.72	-1.44	-3.41	0.57	0.1610	8.7	0.0068180	0.0020460	6.11	2.47	9.88	7.06	2.85	11.43	0.0009	0.0004
pmcoarse01	11.4	-0.004828	0.002303	-5.36	-10.10	-0.36	-4.71	-8.92	-0.31	0.036	11.1	0.005246	0.001867	6.00	1.78	10.39	5.39	1.60	9.31	0.0005	0.001
pmcoarse02	10.5	-0.004683	0.002597	-4.80	-9.75	0.43	-4.57	-9.31	0.41	0.072	10.3	0.004026	0.002145	4.23	-0.18	8.85	4.11	-0.18	8.58	0.061	0.011
pmcoarse03	10.1	-0.006710	0.002840	-6.55	-11.66	-1.15	-6.49	-11.55	-1.14	0.018	9.7	0.003802	0.002381	3.76	-0.83	8.56	3.88	-0.86	8.84	0.111	0.006
pmcoarse04	9.9	-0.008332	0.003088	-8.82	-14.13	-3.19	-8.91	-14.26	-3.23	0.003	8.8	0.004004	0.002575	3.59	-0.91	8.29	4.09	-1.04	9.47	0.120	0.001
pmcoarse05	9.7	-0.010593	0.003310	-9.76	-15.27	-3.90	-10.05	-15.70	-4.02	0.001	8.0	0.003410	0.002726	2.77	-1.53	7.25	3.47	-1.91	9.15	0.211	0.002
pm25avl01	22.7	-0.0002560	0.0007710	-0.58	-3.93	2.89	-0.26	-1.75	1.26	0.7400	15.3	0.0043550	0.0013140	6.89	2.76	11.18	4.45	1.80	7.17	0.0010	0.0027
pm25avl02	22.4	-0.0002390	0.0008350	-0.53	-4.11	3.18	-0.24	-1.86	1.41	0.7740	13.5	0.0036950	0.0014300	5.11	1.21	9.17	3.76	0.90	6.71	0.0100	0.0188
pm25avl03	22.2	-0.0005340	0.0008980	-1.18	-4.97	2.76	-0.53	-2.27	1.23	0.5520	12.8	0.0045720	0.0015310	6.03	2.03	10.18	4.68	1.58	7.87	0.0029	0.0046
pm25avl04	21.4	-0.0008940	0.0009580	-1.90	-5.76	2.13	-0.89	-2.73	0.99	0.3510	11.9	0.0054760	0.0016240	6.73	2.77	10.85	5.63	2.32	9.05	0.0008	0.0009
pm25avl05	19.6	-0.0007980	0.0010090	-1.55	-5.30	2.34	-0.79	-2.74	1.19	0.4290	10.9	0.0054940	0.0017350	6.17	2.31	10.18	5.65	2.12	9.30	0.0016	0.0020

Table 24 All Respiratory All Ages Mortality: seasonal results for single day lags

Poll&Lag	Cent1090.c	Est.c	Se(Est).c	%RR1090.c	LCL1090.c	UCL1090.c	%RR10.c	LCL10.c	UCL10.c	Pvalue.c	Cent1090.w	Est.w	Se(Est).w	%RR1090.w	LCL1090.w	UCL1090.w	%RR10.w	LCL10.w	UCL10.w	Pvalue.w	Pvalue.c
no2mxl0	24.6	-0.0000230	0.0008580	-0.06	-4.11	4.16	-0.02	-1.69	1.67	0.9780	31.7	0.0035430	0.0013170	11.88	3.09	21.43	3.61	0.97	6.32	0.0073	0.0224
no2mxl1	24.6	0.0008890	0.0008640	2.21	-1.96	6.56	0.89	-0.80	2.62	0.3030	31.7	0.0001670	0.0014290	0.53	-8.01	9.86	0.17	-2.60	3.01	0.9070	0.6640
no2mxl2	24.6	-0.0010440	0.0008380	-2.54	-6.40	1.48	-1.04	-2.65	0.60	0.2130	31.7	0.0006640	0.0012770	2.13	-5.66	10.56	0.67	-1.82	3.22	0.6030	0.2630
no2mxl3	24.6	-0.0006420	0.0008540	-1.57	-5.54	2.57	-0.64	-2.29	1.04	0.4520	31.7	0.0008230	0.0012980	2.64	-5.31	11.26	0.83	-1.71	3.42	0.5260	0.3460
o3m8l0	26.1	-0.0010600	0.0015570	-2.73	-10.17	5.33	-1.05	-4.03	2.01	0.4960	32.5	0.0028300	0.0014230	9.63	0.13	20.03	2.87	0.04	5.78	0.0470	0.0507
o3m8l1	26.1	-0.0011560	0.0016180	-2.97	-10.68	5.40	-1.15	-4.23	2.04	0.4750	32.5	0.0008970	0.0014110	2.96	-5.89	12.64	0.90	-1.85	3.73	0.5250	0.3090
o3m8l2	26.1	-0.0037180	0.0014720	-9.25	-15.83	-2.15	-3.65	-6.39	-0.83	0.0117	32.5	0.0000650	0.0012570	0.21	-7.50	8.57	0.07	-2.37	2.56	0.9590	0.0437
o3m8l3	26.1	-0.0017980	0.0015160	-4.58	-11.70	3.11	-1.78	-4.66	1.18	0.2360	32.5	0.0007200	0.0013120	2.37	-1.18	11.29	0.72	-1.83	3.35	0.5830	0.1970
so2avl0	9.3	-0.0025400	0.0026010	-2.33	-6.86	2.41	-2.51	-7.35	2.59	0.3290	8.6	0.0055320	0.0046910	4.87	-3.10	13.50	5.69	-3.60	15.87	0.2390	0.1270
so2avl1	9.3	-0.0022290	0.0025960	-2.05	-6.58	2.69	-2.20	-7.06	2.90	0.3910	8.6	-0.0016760	0.0047860	-1.43	-9.07	6.85	-1.66	-10.47	8.01	0.7260	0.9180
so2avl2	9.3	0.0039500	0.0025870	3.74	-1.04	8.75	4.03	-1.11	9.44	0.1270	8.6	-0.0015380	0.0050640	-1.31	-9.39	7.48	-1.53	-10.83	8.75	0.7610	0.3290
so2avl3	9.3	-0.0022520	0.0025970	-2.07	-6.60	2.67	-2.23	-7.08	2.88	0.3860	8.6	0.0026680	0.0047330	2.32	-2.88	10.82	2.70	-6.40	12.69	0.5730	0.3550
so4avl0	7.1	-0.0049540	0.0043070	-3.46	-9.07	2.51	-4.83	-12.54	3.55	0.2500	5.5	0.0020910	0.0076190	1.16	-6.82	9.82	2.11	-12.05	18.56	0.7840	0.4270
so4avl1	7.1	-0.0065300	0.0043080	-4.53	-10.09	1.37	-6.32	-13.91	1.93	0.1300	5.5	0.0063380	0.0075500	3.55	-4.55	12.33	6.54	-8.11	23.54	0.4010	0.1440
so4avl2	7.1	-0.0059000	0.0042970	-4.10	-9.67	1.81	-5.73	-13.34	2.55	0.1700	5.5	0.0031080	0.0075880	1.72	-6.27	10.40	3.16	-11.10	19.70	0.6820	0.3070
so4avl3	7.1	-0.0081700	0.0042640	-5.64	-11.07	0.13	-7.84	-15.23	0.19	0.0557	5.5	0.0072750	0.0074100	4.08	-3.91	12.74	7.55	-6.99	24.36	0.3270	0.0737
com8l0	1.3	0.0025750	0.0150700	0.34	-3.44	4.26	0.03	-0.27	0.32	0.8640	0.5	0.1400180	0.0677690	7.25	0.36	14.62	1.41	0.07	2.77	0.0391	0.0477
com8l1	1.3	0.0098310	0.0153940	1.29	-2.61	5.34	0.10	-0.20	0.40	0.5230	0.5	-0.0043960	0.0719060	-0.22	-7.01	7.07	-0.04	-1.44	1.37	0.9510	0.8460
com8l2	1.3	-0.0070620	0.0154040	-0.91	-4.73	3.05	-0.07	-0.37	0.23	0.6470	0.5	0.0276690	0.0701610	1.39	-5.34	8.61	0.28	-1.09	1.67	0.6930	0.6280
com8l3	1.3	-0.0065480	0.0153700	-0.85	-4.66	3.11	-0.07	-0.37	0.24	0.6700	0.5	0.0203290	0.0705540	1.02	-5.73	8.25	0.20	-1.17	1.60	0.7730	0.7100
pm10avl0	30.1	-0.0007710	0.0009820	-2.29	-7.79	3.53	-0.77	-2.66	1.16	0.4330	23.9	0.0030290	0.0017520	7.51	-0.96	16.70	3.08	-0.40	6.68	0.0842	0.0598
pm10avl1	30.1	-0.0010810	0.0009750	-3.20	-8.61	2.53	-1.08	-2.95	0.83	0.2880	23.9	-0.0007360	0.0017660	-1.74	-9.54	6.73	-0.73	-4.11	2.76	0.6770	0.8650
pm10avl2	30.1	-0.0013940	0.0009690	-4.11	-9.44	1.53	-1.38	-3.24	0.51	0.1510	23.9	0.0012400	0.0017360	3.01	-5.04	11.73	1.25	-2.14	4.75	0.4750	0.1890
pm10avl3	30.1	-0.0016810	0.0009640	-4.93	-10.19	0.63	-1.67	-3.51	0.21	0.0816	23.9	0.0015710	0.0017130	3.83	-4.18	12.50	1.58	-1.77	5.05	0.3600	0.1010
smkavl0	24.0	-0.0011600	0.0013030	-2.75	-8.53	3.40	-1.15	-3.65	1.40	0.3740	11.1	0.0097980	0.0038940	11.49	2.43	21.35	10.29	2.19	19.04	0.0121	0.0067
smkavl1	24.0	0.0001190	0.0013420	0.29	-5.85	6.82	0.12	-2.48	2.79	0.9300	11.1	0.0030190	0.0041010	3.41	-5.42	13.06	3.07	-4.90	11.69	0.4620	0.4950
smkavl2	24.0	-0.0011550	0.0013340	-2.74	-8.65	3.56	-1.15	-3.70	1.47	0.3870	11.1	0.0016610	0.0039840	1.86	-6.60	11.08	1.67	-5.96	9.93	0.6770	0.4960

smkavl3	24.0	-0.0026830	0.0013110	-6.24	-11.84	-0.27	-2.65	-5.12	-0.11	0.0410	11.1	0.0001480	0.0038740	0.16	-7.93	8.97	0.15	-7.17	8.05	0.9700	0.4810
pfravl0	14.7	-0.0004880	0.0018060	-0.72	-5.75	4.59	-0.49	-3.95	3.10	0.7870	6.6	0.0147150	0.0054520	10.20	2.69	18.25	15.85	4.11	28.92	0.0071	0.0080
pfravl1	14.7	-0.0001020	0.0018270	-0.15	-5.27	5.25	-0.10	-3.62	3.54	0.9550	6.6	0.0061560	0.0056290	4.15	-3.17	12.01	6.35	-4.76	18.76	0.2740	0.2900
pfravl2	14.7	-0.0021310	0.0018500	-3.08	-8.11	2.22	-2.11	-5.59	1.51	0.2500	6.6	0.0045580	0.0055550	3.05	-4.09	10.73	4.66	-6.13	16.70	0.4120	0.2530
pfravl3	14.7	-0.0033440	0.0018320	-4.80	-9.69	0.36	-3.29	-6.70	0.25	0.0683	6.6	0.0011660	0.0055350	0.77	-6.19	8.25	1.17	-9.23	12.77	0.8330	0.4380
sfravl0	17.2	-0.0020350	0.0017870	-3.44	-9.08	2.56	-2.01	-5.39	1.48	0.2550	13.3	0.0008710	0.0031620	1.17	-6.84	9.86	0.88	-5.19	7.33	0.7830	0.4300
sfravl1	17.2	-0.0027430	0.0017880	-4.61	-10.19	1.32	-2.71	-6.06	0.76	0.1250	13.3	0.0026100	0.0031310	3.53	-4.58	12.34	2.64	-3.47	9.14	0.4050	0.1430
sfravl2	17.2	-0.0024830	0.0017840	-4.18	-9.77	1.76	-2.45	-5.80	1.02	0.1640	13.3	0.0013060	0.0031470	1.75	-6.26	10.45	1.31	-4.75	7.76	0.6780	0.3000
sfravl3	17.2	-0.0033470	0.0017700	-5.59	-11.06	0.21	-3.29	-6.59	0.12	0.0590	13.3	0.0030630	0.0030760	4.16	-3.87	12.85	3.11	-2.92	9.52	0.3200	0.0738
pmcoarse0	11.7	-0.010626	0.003849	-11.69	-19.15	-3.54	-10.08	-16.62	-3.04	0.006	11.9	0.000367	0.003238	0.44	-6.87	8.32	0.37	-5.80	6.94	0.910	0.029
pmcoarse1	11.7	-0.005889	0.004010	-6.66	-14.86	2.33	-5.72	-12.85	1.99	0.142	11.9	-0.001945	0.003573	-2.29	-10.10	6.20	-1.93	-8.56	5.19	0.586	0.464
pmcoarse2	11.7	-0.007749	0.003956	-8.67	-16.59	0.01	-7.46	-14.36	0.00	0.051	11.9	-0.000365	0.003405	-0.43	-8.04	7.80	-0.36	-6.80	6.51	0.915	0.159
pmcoarse3	11.7	-0.011119	0.003765	-12.20	-19.46	-4.28	-10.52	-16.89	-3.67	0.003	11.9	0.001999	0.003210	2.41	-4.98	10.37	2.02	-4.20	8.65	0.534	0.009
pm25avl0	23.3	-0.0011740	0.0014960	-2.70	-9.12	4.18	-1.17	-4.02	1.77	0.4330	15.7	0.0060650	0.0027240	9.99	1.15	19.61	6.25	0.73	12.08	0.0263	0.0203
pm25avl1	23.3	-0.0011030	0.0015050	-2.54	-9.01	4.40	-1.10	-3.97	1.86	0.4640	15.7	0.0020930	0.0028150	0.31	-8.01	9.39	0.20	-5.18	5.88	0.9440	0.6850
pm25avl2	23.3	-0.0023290	0.0014840	-5.28	-11.49	1.36	-2.30	-5.10	0.58	0.1170	15.7	0.0013680	0.0027030	2.17	-5.99	11.03	1.38	-3.86	6.89	0.6130	0.2320
pm25avl3	23.3	-0.0031200	0.0014580	-7.01	-13.00	-0.61	-3.07	-5.80	-0.26	0.0328	15.7	0.0027300	0.0026440	4.38	-3.78	13.23	2.77	-2.42	8.23	0.3020	0.0534

Table 25 All Respiratory All Ages Mortality: seasonal results for cumulative day lags

Poll&Lag	Cent1090.c	Est.c	Se(Est.c)	%RR1090.c	LCL1090.c	UCL1090.c	%RR10.c	LCL10.c	UCL10.c	Pvalue.c	Cent1090.w	Est.w	Se(Est.w)	%RR1090.w	LCL1090.w	UCL1090.w	%RR10.w	LCL10.w	UCL10.w	Pvalue.w	Pvalue.c.w
no2mxl01	22.3	0.0005670	0.0009860	1.27	-3.00	5.73	0.57	-1.36	2.53	0.5650	28.4	0.0023430	0.0015200	6.88	-1.79	16.31	2.37	-0.63	5.47	0.1240	0.3250
no2mxl02	20.0	-0.0001330	0.0010870	-0.27	-4.43	4.08	-0.13	-2.24	2.02	0.9030	27.2	0.0020930	0.0015750	5.86	-2.67	15.13	2.11	-0.99	5.32	0.1840	0.2440
no2mxl03	18.9	-0.0004550	0.0011920	-0.86	-5.14	3.62	-0.45	-2.75	1.90	0.7030	25.2	0.0021260	0.0016510	5.50	-2.76	14.47	2.15	-1.10	5.51	0.1980	0.2060
o3m8l01	24.1	-0.0013860	0.0017700	-3.29	-11.04	5.15	-1.38	-4.74	2.10	0.4340	30.3	0.0022600	0.0015760	7.09	-2.48	17.59	2.29	-0.83	5.49	0.1520	0.0982
o3m8l02	22.6	-0.0031920	0.0018380	-6.96	-14.24	0.93	-3.14	-6.57	0.41	0.0829	27.0	0.0015490	0.0015870	4.27	-4.13	13.41	1.56	-1.55	4.77	0.3290	0.0370
o3m8l03	20.7	-0.0036190	0.0019260	-7.22	-14.19	0.32	-3.55	-7.13	0.16	0.0606	27.5	0.0015640	0.0016500	4.39	-4.49	14.10	1.58	-1.66	4.91	0.3430	0.0299
so2avl01	9.3	-0.0031310	0.0029430	-2.87	-7.94	2.48	-3.08	-8.51	2.67	0.2880	7.6	0.0024310	0.0052790	1.86	-5.84	10.20	2.46	-7.61	13.63	0.6450	0.3510
so2avl02	8.5	-0.0004990	0.0032880	-0.42	-5.73	5.18	-0.50	-6.71	6.13	0.8790	7.0	0.0012830	0.0059820	0.90	-7.05	9.53	1.29	-9.91	13.89	0.8300	0.7910
so2avl03	7.8	-0.0015770	0.0035690	-1.22	-6.47	4.32	-1.57	-8.22	5.57	0.6590	6.6	0.0023650	0.0063900	1.57	-6.49	10.33	2.39	-9.66	16.05	0.7110	0.5850
so4avl01	6.3	-0.0064720	0.0045490	-4.00	-9.24	1.55	-6.27	-14.26	2.47	0.1550	5.1	0.0051870	0.0082520	2.68	-5.45	11.51	5.32	-10.40	23.81	0.5300	0.2230
so4avl02	5.8	-0.0074240	0.0047330	-4.21	-9.23	1.08	-7.16	-15.38	1.87	0.1170	4.7	0.0049970	0.0087440	2.38	-5.55	10.96	5.12	-11.43	24.78	0.5680	0.2180
so4avl03	5.5	-0.0089230	0.0048810	-4.79	-9.67	0.35	-8.54	-16.88	0.64	0.0679	4.2	0.0072110	0.0091050	3.08	-4.37	11.10	7.48	-10.09	28.48	0.4290	0.1240
so4avl04	5.4	-0.0093850	0.0050240	-4.94	-9.86	0.25	-8.96	-17.49	0.46	0.0621	3.7	0.0104800	0.0094980	3.95	-2.97	11.37	11.05	-7.81	33.77	0.2700	0.0685
so4avl05	5.5	-0.0091140	0.0051150	-4.89	-9.99	0.50	-8.71	-17.42	0.92	0.0752	3.5	0.0117600	0.0099740	4.20	-2.69	11.58	12.48	-7.49	36.77	0.2390	0.0663
com8l01	1.1	0.0082540	0.0174610	0.91	-2.82	4.78	0.08	-0.26	0.43	0.6370	0.4	0.0930430	0.0783270	4.28	-2.68	11.73	0.93	-0.60	2.50	0.2350	0.2900
com8l02	1.0	0.0029640	0.0196590	0.31	-3.60	4.37	0.03	-0.36	0.42	0.8800	0.4	0.0893410	0.0862890	3.92	-3.37	11.76	0.90	-0.79	2.62	0.3010	0.3280
com8l03	1.0	-0.0007450	0.0217780	-0.08	-4.46	4.50	-0.01	-0.43	0.42	0.9730	0.4	0.0946290	0.0942340	4.10	-3.76	12.60	0.95	-0.90	2.83	0.3160	0.3230
pm10avl01	28.2	-0.0011940	0.0010850	-3.31	-8.94	2.67	-1.19	-3.27	0.94	0.2720	21.6	0.0014160	0.0019400	3.11	-5.02	11.93	1.43	-2.36	5.36	0.4660	0.2450
pm10avl02	27.9	-0.0016760	0.0011670	-4.57	-10.47	1.72	-1.66	-3.89	0.61	0.1510	20.9	0.0017440	0.0020770	3.71	-4.75	12.92	1.76	-2.30	5.99	0.4010	0.1560
pm10avl03	25.8	-0.0022240	0.0012350	-5.58	-11.29	0.51	-2.20	-4.54	0.20	0.0721	20.1	0.0022090	0.0021910	4.54	-4.11	13.97	2.23	-2.06	6.72	0.3140	0.0828
pm10avl04	24.2	-0.0024270	0.0013070	-5.70	-11.37	0.33	-2.40	-4.87	0.13	0.0637	19.7	0.0028630	0.0023100	5.80	-3.23	15.67	2.90	-1.65	7.67	0.2160	0.0502
pm10avl05	23.2	-0.0026970	0.0013640	-6.06	-11.71	-0.05	-2.66	-5.23	-0.02	0.0484	18.5	0.0029450	0.0024120	5.60	-3.24	15.25	2.99	-1.77	7.97	0.2230	0.0455
smkavl01	19.7	-0.0006810	0.0014980	-1.33	-6.88	4.54	-0.68	-3.55	2.28	0.6490	10.0	0.0089800	0.0046030	9.40	-0.04	19.72	9.40	-0.04	19.72	0.0514	0.0431
smkavl02	18.6	-0.0012200	0.0016630	-2.24	-7.99	3.87	-1.21	-4.38	2.06	0.4630	8.7	0.0088610	0.0051220	8.01	-1.02	17.87	9.27	-1.17	20.80	0.0840	0.0587
smkavl03	17.3	-0.0024400	0.0017950	-4.13	-9.79	1.88	-2.41	-5.78	1.08	0.1740	7.8	0.0084170	0.0054850	6.79	-1.80	16.13	8.78	-2.31	21.13	0.1250	0.0583
smkavl04	16.1	-0.0029220	0.0019230	-4.59	-10.21	1.37	-2.88	-6.47	0.85	0.1290	7.6	0.0104920	0.0058920	8.30	-0.80	18.24	11.06	-1.05	24.66	0.0753	0.0298
smkavl05	14.6	-0.0034110	0.0020240	-4.86	-10.21	0.81	-3.35	-7.11	0.56	0.0923	6.8	0.0142010	0.0062420	10.14	1.35	19.69	15.26	1.99	30.26	0.0232	0.0073

pfrav101	13.1	-0.0005160	0.0020720	-0.67	-5.82	4.75	-0.51	-4.47	3.61	0.8030	5.9	0.0134670	0.0061690	8.27	0.81	16.28	14.42	1.38	29.12	0.0293	0.0315
pfrav102	12.1	-0.0018360	0.0022930	-2.20	-7.37	3.27	-1.82	-6.13	2.69	0.4240	5.3	0.0135800	0.0066940	7.46	0.24	15.20	14.55	0.46	30.60	0.0428	0.0296
pfrav103	11.6	-0.0032010	0.0024820	-3.65	-8.93	1.95	-3.15	-7.75	1.68	0.1970	4.9	0.0128610	0.0071560	6.50	-0.57	14.08	13.72	-1.16	30.85	0.0727	0.0346
pfrav104	11.2	-0.0040390	0.0026490	-4.42	-9.82	1.30	-3.96	-8.82	1.16	0.1280	4.8	0.0158990	0.0075950	7.93	0.49	15.92	17.23	1.02	36.05	0.0366	0.0137
pfrav105	10.8	-0.0056700	0.0027640	-5.94	-11.29	-0.27	-5.51	-10.50	-0.25	0.0406	4.4	0.0208520	0.0078870	9.61	2.40	17.32	23.19	5.54	43.78	0.0084	0.0016
sfrav101	15.2	-0.0026840	0.0018870	-4.00	-9.25	1.55	-2.65	-6.18	1.02	0.1550	12.2	0.0021420	0.0034250	2.65	-5.42	11.41	2.17	-4.47	9.26	0.5320	0.2240
sfrav102	14.0	-0.0030830	0.0019630	-4.24	-9.28	1.08	-3.04	-6.70	0.77	0.1170	11.3	0.0020740	0.0036290	2.37	-5.54	10.94	2.10	-4.91	9.62	0.5680	0.2180
sfrav103	13.2	-0.0036960	0.0020250	-4.76	-9.62	0.36	-3.63	-7.38	0.27	0.0683	10.0	0.0030100	0.0037790	3.06	-4.30	10.98	3.06	-4.30	10.98	0.4260	0.1230
sfrav104	13.0	-0.0036890	0.0021260	-4.68	-9.71	0.62	-3.62	-7.55	0.48	0.0830	8.9	0.0040950	0.0041200	3.71	-3.48	11.44	4.18	-3.90	12.94	0.3210	0.0978
sfrav105	12.6	-0.0036310	0.0021870	-4.47	-9.50	0.83	-3.57	-7.61	0.66	0.0973	8.7	0.0047360	0.0044020	4.21	-3.33	12.33	4.85	-3.82	14.30	0.2820	0.0930
pmcoarse01	11.4	-0.012052	0.004351	-12.84	-20.91	-3.94	-11.35	-18.60	-3.46	0.006	11.1	-0.001203	0.003837	-1.33	-9.23	7.26	-1.20	-8.35	6.52	0.754	0.064
pmcoarse02	10.5	-0.014107	0.004733	-13.77	-21.77	-4.94	-13.16	-20.85	-4.71	0.003	10.3	-0.000836	0.004212	-0.86	-8.94	7.94	-0.83	-8.69	7.70	0.843	0.040
pmcoarse03	10.1	-0.017022	0.004901	-15.80	-23.58	-7.22	-15.65	-23.38	-7.15	0.001	9.7	0.000233	0.004445	0.23	-7.90	9.06	0.23	-8.13	9.36	0.958	0.011
pmcoarse04	9.9	-0.018481	0.005160	-16.72	-24.66	-7.95	-16.87	-24.87	-8.03	0.000	8.8	0.001537	0.004686	1.36	-6.51	9.89	1.55	-7.36	11.32	0.743	0.006
pmcoarse05	9.7	-0.021989	0.005259	-19.21	-26.90	-10.71	-19.74	-27.60	-11.03	0.000	8.0	0.001011	0.004706	0.81	-6.36	8.53	1.02	-7.89	10.78	0.830	0.002
pm25av101	22.7	-0.0014060	0.0016320	-3.14	-9.93	4.15	-1.40	-4.50	1.81	0.3890	15.3	0.0041050	0.0030110	6.48	-2.71	16.54	4.19	-1.78	10.52	0.1730	0.1090
pm25av102	22.4	-0.0024760	0.0017260	-5.40	-12.30	2.05	-2.45	-5.69	0.91	0.1520	13.5	0.0040950	0.0031560	5.68	-2.78	14.89	4.18	-2.07	10.83	0.1950	0.0693
pm25av103	22.2	-0.0033730	0.0018160	-7.21	-14.26	0.41	-3.32	-6.70	0.19	0.0637	12.8	0.0044830	0.0033110	5.91	-2.54	15.08	4.59	-1.99	11.60	0.1760	0.0388
pm25av104	21.4	-0.0034720	0.0019340	-7.16	-14.39	0.68	-3.41	-7.00	0.32	0.0730	11.9	0.0057750	0.0035140	7.11	-1.31	16.26	5.95	-1.11	13.50	0.1010	0.0220
pm25av105	19.6	-0.0036730	0.0020290	-6.95	-13.92	0.60	-3.61	-7.36	0.31	0.0708	10.9	0.0056860	0.0037480	6.39	-1.79	15.26	5.85	-1.65	13.92	0.1300	0.0292

Table 26 All Respiratory Ages 65+ Mortality: seasonal results for single day lags

Poll&Lag	Cent1090.c	Est.c	Se(Est).c	%RR1090.c	LCL1090.c	UCL1090.c	%RR10.c	LCL10.c	UCL10.c	Pvalue.c	Cent1090.w	Est.w	Se(Est).w	%RR1090.w	LCL1090.w	UCL1090.w	%RR10.w	LCL10.w	UCL10.w	Pvalue.w	Pvalue.c.w
no2mx10	24.6	-0.0001720	0.0008730	-0.42	-4.53	3.86	-0.17	-1.87	1.55	0.8440	31.7	0.0034680	0.0013380	11.62	2.71	21.30	3.53	0.85	6.28	0.0097	0.0221
no2mx11	24.6	0.0009860	0.0008770	2.45	-1.79	6.88	0.99	-0.73	2.74	0.2610	31.7	-0.0008880	0.0014870	-0.28	-9.08	9.38	-0.09	-2.96	2.87	0.9530	0.5330
no2mx12	24.6	-0.0008990	0.0008550	-2.19	-6.14	1.93	-0.89	-2.54	0.78	0.2930	31.7	0.0004900	0.0013350	1.56	-6.52	10.35	0.49	-2.10	3.16	0.7140	0.3790
no2mx13	24.6	-0.0009730	0.0008660	-2.36	-6.36	1.80	-0.97	-2.63	0.73	0.2620	31.7	0.0007130	0.0013110	2.29	-5.72	10.97	0.72	-1.84	3.34	0.5870	0.2830
o3m810	26.1	-0.0018010	0.0015480	-4.59	-11.85	3.27	-1.78	-4.72	1.24	0.2450	32.5	0.0026530	0.0014040	9.00	-0.32	19.20	2.69	-0.10	5.55	0.0592	0.0275
o3m811	26.1	-0.0014590	0.0016160	-3.74	-11.37	4.56	-1.45	-4.52	1.72	0.3670	32.5	0.0009700	0.0014750	3.20	-6.05	13.37	0.97	-1.90	3.94	0.5110	0.2480
o3m812	26.1	-0.0031880	0.0015910	-7.98	-15.17	-0.18	-3.14	-6.11	-0.07	0.0454	32.5	0.0001410	0.0013630	0.46	-7.89	9.57	0.14	-2.50	2.85	0.9180	0.0975
o3m813	26.1	-0.0002500	0.0016460	-0.65	-8.67	8.08	-0.25	-3.42	3.02	0.8790	32.5	0.0004680	0.0014210	1.53	-7.26	11.15	0.47	-2.29	3.31	0.7420	0.7350
so2av10	9.3	-0.0012940	0.0026370	-1.20	-5.83	3.67	-1.29	-6.26	3.95	0.6240	8.6	0.0054200	0.0048020	4.77	-3.37	13.60	5.57	-3.91	15.99	0.2590	0.2130
so2av11	9.3	-0.0021710	0.0026550	-2.00	-6.63	2.86	-2.15	-7.11	3.08	0.4140	8.6	-0.0031720	0.0048720	-2.69	-10.36	5.64	-3.12	-11.95	6.58	0.5150	0.8550
so2av12	9.3	0.0039940	0.0026150	3.78	-1.05	8.85	4.07	-1.13	9.55	0.1270	8.6	-0.0038280	0.0051790	-3.24	-11.33	5.59	-3.76	-13.05	6.53	0.4600	0.1720
so2av13	9.3	-0.0045620	0.0026670	-4.15	-8.70	0.62	-4.46	-9.32	0.67	0.0875	8.6	0.0017380	0.0047160	1.51	-6.25	9.90	1.75	-7.23	11.61	0.7120	0.2380
so4av10	7.1	-0.0047350	0.0043710	-3.31	-9.01	2.76	-4.62	-12.46	3.91	0.2790	5.5	0.0000410	0.0077710	0.02	-8.02	8.76	0.04	-14.09	16.50	0.9960	0.5970
so4av11	7.1	-0.0046390	0.0043760	-3.24	-8.96	2.84	-4.53	-12.38	4.02	0.2890	5.5	0.0066120	0.0077440	3.70	-4.60	12.73	6.84	-8.21	24.35	0.3940	0.2110
so4av12	7.1	-0.0068060	0.0043740	-4.72	-10.34	1.26	-6.58	-14.26	1.78	0.1200	5.5	0.0039830	0.0076030	2.21	-5.83	10.95	4.06	-10.34	20.79	0.6010	0.2230
so4av13	7.1	-0.0106520	0.0043190	-7.28	-12.69	-1.54	-10.10	-17.40	-2.16	0.0139	5.5	0.0059560	0.0074260	3.33	-4.62	11.94	6.14	-8.24	22.77	0.4230	0.0557
com810	1.3	-0.0027240	0.0154120	-0.35	-4.19	3.64	-0.03	-0.33	0.28	0.8600	0.5	0.1498970	0.0680510	7.78	0.83	15.22	1.51	0.17	2.87	0.0279	0.0287
com811	1.3	0.0101200	0.0156010	1.32	-2.62	5.43	0.10	-0.20	0.41	0.5170	0.5	-0.0166330	0.0733130	-0.83	-7.70	6.56	-0.17	-1.59	1.28	0.8210	0.7210
com812	1.3	-0.0031400	0.0156600	-0.41	-4.30	3.65	-0.03	-0.34	0.28	0.8410	0.5	0.0082750	0.0721790	0.41	-6.44	7.77	0.08	-1.32	1.51	0.9090	0.8770
com813	1.3	-0.0180500	0.0159270	-2.32	-6.20	1.73	-0.18	-0.49	0.13	0.2570	0.5	-0.0036170	0.0713190	-0.18	-6.92	7.05	-0.04	-1.42	1.37	0.9600	0.8430
pm10av10	30.1	-0.0005830	0.0009980	-1.74	-7.36	4.22	-0.58	-2.51	1.38	0.5600	23.9	0.0031090	0.0018070	7.71	-1.03	17.23	3.16	-0.43	6.88	0.0856	0.0749
pm10av11	30.1	-0.0009670	0.0009890	-2.87	-8.37	2.97	-0.96	-2.86	0.98	0.3290	23.9	-0.0012130	0.0018330	-2.86	-10.85	5.85	-1.21	-4.69	2.41	0.5080	0.9060
pm10av12	30.1	-0.0011090	0.0009910	-3.28	-8.78	2.54	-1.10	-3.01	0.84	0.2630	23.9	0.0008580	0.0017960	2.07	-6.16	11.03	0.86	-2.63	4.47	0.6330	0.3400
pm10av13	30.1	-0.0021850	0.0009730	-6.36	-11.59	-0.83	-2.16	-4.01	-0.28	0.0250	23.9	0.0008680	0.0017340	2.10	-5.87	10.73	0.87	-2.50	4.36	0.6170	0.1260
smkav10	24.0	-0.0011390	0.0013210	-2.70	-8.56	3.54	-1.13	-3.66	1.46	0.3890	11.1	0.0098870	0.0039430	11.60	2.43	21.60	10.39	2.18	19.26	0.0123	0.0071

smkav1	24.0	0.0000380	0.0013600	0.09	-6.11	6.70	0.04	-2.59	2.74	0.9780	11.1	0.0023250	0.0041500	2.61	-6.24	12.31	2.35	-5.64	11.02	0.5750	0.5950
smkav2	24.0	-0.0006940	0.0013600	-1.65	-7.74	4.84	-0.69	-3.30	1.99	0.6100	11.1	0.0022240	0.0040960	2.50	-6.24	12.05	2.25	-5.64	10.80	0.5870	0.4920
smkav3	24.0	-0.0035850	0.0013320	-8.24	-13.82	-2.31	-3.52	-6.01	-0.97	0.0073	11.1	0.0003090	0.0038530	0.34	-7.73	9.12	0.31	-6.99	8.18	0.9360	0.3310
pfrav0	14.7	-0.0009170	0.0018290	-1.34	-6.40	4.00	-0.91	-4.40	2.70	0.6160	6.6	0.0160400	0.0054640	11.17	3.58	19.31	17.40	5.48	30.67	0.0034	0.0032
pfrav1	14.7	-0.0005060	0.0018590	-0.74	-5.92	4.72	-0.51	-4.07	3.19	0.7850	6.6	0.0057100	0.0056900	3.84	-3.53	11.77	5.88	-5.30	18.37	0.3160	0.2980
pfrav2	14.7	-0.0017620	0.0018840	-2.56	-7.70	2.88	-1.75	-5.31	1.95	0.3500	6.6	0.0045970	0.0056690	3.08	-4.21	10.92	4.70	-6.31	17.01	0.4180	0.2870
pfrav3	14.7	-0.0044260	0.0018680	-6.30	-11.21	-1.12	-4.33	-7.77	-0.76	0.0181	6.6	0.0022150	0.0055110	1.47	-5.51	8.97	2.24	-8.23	13.90	0.6880	0.2530
sfrav0	17.2	-0.0019330	0.0018130	-3.27	-9.01	2.83	-1.91	-5.34	1.63	0.2870	13.3	0.0000210	0.0032250	0.03	-8.04	8.80	0.02	-6.11	6.55	0.9950	0.6020
sfrav1	17.2	-0.0019580	0.0018160	-3.31	-9.05	2.79	-1.94	-5.37	1.61	0.2810	13.3	0.0027240	0.0032120	3.69	-4.64	12.75	2.76	-3.51	9.44	0.3970	0.2090
sfrav2	17.2	-0.0028400	0.0018160	-4.77	-10.42	1.24	-2.80	-6.20	0.72	0.1180	13.3	0.0016710	0.0031540	2.25	-5.82	11.01	1.68	-4.41	8.17	0.5960	0.2200
sfrav3	17.2	-0.0043740	0.0017930	-7.25	-12.69	-1.47	-4.28	-7.58	-0.86	0.0149	13.3	0.0024970	0.0030830	3.38	-4.61	12.03	2.53	-3.48	8.91	0.4180	0.0566
pmcoarse0	11.7	-0.008015	0.003747	-8.95	-16.45	-0.78	-7.70	-14.24	-0.67	0.033	11.9	0.000400	0.003144	0.48	-6.63	8.12	0.40	-5.60	6.78	0.899	0.087
pmcoarse1	11.7	-0.003401	0.003868	-3.90	-12.06	5.01	-3.34	-10.40	4.27	0.380	11.9	-0.002671	0.003413	-3.13	-10.54	4.90	-2.64	-8.94	4.10	0.434	0.888
pmcoarse2	11.7	-0.005358	0.003838	-6.08	-13.99	2.56	-5.22	-12.08	2.19	0.163	11.9	-0.001097	0.003286	-1.30	-8.58	6.57	-1.09	-7.26	5.49	0.739	0.401
pmcoarse3	11.7	-0.009963	0.003673	-11.00	-18.19	-3.18	-9.48	-15.77	-2.73	0.007	11.9	0.000551	0.003090	0.66	-6.34	8.18	0.55	-5.36	6.83	0.859	0.030
pm25av0	23.3	-0.0008000	0.0014140	-1.85	-7.99	4.70	-0.80	-3.51	1.99	0.5720	15.7	0.0049430	0.0025320	8.07	-0.03	16.83	5.07	-0.02	10.41	0.0513	0.0492
pm25av1	23.3	-0.0004670	0.0014300	-1.08	-7.34	5.59	-0.47	-3.22	2.36	0.7440	15.7	-0.0004050	0.0026260	-0.63	-8.35	7.73	-0.40	-5.40	4.86	0.8780	0.9840
pm25av2	23.3	-0.0010290	0.0014230	-2.37	-8.51	4.19	-1.02	-3.75	1.78	0.4700	15.7	0.0005420	0.0025730	0.86	-6.82	9.16	0.54	-4.40	5.74	0.8330	0.5950
pm25av3	23.3	-0.0022470	0.0013980	-5.10	-10.97	1.16	-2.22	-4.86	0.49	0.1090	15.7	0.0018980	0.0024840	3.03	-4.56	11.21	1.92	-2.93	7.00	0.4450	0.1480

Table 27 All Respiratory Ages 65+ Mortality: seasonal results for cumulative day lags

Poll&Lag	Cent1090. c	Est.c	Se(Est.).c	%RR1090.c	LCL1090.c	UCL1090.c	%RR10.c	LCL10.c	UCL10.c	Pvalue.c	Cent1090. w	Est.w	Se(Est.).w	%RR1090. w	LCL1090. w	UCL1090. w	%RR10.w	LCL10.w	UCL10.w	Pvalue. w	Pvalue.c w
no2mxl01	22.3	0.0005380	0.0010020	1.21	-3.13	5.74	0.54	-1.42	2.53	0.5910	28.4	0.0022090	0.0015670	6.47	-2.42	16.18	2.23	-0.86	5.42	0.1590	0.3670
no2mxl02	20.0	-0.0006620	0.0011090	-0.12	-4.37	4.31	-0.06	-2.21	2.13	0.9550	27.2	0.0019290	0.0016420	5.39	-3.45	15.03	1.95	-1.28	5.28	0.2400	0.3140
no2mxl03	18.9	-0.0005500	0.0012110	-1.04	-5.38	3.51	-0.55	-2.88	1.84	0.6500	25.2	0.0019430	0.0017100	5.02	-3.49	14.27	1.96	-1.40	5.44	0.2560	0.2340
o3m8l01	24.1	-0.0020630	0.0017520	-4.85	-12.41	3.36	-2.04	-5.35	1.38	0.2390	30.3	0.0022890	0.0016000	7.18	-2.53	17.86	2.32	-0.84	5.57	0.1530	0.0557
o3m8l02	22.6	-0.0032980	0.0018920	-7.18	-14.64	0.93	-3.24	-6.77	0.41	0.0818	27.0	0.0017470	0.0016790	4.83	-4.08	14.57	1.76	-1.53	5.17	0.2990	0.0361
o3m8l03	20.7	-0.0030930	0.0020410	-6.20	-13.66	1.90	-3.05	-6.85	0.91	0.1300	27.5	0.0016770	0.0017870	4.72	-4.90	15.31	1.69	-1.81	5.32	0.3480	0.0653
so2av01	9.3	-0.0022700	0.0030060	-2.09	-7.31	3.42	-2.24	-7.84	3.69	0.4500	7.6	0.0014140	0.0054040	1.08	-6.74	9.55	1.42	-8.77	12.76	0.7940	0.5450
so2av02	8.5	0.0002990	0.0033530	0.25	-5.19	6.01	0.30	-6.08	7.11	0.9290	7.0	-0.0007240	0.0061400	-0.51	-8.54	8.24	-0.72	-11.98	11.97	0.9060	0.8820
so2av03	7.8	-0.0019690	0.0036310	-1.52	-6.84	4.10	-1.95	-8.69	5.28	0.5880	6.6	0.0001660	0.0064910	0.11	-7.95	8.88	0.17	-11.80	13.76	0.9800	0.7700
so4av01	6.3	-0.0053560	0.0046150	-3.32	-8.67	2.35	-5.22	-13.41	3.76	0.2460	5.1	0.0040640	0.0084350	2.09	-6.16	11.08	4.15	-11.72	22.87	0.6300	0.3330
so4av02	5.8	-0.0069680	0.0048080	-3.96	-9.07	1.43	-6.73	-15.12	2.49	0.1480	4.7	0.0048260	0.0088680	2.29	-5.73	11.00	4.94	-11.80	24.87	0.5860	0.2490
so4av03	5.5	-0.0094290	0.0049590	-5.05	-10.00	0.16	-9.00	-17.43	0.29	0.0576	4.2	0.0062850	0.0092040	2.67	-4.82	10.76	6.49	-11.09	27.54	0.4950	0.1380
so4av04	5.4	-0.0103100	0.0051000	-5.42	-10.39	-0.17	-9.80	-18.38	-0.31	0.0436	3.7	0.0104820	0.0095650	3.95	-3.01	11.42	11.05	-7.93	33.95	0.2730	0.0588
so4av05	5.5	-0.0097880	0.0051940	-5.24	-10.40	0.22	-9.32	-18.10	0.39	0.0599	3.5	0.0123360	0.0100590	4.41	-2.55	11.87	13.13	-7.11	37.79	0.2200	0.0541
com8l01	1.1	0.0048980	0.0177650	0.54	-3.24	4.47	0.05	-0.30	0.40	0.7830	0.4	0.0930060	0.0791410	4.27	-2.76	11.81	0.93	-0.62	2.51	0.2400	0.2760
com8l02	1.0	0.0024080	0.0199970	0.25	-3.72	4.38	0.02	-0.37	0.42	0.9040	0.4	0.0810520	0.0876550	3.55	-3.83	11.49	0.81	-0.90	2.56	0.3550	0.3800
com8l03	1.0	-0.0071200	0.0222300	-0.74	-5.18	3.90	-0.07	-0.51	0.37	0.7490	0.4	0.0743010	0.0954670	3.21	-4.68	11.75	0.75	-1.12	2.65	0.4370	0.4040
pm10av01	28.2	-0.0009890	0.0011060	-2.75	-8.52	3.38	-0.98	-3.11	1.19	0.3720	21.6	0.0011700	0.0020210	2.56	-5.85	11.72	1.18	-2.75	5.26	0.5630	0.3520
pm10av02	27.9	-0.0013670	0.0011930	-3.74	-9.82	2.75	-1.36	-3.64	0.98	0.2520	20.9	0.0013660	0.0021710	2.90	-5.86	12.47	1.38	-2.85	5.78	0.5290	0.2740
pm10av03	25.8	-0.0021860	0.0012540	-5.48	-11.29	0.70	-2.16	-4.54	0.27	0.0816	20.1	0.0016120	0.0022740	3.29	-5.56	12.97	1.63	-2.80	6.26	0.4790	0.1480
pm10av04	24.2	-0.0025960	0.0013220	-6.09	-11.79	-0.01	-2.56	-5.05	-0.01	0.0499	19.7	0.0023580	0.0023860	4.76	-4.46	14.86	2.39	-2.29	7.29	0.3230	0.0729
pm10av05	23.2	-0.0029640	0.0013790	-6.64	-12.32	-0.60	-2.92	-5.51	-0.26	0.0320	18.5	0.0024620	0.0024900	4.66	-4.38	14.55	2.49	-2.39	7.62	0.3230	0.0600
smkav01	19.7	-0.0007240	0.0015180	-1.42	-7.03	4.54	-0.72	-3.63	2.28	0.6340	10.0	0.0085770	0.0046570	8.96	-0.55	19.37	8.96	-0.55	19.37	0.0659	0.0544
smkav02	18.6	-0.0009980	0.0016890	-1.84	-7.70	4.40	-0.99	-4.22	2.34	0.5550	8.7	0.0088530	0.0052150	8.01	-1.18	18.05	9.26	-1.36	21.02	0.0900	0.0698
smkav03	17.3	-0.0026580	0.0018180	-4.49	-10.20	1.58	-2.62	-6.03	0.91	0.1440	7.8	0.0084840	0.0055430	6.84	-1.84	16.29	8.85	-2.35	21.35	0.1260	0.0547

smkavl04	16.1	-0.0035580	0.0019460	-5.57	-11.19	0.41	-3.50	-7.11	0.26	0.0678	7.6	0.0103360	0.0059040	8.17	-0.93	18.12	10.89	-1.23	24.49	0.0804	0.0250
smkavl05	14.6	-0.0041650	0.0020550	-5.90	-11.27	-0.20	-4.08	-7.87	-0.14	0.0431	6.8	0.0140540	0.0062450	10.03	1.24	19.58	15.09	1.83	30.08	0.0247	0.0056
pfravl01	13.1	-0.0010430	0.0021020	-1.36	-6.54	4.11	-1.04	-5.03	3.12	0.6200	5.9	0.0139870	0.0061990	8.60	1.09	16.67	15.01	1.85	29.87	0.0243	0.0216
pfravl02	12.1	-0.0020480	0.0023280	-2.45	-7.69	3.09	-2.03	-6.40	2.55	0.3790	5.3	0.0140440	0.0067550	7.73	0.43	15.56	15.08	0.81	31.37	0.0379	0.0246
pfravl03	11.6	-0.0039690	0.0025140	-4.50	-9.81	1.12	-3.89	-8.51	0.96	0.1150	4.9	0.0137400	0.0071680	6.96	-0.15	14.59	14.73	-0.31	32.03	0.0556	0.0203
pfravl04	11.2	-0.0051120	0.0026850	-5.56	-10.97	0.17	-4.98	-9.86	0.15	0.0573	4.8	0.0160350	0.0076040	8.00	0.54	16.01	17.39	1.14	36.26	0.0353	0.0092
pfravl05	10.8	-0.0068920	0.0028100	-7.17	-12.53	-1.48	-6.66	-11.66	-1.37	0.0144	4.4	0.0210480	0.0078990	9.70	2.48	17.44	23.43	5.72	44.10	0.0079	0.0010
sfravl01	15.2	-0.0022090	0.0019150	-3.30	-8.66	2.37	-2.18	-5.79	1.56	0.2490	12.2	0.0016780	0.0035010	2.07	-6.13	10.98	1.69	-5.05	8.92	0.6320	0.3360
sfravl02	14.0	-0.0028830	0.0019950	-3.97	-9.10	1.45	-2.84	-6.57	1.03	0.1490	11.3	0.0020050	0.0036810	2.29	-5.72	10.98	2.03	-5.08	9.66	0.5860	0.2490
sfravl03	13.2	-0.0039010	0.0020570	-5.02	-9.94	0.17	-3.83	-7.63	0.13	0.0583	10.0	0.0026200	0.0038200	2.65	-4.75	10.64	2.65	-4.75	10.64	0.4930	0.1380
sfravl04	13.0	-0.0039310	0.0021570	-4.98	-10.06	0.39	-3.86	-7.84	0.30	0.0688	8.9	0.0039970	0.0041600	3.62	-3.63	11.42	4.08	-4.07	12.92	0.3370	0.0954
sfravl05	12.6	-0.0038920	0.0022170	-4.79	-9.86	0.57	-3.82	-7.91	0.45	0.0795	8.7	0.0045440	0.0044470	4.03	-3.56	12.23	4.65	-4.09	14.18	0.3070	0.0939
pmcoarse01	11.4	-0.008587	0.004289	-9.33	-17.61	-0.21	-8.23	-15.63	-0.18	0.046	11.1	-0.001679	0.003780	-1.85	-9.60	6.57	-1.66	-8.69	5.90	0.657	0.232
pmcoarse02	10.5	-0.009817	0.004735	-9.79	-18.17	-0.56	-9.35	-17.38	-0.54	0.039	10.3	-0.001815	0.004225	-1.85	-9.88	6.89	-1.80	-9.60	6.68	0.668	0.217
pmcoarse03	10.1	-0.012527	0.004980	-11.88	-20.16	-2.75	-11.77	-19.98	-2.73	0.012	9.7	-0.001715	0.004526	-1.65	-9.76	7.19	-1.70	-10.05	7.42	0.705	0.119
pmcoarse04	9.9	-0.014876	0.005233	-13.69	-22.03	-4.47	-13.82	-22.22	-4.51	0.005	8.8	-0.000621	0.004740	-0.54	-8.35	7.93	-0.62	-9.44	9.06	0.896	0.052
pmcoarse05	9.7	-0.018265	0.005391	-16.24	-24.40	-7.20	-16.69	-25.05	-7.41	0.001	8.0	-0.001209	0.004810	-0.96	-8.16	6.80	-1.20	-10.09	8.57	0.802	0.024
pm25avl01	22.7	-0.0007380	0.0015520	-1.66	-8.22	5.37	-0.73	-3.71	2.33	0.6350	15.3	0.0030340	0.0028120	4.75	-3.72	13.97	3.08	-2.45	8.92	0.2810	0.2440
pm25avl02	22.4	-0.0013890	0.0016590	-3.06	-9.87	4.26	-1.38	-4.54	1.88	0.4030	13.5	0.0027950	0.0029860	3.85	-4.04	12.38	2.83	-3.01	9.03	0.3500	0.2250
pm25avl03	22.2	-0.0021750	0.0017610	-4.71	-11.74	2.88	-2.15	-5.47	1.29	0.2170	12.8	0.0028950	0.0031420	3.78	-4.09	12.29	2.94	-3.21	9.48	0.3570	0.1640
pm25avl04	21.4	-0.0022850	0.0018770	-4.77	-11.98	3.03	-2.26	-5.79	1.40	0.2240	11.9	0.0043640	0.0033140	5.33	-2.50	13.79	4.46	-2.11	11.47	0.1880	0.0841
pm25avl05	19.6	-0.0024240	0.0019740	-4.64	-11.60	2.87	-2.39	-6.10	1.46	0.2200	10.9	0.0046640	0.0035270	5.21	-2.42	13.45	4.77	-2.22	12.27	0.1870	0.0829

Table 28 All Cardiovascular All Ages Mortality: seasonal results for single day lags

Pol&Lag	Cent1090.c	Est.c	Se(Est).c	%RR1090.c	LCL1090.c	UCL1090.c	%RR10.c	LCL10.c	UCL10.c	Pvalue.c	Cent1090.w	Est.w	Se(Est).w	%RR1090.w	LCL1090.w	UCL1090.w	%RR10.w	LCL10.w	UCL10.w	Pvalue.w	Pvalue.c
no2mxl0	24.6	0.0012290	0.0005710	3.07	0.27	5.95	1.24	0.11	2.38	0.03	31.7	0.0003950	0.0008450	1.26	-3.92	6.72	0.40	-1.25	2.07	0.6400	0.4080
no2mxl1	24.6	0.0006190	0.0005700	1.53	-1.22	4.36	0.62	-0.50	1.75	0.28	31.7	0.0005180	0.0008290	1.66	-3.45	7.03	0.52	-1.10	2.17	0.5320	0.9190
no2mxl2	24.6	0.0007020	0.0005740	1.74	-1.03	4.60	0.70	-0.42	1.84	0.22	31.7	0.0001240	0.0008390	0.39	-4.70	5.76	0.12	-1.51	1.78	0.8830	0.5680
no2mxl3	24.6	0.0003030	0.0005710	0.75	-1.99	3.56	0.30	-0.81	1.43	0.60	31.7	-0.0003110	0.0008260	-0.98	-5.93	4.23	-0.31	-1.91	1.32	0.7060	0.5400
o3m8l0	26.1	-0.0006140	0.0009920	-1.59	-6.46	3.54	-0.61	-2.53	1.34	0.54	32.5	0.0012920	0.0008230	4.29	-1.04	9.90	1.30	-0.32	2.95	0.1170	0.1150
o3m8l1	26.1	-0.0010050	0.0010130	-2.59	-7.51	2.59	-1.00	-2.95	0.99	0.32	32.5	0.0004070	0.0008380	1.33	-3.94	6.89	0.41	-1.23	2.07	0.6280	0.2450
o3m8l2	26.1	0.0001900	0.0010630	0.50	-4.82	6.11	0.19	-1.88	2.30	0.86	32.5	0.0007330	0.0008510	2.41	-2.99	8.12	0.74	-0.93	2.43	0.3890	0.6660
o3m8l3	26.1	-0.0012750	0.0009940	-3.27	-8.07	1.77	-1.27	-3.17	0.68	0.20	32.5	0.0011760	0.0007850	3.90	-1.17	9.22	1.18	-0.36	2.75	0.1340	0.0430
so2avl0	9.3	0.0007740	0.0017120	0.72	-2.37	3.92	0.78	-2.55	4.22	0.65	8.6	-0.0023550	0.0029250	-2.00	-6.72	2.95	-2.33	-7.77	3.44	0.4210	0.3490
so2avl1	9.3	0.0005650	0.0017060	0.53	-2.55	3.70	0.57	-2.74	3.99	0.74	8.6	-0.0031240	0.0029320	-2.65	-7.34	2.28	-3.08	-8.49	2.66	0.2870	0.2710
so2avl2	9.3	-0.0001780	0.0017090	-0.17	-3.23	2.99	-0.18	-3.47	3.22	0.92	8.6	-0.0039280	0.0029340	-3.32	-7.99	1.58	-3.85	-9.23	1.84	0.1810	0.2640
so2avl3	9.3	0.0007000	0.0017160	-0.65	-3.71	2.51	-0.70	-3.98	2.70	0.68	8.6	-0.0047900	0.0029200	-4.04	-8.65	0.81	-4.68	-9.98	0.94	0.1010	0.2220
so4avl0	7.1	-0.0043210	0.0026400	-3.02	-6.52	0.61	-4.23	-9.06	0.86	0.10	5.5	0.0009180	0.0045620	0.51	-4.32	5.57	0.92	-7.71	10.36	0.8410	0.3240
so4avl1	7.1	-0.0031010	0.0026510	-2.18	-5.72	1.50	-3.05	-7.96	2.12	0.24	5.5	0.0046350	0.0045620	2.58	-2.34	7.75	4.74	-4.22	14.54	0.3100	0.1470
so4avl2	7.1	0.0002560	0.0026700	0.18	-3.47	3.97	0.26	-4.86	5.64	0.92	5.5	0.0055560	0.0046310	3.10	-1.92	8.38	5.71	-3.46	15.76	0.2310	0.3270
so4avl3	7.1	0.0006650	0.0026520	0.47	-3.17	4.25	0.67	-4.43	6.04	0.80	5.5	0.0050080	0.0046440	2.79	-2.23	8.07	5.14	-4.01	15.15	0.2810	0.4200
com8l0	1.3	0.0234840	0.0097740	3.10	0.56	5.70	0.24	0.04	0.43	0.02	0.5	0.0392290	0.0420910	1.98	-2.14	6.28	0.39	-0.43	1.22	0.3520	0.7150
com8l1	1.3	0.0161920	0.0099240	2.13	-0.42	4.74	0.16	-0.03	0.36	0.10	0.5	-0.0188160	0.0427580	-0.94	-5.00	3.30	-0.19	-1.02	0.65	0.6600	0.4240
com8l2	1.3	0.0027220	0.0101790	0.35	-2.21	2.99	0.03	-1.77	0.23	0.79	0.5	-0.0405330	0.0426200	-2.01	-6.01	2.17	-0.40	-1.23	0.43	0.3420	0.3230
com8l3	1.3	0.0169440	0.0100460	2.23	-0.36	4.88	0.17	-0.03	0.37	0.09	0.5	-0.0551750	0.0434690	-2.72	-6.78	1.51	-0.55	-1.39	0.30	0.2050	0.1060
pm10avl0	30.1	-0.0001430	0.0006290	-0.43	-4.06	3.34	-0.14	-1.37	1.10	0.82	23.9	0.0002060	0.0010810	0.49	-4.47	5.71	0.21	-1.90	2.35	0.8490	0.7800
pm10avl1	30.1	0.0004200	0.0006270	1.27	-2.40	5.09	0.42	-0.80	1.66	0.50	23.9	0.0014850	0.0010900	3.61	-1.55	9.04	1.50	-0.65	3.69	0.1740	0.3990
pm10avl2	30.1	-0.0002570	0.0006220	-0.77	-4.34	2.94	-0.26	-1.46	0.97	0.68	23.9	-0.0000450	0.0010810	-0.11	-5.04	5.08	-0.04	-2.14	2.10	0.9670	0.8660
pm10avl3	30.1	-0.0006930	0.0006190	-2.07	-5.58	1.58	-0.69	-1.89	0.52	0.26	23.9	0.0000100	0.0010840	0.02	-4.84	5.13	0.01	-2.05	2.12	0.9930	0.5700

smkavl0	24.0	0.0006580	0.0008650	1.59	-2.46	5.81	0.66	-1.03	2.38	0.45	11.1	0.0025710	0.0024500	2.90	-2.45	8.53	2.60	-2.21	7.65	0.2940	0.4530
smkavl1	24.0	0.0005010	0.0008640	1.21	-2.82	5.41	0.50	-1.18	2.22	0.56	11.1	0.0012670	0.0024620	1.42	-3.87	7.00	1.28	-3.50	6.28	0.6070	0.7650
smkavl2	24.0	0.0004520	0.0008710	1.09	-2.97	5.32	0.45	-1.25	2.18	0.60	11.1	-0.0024440	0.0024790	-2.68	-7.79	2.72	-2.41	-7.04	2.44	0.3240	0.2610
smkavl3	24.0	0.0000050	0.0008680	0.01	-3.99	4.18	0.01	-1.68	1.72	1.00	11.1	0.0013180	0.0024310	1.47	-3.75	6.99	1.33	-3.39	6.27	0.5880	0.6040
pfravl0	14.7	0.0004790	0.0011740	0.71	-2.64	4.17	0.48	-1.80	2.82	0.68	6.6	0.0006150	0.0034240	0.41	-3.94	4.95	0.62	-5.91	7.60	0.8580	0.9700
pfravl1	14.7	0.0018380	0.0011750	2.74	-0.68	6.28	1.86	-0.46	4.23	0.12	6.6	0.0025400	0.0034540	1.69	-2.75	6.34	2.57	-4.14	9.76	0.4620	0.8470
pfravl2	14.7	0.0006460	0.0011880	0.95	-2.44	4.47	0.65	-1.67	3.02	0.59	6.6	-0.0036050	0.0035230	-2.35	-6.70	2.20	-3.54	-9.98	3.35	0.3060	0.2510
pfravl3	14.7	0.0001550	0.0011820	0.23	-3.13	3.70	0.16	-2.14	2.50	0.90	6.6	-0.0017450	0.0034720	-1.14	-5.49	3.40	-1.73	-8.19	5.19	0.6150	0.6030
sfravl0	17.2	-0.0018160	0.0010950	-3.08	-6.59	0.57	-1.80	-3.88	0.33	0.10	13.3	0.0003730	0.0018920	0.50	-4.34	5.58	0.37	-3.28	4.17	0.8440	0.3210
sfravl1	17.2	-0.0012780	0.0011000	-2.18	-5.74	1.52	-1.27	-3.38	0.88	0.25	13.3	0.0019060	0.0018930	2.57	-2.37	7.76	1.92	-1.79	5.78	0.3140	0.1500
sfravl2	17.2	0.0001260	0.0011080	0.22	-3.46	4.03	0.13	-2.03	2.32	0.91	13.3	0.0023410	0.0019210	3.16	-1.88	8.46	2.37	-1.41	6.30	0.2230	0.3230
sfravl3	17.2	0.0002800	0.0011000	0.48	-3.18	4.28	0.28	-1.86	2.47	0.80	13.3	0.0020360	0.0019270	2.74	-2.29	8.04	2.06	-1.73	5.98	0.2910	0.4320
pmcoarse0	11.7	-0.001714	0.002639	-1.99	-7.74	4.13	-1.70	-6.65	3.52	0.516	11.9	0.001056	0.002066	1.27	-3.50	6.26	1.06	-2.95	5.24	0.609	0.403
pmcoarse1	11.7	-0.001169	0.002610	-1.36	-7.09	4.73	-1.16	-6.09	4.03	0.654	11.9	0.002120	0.002081	2.55	-2.30	7.66	2.14	-1.94	6.40	0.309	0.323
pmcoarse2	11.7	0.000215	0.002614	0.25	-5.58	6.45	0.22	-4.79	5.48	0.935	11.9	0.000534	0.002083	0.64	-4.14	5.65	0.54	-3.49	4.73	0.798	0.924
pmcoarse3	11.7	-0.005891	0.002625	-6.66	-12.11	-0.87	-5.72	-10.45	-0.74	0.025	11.9	-0.000279	0.002066	-0.33	-5.02	4.59	-0.28	-4.24	3.84	0.893	0.096
pm25avl0	23.3	0.0006430	0.0009270	1.51	-2.70	5.90	0.65	-1.17	2.49	0.49	15.7	0.0001340	0.0016080	0.21	-4.63	5.30	0.13	-2.97	3.34	0.9340	0.7840
pm25avl1	23.3	0.0001380	0.0009290	0.32	-3.84	4.67	0.14	-1.67	1.98	0.88	15.7	0.0016950	0.0015920	2.70	-2.21	7.85	1.71	-1.42	4.93	0.2870	0.4010
pm25avl2	23.3	0.0005220	0.0009260	1.22	-2.97	5.60	0.52	-1.29	2.36	0.57	15.7	0.0005500	0.0016110	0.87	-4.01	5.99	0.55	-2.57	3.78	0.7330	0.9880
pm25avl3	23.3	-0.0005020	0.0009400	-1.16	-5.32	3.17	-0.50	-2.32	1.35	0.59	15.7	0.0001720	0.0016280	0.27	-4.63	5.42	0.17	-2.97	3.42	0.9160	0.7210

Table 29 All Cardiovascular All Ages Mortality: seasonal results for cumulative day gaps

Poll&Lag	Cent1090.c	Est.c	Se(Est.).c	%RR1090.c	LCL1090.c	UCL1090.c	%RR10.c	LCL10.c	UCL10.c	Pvalue.c	Cent1090.w	Est.w	Se(Est.).w	%RR1090.w	LCL1090.w	UCL1090.w	%RR10.w	LCL10.w	UCL10.w	Pvalue.w	Pvalue.c
o3m8l01	24.1	-0.0010400	0.0011170	-2.47	-7.49	2.81	-1.03	-3.18	1.16	0.35	30.3	0.0011070	0.0009180	3.41	-2.08	9.21	1.11	-0.69	2.95	0.2280	0.1050
o3m8l02	22.6	-0.0007810	0.0012450	-1.75	-7.02	3.82	-0.78	-3.17	1.67	0.53	27.0	0.0012790	0.0010020	3.51	-1.83	9.15	1.29	-0.68	3.30	0.2020	0.1530
o3m8l03	20.7	-0.0013270	0.0013130	-2.71	-7.76	2.61	-1.32	-3.83	1.25	0.31	27.5	0.0016360	0.0010420	4.60	-1.11	10.64	1.65	-0.41	3.75	0.1170	0.0503
so2avl01	9.3	0.0009030	0.0019610	0.84	-2.70	4.51	0.91	-2.90	4.86	0.65	7.6	-0.0035070	0.0032980	-2.63	-7.30	2.27	-3.45	-9.49	3.00	0.2880	0.2440
so2avl02	8.5	0.0006660	0.0021840	0.57	-3.03	4.29	0.67	-3.55	5.07	0.76	7.0	-0.0049380	0.0036350	-3.40	-8.10	1.54	-4.82	-11.36	2.21	0.1750	0.1800
so2avl03	7.8	0.0002780	0.0023820	0.22	-3.37	3.93	0.28	-4.30	5.07	0.91	6.6	-0.0066120	0.0039190	-4.27	-9.00	0.71	-6.40	-13.32	1.08	0.0920	0.1280
so4avl01	6.3	-0.0040870	0.0027880	-2.54	-5.84	0.87	-4.00	-9.11	1.39	0.14	5.1	0.0035550	0.0049650	1.83	-3.10	7.01	3.62	-5.99	14.21	0.4740	0.1840
so4avl02	5.8	-0.0029890	0.0029110	-1.72	-4.92	1.59	-2.95	-8.33	2.75	0.31	4.7	0.0058860	0.0052970	2.81	-2.09	7.95	6.06	-4.40	17.67	0.2670	0.1470
so4avl03	5.5	-0.0003150	0.0030100	-1.20	-4.35	2.06	-2.17	-7.77	3.78	0.47	4.2	0.0072760	0.0056010	3.10	-1.54	7.97	7.55	-3.63	20.03	0.1940	0.1410
so4avl04	5.4	-0.0018270	0.0030940	-0.98	-4.17	2.31	-1.81	-7.59	4.33	0.56	3.7	0.0069460	0.0059090	2.60	-1.70	7.10	7.19	-4.53	20.36	0.2400	0.1930
so4avl05	5.5	-0.0007680	0.0031450	-0.42	-3.74	3.01	-0.77	-6.70	5.54	0.81	3.5	0.0093820	0.0062180	3.34	-0.98	7.84	9.84	-2.77	24.07	0.1320	0.1490
com8l01	1.1	0.0265280	0.0113250	2.96	0.48	5.51	0.27	0.04	0.49	0.02	0.4	0.0152810	0.0476990	0.69	-3.46	5.02	0.15	-0.78	1.09	0.7490	0.8180
com8l02	1.0	0.0244220	0.0129700	2.55	-0.10	5.27	0.24	-0.01	0.50	0.06	0.4	-0.0116640	0.0528760	-0.50	-4.84	4.03	-0.12	-1.15	0.92	0.8250	0.5060
com8l03	1.0	0.0321220	0.0145260	3.43	0.38	6.57	0.32	0.04	0.61	0.03	0.4	-0.0359490	0.0584370	-1.52	-6.20	3.40	-0.36	-1.49	0.79	0.5390	0.2570
pm10avl01	28.2	0.0001800	0.0007020	0.51	-3.32	4.48	0.18	-1.19	1.57	0.80	21.6	0.0010930	0.0012060	2.39	-2.71	7.75	1.10	-1.26	3.52	0.3650	0.5140
pm10avl02	27.9	0.0000020	0.0007600	0.00	-4.07	4.25	0.00	-1.48	1.50	1.00	20.9	0.0008660	0.0013050	1.83	-3.48	7.42	0.87	-1.68	3.48	0.5070	0.5690
pm10avl03	25.8	-0.0003150	0.0008070	-0.81	-4.78	3.32	-0.31	-1.88	1.28	0.70	20.1	0.0007640	0.0013860	1.55	-3.85	7.25	0.77	-1.93	3.54	0.5820	0.5050
pm10avl04	24.2	-0.0005490	0.0008520	-1.32	-5.23	2.75	-0.55	-2.19	1.13	0.52	19.7	0.0007540	0.0014620	1.50	-4.07	7.39	0.76	-2.09	3.68	0.6060	0.4460
pm10avl05	23.2	-0.0005060	0.0008980	-1.17	-5.12	2.95	-0.50	-2.24	1.26	0.57	18.5	0.0008590	0.0015440	1.60	-3.93	7.45	0.86	-2.14	3.96	0.5780	0.4510
smkavl01	19.7	0.0007670	0.0009920	1.52	-2.29	5.48	0.77	-1.17	2.75	0.44	10.0	0.0026470	0.0028600	2.68	-2.92	8.60	2.68	-2.92	8.60	0.3550	0.5280
smkavl02	18.6	0.0008870	0.0011100	1.66	-2.37	5.86	0.89	-1.28	3.11	0.42	8.7	0.0007520	0.0032400	0.66	-4.75	6.37	0.75	-5.44	7.36	0.8170	0.9680
smkavl03	17.3	0.0008000	0.0012150	1.39	-2.70	5.66	0.80	-1.57	3.23	0.51	7.8	0.0015010	0.0035450	1.18	-4.16	6.81	1.51	-5.30	8.82	0.6720	0.8500
smkavl04	16.1	0.0001880	0.0013100	0.30	-3.76	4.54	0.19	-2.35	2.79	0.89	7.6	0.0007930	0.0038370	0.60	-4.98	6.52	0.80	-6.51	8.67	0.8360	0.8800

smkavl05	14.6	0.0001760	0.0014010	0.26	-3.68	4.36	0.18	-2.54	2.96	0.90	6.8	0.0028370	0.0041190	1.95	-3.50	7.70	2.88	-5.10	11.53	0.4910	0.5390
pfravl01	13.1	0.0016170	0.0013610	2.14	-1.37	5.77	1.63	-1.04	4.38	0.24	5.9	0.0014650	0.0039020	0.87	-3.58	5.52	1.48	-6.00	9.54	0.7070	0.9710
pfravl02	12.1	0.0017410	0.0015140	2.13	-1.47	5.86	1.76	-1.22	4.82	0.25	5.3	-0.0004920	0.0043340	-0.26	-4.65	4.33	-0.49	-8.59	8.33	0.9100	0.6260
pfravl03	11.6	0.0015320	0.0016530	1.79	-1.96	5.69	1.54	-1.69	4.89	0.35	4.9	-0.0008930	0.0046920	-0.44	-4.82	4.15	-0.89	-9.60	8.66	0.8490	0.6260
pfravl04	11.2	0.0010000	0.0017770	1.13	-2.74	5.15	1.01	-2.45	4.59	0.57	4.8	-0.0014350	0.0050350	-0.69	-5.28	4.13	-1.42	-10.69	8.80	0.7760	0.6500
pfravl05	10.8	0.0003620	0.0018840	0.39	-3.53	4.48	0.36	-3.28	4.14	0.85	4.4	-0.0002860	0.0053360	-0.13	-4.62	4.58	-0.29	-10.19	10.71	0.9570	0.9090
sfravl01	15.2	-0.0016990	0.0011570	-2.55	-5.85	0.87	-1.69	-3.89	0.57	0.14	12.2	0.0014580	0.0020600	1.79	-3.10	6.93	1.47	-2.55	5.65	0.4790	0.1860
sfravl02	14.0	-0.0012550	0.0012070	-1.75	-4.96	1.57	-1.25	-3.56	1.12	0.30	11.3	0.0024430	0.0021980	2.80	-2.09	7.93	2.47	-1.85	6.98	0.2670	0.1450
sfravl03	13.2	-0.0009230	0.0012480	-1.21	-4.35	2.03	-0.92	-3.31	1.54	0.46	10.0	0.0030000	0.0023240	3.05	-1.54	7.85	3.05	-1.54	7.85	0.1970	0.1420
sfravl04	13.0	-0.0007290	0.0013070	-0.94	-4.19	2.41	-0.73	-3.24	1.85	0.58	8.9	0.0042510	0.0025370	3.86	-0.64	8.55	4.34	-0.72	9.66	0.0941	0.0839
sfravl05	12.6	-0.0003270	0.0013470	-0.41	-3.67	2.96	-0.33	-2.92	2.34	0.81	8.7	0.0045840	0.0027220	4.07	-0.65	9.01	4.69	-0.75	10.43	0.0925	0.1090
pmcoarse01	11.4	-0.002775	0.003071	-3.11	-9.54	3.77	-2.74	-8.42	3.30	0.367	11.1	0.002056	0.002494	2.31	-3.09	8.01	2.08	-2.79	7.19	0.410	0.221
pmcoarse02	10.5	-0.002765	0.003484	-2.86	-9.58	4.36	-2.73	-9.15	4.15	0.428	10.3	0.002468	0.002855	2.57	-3.17	8.66	2.50	-3.08	8.40	0.388	0.251
pmcoarse03	10.1	-0.006268	0.003812	-6.13	-12.96	1.22	-6.08	-12.84	1.21	0.101	9.7	0.001575	0.003166	1.54	-4.39	7.84	1.59	-4.52	8.09	0.619	0.122
pmcoarse04	9.9	-0.007521	0.004138	-7.18	-14.34	0.59	-7.25	-14.47	0.59	0.070	8.8	0.001665	0.003424	1.48	-4.34	7.65	1.68	-4.92	8.74	0.627	0.098
pmcoarse05	9.7	-0.007513	0.004431	-7.03	-14.54	1.14	-7.24	-14.95	1.18	0.091	8.0	0.001634	0.003618	1.32	-4.27	7.23	1.65	-5.31	9.12	0.652	0.127
pm25avl01	22.7	0.0003630	0.0010160	0.83	-3.63	5.49	0.36	-1.61	2.38	0.72	15.3	0.0010750	0.0017440	1.66	-3.52	7.12	1.08	-2.32	4.60	0.5380	0.7250
pm25avl02	22.4	0.0006810	0.0010900	1.54	-3.21	6.51	0.68	-1.45	2.86	0.53	13.5	0.0009360	0.0018760	1.27	-3.63	6.43	0.94	-2.70	4.72	0.6180	0.9070
pm25avl03	22.2	0.0003280	0.0011750	0.73	-4.29	6.01	0.33	-1.96	2.67	0.78	12.8	0.0010880	0.0020120	1.40	-3.59	6.65	1.09	-2.81	5.16	0.5890	0.7460
pm25avl04	21.4	0.0002570	0.0012510	0.55	-4.59	5.97	0.26	-2.17	2.75	0.84	11.9	0.0011500	0.0021400	1.38	-3.56	6.57	1.16	-3.00	5.49	0.5910	0.7210
pm25avl05	19.6	0.0003760	0.0013170	0.74	-4.23	5.97	0.38	-2.18	3.00	0.78	10.9	0.0014810	0.0022800	1.63	-3.20	6.70	1.49	-2.94	6.13	0.5160	0.6770

Table 30 All Cardiovascular Ages 65+ Mortality: seasonal results for single day lags

Poll&Lag	Cent1090.c	Est.c	Se(Est.)c	%RR1090.c	LCL1090.c	UCL1090.c	%RR10.c	LCL10.c	UCL10.c	Pvalue.c	Cent1090.w	Est.w	Se(Est.)w	%RR1090.w	LCL1090.w	UCL1090.w	%RR10.w	LCL10.w	UCL10.w	Pvalue.w	Pvalue.c
no2mxl0	24.6	0.0013580	0.0006210	3.40	0.35	6.54	1.37	0.14	2.61	0.0291	31.7	0.0001810	0.0009340	0.58	-5.09	6.59	0.18	-1.64	2.03	0.8460	0.2880
no2mxl1	24.6	0.0007640	0.0006200	1.90	-1.10	4.99	0.77	-0.45	2.00	0.2180	31.7	0.0008930	0.0009160	2.87	-2.82	8.89	0.90	-0.90	2.72	0.3300	0.9070
no2mxl2	24.6	0.0008490	0.0006240	2.11	-0.92	5.23	0.85	-0.37	2.09	0.1740	31.7	0.0002030	0.0009310	0.65	-5.01	6.64	0.20	-1.61	2.05	0.8270	0.5630
no2mxl3	24.6	0.0001030	0.0006210	0.25	-2.70	3.30	0.10	-1.11	1.33	0.8690	31.7	-0.0000120	0.0008960	-0.04	-5.45	5.69	-0.01	-1.75	1.76	0.9890	0.9160
o3m8l0	26.1	0.0000130	0.0011010	0.03	-5.44	5.83	0.01	-2.12	2.20	0.9900	32.5	0.0010880	0.0009400	3.60	-2.43	9.99	1.09	-0.75	2.97	0.2480	0.4330
o3m8l1	26.1	-0.0008200	0.0011140	-2.12	-7.54	3.62	-0.82	-2.96	1.37	0.4620	32.5	0.0003460	0.0009650	1.13	-4.90	7.54	0.35	-1.53	2.26	0.7200	0.3960
o3m8l2	26.1	0.0002480	0.0011630	0.65	-5.17	6.82	0.25	-2.01	2.56	0.8310	32.5	0.0007900	0.0009770	2.60	-3.59	9.19	0.79	-1.12	2.74	0.4190	0.7020
o3m8l3	26.1	-0.0008670	0.0010980	-2.24	-7.58	3.41	-0.86	-2.97	1.29	0.4300	32.5	0.0011150	0.0009050	3.69	-2.12	9.84	1.12	-0.66	2.93	0.2180	0.1480
so2avl0	9.3	0.0002110	0.0018740	0.20	-3.17	3.68	0.21	-3.40	3.96	0.9100	8.6	-0.0023080	0.0031820	-1.97	-7.09	3.44	-2.28	-8.19	4.01	0.4680	0.4880
so2avl1	9.3	0.0010690	0.0018790	1.00	-2.40	4.52	1.07	-2.58	4.87	0.5700	8.6	-0.0015000	0.0032140	-1.28	-6.49	4.21	-1.49	-7.50	4.92	0.6410	0.4840
so2avl2	9.3	0.0000260	0.0018610	0.02	-3.31	3.48	0.03	-3.56	3.74	0.9890	8.6	-0.0042800	0.0032190	-3.61	-8.71	1.76	-4.19	-10.05	2.05	0.1840	0.2420
so2avl3	9.3	-0.0013790	0.0018720	-1.27	-4.59	2.15	-1.37	-4.92	2.32	0.4620	8.6	-0.0052350	0.0031920	-4.40	-9.41	0.88	-5.10	-10.86	1.03	0.1010	0.2920
so4avl0	7.1	-0.0038430	0.0028970	-2.69	-6.54	1.31	-3.77	-9.08	1.85	0.1850	5.5	0.0006870	0.0051590	0.38	-5.05	6.12	0.69	-8.99	11.40	0.8940	0.4430
so4avl1	7.1	-0.0024130	0.0029040	-1.70	-5.59	2.36	-2.38	-7.79	3.33	0.4060	5.5	0.0056190	0.0052340	3.14	-2.52	9.13	5.78	-4.53	17.21	0.2830	0.1790
so4avl2	7.1	0.0008380	0.0029110	0.60	-3.40	4.76	0.84	-4.75	6.76	0.7740	5.5	-0.0061470	0.0052590	3.44	-2.26	9.47	6.34	-4.07	17.89	0.2430	0.3780
so4avl3	7.1	-0.0009820	0.0028840	-0.69	-4.60	3.37	-0.98	-6.42	4.78	0.7340	5.5	0.0069390	0.0050940	3.89	-1.66	9.75	7.19	-3.00	18.44	0.1730	0.1760
com8l0	1.3	0.0209320	0.0106750	2.76	0.00	5.59	0.21	0.00	0.42	0.0503	0.5	0.0443110	0.0457580	2.24	-2.24	6.93	0.44	-0.45	1.35	0.3330	0.6180
com8l1	1.3	0.0195740	0.0107160	2.58	-0.19	5.42	0.20	-0.01	0.41	0.0681	0.5	0.0097510	0.0465890	0.49	-4.00	5.18	0.10	-0.81	1.02	0.8340	0.8370
com8l2	1.3	0.0050360	0.0110290	0.66	-2.13	3.53	0.05	-0.17	0.27	0.6480	0.5	-0.0381810	0.0471110	-1.89	-6.32	2.74	-0.38	-1.30	0.54	0.4180	0.3710
com8l3	1.3	0.0130400	0.0109870	1.71	-1.10	4.60	0.13	-0.08	0.35	0.2360	0.5	-0.0410330	0.0473590	-2.03	-6.47	2.62	-0.41	-1.33	0.52	0.3870	0.2660
pm10avl0	30.1	-0.0001340	0.0006850	-0.40	-4.35	3.70	-0.13	-1.47	1.22	0.8450	23.9	0.0003910	0.0012020	0.94	-4.59	6.79	0.39	-1.95	2.79	0.7450	0.7030

pm10av1	30.1	0.0005530	0.0006850	1.68	-2.35	5.87	0.56	-0.79	1.91	0.4190	23.9	0.0022440	0.0012110	5.51	-0.31	11.67	2.27	-0.13	4.72	0.0642	0.2240
pm10av2	30.1	-0.0002340	0.0006780	-0.70	-4.60	3.35	-0.23	-1.55	1.10	0.7310	23.9	-0.0003070	0.0012080	-0.73	-6.19	5.05	-0.31	-2.64	2.08	0.7990	0.9580
pm10av3	30.1	-0.0010940	0.0006730	-3.24	-7.01	0.68	-1.09	-2.38	0.23	0.1050	23.9	0.0002160	0.0011670	0.52	-4.83	6.17	0.22	-2.05	2.53	0.8530	0.3330
smkav0	24.0	0.0003090	0.0009390	0.75	-3.61	5.29	0.31	-1.52	2.17	0.7420	11.1	0.0030410	0.0026650	3.43	-2.39	9.61	3.09	-2.16	8.61	0.2540	0.3250
smkav1	24.0	0.0006680	0.0009400	1.62	-2.78	6.21	0.67	-1.17	2.54	0.4780	11.1	0.0025570	0.0026900	2.88	-2.97	9.08	2.59	-2.68	8.14	0.3420	0.4990
smkav2	24.0	0.0005270	0.0009490	1.27	-3.15	5.90	0.53	-1.33	2.42	0.5790	11.1	-0.0027470	0.0027170	-3.00	-8.57	2.90	-2.71	-7.75	2.61	0.3120	0.2460
smkav3	24.0	-0.0004810	0.0009460	-1.15	-5.45	3.35	-0.48	-2.31	1.38	0.6110	11.1	0.0019210	0.0026330	2.15	-3.53	8.18	1.94	-3.19	7.34	0.4660	0.3810
pfrav0	14.7	0.0003040	0.0012760	0.45	-3.18	4.21	0.30	-2.17	2.85	0.8120	6.6	0.0016090	0.0037230	1.07	-3.68	6.05	1.62	-5.53	9.31	0.6660	0.7390
pfrav1	14.7	0.0017280	0.0012710	2.57	-1.11	6.40	1.74	-0.76	4.31	0.1740	6.6	0.0054650	0.0037340	3.67	-1.22	8.80	5.62	-1.84	13.64	0.1440	0.3420
pfrav2	14.7	0.0007900	0.0012920	1.17	-2.53	5.00	0.79	-1.73	3.38	0.5410	6.6	-0.0033450	0.0038590	-2.18	-6.95	2.82	-3.29	-10.33	4.31	0.3860	0.3080
pfrav3	14.7	-0.0003330	0.0012910	-0.05	-3.70	3.74	-0.03	-2.53	2.53	0.9790	6.6	-0.0004230	0.0037660	-0.28	-5.02	4.70	-0.42	-7.51	7.21	0.9110	0.9220
sfrav0	17.2	-0.0016180	0.0012010	-2.75	-6.61	1.27	-1.61	-3.89	0.74	0.1780	13.3	0.0002790	0.0021400	0.37	-5.07	6.13	0.28	-3.84	4.57	0.8960	0.4390
sfrav1	17.2	-0.0009980	0.0012050	-1.70	-5.62	2.37	-0.99	-3.30	1.37	0.4080	13.3	0.0023200	0.0021720	3.13	-2.54	9.14	2.35	-1.92	6.80	0.2860	0.1810
sfrav2	17.2	0.0003750	0.0012090	0.65	-3.37	4.83	0.38	-1.97	2.78	0.7560	13.3	0.0026020	0.0021820	3.52	-2.20	9.58	2.64	-1.66	7.12	0.2330	0.3730
sfrav3	17.2	-0.0004090	0.0011970	-0.70	-4.63	3.39	-0.41	-2.72	1.96	0.7320	13.3	0.0028340	0.0021130	3.84	-1.72	9.72	2.87	-1.30	7.23	0.1800	0.1820
pmcoarse0	11.7	-0.002364	0.002810	-2.73	-8.80	3.75	-2.34	-7.57	3.19	0.400	11.9	0.001732	0.002224	2.08	-3.08	7.52	1.75	-2.59	6.28	0.436	0.249
pmcoarse1	11.7	-0.001932	0.002804	-2.23	-8.32	4.26	-1.91	-7.16	3.63	0.491	11.9	0.003736	0.002224	4.55	-0.74	10.11	3.81	-0.62	8.43	0.094	0.113
pmcoarse2	11.7	0.001683	0.002787	1.99	-4.33	8.72	1.70	-3.71	7.41	0.546	11.9	0.000725	0.002254	0.87	-4.30	6.31	0.73	-3.63	5.28	0.748	0.790
pmcoarse3	11.7	-0.006819	0.002814	-7.67	-13.44	-1.51	-6.59	-11.60	-1.30	0.016	11.9	-0.000112	0.002235	-0.13	-5.21	5.21	-0.11	-4.39	4.36	0.960	0.064
pm25av0	23.3	0.0005430	0.0009920	1.27	-3.21	5.97	0.54	-1.39	2.52	0.5840	15.7	0.0007750	0.0017400	1.22	-4.05	6.79	0.78	-2.60	4.28	0.6560	0.9080
pm25av1	23.3	0.0004120	0.0009920	0.96	-3.51	5.64	0.41	-1.52	2.38	0.6780	15.7	0.0030050	0.0017190	4.83	-0.57	10.52	3.05	-0.36	6.58	0.0808	0.1930
pm25av2	23.3	0.0005770	0.0009910	1.35	-3.13	6.05	0.58	-1.36	2.55	0.5610	15.7	0.0006250	0.0017510	0.99	-4.31	6.58	0.63	-2.77	4.14	0.7210	0.9810
pm25av3	23.3	-0.0007560	0.0010100	-1.75	-6.17	2.89	-0.75	-2.70	1.23	0.4550	15.7	0.0011180	0.0017550	1.77	-3.58	7.42	1.12	-2.29	4.66	0.5240	0.3570

Table 31 All Cardiovascular Ages 65+ Mortality: seasonal results for cumulative day lags

Poll&Lag	Cent1090.c	Est.c	Se(Est).c	%RR1090.c	LCL1090.c	UCL1090.c	%RR10.c	LCL10.c	UCL10.c	Pvalue.c	Cent1090.w	Est.w	Se(Est).w	%RR1090.w	LCL1090.w	UCL1090.w	%RR10.w	LCL10.w	UCL10.w	Pvalue.w	Pvalue.c
no2mxl01	22.3	0.0013910	0.0007120	3.15	-0.01	6.41	1.40	0.00	2.83	0.0510	28.4	0.0006650	0.0010290	1.91	-3.76	7.91	0.67	-1.34	2.72	0.5180	0.5570
no2mxl02	20.0	0.0016720	0.0008110	3.40	0.16	6.74	1.69	0.08	3.32	0.0397	27.2	0.0006290	0.0011230	1.73	-4.18	8.00	0.63	-1.56	2.87	0.5750	0.4480
no2mxl03	18.9	0.0016160	0.0009090	3.10	-0.31	6.63	1.63	-0.16	3.46	0.0757	25.2	0.0005340	0.0012000	1.36	-4.48	7.55	0.54	-1.80	2.93	0.6560	0.4710
o3m8l01	24.1	-0.0005050	0.0012390	-1.21	-6.82	4.74	-0.50	-2.89	1.94	0.6840	30.3	0.0009460	0.0010640	2.91	-3.39	9.62	0.95	-1.13	3.08	0.3740	0.3390
o3m8l02	22.6	-0.002930	0.0013800	-0.66	-6.55	5.60	-0.29	-2.95	2.44	0.8320	27.0	0.0011910	0.0011730	3.27	-2.95	9.88	1.20	-1.10	3.55	0.3100	0.3700
o3m8l03	20.7	-0.0006930	0.0014610	-1.42	-7.10	4.59	-0.69	-3.49	2.19	0.6350	27.5	0.0015600	0.0012330	4.38	-2.33	11.56	1.57	-0.85	4.06	0.2060	0.1970
so2av01	9.3	0.0008530	0.0021510	0.80	-3.08	4.83	0.86	-3.31	5.20	0.6920	7.6	-0.0024400	0.0036010	-1.84	-6.96	3.57	-2.41	-9.06	4.73	0.4980	0.4250
so2av02	8.5	0.0007300	0.0023940	0.62	-3.31	4.72	0.73	-3.88	5.57	0.7600	7.0	-0.0042400	0.0039770	-2.92	-8.08	2.52	-4.15	-11.34	3.62	0.2870	0.2770
so2av03	7.8	-0.0001170	0.0026080	-0.01	-3.92	4.05	-0.02	-5.00	5.23	0.9950	6.6	-0.0061920	0.0042840	-4.00	-9.18	1.47	-6.00	-13.58	2.23	0.1490	0.2120
so4av01	6.3	-0.0034510	0.0030590	-2.15	-5.78	1.62	-3.39	-9.01	2.58	0.2600	5.1	0.0040990	0.0056940	2.11	-3.54	8.09	4.18	-6.82	16.49	0.4720	0.2420
so4av02	5.8	-0.0021890	0.0031920	-1.26	-4.78	2.39	-2.16	-8.10	4.15	0.4930	4.7	0.0064500	0.0061140	3.08	-2.57	9.05	6.66	-5.38	20.24	0.2920	0.2100
so4av03	5.5	-0.0020650	0.0032960	-1.13	-4.58	2.45	-2.04	-8.17	4.49	0.5310	4.2	0.0087460	0.0064030	3.74	-1.59	9.36	9.14	-3.73	23.73	0.1720	0.1330
so4av04	5.4	-0.0019150	0.0033920	-1.03	-4.52	2.59	-1.90	-8.21	4.85	0.5730	3.7	0.0090930	0.0066900	3.42	-1.48	8.56	9.52	-3.94	24.87	0.1740	0.1420
so4av05	5.5	-0.0009500	0.0034520	-0.52	-4.15	3.25	-0.95	-7.42	5.99	0.7830	3.5	0.0118030	0.0069850	4.22	-0.66	9.33	12.53	-1.87	29.04	0.0915	0.1010
com8l01	1.1	0.0270080	0.0122890	3.02	0.32	5.78	0.27	0.03	0.51	0.0283	0.4	0.0387180	0.0518510	1.76	-2.79	6.52	0.39	-0.63	1.41	0.4550	0.8260
com8l02	1.0	0.0261380	0.0140400	2.73	-0.14	5.68	0.26	-0.01	0.54	0.0630	0.4	0.0122660	0.0577820	0.53	-4.25	5.55	0.12	-1.00	1.26	0.8320	0.8150
com8l03	1.0	0.0316980	0.0157510	3.38	0.09	6.79	0.32	0.01	0.63	0.0445	0.4	-0.0078490	0.0639490	-0.33	-5.50	5.12	-0.08	-1.32	1.18	0.9020	0.5470
pm10av01	28.2	0.0002730	0.0007670	0.77	-3.41	5.14	0.27	-1.22	1.79	0.7220	21.6	0.0016740	0.0013480	3.68	-2.07	9.77	1.69	-0.96	4.41	0.2140	0.3650
pm10av02	27.9	0.0000920	0.0008320	0.26	-4.20	4.92	0.09	-1.53	1.74	0.9120	20.9	0.0011890	0.0014670	2.52	-3.46	8.86	1.20	-1.67	4.15	0.4180	0.5150
pm10av03	25.8	-0.0004160	0.0008820	-1.07	-5.38	3.45	-0.41	-2.12	1.32	0.6370	20.1	0.0011370	0.0015540	2.31	-3.76	8.77	1.14	-1.89	4.27	0.4640	0.3860

pm10avl04	24.2	-0.0008040	0.0009290	-1.93	-6.16	2.49	-0.80	-2.59	1.02	0.3870	19.7	0.0011440	0.0016310	2.28	-3.96	8.93	1.15	-2.03	4.44	0.4830	0.3020
pm10avl05	23.2	-0.0008940	0.0009770	-2.05	-6.31	2.40	-0.89	-2.77	1.03	0.3610	18.5	0.0013040	0.0017110	2.44	-3.72	9.00	1.31	-2.03	4.77	0.4460	0.2680
smkavl01	19.7	0.0006420	0.0010770	1.27	-2.85	5.57	0.64	-1.46	2.79	0.5510	10.0	0.0038740	0.0031160	3.95	-2.21	10.50	3.95	-2.21	10.50	0.2140	0.3190
smkavl02	18.6	0.0008280	0.0012050	1.55	-2.81	6.11	0.83	-1.52	3.24	0.4920	8.7	0.0017130	0.0035310	1.50	-4.43	7.80	1.73	-5.07	9.02	0.6280	0.8100
smkavl03	17.3	0.0004960	0.0013200	0.86	-3.55	5.48	0.50	-2.07	3.13	0.7070	7.8	0.0026750	0.0038490	2.11	-3.73	8.30	2.71	-4.75	10.76	0.4870	0.5890
smkavl04	16.1	-0.0002140	0.0014210	-0.34	-4.71	4.23	-0.21	-2.95	2.60	0.8800	7.6	0.0021690	0.0041570	1.66	-4.44	8.16	2.19	-5.80	10.87	0.6020	0.5850
smkavl05	14.6	-0.0003500	0.0015190	-0.51	-4.74	3.91	-0.35	-3.27	2.66	0.8180	6.8	0.0035990	0.0044710	2.48	-3.45	8.77	3.66	-5.03	13.16	0.4210	0.4010
pfravl01	13.1	0.0014010	0.0014740	1.85	-1.93	5.78	1.41	-1.48	4.38	0.3420	5.9	0.0038560	0.0042250	2.30	-2.58	7.42	3.93	-4.33	12.90	0.3620	0.5820
pfravl02	12.1	0.0016260	0.0016400	1.99	-1.90	6.03	1.64	-1.57	4.96	0.3220	5.3	0.0015690	0.0047060	0.84	-3.98	5.89	1.58	-7.37	11.40	0.7390	0.9910
pfravl03	11.6	0.0013540	0.0017940	1.58	-2.48	5.81	1.36	-2.14	4.99	0.4510	4.9	0.0015380	0.0050920	0.76	-4.05	5.81	1.55	-8.10	12.21	0.7630	0.9730
pfravl04	11.2	0.0007130	0.0019280	0.80	-3.38	5.16	0.72	-3.02	4.59	0.7120	4.8	0.0015540	0.0054590	0.75	-4.29	6.06	1.57	-8.74	13.03	0.7760	0.8850
pfravl05	10.8	-0.0001630	0.0020430	-0.18	-4.40	4.24	-0.16	-4.08	3.92	0.9370	4.4	0.0024170	0.0057930	1.07	-3.86	6.25	2.45	-8.55	14.77	0.6770	0.6760
sfravl01	15.2	-0.0014370	0.0012690	-2.16	-5.79	1.61	-1.43	-3.85	1.06	0.2580	12.2	0.0016880	0.0023630	2.08	-3.53	8.01	1.70	-2.90	6.52	0.4750	0.2430
sfravl02	14.0	-0.0009210	0.0013240	-1.29	-4.82	2.38	-0.92	-3.45	1.69	0.4870	11.3	0.0026870	0.0025370	3.08	-2.55	9.04	2.72	-2.26	7.96	0.2900	0.2070
sfravl03	13.2	-0.0008720	0.0013670	-1.15	-4.58	2.41	-0.87	-3.49	1.82	0.5230	10.0	0.0036160	0.0026570	3.68	-1.58	9.22	3.68	-1.58	9.22	0.1740	0.1330
sfravl04	13.0	-0.0007430	0.0014340	-0.96	-4.51	2.72	-0.74	-3.49	2.09	0.6050	8.9	0.0049680	0.0028740	4.52	-0.59	9.89	5.09	-0.66	11.18	0.0843	0.0750
sfravl05	12.6	-0.0004160	0.0014780	-0.52	-4.09	3.18	-0.42	-3.26	2.51	0.7780	8.7	0.0053590	0.0030560	4.77	-0.55	10.38	5.51	-0.63	12.02	0.0799	0.0883
pmcoarse01	11.4	-0.003798	0.003278	-4.24	-11.00	3.04	-3.73	-9.72	2.66	0.247	11.1	0.004034	0.002676	4.58	-1.34	10.85	4.12	-1.20	9.72	0.132	0.065
pmcoarse02	10.5	-0.002463	0.003705	-2.55	-9.71	5.17	-2.43	-9.27	4.92	0.506	10.3	0.004473	0.003069	4.71	-1.58	11.41	4.57	-1.53	11.06	0.145	0.155
pmcoarse03	10.1	-0.006123	0.004052	-6.00	-13.24	1.85	-5.94	-13.12	1.84	0.131	9.7	0.003784	0.003406	3.74	-2.77	10.68	3.86	-2.85	11.03	0.267	0.068
pmcoarse04	9.9	-0.007900	0.004416	-7.52	-15.12	0.75	-7.60	-15.26	0.76	0.074	8.8	0.003238	0.003699	2.89	-3.47	9.67	3.29	-3.93	11.06	0.382	0.062
pmcoarse05	9.7	-0.008342	0.004741	-7.77	-15.72	0.93	-8.00	-16.17	0.95	0.079	8.0	0.004212	0.003916	3.43	-2.73	9.98	4.30	-3.40	12.62	0.282	0.051
pm25avl01	22.7	0.0004940	0.0010860	1.13	-3.64	6.13	0.49	-1.62	2.66	0.6490	15.3	0.0023240	0.0018880	3.62	-2.08	9.65	2.35	-1.37	6.21	0.2190	0.4020
pm25avl02	22.4	0.0007340	0.0011670	1.66	-3.42	7.00	0.74	-1.54	3.07	0.5300	13.5	0.0019510	0.0020360	2.67	-2.72	8.35	1.97	-2.02	6.12	0.3380	0.6060
pm25avl03	22.2	0.0002150	0.0012610	0.48	-4.89	6.15	0.22	-2.23	2.72	0.8640	12.8	0.0024760	0.0021820	3.22	-2.28	9.03	2.51	-1.79	6.99	0.2570	0.3730
pm25avl04	21.4	0.0006650	0.0013450	0.14	-5.35	5.95	0.07	-2.54	2.74	0.9610	11.9	0.0026760	0.0023190	3.24	-2.20	8.97	2.71	-1.85	7.49	0.2490	0.3340
pm25avl05	19.6	0.0001380	0.0014170	0.27	-5.04	5.88	0.14	-2.61	2.96	0.9230	10.9	0.0031830	0.0024680	3.53	-1.79	9.14	3.23	-1.64	8.35	0.1980	0.2880

Exposure-response relationships

Table 32 displays P-values for the approximate F-tests for inclusion in each core model a particulate measure as a loess term. The P-value is an indication of the likelihood that a non-linear relationship between mortality (adjusted for seasonality, calendar effects and meteorology) and pollution exists.

In each case the cumulative lag (0,1) i.e. mean of current and previous day was fitted as a loess smooth and the smoothing parameter adjusted to minimise (roughly) the approximate AIC. Only the all ages groups are considered.

Table 32 P-values for approximate F-tests for particulate measures entered into the core models as loess terms, with near-optimum (minimum AIC) smoothing parameter.

Pollutant	All Causes	All Cardiovascular	All Respiratory
PM ₁₀	0.001	0.001	0.002
PM _{2.5}	0.005	0.007	0.0005
PM _{2.5-10}	0.003	0.02	0.03
BS	0.002	0.00003	0.4
SO ₄	0.5	0.08	0.7
PFR	0.02	0.001	0.8
SFR	0.6	0.07	0.8

Figures 1.1 to 3.7 show the estimated exposure-response relationships corresponding to table 32.

The dose-response relationship is estimated point-by-point and has one-standard error upper and lower pointwise confidence limits plotted either side. It is seen how higher values of the pollutant are sparse and so the estimation is based on very few points (denoted clearly by the “rug” of vertical tick-marks at the foot of each plot). The median value of the pollutant is indicated by the dotted vertical bar. The curve should be interpreted for its overall shape and not on a point-by-point basis.

Figure 1.1 All Causes All Ages: PM₁₀

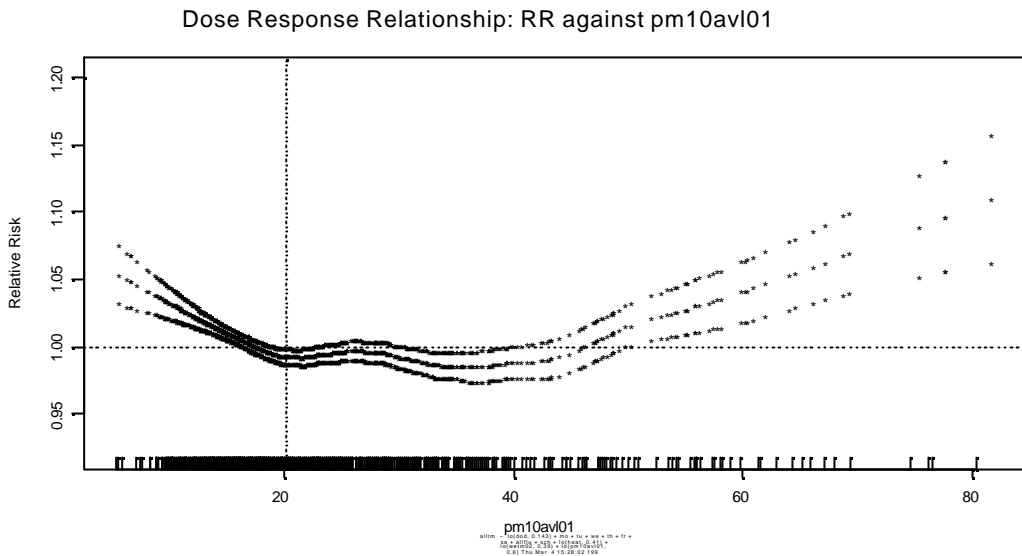


Figure 1.2 All Causes All Ages: PM_{2.5}

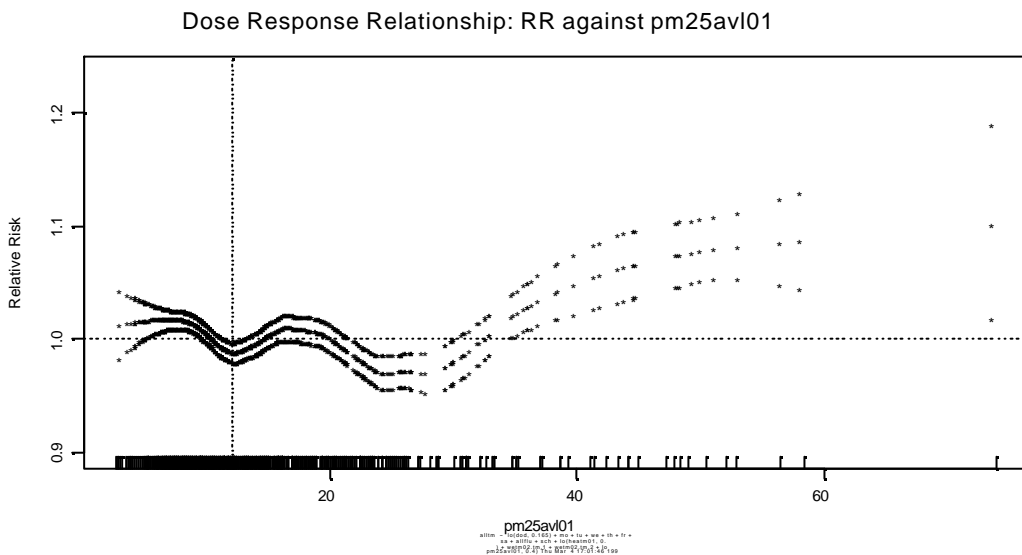


Figure 1.3 All Causes All Ages: PM_{2.5-10}

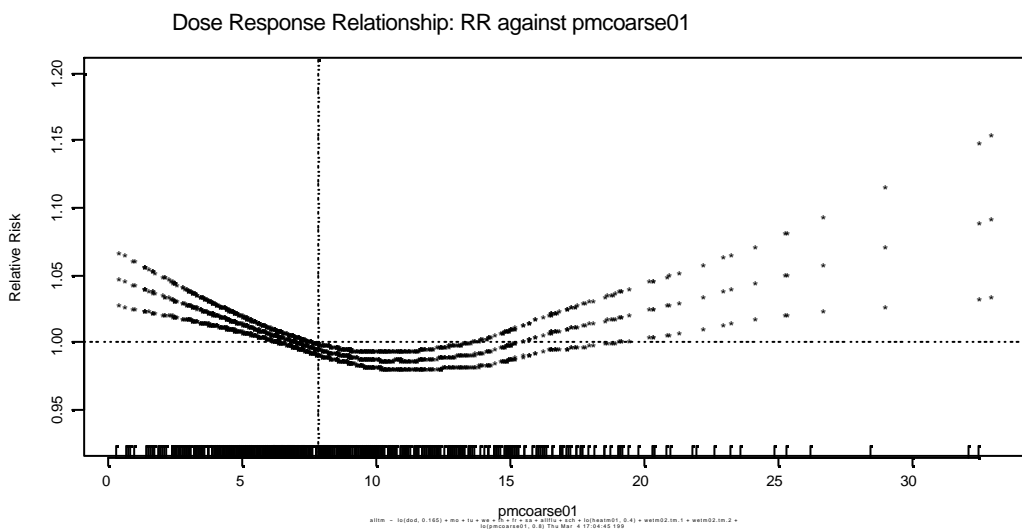


Figure 1.7 All Causes All Ages: Secondary Fraction

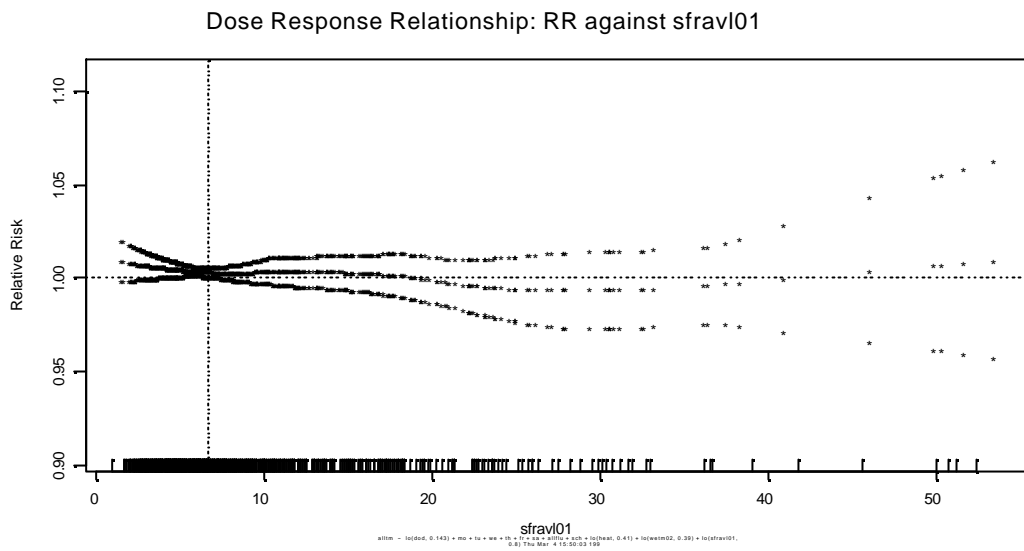


Figure 2.1 All Cardiovascular All Ages: PM₁₀

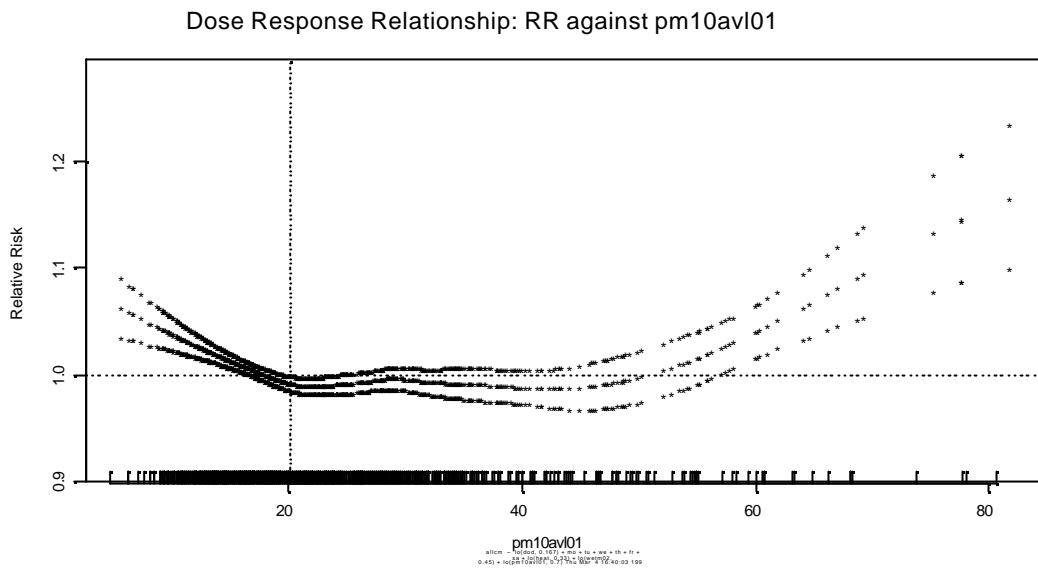


Figure 2.2 All Cardiovascular All Ages: PM_{2.5}

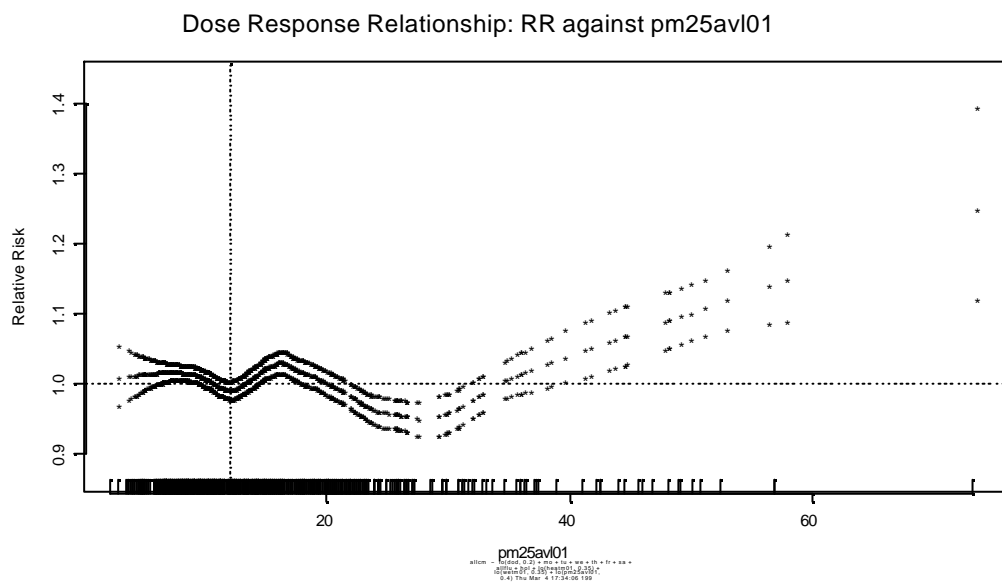


Figure 2.3 All Cardiovascular All Ages: PM_{2.5-10}

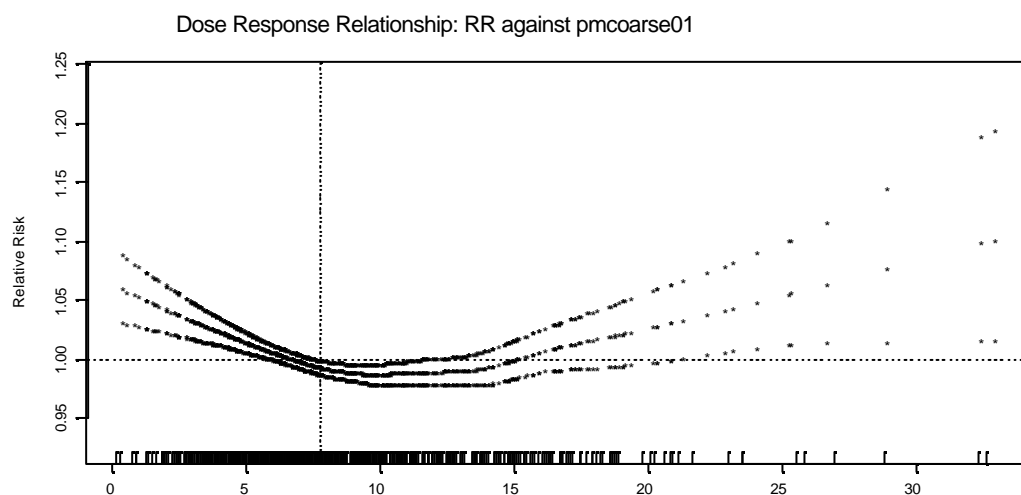


Figure 2.4 All Cardiovascular All Ages: Black Smoke

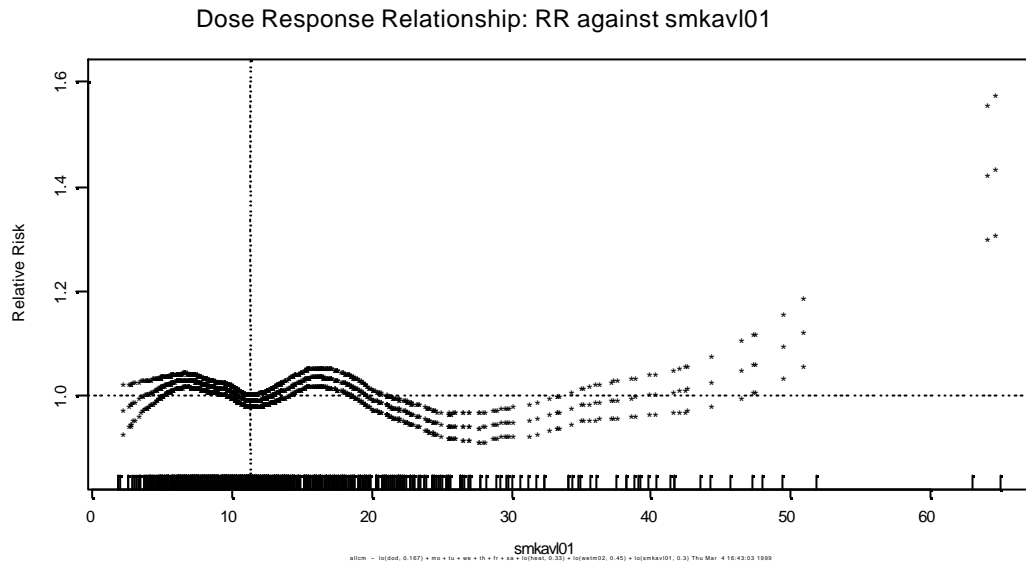


Figure 2.5 All Cardiovascular All Ages: SO₄

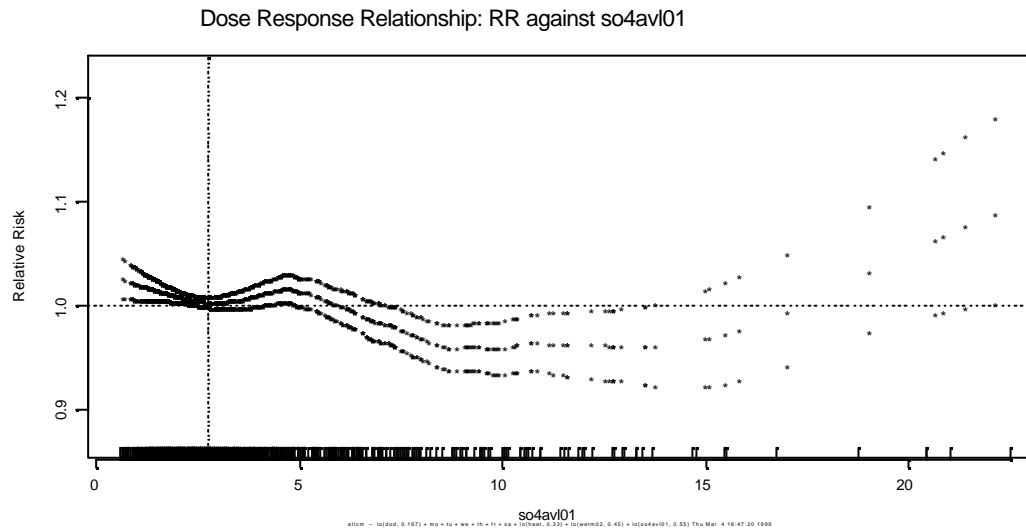


Figure 2.6 All Cardiovascular All Ages: Primary Fraction

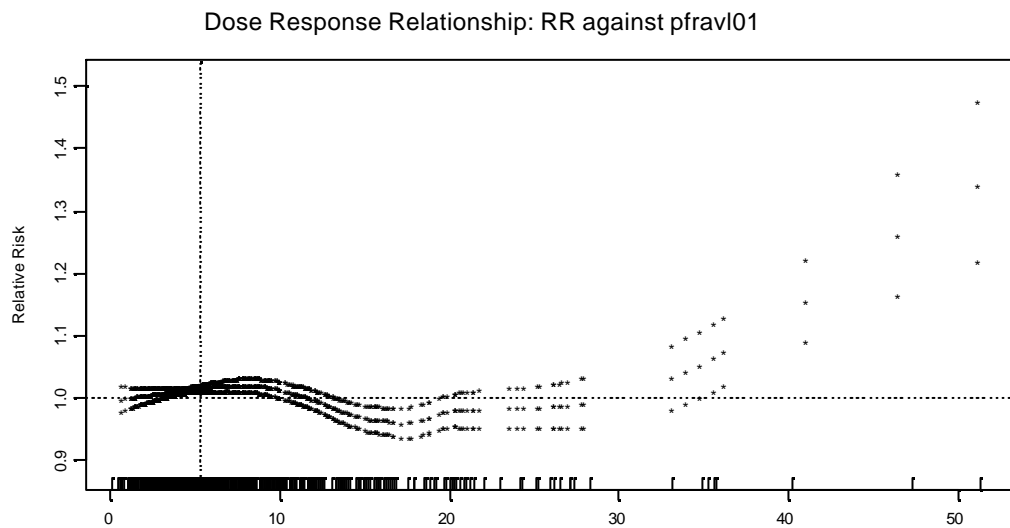


Figure 2.7 All Cardiovascular All Ages: Secondary Fraction

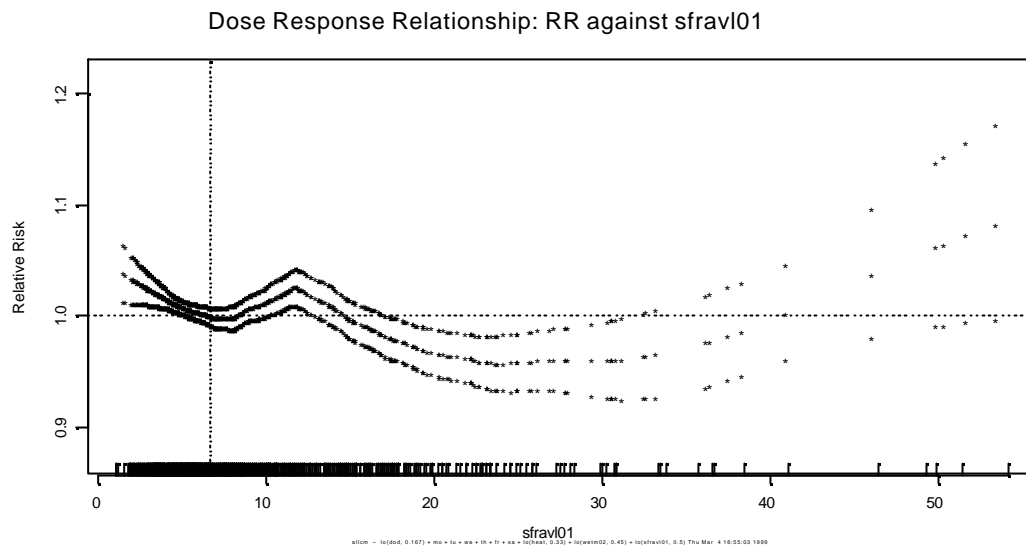


Figure 3.1 All Respiratory All Ages: PM₁₀

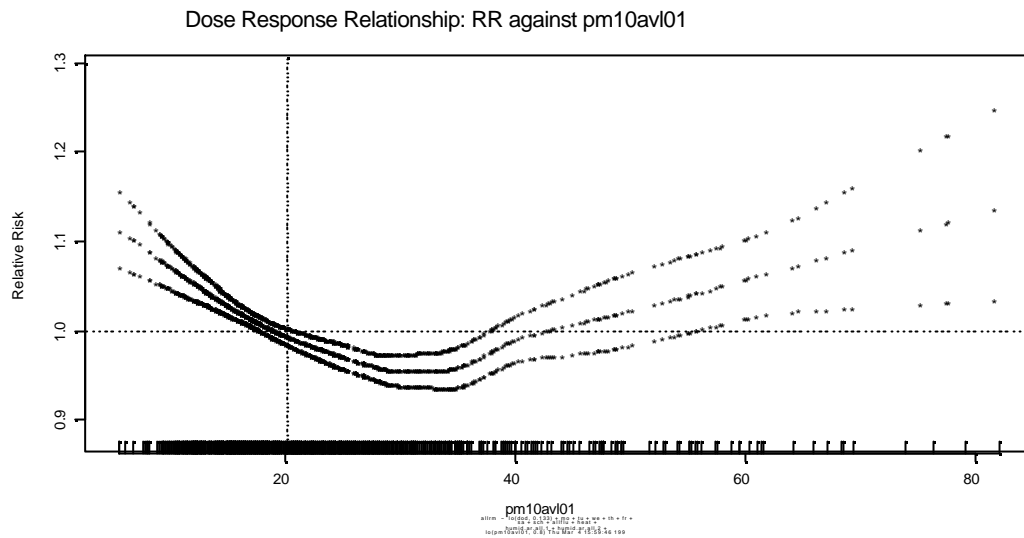


Figure 3.2 All Respiratory All Ages: PM_{2.5}

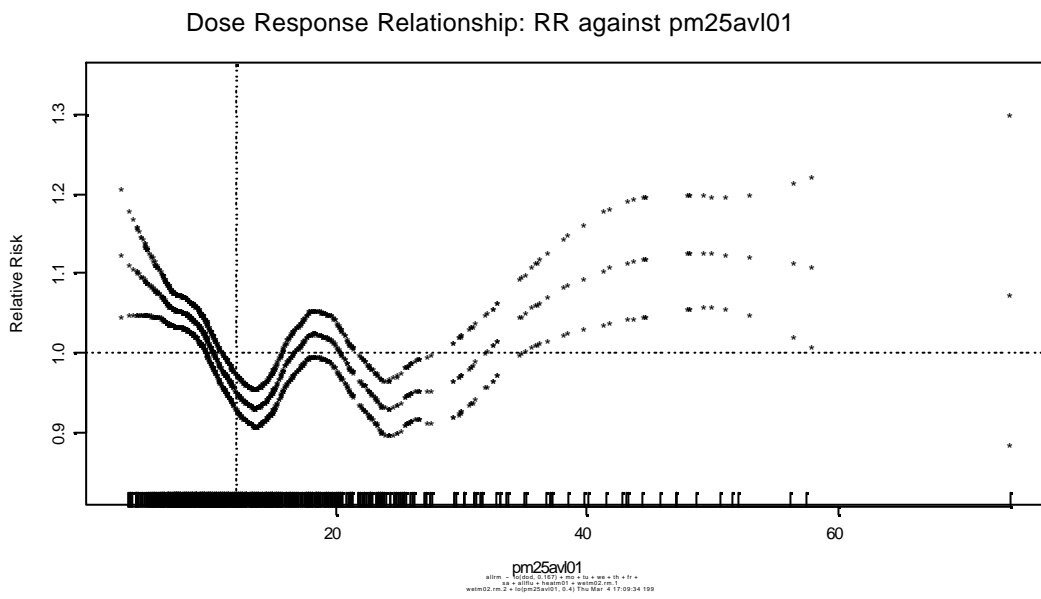


Figure 3.3 All Respiratory All Ages: PM_{2.5-10}

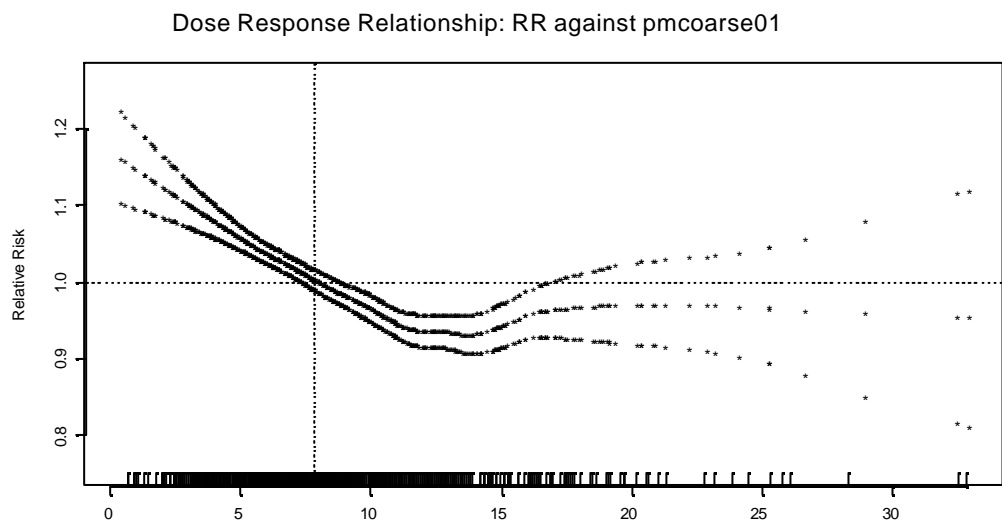


Figure 3.4 All Respiratory All Ages: Black Smoke

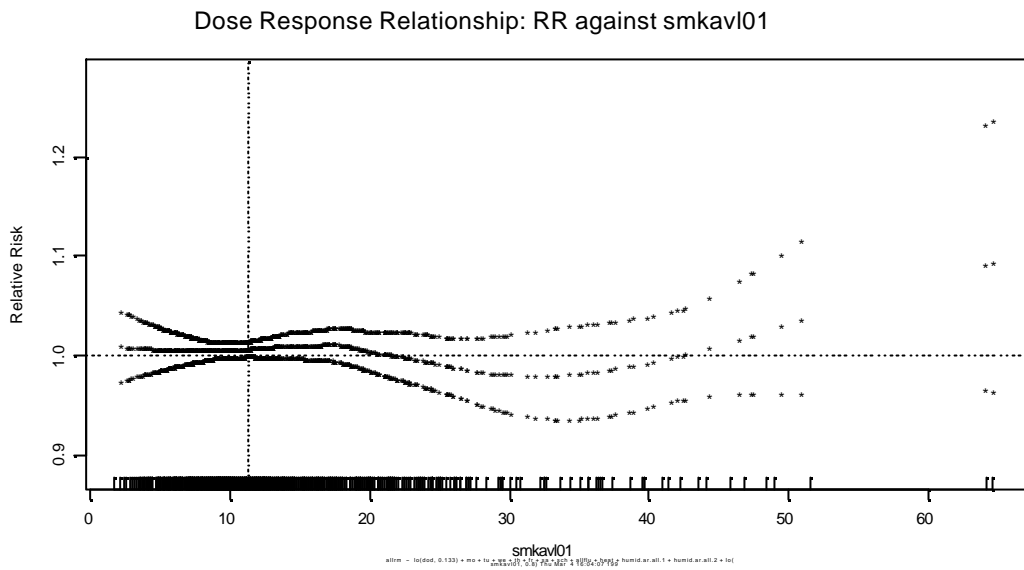


Figure 3.5 All Respiratory All Ages: SO₄

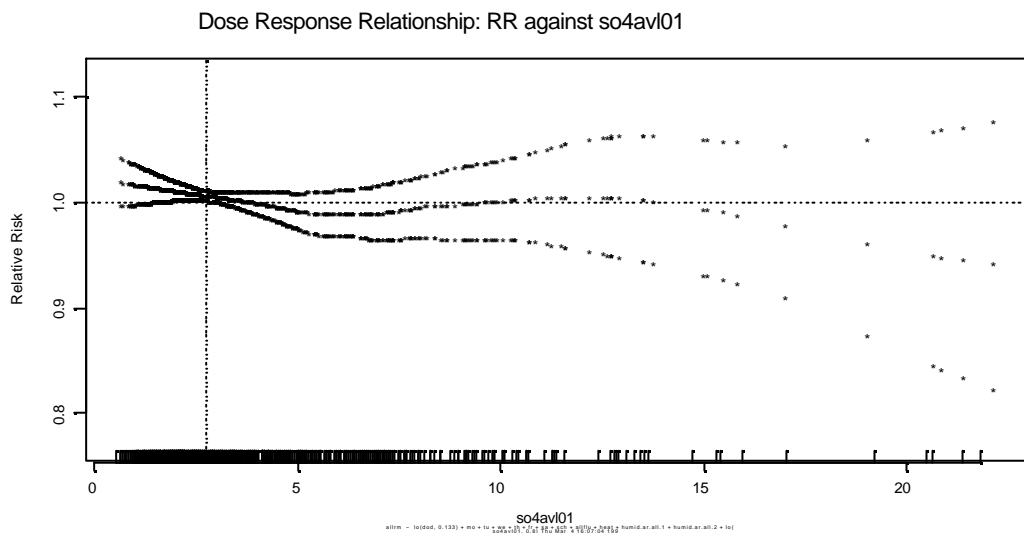


Figure 3.6 All Respiratory All Ages: Primary Fraction

