

Supplemental Material

**Global variation in the effects of ambient temperature on
mortality: a systematic evaluation**

Data Collection

Australia data

We collected data on daily non-accidental deaths in urban area of Melbourne, Sydney and Brisbane between 1988 and December 2009 from the Australian Bureau of Statistics. Daily data on weather conditions were obtained from the Australian Bureau of Meteorology. The monitoring stations were located at the cities' urban area.

Brazil

Data on daily deaths for non-external causes only (ICD-10 codes: A00-R99) in 18 cities (see full list in Table S1 below) between 1st of January 1997 and 31st of December 2011 were collected from Ministry of Health, Brazil. Data on mean daily temperature (computed as the 24-hours average based on hourly measurements) and relative humidity were obtained during the same study period from Weather Meteorological Service of Brazil.

Thailand data

We obtained daily data on non-accidental deaths from the Ministry of Public Health, Thailand for 62 provinces during 1999–2008. The daily weather data were obtained from the Meteorological Department, Ministry of Information and Communication Technology. There were 117 weather stations in 62 provinces, with at least one weather monitoring station in each province.

China data

We obtained daily data from 6 cities (Beijing, Tianjin, Shanghai, Wuhan, Guangzhou, and Hongkong) in China. Daily data on non-accidental mortality in urban areas of Beijing, Tianjin, Shanghai, and Guangzhou were obtained from the China Information System for Death Register and Report of Chinese Centre for Disease Control and Prevention (China CDC) from 2004 to 2008, and we only collected one urban district's data for Wuhan city. For

Beijing, Tianjin, Shanghai, Wuhan and Guangzhou, daily weather data were obtained from the China Meteorological Data Sharing Service System for each city.

For Hongkong data, daily non-accidental mortality data were obtained from the Hong Kong Census and Statistics Department during 2002–2011. Daily temperatures and relative humidity data were obtained from the Hong Kong Observatory for the same period.

Taiwan

Data on daily deaths for non-external causes (ICD-9 codes: 1-799; ICD-10 codes: A00-R99) in Kaohsiung, Taipei and Taichung between 1st of January 1994 and 31st of December 2007 were collected. Data on mean daily temperature (computed as the 24-hours average based on hourly measurements) and relative humidity were obtained for the same study period.

Japan

Data on daily deaths for non-external causes only (ICD-9 codes: 1-799; ICD-10 codes: A00-R99) in 7 cities (see full list in Table S1 below) between 1st of January 1972 and 31st of December 2009 were collected. Data on mean daily temperature (computed as the 24-hours average based on hourly measurements) and relative humidity were obtained for the same study period.

South Korea

Data on daily deaths for non-external causes only (ICD-9 codes: 1-799; ICD-10 codes: A00-R99) in 7 cities (see full list in Table S2 below) between 1st of January 1992 and 31st of December 2010 were collected. Data on mean daily temperature (computed as the 24-hours average based on hourly measurements) and relative humidity were obtained for the same study period.

Italy data

We obtained daily data on mortality from all causes among the resident population dying within the city for Palermo, Bari, Latina, Frosinone, Roma, Viterbo, Bologna and Brescia;

no-accidental causes were collected for Genova and Torino. Data were extracted from local mortality registries and from the rapid mortality surveillance system operational since 2004 [1]. Meteorological data referring to the airport station located closest to the city centre were obtained from the Meteorological Service of the Italian Air Force.

Spain data

We obtained daily data on non-accidental causes for the 51 capital cities from the Spain National Institute of Statistics for summer months (from 1st June to 30th September) from 1990 to 2010. Daily minimum, mean and maximum temperatures for the 51 capital cities were collected from the Spain National Meteorology Agency for the same study period [2]. We did not get the data on relative humidity, because it is not available.

UK data

We obtained daily data on non-accidental mortality from the Office of National Statistics during 1993–2006. Records include the date of death and postcode of residence at time of death. The postcodes were used to divide deaths into 10 government regions and date to make daily series of counts for each region. The daily weather data were downloaded from the British Atmospheric Data Centre. There was a mean of 29 stations contributing data to each regional series, from a minimum of 7 in London to a maximum of 44 in Wales [3-5].

USA data

The USA data were obtained from the publicly available National Morbidity and Mortality Air Pollution Study (NMMAPS) during January 1987–December 2000 [6, 7]. This dataset included daily climatic conditions, and mortality in 108 cities in the United States. Daily mortality was obtained from the National Center for Health Statistics. The pollution data were obtained from the US national air monitoring network provided by the USA Environmental Protection Agency's Aerometric Information Retrieval System database. The weather data came from the National Climatic Data Center.

Canada data

We obtained daily data on non-accidental mortality from Statistics Canada through access to the Canadian Mortality Database for the period of 1986 to 2009 for 21 census metropolitan areas (CMA). Daily meteorological data were obtained from Environment Canada using the airport monitoring station located closest to the CMA centre. Daily averages of temperature and relative humidity were computed based on hourly measurements.

eTable 1: Summary distribution for daily deaths and mean temperature in 306 communities, ordered by latitude within each country.

NO.	Community	Death		Mean temperature (°C)						
		Mean	SD	1%	10%	75%	90%	99%	Mean	SD
1	Melbourne, Australia	58	9.3	7.7	10.2	18.6	22.4	29	15.7	4.8
2	Sydney, Australia	69	12.8	10.4	12.8	21.6	23.7	27.2	18.3	4.2
3	Brisbane, Australia	25	7.1	11.6	14.9	23.5	25.3	27.7	20.3	4
4	Porto Alegre, Brazil	39	7.5	8.1	13.1	23.5	25.6	28.4	19.7	4.8
5	Curitiba, Brazil	28	6.1	8.1	12.4	20.7	22.5	24.7	17.7	3.9
6	Sap Paulo, Brazil	178	25.1	12	15.7	22.9	24.5	26.9	20.3	3.4
7	Vitoria, Brazil	9	3.2	19.2	21.6	26.8	27.9	29.2	24.8	2.4
8	Belo Horizonte, Brazil	88	18.6	16	18.7	23.8	25.2	27.3	22	2.5
9	Goiania, Brazil	25	6.4	19.3	22.1	25.8	27	29.2	24.5	2
10	Brasilia, Brazil	21	5.1	17	19	22.5	23.8	25.9	21.3	1.9
11	Cuiaba, Brazil	9	3.3	17.1	23.1	28.1	29.3	31.3	26.4	2.7
12	Salvador, Brazil	41	7.2	22.3	23.5	26.9	27.6	28.6	25.6	1.6
13	Maceio, Brazil	17	4.7	22.1	23.3	26.2	27	27.9	25.2	1.4
14	Recife, Brazil	48	7.9	22.9	24.1	27.1	27.7	28.7	26	1.4
15	Joao Pessoa, Brazil	14	6.6	23.8	25	28	28.5	29.4	27	1.3
16	Natal, Brazil	15	4.3	8.1	13.1	23.5	25.6	28.4	19.7	4.8
17	Teresina, Brazil	12	4.5	24.4	25.5	28.6	29.8	31	27.4	1.6
18	Fortaleza, Brazil	37	8.2	24.6	25.8	27.7	28.1	28.8	27	0.9
19	Manaus, Brazil	18	4.8	23.9	25.3	28.2	29.2	31.1	27.2	1.5
20	Sao Luis, Brazil	15	4.8	24.4	25.7	27.6	28	28.7	26.9	0.9
21	Belem, Brazil	24	5.9	24.6	25.7	27.5	28	28.7	26.9	0.9
22	Narathiwat, Thailand	4	2.3	21.8	25.3	29	29.8	31.1	27.7	1.9
23	Yala, Thailand	3	1.8	25.3	26.3	28.3	28.7	29.7	27.6	1
24	Pattani, Thailand	3	2.1	24.5	26.1	28.6	29.3	30.6	27.8	1.3
25	Songkhla, Thailand	9	3.2	24.7	26.5	28.8	29.4	30.2	27.9	1.2
26	Trang, Thailand	4	2	24.2	26.5	29.8	30.7	32	28.7	1.7
27	Krabi, Thailand	2	1.5	24.9	26.2	28.6	29.4	30.7	27.8	1.2
28	Nakhon si thammarat, Thailand	11	3.6	24.3	25.7	28.2	28.8	29.5	27.3	1.2
29	Surat thani, Thailand	6	2.8	19.4	23.2	29.2	30.4	32.8	27.3	2.9
30	Chumphon, Thailand	3	1.8	23.2	26.2	29.8	30.8	32.4	28.6	1.9
31	Prachuap khiri khan, Thailand	4	2	24.2	26	28.9	29.5	30.6	27.9	1.4
32	Chanthaburi, Thailand	6	2.6	23.4	25.4	28.4	29.1	30.1	27.3	1.5
33	Rayong, Thailand	5	2.3	18.9	22.3	27.3	28.6	30.9	25.8	2.5
34	Phetchaburi, Thailand	4	2.1	25.1	26.6	28.6	29.2	30.4	28	1.1
35	Chon buri, Thailand	13	4	24.1	26.6	29.3	30	31	28.4	1.4
36	Samutprakan, Thailand	8	3.2	23.7	26.4	29.4	30	31	28.3	1.5
37	Ratchaburi, Thailand	8	3.1	19	22.7	28.6	29.8	32.3	26.8	2.8
38	Samut sakhon, Thailand	4	2.1	23	25.7	29.4	30.1	31.2	28.2	1.8
39	Chachoengsao, Thailand	5	2.5	17.6	21.8	28.3	29.3	31.1	26.1	3
40	Bangkok, Thailand	66	10.9	24.1	27.1	30.3	31.2	32.6	29.3	1.7

41	Sa kaeo, Thailand	4	2	22.8	25.3	28.8	29.6	30.8	27.7	1.7
42	Nonthaburi, Thailand	8	3.1	21.1	24.7	29.3	30.4	32.5	27.8	2.3
43	Nakhon pathom, Thailand	7	2.8	21.1	24.6	29.5	30.5	32.6	27.9	2.4
44	Pathum thani, Thailand	6	2.9	18.6	22.4	29	30.3	32.7	27	3.1
45	Kanchanaburi, Thailand	6	2.6	21.8	25.1	29.9	30.9	32.5	28.4	2.3
46	Prachin buri, Thailand	4	2.1	25.6	27	29.1	29.8	30.9	28.4	1.1
47	Ayutthaya, Thailand	7	2.9	22.2	25.4	29.7	30.7	32.5	28.4	2.1
48	Suphanburi, Thailand	7	2.9	22.1	25.2	29.4	30.4	31.9	28.1	2.1
49	Saraburi, Thailand	6	2.8	20.9	24.6	29.4	30.4	32.5	27.9	2.4
50	Lop buri, Thailand	8	3	24.4	25.7	28.2	28.8	29.8	27.3	1.2
51	Surin, Thailand	8	3.3	20	23.4	29.2	30.4	32.3	27.5	2.7
52	Nakhon ratchasima, Thailand	20	5.7	20	23.5	28.8	29.6	31.2	27.1	2.4
53	Buri ram, Thailand	9	3.1	19.4	22.6	28.7	29.7	31.4	26.9	2.7
54	Si sa ket, Thailand	10	3.5	19.9	23.1	29	30.3	32.2	27.3	2.7
55	Ubon ratchathani, Thailand	13	4.5	20.5	23.9	29.1	30.4	32.6	27.5	2.5
56	Nakhon sawan, Thailand	10	3.6	22.1	25.6	29.8	31.1	33.2	28.5	2.2
57	Yasothon, Thailand	4	2.1	17.3	21	28.1	29.1	31.4	25.8	3.2
58	Chaoyaphum, Thailand	8	3	20.5	24.2	29.3	30.5	32.7	27.8	2.5
59	Amnat charoen, Thailand	3	1.8	24.5	26	28.3	29	30	27.5	1.2
60	Roi et, Thailand	11	3.5	19.1	22.8	29	30.3	32.4	27.1	2.9
61	Maha sarakham, Thailand	7	2.8	23.3	26.5	30	30.9	32.2	28.8	1.8
62	Phetchabun, Thailand	7	3	24.5	25.6	27.9	28.6	29.3	27.1	1.1
63	Kalasin, Thailand	8	3.1	19.7	23.5	29.6	30.7	33	27.7	2.8
64	Khon kaen, Thailand	16	4.7	19.3	23.1	28.9	30.2	32.8	27.2	2.8
65	Phichit, Thailand	4	2.2	23	25.8	28.8	29.6	31.1	27.8	1.6
66	Mukdahan, Thailand	2	1.5	24.7	26	28.6	29.4	30.9	27.8	1.3
67	Kamphaeng phet, Thailand	4	2.1	17.7	21.6	28.4	29.7	32	26.4	3.1
68	Phitsanulok, Thailand	9	3.2	22.6	25.7	29.5	30.4	31.8	28.3	1.9
69	Tak, Thailand	3	1.9	24.8	26.4	28.8	29.5	30.4	28	1.2
70	Sukhothai, Thailand	5	2.5	22.3	25.5	29.6	30.7	32.5	28.3	2.1
71	Sakon nakhon, Thailand	9	3.1	17.6	21.6	28.5	29.8	32.6	26.5	3.2
72	Nong bua lam phu, Thailand	3	2	21.4	24.8	29.7	30.9	32.8	28.1	2.4
73	Nakhon phanom, Thailand	4	2.3	24.3	26.2	28.7	29.2	30.1	27.8	1.2
74	Udon Thani, Thailand	12	3.8	18.5	22.5	29.2	30.5	33	27.1	3.1
75	Uttaradit, Thailand	5	2.5	19	22.8	29.2	30.7	33.2	27.3	3
76	Nong khai, Thailand	6	2.4	20.9	24.5	29.5	30.4	32	27.9	2.4
77	Phrae, Thailand	6	2.6	21.8	25.2	29.5	30.4	31.9	28.1	2.1
78	Lampang, Thailand	10	3.5	21.6	24.9	29.3	30.4	32.6	28	2.3
79	Lamphun, Thailand	4	2.3	18.8	22.1	27.9	29.1	32	26.2	2.8
80	Nan, Thailand	5	2.4	19	22.2	28.6	29.8	32.6	26.6	2.9
81	Chiang mai, Thailand	21	5.4	19.5	22.4	28.1	29.1	31.1	26.3	2.6
82	Phayao, Thailand	7	3	19.5	23.1	29	30.2	32.7	27.2	2.8
83	Chiang rai, Thailand	14	4.8	16.9	20.5	27.4	28.3	29.7	25.1	3.1
84	Hong Kong, China	101	16.6	11.3	16.1	27.8	29.4	30.5	23.4	5.1
85	Guangzhou, China	29	6.7	8.7	13.8	28	30.1	32	23.1	6.1
86	Wuhan, China	12	4	-0.7	4.6	26.1	29.8	33.1	18.2	9.4

87	Shanghai, China	67	12.7	0.5	4.9	25.4	29.7	32.4	17.8	9.1
88	Tianjin, China	56	13.9	-6.6	-2.7	23.9	26.9	30.3	13.3	11.3
89	Beijing, China	44	9.1	-6.2	-2	23.6	26.8	29.9	13.6	10.9
90	Kaohsiung, Taiwan	37	7.7	15.4	19.6	28.3	29.4	30.7	25.2	3.8
91	Taipei, Taiwan	70	12.1	11.4	15.8	27.7	29.8	31.5	23.2	5.3
92	Taichung, Taiwan	28	6.5	12.3	16.8	27.6	29	30.4	23.6	4.7
93	Gwangju, Korea	14	4.1	-3.5	1.2	22.3	25.9	29.1	14.1	9.3
94	Busan, Korea	43	8.1	-1.7	3.8	21.3	25.1	28.7	14.9	8
95	Ulsan, Korea	9	3.3	-2.4	2.8	21.6	25.5	29.3	14.5	8.5
96	Daegu, Korea	26	6.2	-3.5	1.6	22.4	26.4	30.4	14.4	9.3
97	Daejeon, Korea	13	4.1	-5.8	-0.6	21.8	25.3	28.8	13	9.8
98	Incheon, Korea	24	6.3	-7	-0.9	21.2	24.6	28.1	12.5	9.7
99	Seoul, Korea	91	12.3	-7.8	-1.3	21.9	25.3	29	12.8	10.1
100	Fukuoka, Japan	17	5.9	2.4	6.4	23.3	27.6	30.4	16.8	7.8
101	Kitakyushu, Japan	19	5.8	2.4	6.4	23.3	27.6	30.4	16.8	7.8
102	Osaka, Japan	52	13.5	2.4	5.7	23.9	28.2	30.7	16.8	8.3
103	Nagoya, Japan	34	9.4	0.7	4.3	22.9	27	30.2	15.7	8.4
104	Tokyo, Japan	135	28.3	2.5	5.8	22.5	27	30	16.2	7.8
105	Sendai, Japan	11	4.9	-2.2	1.4	19	23.4	27.7	12.3	8.2
106	Sapporo, Japan	22	8.8	-8.3	-3.9	17.2	21	25.7	8.8	9.5
107	Palermo, Italy	15	4.7	7.1	10.8	23.6	26.8	31.1	18.4	6.2
108	Bari, Italy	7	2.8	3.3	7.1	21.8	25.3	29.5	15.9	6.9
109	Latina, Italy	2	1.4	3.7	7.5	21.9	25.4	29.5	16.1	6.7
110	Frosinone, Italy	1	0.9	1.6	5.7	21.5	25.5	29.4	15.2	7.4
111	Roma, Italy	60	10.8	2.3	6.4	21.4	25.1	28.4	15.5	6.9
112	Viterbo, Italy	1	1.2	0.7	4.9	20.5	24.6	29.2	14.4	7.4
113	Genova, Italy	22	5.5	3.9	8.4	21.8	24.6	27.6	16.4	6.2
114	Bologna, Italy	12	3.9	-1.3	3.3	22	26.3	30.2	14.7	8.6
115	Torino, Italy	21	5.4	-2.5	2	18.8	22.9	26.2	12.2	7.8
116	Brescia, Italy	5	2.4	-2.1	2.2	21	24.7	28.2	13.4	8.5
117	Palmas G. Canaria, Spain	11	3.7	15.9	17.7	23.5	24.8	27.4	21.3	2.8
118	Tenerife, Spain	7	2.9	16.2	17.8	24	25.6	28.4	21.6	3
119	Melilla, Spain	1	1.2	10.3	13.1	23.2	25.7	29	19	4.8
120	Ceuta, Spain	1	1.1	9.7	13.2	22.6	24.8	28.5	18.7	4.6
121	Cádiz, Spain	5	2.5	9.4	12.7	22.4	25	29	18.6	4.7
122	Málaga, Spain	15	4.5	8.8	11.9	23.3	26	30.2	18.7	5.4
123	Almería, Spain	5	2.5	10	12.6	23.7	26.7	30.5	19.1	5.4
124	Granada, Spain	10	3.6	2.9	6.8	22.1	26.2	29.8	15.7	7.3
125	Huelva, Spain	6	2.6	7.4	11	22.9	26	30.1	18.2	5.7
126	Sevilla, Spain	23	5.9	7.2	11.1	25.2	28.7	32.4	19.5	6.6
127	Jaén, Spain	5	2.3	3.9	8.1	23	27.6	31.8	17	7.3
128	Córdoba, Spain	9	3.5	5.5	9.4	24.5	28.2	31.8	18.3	7.1
129	Murcia, Spain	10	3.5	10.3	13.1	23.2	25.7	29	19	4.8
130	Alicante, Spain	7	2.7	7.7	11.1	23.4	26.1	28.3	18.4	5.6
131	Badajoz, Spain	5	2.4	4.5	8.4	22.9	26.5	30.7	17.2	6.8
132	Albacete, Spain	4	2.3	0.6	5	21.2	25.3	28.4	14.4	7.6

133	Ciudad Real, Spain	3	1.8	1.7	6	22.6	27.1	30.6	15.8	7.9
134	Cáceres, Spain	5	4.2	3.5	7.6	22.4	26.8	31.3	16.4	7.2
135	Valencia, Spain	28	6.6	7.4	11.1	23.5	26.2	28.7	18.5	5.7
136	Palma Mallorca, Spain	11	3.6	5.6	8.9	22.1	25.2	28.2	16.7	6.1
137	Toledo, Spain	4	2.3	1.8	6.1	22.6	27.2	30.8	15.9	7.8
138	Castellón, Spain	5	2.5	6.6	10.2	23	25.9	28.3	17.8	5.9
139	Cuenca, Spain	2	1.5	-0.1	4.2	19.6	24	27.8	13.3	7.4
140	Teruel, Spain	2	1.3	-2.1	3.1	18.4	22.5	25.6	12.2	7.3
141	Madrid, Spain	75	13.4	2	6	21.6	26	29.8	15.2	7.5
142	Guadalajara, Spain	3	1.7	0	4.3	19.5	23.7	27.2	13.3	7.2
143	Avila, Spain	3	1.7	-2.6	2.4	17.1	21.4	25.6	11.2	7.1
144	Salamanca, Spain	6	2.5	-1.1	3.4	18	22	25.7	12.3	6.9
145	Segovia, Spain	2	1.5	-1.8	3.3	18.3	22.8	27.5	12.4	7.3
146	Tarragona, Spain	3	1.9	5.2	9.6	23.4	26.8	29.3	17.9	6.4
147	Barcelona, Spain	48	9.6	4.8	8.8	21.4	24.7	27.6	16.3	6
148	Zamora, Spain	3	1.7	-0.6	4.2	19.1	23.2	27.5	13.3	7.1
149	Lleida, Spain	5	2.4	-0.5	5.2	21.6	25.6	28.8	15.2	7.6
150	Valladolid, Spain	9	3.3	-0.7	3.7	18.8	23	27.2	12.9	7.2
151	Zaragoza, Spain	19	5.1	0.8	6.1	21.8	26	29.8	15.7	7.4
152	Soria, Spain	2	1.3	-2.1	2.7	16.9	21.1	24.8	11.2	6.9
153	Girona, Spain	4	2.1	2.5	6.5	20.2	23.8	27.2	14.8	6.5
154	Huesca, Spain	2	1.5	-0.5	4.8	20.2	24.6	28.8	14.1	7.4
155	Burgos, Spain	5	2.4	-2.1	2.5	16.4	20.4	24.6	10.9	6.7
156	Ourense, Spain	5	2.4	2.8	7.2	19.9	23.4	27.3	15.1	6.1
157	Pontevedra, Spain	4	2.1	5.1	8.8	18.4	21	25.4	14.8	4.7
158	Logroño, Spain	4	2.2	0.6	5.4	19.5	23.6	27.8	14	6.9
159	León, Spain	6	2.6	-1.6	2.7	16.5	20.5	25	11.1	6.7
160	Pamplona, Spain	7	2.9	-0.4	4.6	18.3	22.2	27.2	13.1	6.7
161	Vitoria, Spain	5	2.4	-0.6	4	16.5	20.1	25	11.8	6.1
162	Lugo, Spain	5	2.3	1.1	5.1	16.2	19.2	23.4	12.1	5.3
163	Bilbao, Spain	11	3.6	3.6	7.9	18.8	21.5	25.8	14.8	5.2
164	San Sebastián, Spain	9	3.1	1.8	7	17.7	20	24.8	13.7	5.2
165	Oviedo, Spain	9	3.3	2.7	6.9	17.2	19.6	23.2	13.3	4.9
166	A Coruña, Spain	8	4.1	6.8	10.1	18.1	19.9	22.8	15	3.8
167	Santander, Spain	8	2.9	4.5	8.4	18.4	20.6	23.8	14.6	4.7
168	South West, UK	151	22.5	0.5	4.3	14.7	17.1	20.5	10.7	4.9
169	London, UK	165	29.2	0.4	4.4	16	18.9	23.7	11.7	5.5
170	South East, UK	222	32.9	-0.2	3.7	15	17.7	21.6	10.8	5.3
171	Wales, UK	92	15	0.2	4.2	14.3	16.6	20.4	10.4	4.8
172	East, UK	147	22.6	-0.7	3.3	14.9	17.7	21.9	10.6	5.5
173	West Midlands, UK	151	23.2	-0.8	3.1	14.3	17	21.5	10.1	5.3
174	East Midlands, UK	119	19.1	-0.8	3	14.3	17	21.3	10.1	5.3
175	North West, UK	209	32	-0.4	3.6	14.2	16.6	21.1	10.2	5
176	Yorks & Hum, UK	146	23.3	-0.3	3.1	14	16.7	20.9	9.9	5.2
177	North East, UK	80	13.8	-0.4	3.1	13.4	15.9	19.9	9.5	4.9
178	Honolulu, USA	13	3.8	20.3	22.5	27.2	28.1	29.2	25.5	2.1

179	Miami, USA	45	7.4	13.9	19.7	28.1	29.4	30.6	25.1	3.9
180	Corpus Christi, USA	6	2.1	5.6	12.8	28.1	29.4	30.8	22.4	6.5
181	St. Petersburg, USA	31	6.2	9.2	15.3	27.5	28.6	30	23	5.3
182	Tampa, USA	18	4.7	9.2	15.3	27.5	28.6	30	23	5.3
183	Orlando, USA	12	3.7	8.9	15	27.2	28.6	30	22.7	5.3
184	San Antonio, USA	22	5.4	2.8	9.7	27.8	30	31.7	20.9	7.7
185	Houston, USA	43	7.8	3.3	10	27.2	29.4	31.4	20.8	7.4
186	New Orleans, USA	12	3.5	4.4	10.6	26.9	28.6	30.6	20.7	6.9
187	Lake Charles, USA	6	1.8	3.1	10	26.9	28.6	30.6	20.4	7.2
188	Lafayette, USA	4	1.3	4.4	10.6	26.9	28.6	30.6	20.7	6.9
189	Austin, USA	9	2.8	2	9.7	27.8	29.7	31.7	20.8	7.7
190	Jacksonville, USA	14	4.1	4.4	10.6	26.4	28.1	30	20.4	6.7
191	Baton Rouge, USA	8	2.5	2.5	9.4	26.4	28.3	30.6	20	7.3
192	Mobile, USA	9	2.8	2.5	9.4	26.1	27.8	30	19.6	7.2
193	El Paso, USA	9	3	0.8	6.7	25.6	28.3	32.2	18.2	8.4
194	Tucson, USA	16	4.6	5.6	10.3	28.3	30.8	34.4	21.1	7.8
195	Jackson, USA	6	2	-0.5	6.7	25.6	28.1	30.3	18.3	8.2
196	Shreveport, USA	9	2.7	-0.5	7.2	26.1	28.8	31.7	18.8	8.2
197	Columbus, USA	5	1.5	1.1	7.8	25.8	28.2	30.8	18.7	7.8
198	Dallas/Fort Worth, USA	55	9.9	-1.1	6.9	26.9	30	33.3	19.2	8.8
199	San Diego, USA	45	8.6	10.6	13.3	20.3	21.9	25.3	17.6	3.4
200	Birmingham, USA	18	4.5	-1.9	5.6	24.7	27.2	30	17.2	8.3
201	Phoenix, USA	45	10.6	8.1	12.8	31.7	34.7	37.8	23.8	8.5
202	Lubbock, USA	5	1.8	-5	3.3	24.2	27.5	30.6	16.1	9.2
203	Atlanta, USA	23	5.2	-1.6	5.8	24.7	27.2	30	17.2	8.1
204	Santa Ana/Anaheim, USA	35	7.6	9.7	12.8	21	23.1	26.7	18.1	3.9
205	Riverside, USA	23	6.3	8.3	12.1	25	27.9	31.9	19.9	6
206	Cayce, USA	4	1.2	1.9	8.6	25.6	28.1	30.6	19.1	7.5
207	Los Angeles, USA	149	20.8	9.7	12.9	20.7	22.5	26.3	17.9	3.7
208	San Bernardino, USA	22	5.6	8.3	11.9	22.6	24.8	28.1	18.5	4.9
209	Huntsville, USA	5	1.8	-3.9	4.4	24.2	26.9	29.4	16.3	8.7
210	Little Rock, USA	8	2.8	-4.2	4.8	25.3	28.5	31.9	17.2	9.1
211	Memphis, USA	19	4.6	-4.4	4.4	25.6	28.3	31.1	17.2	9.2
212	Albuquerque, USA	10	3.3	-4.2	2.5	22.2	25.6	28.9	14.2	8.9
213	Charlotte, USA	10	3.1	-2.2	5	23.9	26.7	29.7	16.4	8.4
214	Bakersfield, USA	10	3.2	3.3	8.3	25	28.9	33.7	18.6	7.8
215	Oklahoma City, USA	14	4	-6.4	2.8	24.2	28.2	31.1	15.9	9.6
216	Raleigh, USA	7	2.4	-3.1	3.9	23.3	26.4	29.4	15.7	8.6
217	Knoxville, USA	8	2.7	-5	3.1	23.1	25.8	28.6	15.1	8.8
218	Greensboro, USA	8	2.7	-4.2	3.1	22.5	25.8	28.9	14.8	8.7
219	Tulsa, USA	11	3.4	-6.9	2.8	24.4	28.6	32.2	16	9.9
220	Nashville, USA	12	3.5	-6.1	3.1	23.9	26.9	29.7	15.6	9.2
221	Las Vegas, USA	18	6.3	2.8	8.1	28.6	32.8	36.1	20.2	9.4
222	Fresno, USA	12	3.7	3.1	7.8	24.4	28.1	32.2	17.9	7.7
223	Norfolk, USA	6	1.9	-2.5	4.4	23.6	26.9	30.3	16	8.6
224	Newport News, USA	4	1.2	-2.2	4.5	23.8	26.9	30.6	16.1	8.6

225	San Jose, USA	21	5	6.7	9.9	17.5	19.4	23.6	14.9	3.7
226	Richmond, USA	6	2	-4.7	2.8	22.8	26.1	29.7	14.8	9
227	Modesto, USA	7	2.7	3.1	8.1	22.8	25.8	30.8	17.1	6.9
228	Wichita, USA	8	3	-10.2	0	23.1	27.5	31.7	13.9	10.6
229	Oakland, USA	23	5.3	7	10.2	17.8	19.4	23.5	15.2	3.6
230	San Francisco, USA	18	4.7	6.4	9.7	16.9	18.9	23	14.5	3.5
231	Stockton, USA	9	3	3.1	8	22.6	25.9	30.6	17.1	6.8
232	Evansville, USA	6	1.8	-9.7	0.6	22.8	26.1	29.7	13.7	10
233	Lexington, USA	5	1.8	-10	0	21.7	25	28.3	13.1	9.7
234	Louisville, USA	17	4.4	-8.6	1.1	23.1	26.4	29.7	14.3	9.8
235	Sacramento, USA	19	4.9	3.5	8.2	22.4	25.6	30.1	17	6.6
236	St. Louis, USA	11	3.3	-11.1	0	23.1	26.9	31.1	14	10.6
237	Colorado Springs, USA	7	2.2	-12.5	-2.8	17.8	21.1	24.7	9.5	9.3
238	Arlington, USA	2	1.5	-5.6	2.2	23.1	26.7	30.6	14.6	9.4
239	Washington, USA	16	4.4	-7.8	0.3	21.1	25	28.9	12.8	9.5
240	Topeka, USA	5	1.7	-12.5	-1.4	22.2	26.1	30.6	12.9	10.7
241	Kansas City, USA	4	1.5	-12.4	-1.5	22.1	26.5	30.8	12.8	10.8
242	Kansas City, USA	19	4.7	-13	-1.7	21.9	26.1	30.6	12.6	10.8
243	Cincinnati, USA	21	4.9	-11.4	-0.8	21.1	24.7	28.3	12.3	10
244	Baltimore, USA	20	5	-6.7	0.8	21.7	25.6	29.7	13.3	9.5
245	Denver, USA	19	4.9	-12.6	-2.6	19.2	23	26.8	10.5	9.8
246	Indianapolis, USA	18	4.4	-12.7	-1.7	20.8	24.4	28.3	11.8	10.3
247	Dayton, USA	13	3.7	-12.8	-2.5	20.3	24.2	28.3	11.4	10.3
248	Columbus, USA	19	4.7	-11.4	-1.4	20.6	24.4	28.3	11.8	10.1
249	Philadelphia, USA	42	8	-7.2	0.6	21.9	25.8	29.7	13.4	9.6
250	Johnstown, USA	5	1.8	-11.4	-3.3	18.9	22.8	27.2	10.1	9.9
251	Pittsburgh, USA	38	7.1	-11.4	-2.2	19.7	23.3	27.5	11	9.9
252	New York, USA	190	26.1	-7.1	0.6	21	24.9	29	12.8	9.3
253	Jersey City, USA	12	3.5	-7.8	0.3	21.7	25.8	30.2	13.2	9.7
254	Newark, USA	19	4.7	-7.8	0.3	21.7	25.8	30.2	13.2	9.7
255	Salt Lake City, USA	11	3.4	-8.6	-1.7	20.6	25.8	29.7	11.8	10.2
256	Lincoln, USA	5	1.6	-16.1	-4.2	21.1	25.6	30.3	11	11.5
257	Fort Wayne, USA	7	2.2	-14.7	-3.3	19.4	23.9	28	10.4	10.5
258	Akron, USA	13	3.6	-12.8	-3.1	18.9	22.9	26.9	10.1	10.1
259	Omaha, USA	9	2.9	-16.1	-4	21.2	25.1	29.7	11.2	11.4
260	Cleveland, USA	37	6.9	-11.9	-2.8	19.2	23.3	27.8	10.5	10
261	Des Moines, USA	8	2.4	-17.5	-5.3	20.6	24.4	29.4	10.3	11.6
262	Toledo, USA	11	3.3	-13.6	-3.6	19.2	23.6	27.8	10.2	10.5
263	Coventry, USA	7	1.8	-9.7	-1.7	18.9	23.1	27.5	10.9	9.4
264	Providence, USA	15	4	-9.7	-1.7	18.9	23.1	27.5	10.9	9.4
265	Chicago, USA	115	15.3	-15	-3.9	19.4	23.9	28.6	10.1	10.8
266	Kingston, USA	5	1.3	-7.1	0.6	21	24.9	29	12.8	9.3
267	Cedar Rapids, USA	6	1.5	-17.5	-5.3	20.6	24.4	29.4	10.3	11.6
268	Worcester, USA	16	4.3	-12.9	-4.7	17.4	21.5	25.8	8.8	9.9
269	Boston, USA	13	3.8	-9.7	-1.7	18.9	23.3	28.3	10.9	9.4
270	Detroit, USA	47	8	-12.5	-3.6	19.4	23.6	28.1	10.3	10.4

271	Buffalo, USA	26	5.4	-12.8	-4.4	18.3	22.2	26.1	9.2	10.1
272	Grand Rapids, USA	10	3	-13.6	-5	18.3	22.5	27.2	9	10.5
273	Syracuse, USA	11	3.3	-14.2	-5.3	18.3	22.2	26.7	9.1	10.5
274	Milwaukee, USA	23	5.1	-15	-4.4	18.3	23.1	28.1	9.2	10.7
275	Madison, USA	6	2.5	-17.8	-6.7	18.3	22.5	27.2	8.4	11.3
276	Rochester, USA	16	4.1	-13.3	-4.7	18.1	22.2	26.7	9.1	10.2
277	Muskegon, USA	4	1.5	-12.2	-4.2	17.8	21.7	26.1	8.9	9.9
278	Biddeford, USA	7	1.8	-13.6	-5.3	16.7	20.6	25.6	8.1	9.8
279	Minneapolis/St. Paul, USA	29	5.9	-20.8	-9.2	18.9	23.1	28.1	7.9	12.3
280	Portland, USA	19	4.7	-0.3	4.4	17.8	21.1	26.1	12.6	6.4
281	Olympia, USA	4	1.4	-2.5	3.3	15	18.1	22.2	10.4	5.8
282	Tacoma, USA	11	3.4	-0.6	4.7	16.1	18.9	23.6	11.6	5.7
283	Seattle, USA	27	5.8	-0.6	4.7	16.1	18.9	23.6	11.6	5.7
284	Spokane, USA	10	3.2	-11.1	-2.2	16.1	20.8	26.1	8.9	8.9
285	Anchorage, USA	5	1.1	-20.6	-10.6	11.7	14.4	17.8	2.8	9.7
286	Windsor, Canada	7	2.8	-12	-3.9	19.3	23.4	27.7	10.1	10.4
287	London, Canada	10	3.3	-14.6	-6.2	17.2	21.2	25.7	8.1	10.4
288	Hamilton, Canada	12	6	-14.7	-6.1	17.2	21.2	25.8	8	10.4
289	Kitchener-Waterloo, Canada	7	3	-15.8	-7.3	16.3	20.3	25.2	7.1	10.5
290	Toronto, Canada	72	11.3	-14.4	-5.9	17.6	21.8	27	8.4	10.5
291	Kingston, Canada	4	2.1	-17.5	-7.4	17	21.2	25.5	7.6	10.8
292	Halifax, Canada	8	2.8	-14.9	-6.7	14.9	19.1	23.1	6.6	9.7
293	Saint_john_NB, Canada	5	2.2	-18.1	-9	13.6	17.2	20.9	5.2	9.9
294	Ottawa, Canada	14	4.1	-20.7	-10.4	17	21.2	25.9	6.5	12
295	Montreal, Canada	50	8.6	-19.8	-9.8	17.1	21.4	26.1	6.9	11.8
296	Sudbury, Canada	4	2.2	-23.4	-13.1	15	19.4	24.4	4.2	12.3
297	St_john_NFL, Canada	6	2.5	-12.5	-5.9	11.8	16.5	21.1	5.1	8.4
298	Thunder bay, Canada	4	2	-24.5	-14.6	13.4	17.7	22.9	3	12.1
299	Victoria, Canada	9	3.2	-1.5	3.5	14.6	17	20.7	10.2	5.2
300	Abbotsford, Canada	3	1.8	-4.3	3	15.7	18.6	22.8	10.7	6.2
301	Vancouver, Canada	35	7.1	-2.8	3.2	15.4	18.1	21.4	10.5	5.8
302	Winnipeg, Canada	18	4.5	-28.7	-17.7	15.4	20	25	3	14.1
303	Regina, Canada	5	2.3	-29.3	-16	14.5	19	24.4	3.1	13.4
304	Calgary, Canada	14	4.4	-24.6	-9.5	13	16.8	21.5	4.6	10.4
305	Saskatoon, Canada	6	2.5	-30.3	-16.8	14.1	18.5	24	2.6	13.6
306	Edmonton, Canada	16	4.7	-26.4	-12.3	14	17.9	22.9	4.2	11.8

eTable 2: The relative risks of cold temperature and hot temperature on deaths at lags of 0–21 days in 306 communities. Estimates were calculated from the non-linear model. Cold effects (1st VS country minimum-mortality temperature percentile (MMTP)) and hot effects (99th VS country MMTP) correspond to Figure 2.

NO.	Community	Cold effect		Hot effect	
		1 st VS 10 th	1 st VS MMTP	99 th VS MMTP	99 th VS 90 th
1	Melbourne, Australia	1.03 (0.99, 1.07)	1.14 (1.04, 1.24)	1.01 (0.92, 1.11)	1.01 (0.96, 1.06)
2	Sydney, Australia	1.08 (1.05, 1.12)	1.3 (1.2, 1.41)	1.07 (0.98, 1.16)	1.05 (1.01, 1.1)
3	Brisbane, Australia	1.12 (1.06, 1.18)	1.27 (1.08, 1.5)	1.1 (0.98, 1.24)	1.04 (0.98, 1.1)
4	Porto Alegre, Brazil	1.09 (1.04, 1.14)	1.4 (1.28, 1.53)	1.13 (1.04, 1.23)	1.06 (1.02, 1.11)
5	Curitiba, Brazil	1.14 (1.07, 1.2)	1.38 (1.25, 1.52)	1.12 (1, 1.24)	1.07 (1.01, 1.13)
6	Sap Paulo, Brazil	1.13 (1.09, 1.17)	1.37 (1.3, 1.45)	1.16 (1.09, 1.24)	1.08 (1.05, 1.12)
7	Vitoria, Brazil	1.02 (0.93, 1.11)	1.16 (0.99, 1.37)	1.14 (0.96, 1.35)	1.06 (0.97, 1.16)
8	Belo Horizonte, Brazil	1.03 (0.99, 1.07)	1.12 (1.04, 1.2)	1.18 (1.08, 1.28)	1.08 (1.03, 1.13)
9	Goiania, Brazil	1.09 (1.03, 1.15)	1.14 (1.04, 1.25)	1.14 (1.04, 1.25)	1.07 (1.02, 1.13)
10	Brasilia, Brazil	0.97 (0.91, 1.03)	1.09 (0.97, 1.21)	1.11 (0.99, 1.24)	1.04 (0.98, 1.11)
11	Cuiaba, Brazil	1.11 (0.99, 1.25)	1.25 (1.01, 1.55)	1.03 (0.79, 1.34)	1.02 (0.89, 1.17)
12	Salvador, Brazil	1.01 (0.97, 1.06)	1.09 (0.98, 1.2)	0.93 (0.86, 1.01)	0.97 (0.93, 1.02)
13	Maceio, Brazil	1.07 (0.98, 1.17)	1.17 (0.95, 1.43)	1.04 (0.88, 1.23)	1.03 (0.94, 1.12)
14	Recife, Brazil	0.99 (0.94, 1.03)	0.94 (0.85, 1.04)	0.96 (0.89, 1.04)	0.97 (0.93, 1.01)
15	Joao Pessoa, Brazil	1.03 (0.95, 1.12)	1.03 (0.85, 1.25)	1.14 (0.97, 1.35)	1.07 (0.98, 1.16)
16	Natal, Brazil	1 (0.93, 1.08)	1.05 (0.91, 1.21)	0.98 (0.86, 1.12)	1.02 (0.95, 1.09)
17	Teresina, Brazil	1.07 (0.97, 1.19)	1.28 (1.09, 1.5)	1.2 (1.01, 1.44)	1.11 (1.01, 1.21)
18	Fortaleza, Brazil	1.07 (1.01, 1.14)	1.13 (1.03, 1.24)	0.98 (0.89, 1.07)	0.98 (0.93, 1.03)
19	Manaus, Brazil	1.11 (1.01, 1.21)	1.18 (1.03, 1.35)	1.11 (0.97, 1.26)	1.06 (0.99, 1.14)
20	Sao Luis, Brazil	0.96 (0.87, 1.05)	1.03 (0.9, 1.19)	1.04 (0.93, 1.17)	1.01 (0.95, 1.08)
21	Belem, Brazil	0.97 (0.89, 1.05)	0.93 (0.82, 1.06)	0.91 (0.81, 1.02)	0.94 (0.88, 1.01)
22	Narathiwat, Thailand	1.09 (0.93, 1.28)	1.06 (0.8, 1.4)	1.02 (0.74, 1.41)	1.03 (0.87, 1.21)
23	Yala, Thailand	0.95 (0.7, 1.3)	0.99 (0.57, 1.73)	0.89 (0.49, 1.6)	0.91 (0.67, 1.25)

24	Pattani, Thailand	1.25 (1.01, 1.54)	1.4 (0.97, 2.03)	1.19 (0.77, 1.84)	1.11 (0.89, 1.39)
25	Songkhla, Thailand	0.95 (0.84, 1.07)	0.94 (0.75, 1.18)	1.1 (0.9, 1.35)	1.04 (0.94, 1.15)
26	Trang, Thailand	1.11 (0.94, 1.31)	1.46 (1.11, 1.92)	1.22 (0.94, 1.59)	1.1 (0.95, 1.26)
27	Krabi, Thailand	1.27 (0.93, 1.74)	1.22 (0.73, 2.02)	1.2 (0.72, 1.98)	1.12 (0.86, 1.46)
28	Nakhon si thammarat, Thailand	0.99 (0.81, 1.21)	1.13 (0.8, 1.59)	1.05 (0.82, 1.36)	1.02 (0.89, 1.16)
29	Surat thani, Thailand	1.04 (0.92, 1.19)	1.29 (1.02, 1.64)	1.1 (0.86, 1.4)	1.06 (0.94, 1.2)
30	Chumphon, Thailand	0.94 (0.8, 1.12)	1.04 (0.79, 1.38)	1 (0.73, 1.37)	0.99 (0.84, 1.17)
31	Prachuap khiri khan, Thailand	0.97 (0.8, 1.17)	1.08 (0.75, 1.55)	1.03 (0.72, 1.46)	1.01 (0.84, 1.21)
32	Chanthaburi, Thailand	1.22 (1.07, 1.39)	1.38 (1.09, 1.75)	0.95 (0.75, 1.2)	0.97 (0.86, 1.1)
33	Rayong, Thailand	1.24 (1.1, 1.38)	1.52 (1.18, 1.94)	1.09 (0.86, 1.38)	1.04 (0.92, 1.18)
34	Phetchaburi, Thailand	0.94 (0.74, 1.2)	1.06 (0.73, 1.52)	0.91 (0.62, 1.33)	0.96 (0.78, 1.17)
35	Chon buri, Thailand	1.08 (0.97, 1.19)	1.3 (1.08, 1.57)	1.37 (1.12, 1.67)	1.18 (1.06, 1.31)
36	Samutprakan, Thailand	1.1 (0.99, 1.22)	1.3 (1.08, 1.56)	1.06 (0.88, 1.28)	1.04 (0.95, 1.15)
37	Ratchaburi, Thailand	1.17 (1.07, 1.28)	1.45 (1.16, 1.83)	1.18 (0.98, 1.43)	1.1 (1, 1.21)
38	Samut sakhon, Thailand	1.12 (0.97, 1.3)	1.55 (1.18, 2.04)	0.97 (0.72, 1.3)	0.98 (0.84, 1.14)
39	Chachoengsao, Thailand	1.24 (1.1, 1.39)	1.5 (1.16, 1.95)	1.07 (0.84, 1.35)	1.05 (0.93, 1.2)
40	Bangkok, Thailand	1.04 (1, 1.09)	1.19 (1.11, 1.27)	1.15 (1.08, 1.23)	1.07 (1.03, 1.11)
41	Sa kaeo, Thailand	1.1 (0.96, 1.27)	1.4 (1.06, 1.84)	1.08 (0.84, 1.38)	1.04 (0.91, 1.19)
42	Nonthaburi, Thailand	1.06 (0.97, 1.17)	1.17 (0.98, 1.39)	1.19 (0.98, 1.44)	1.09 (0.99, 1.2)
43	Nakhon pathom, Thailand	1.11 (1, 1.24)	1.33 (1.07, 1.65)	1.02 (0.83, 1.25)	1 (0.9, 1.12)
44	Pathum thani, Thailand	1.06 (0.94, 1.19)	1.02 (0.8, 1.3)	0.99 (0.77, 1.26)	0.99 (0.87, 1.12)
45	Kanchanaburi, Thailand	1.09 (0.98, 1.23)	1.43 (1.15, 1.77)	1.23 (1.01, 1.5)	1.12 (1.01, 1.24)
46	Prachin buri, Thailand	1.16 (0.95, 1.42)	1.35 (0.98, 1.86)	1.09 (0.76, 1.55)	1.07 (0.89, 1.29)
47	Ayutthaya, Thailand	1.2 (1.06, 1.35)	1.44 (1.16, 1.78)	1.11 (0.89, 1.38)	1.06 (0.94, 1.18)
48	Suphanburi, Thailand	1.03 (0.92, 1.16)	1.35 (1.08, 1.68)	1.73 (1.39, 2.15)	1.29 (1.15, 1.45)
49	Saraburi, Thailand	1.37 (1.22, 1.54)	1.5 (1.19, 1.89)	1.04 (0.83, 1.3)	1.05 (0.94, 1.18)
50	Lop buri, Thailand	1.1 (0.96, 1.25)	1.1 (0.87, 1.39)	0.9 (0.74, 1.08)	0.94 (0.85, 1.04)
51	Surin, Thailand	1.15 (1.03, 1.27)	1.31 (1.08, 1.6)	1.21 (0.97, 1.5)	1.12 (1, 1.26)
52	Nakhon ratchasima, Thailand	1.04 (0.96, 1.11)	1.25 (1.1, 1.43)	1.13 (0.98, 1.3)	1.06 (0.99, 1.14)

53	Buri ram, Thailand	0.99 (0.84, 1.17)	1.07 (0.78, 1.49)	1.33 (0.91, 1.94)	1.15 (0.94, 1.4)
54	Si sa ket, Thailand	1.1 (1, 1.21)	1.17 (0.97, 1.41)	0.91 (0.74, 1.11)	0.95 (0.86, 1.06)
55	Ubon ratchathani, Thailand	1.1 (1.02, 1.19)	1.26 (1.09, 1.46)	1.13 (0.95, 1.34)	1.07 (0.98, 1.17)
56	Nakhon sawan, Thailand	1.24 (1.12, 1.36)	1.46 (1.24, 1.72)	1.24 (1.04, 1.48)	1.14 (1.04, 1.25)
57	Yasothon, Thailand	1.11 (0.98, 1.27)	1.33 (0.94, 1.88)	1.1 (0.83, 1.44)	1.05 (0.91, 1.21)
58	Chaiyaphum, Thailand	1.05 (0.94, 1.17)	1.12 (0.93, 1.35)	0.87 (0.7, 1.09)	0.92 (0.82, 1.04)
59	Amnat charoen, Thailand	1.04 (0.8, 1.35)	1.2 (0.8, 1.81)	0.97 (0.66, 1.44)	1 (0.81, 1.23)
60	Roi et, Thailand	1.12 (1.02, 1.23)	1.35 (1.13, 1.62)	1.07 (0.89, 1.29)	1.05 (0.95, 1.16)
61	Maha sarakham, Thailand	1.08 (0.95, 1.22)	1.31 (1.07, 1.61)	1.2 (0.98, 1.48)	1.11 (0.99, 1.23)
62	Phetchabun, Thailand	1.09 (0.81, 1.47)	1.22 (0.72, 2.07)	1.15 (0.74, 1.8)	1.05 (0.83, 1.33)
63	Kalasin, Thailand	1.02 (0.92, 1.12)	1.09 (0.9, 1.33)	0.97 (0.79, 1.2)	0.99 (0.89, 1.1)
64	Khon kaen, Thailand	1.09 (1.01, 1.17)	1.19 (1.03, 1.36)	1.13 (0.97, 1.3)	1.05 (0.97, 1.14)
65	Phichit, Thailand	1.08 (0.93, 1.26)	1.24 (0.95, 1.61)	1.16 (0.87, 1.56)	1.09 (0.93, 1.27)
66	Mukdahan, Thailand	1.16 (0.82, 1.64)	1.14 (0.69, 1.88)	1.01 (0.67, 1.52)	1.04 (0.84, 1.29)
67	Kamphaeng phet, Thailand	1.13 (0.97, 1.33)	1.29 (0.94, 1.75)	1.47 (1.05, 2.05)	1.22 (1.02, 1.46)
68	Phitsanulok, Thailand	1.1 (1, 1.22)	1.28 (1.07, 1.54)	1.13 (0.95, 1.35)	1.07 (0.97, 1.17)
69	Tak, Thailand	0.91 (0.72, 1.13)	0.99 (0.66, 1.48)	1.26 (0.93, 1.71)	1.15 (0.97, 1.35)
70	Sukhothai, Thailand	1.17 (1.02, 1.35)	1.24 (0.97, 1.58)	1.34 (1.01, 1.78)	1.18 (1.02, 1.37)
71	Sakon nakhon, Thailand	1.03 (0.92, 1.15)	1.22 (0.99, 1.52)	1.22 (0.98, 1.51)	1.1 (0.98, 1.23)
72	Nong bua lam phu, Thailand	1.07 (0.92, 1.23)	1.14 (0.84, 1.56)	1.11 (0.84, 1.48)	1.06 (0.91, 1.22)
73	Nakhon phanom, Thailand	1.02 (0.85, 1.21)	0.89 (0.64, 1.24)	1 (0.75, 1.33)	0.97 (0.83, 1.13)
74	Udon Thani, Thailand	1.11 (1.02, 1.21)	1.37 (1.16, 1.62)	1.1 (0.94, 1.3)	1.07 (0.98, 1.16)
75	Uttaradit, Thailand	1.2 (1.05, 1.36)	1.22 (0.96, 1.55)	1.24 (0.96, 1.61)	1.13 (0.98, 1.29)
76	Nong khai, Thailand	1.08 (0.96, 1.22)	1.13 (0.9, 1.42)	1.01 (0.81, 1.27)	1.01 (0.9, 1.14)
77	Phrae, Thailand	1.06 (0.94, 1.2)	1.13 (0.9, 1.41)	0.93 (0.75, 1.15)	0.95 (0.85, 1.07)
78	Lampang, Thailand	1.15 (1.05, 1.25)	1.21 (1.01, 1.44)	1.28 (1.09, 1.5)	1.14 (1.05, 1.24)
79	Lamphun, Thailand	1.19 (1.02, 1.38)	1.7 (1.18, 2.46)	1.2 (0.94, 1.55)	1.11 (0.98, 1.27)
80	Nan, Thailand	1.21 (1.08, 1.36)	1.46 (1.08, 1.97)	1.21 (0.97, 1.51)	1.1 (0.98, 1.23)
81	Chiang mai, Thailand	1.13 (1.05, 1.2)	1.29 (1.07, 1.54)	1.01 (0.88, 1.15)	1.01 (0.95, 1.09)

82	Phayao, Thailand	1.18 (1.06, 1.3)	1.34 (1.05, 1.72)	0.99 (0.8, 1.23)	1.01 (0.91, 1.13)
83	Chiang rai, Thailand	1.08 (1, 1.16)	1.28 (1.04, 1.57)	1.06 (0.9, 1.24)	1.03 (0.95, 1.12)
84	Hong Kong, China	1.12 (1.09, 1.15)	1.36 (1.25, 1.48)	1.04 (0.98, 1.09)	1.02 (1, 1.05)
85	Guangzhou, China	1.1 (1.02, 1.19)	1.1 (0.85, 1.43)	1.18 (0.99, 1.41)	1.09 (0.99, 1.2)
86	Wuhan, China	1.07 (1, 1.14)	1.14 (0.9, 1.45)	1.03 (0.87, 1.22)	1.02 (0.94, 1.11)
87	Shanghai, China	0.98 (0.92, 1.05)	1.16 (0.91, 1.48)	1 (0.87, 1.16)	1 (0.93, 1.07)
88	Tianjin, China	1.11 (1.01, 1.21)	1.25 (0.87, 1.81)	1.2 (1.02, 1.4)	1.11 (1.03, 1.19)
89	Beijing, China	1.03 (0.97, 1.09)	1.23 (0.94, 1.62)	1.19 (1.02, 1.38)	1.09 (1.02, 1.17)
90	Kaohsiung, Taiwan	1.11 (1.07, 1.16)	1.28 (1.14, 1.43)	1.2 (1.09, 1.31)	1.08 (1.03, 1.13)
91	Taipei, Taiwan	1.1 (1.07, 1.14)	1.38 (1.27, 1.5)	1.18 (1.09, 1.28)	1.07 (1.03, 1.11)
92	Taichung, Taiwan	1.11 (1.06, 1.16)	1.38 (1.21, 1.58)	1.14 (1.02, 1.27)	1.07 (1.01, 1.13)
93	Gwangju, Korea	1.05 (1.02, 1.08)	1.25 (1.04, 1.51)	1.04 (0.96, 1.13)	1.03 (0.98, 1.07)
94	Busan, Korea	1.02 (1, 1.04)	1.15 (1.04, 1.27)	1.02 (0.97, 1.06)	1.01 (0.99, 1.04)
95	Ulsan, Korea	1.06 (1, 1.11)	1.18 (0.94, 1.49)	1.06 (0.93, 1.2)	1.04 (0.97, 1.11)
96	Daegu, Korea	1.03 (1.01, 1.06)	1.07 (0.94, 1.22)	1.1 (1.04, 1.18)	1.06 (1.02, 1.09)
97	Daejeon, Korea	1.05 (1.02, 1.09)	1.4 (1.15, 1.69)	1.15 (1.07, 1.25)	1.09 (1.05, 1.14)
98	Incheon, Korea	1.02 (1, 1.04)	1.13 (0.98, 1.32)	1.07 (1.01, 1.13)	1.04 (1.01, 1.07)
99	Seoul, Korea	1.01 (1, 1.03)	1.18 (1.1, 1.28)	1.13 (1.09, 1.17)	1.07 (1.05, 1.09)
100	Fukuoka, Japan	1.11 (1.07, 1.16)	1.25 (1.06, 1.47)	1.02 (0.92, 1.13)	1.02 (0.97, 1.07)
101	Kitakyushu, Japan	1.09 (1.05, 1.14)	1.3 (1.12, 1.51)	1.06 (0.97, 1.17)	1.03 (0.99, 1.08)
102	Osaka, Japan	1.07 (1.04, 1.1)	1.36 (1.23, 1.5)	1.12 (1.06, 1.19)	1.06 (1.03, 1.09)
103	Nagoya, Japan	1.06 (1.03, 1.09)	1.24 (1.1, 1.41)	1.11 (1.03, 1.19)	1.05 (1.01, 1.09)
104	Tokyo, Japan	1.05 (1.03, 1.06)	1.24 (1.17, 1.32)	1.09 (1.05, 1.13)	1.05 (1.03, 1.06)
105	Sendai, Japan	1.07 (1, 1.13)	1.37 (1.12, 1.69)	1.03 (0.92, 1.16)	1.03 (0.97, 1.09)
106	Sapporo, Japan	1 (0.96, 1.05)	1.18 (1.02, 1.38)	0.99 (0.92, 1.07)	1 (0.96, 1.04)
107	Palermo, Italy	1.08 (0.93, 1.25)	1.22 (0.83, 1.8)	1.35 (1.02, 1.78)	1.16 (1.01, 1.32)
108	Bari, Italy	1.12 (0.98, 1.28)	1.34 (0.93, 1.93)	1.37 (1.04, 1.8)	1.15 (1, 1.31)
109	Latina, Italy	1.11 (0.88, 1.39)	0.78 (0.4, 1.52)	1.02 (0.62, 1.67)	0.94 (0.75, 1.19)
110	Frosinone, Italy	1.16 (0.75, 1.8)	1.86 (0.59, 5.84)	1.52 (0.71, 3.27)	1.28 (0.9, 1.84)

111	Roma, Italy	1.09 (1.06, 1.12)	1.53 (1.41, 1.65)	1.2 (1.13, 1.27)	1.11 (1.08, 1.14)
112	Viterbo, Italy	0.99 (0.77, 1.28)	1.31 (0.67, 2.58)	1.32 (0.78, 2.26)	1.1 (0.86, 1.41)
113	Genova, Italy	1.08 (0.99, 1.17)	1.63 (1.26, 2.11)	1.22 (1.02, 1.47)	1.13 (1.03, 1.23)
114	Bologna, Italy	1.07 (0.98, 1.18)	1.32 (1, 1.75)	1.59 (1.3, 1.93)	1.25 (1.14, 1.37)
115	Torino, Italy	1.01 (0.95, 1.08)	1.09 (0.89, 1.34)	1.23 (1.05, 1.44)	1.11 (1.04, 1.2)
116	Brescia, Italy	1.01 (0.87, 1.16)	1.35 (0.85, 2.17)	1.55 (1.2, 2)	1.24 (1.09, 1.42)
117	Palmas G. Canaria, Spain	1.03 (0.95, 1.11)	1.3 (1.06, 1.61)	1.25 (1.05, 1.49)	1.12 (1.03, 1.22)
118	Tenerife, Spain	1.03 (0.93, 1.15)	1.38 (1.05, 1.8)	1.46 (1.17, 1.83)	1.22 (1.09, 1.37)
119	Melilla, Spain	1.03 (0.82, 1.29)	0.86 (0.42, 1.75)	1.07 (0.59, 1.92)	1.03 (0.78, 1.35)
120	Ceuta, Spain	1.37 (0.83, 2.24)	1.77 (0.32, 9.71)	2.32 (0.81, 6.64)	1.44 (0.88, 2.38)
121	Cádiz, Spain	1.13 (1.03, 1.25)	1.65 (1.26, 2.16)	1.5 (1.18, 1.9)	1.23 (1.1, 1.38)
122	Málaga, Spain	1.08 (1.01, 1.16)	1.26 (1.04, 1.53)	1.29 (1.11, 1.5)	1.12 (1.05, 1.2)
123	Almería, Spain	1.09 (0.98, 1.21)	1.31 (0.96, 1.77)	1.25 (0.99, 1.58)	1.11 (0.99, 1.23)
124	Granada, Spain	1.02 (0.95, 1.09)	1.19 (0.98, 1.45)	1.19 (1, 1.41)	1.09 (1.01, 1.19)
125	Huelva, Spain	1.04 (0.95, 1.14)	1.26 (0.98, 1.62)	1.34 (1.07, 1.67)	1.14 (1.02, 1.27)
126	Sevilla, Spain	1.13 (1.08, 1.18)	1.43 (1.25, 1.62)	1.35 (1.21, 1.5)	1.16 (1.1, 1.22)
127	Jaén, Spain	1.04 (0.94, 1.15)	1.03 (0.8, 1.33)	1.11 (0.86, 1.42)	1.04 (0.92, 1.17)
128	Córdoba, Spain	1.09 (1.01, 1.17)	1.5 (1.21, 1.86)	1.42 (1.19, 1.69)	1.2 (1.1, 1.3)
129	Murcia, Spain	1.08 (1, 1.16)	1.26 (1, 1.58)	1 (0.83, 1.21)	1.01 (0.93, 1.11)
130	Alicante, Spain	1.12 (1.02, 1.22)	1.5 (1.16, 1.95)	1.15 (0.94, 1.4)	1.08 (0.99, 1.19)
131	Badajoz, Spain	1.14 (1.03, 1.26)	1.53 (1.14, 2.05)	1.22 (0.97, 1.53)	1.11 (1, 1.24)
132	Albacete, Spain	1.09 (0.97, 1.21)	1.22 (0.9, 1.65)	1.27 (0.97, 1.65)	1.13 (0.99, 1.28)
133	Ciudad Real, Spain	1.15 (1.02, 1.31)	1.66 (1.14, 2.42)	1.25 (0.92, 1.72)	1.14 (0.98, 1.32)
134	Cáceres, Spain	1.08 (0.98, 1.19)	1.49 (1.11, 2.01)	1.13 (0.89, 1.44)	1.07 (0.95, 1.2)
135	Valencia, Spain	1.13 (1.08, 1.18)	1.43 (1.27, 1.62)	1.08 (0.98, 1.2)	1.05 (1.01, 1.11)
136	Palma Mallorca, Spain	1.16 (1.08, 1.24)	1.39 (1.13, 1.71)	1.12 (0.95, 1.31)	1.07 (0.99, 1.15)
137	Toledo, Spain	1 (0.89, 1.11)	1.09 (0.8, 1.48)	1.43 (1.11, 1.85)	1.19 (1.05, 1.34)
138	Castellón, Spain	1.14 (1.04, 1.25)	1.45 (1.1, 1.92)	0.92 (0.73, 1.16)	1 (0.9, 1.11)
139	Cuenca, Spain	0.98 (0.85, 1.14)	0.99 (0.67, 1.47)	1.33 (0.93, 1.89)	1.13 (0.95, 1.34)

140	Teruel, Spain	0.98 (0.81, 1.17)	0.71 (0.44, 1.14)	1.58 (1.02, 2.43)	1.23 (1, 1.51)
141	Madrid, Spain	1.1 (1.07, 1.13)	1.25 (1.16, 1.34)	1.29 (1.2, 1.37)	1.13 (1.1, 1.16)
142	Guadalajara, Spain	1.07 (0.92, 1.25)	1.44 (0.95, 2.18)	1.26 (0.9, 1.78)	1.13 (0.96, 1.32)
143	Avila, Spain	1.06 (0.93, 1.21)	1.29 (0.94, 1.77)	1.25 (0.93, 1.68)	1.12 (0.97, 1.28)
144	Salamanca, Spain	1.07 (0.98, 1.16)	1.19 (0.95, 1.49)	1.23 (1.01, 1.49)	1.1 (1, 1.22)
145	Segovia, Spain	1.03 (0.89, 1.19)	1.02 (0.73, 1.43)	1.35 (0.97, 1.88)	1.15 (0.98, 1.35)
146	Tarragona, Spain	1.03 (0.91, 1.16)	1.27 (0.89, 1.81)	0.97 (0.75, 1.25)	1.01 (0.89, 1.14)
147	Barcelona, Spain	1.09 (1.05, 1.13)	1.47 (1.33, 1.63)	1.13 (1.04, 1.22)	1.07 (1.03, 1.11)
148	Zamora, Spain	1.07 (0.94, 1.22)	1.32 (0.93, 1.87)	1.13 (0.85, 1.51)	1.09 (0.95, 1.26)
149	Lleida, Spain	1.07 (0.97, 1.18)	1.07 (0.81, 1.42)	1.17 (0.95, 1.44)	1.06 (0.96, 1.18)
150	Valladolid, Spain	1.09 (1.02, 1.17)	1.4 (1.15, 1.69)	1.27 (1.08, 1.5)	1.13 (1.04, 1.23)
151	Zaragoza, Spain	1.08 (1.03, 1.14)	1.13 (0.98, 1.29)	1.2 (1.07, 1.34)	1.11 (1.05, 1.17)
152	Soria, Spain	1.11 (0.94, 1.31)	1.24 (0.82, 1.88)	1.29 (0.89, 1.87)	1.15 (0.96, 1.38)
153	Girona, Spain	1.09 (0.98, 1.22)	1.26 (0.93, 1.7)	1.08 (0.84, 1.39)	1.05 (0.93, 1.19)
154	Huesca, Spain	0.98 (0.84, 1.14)	0.84 (0.57, 1.25)	1.08 (0.75, 1.55)	1.02 (0.86, 1.22)
155	Burgos, Spain	1.08 (0.98, 1.19)	1.11 (0.89, 1.39)	1.29 (1.05, 1.58)	1.14 (1.04, 1.26)
156	Ourense, Spain	1.11 (1, 1.23)	1.18 (0.92, 1.5)	1.11 (0.89, 1.38)	1.04 (0.94, 1.16)
157	Pontevedra, Spain	1.18 (1.05, 1.32)	1.72 (1.32, 2.23)	1.02 (0.79, 1.31)	1.01 (0.89, 1.15)
158	Logroño, Spain	0.98 (0.88, 1.09)	0.98 (0.75, 1.29)	1.13 (0.9, 1.42)	1.06 (0.95, 1.18)
159	León, Spain	1.16 (1.07, 1.26)	1.5 (1.2, 1.87)	1.15 (0.94, 1.41)	1.1 (0.99, 1.21)
160	Pamplona, Spain	0.98 (0.9, 1.06)	0.93 (0.77, 1.12)	0.97 (0.82, 1.15)	0.99 (0.91, 1.08)
161	Vitoria, Spain	1.05 (0.95, 1.17)	1.16 (0.94, 1.44)	1.27 (1.02, 1.57)	1.13 (1.01, 1.26)
162	Lugo, Spain	1.11 (0.99, 1.24)	1.46 (1.15, 1.86)	1.45 (1.14, 1.86)	1.21 (1.07, 1.37)
163	Bilbao, Spain	1.02 (0.96, 1.1)	1.14 (0.99, 1.3)	1.12 (0.96, 1.3)	1.06 (0.98, 1.14)
164	San Sebastián, Spain	1.06 (0.98, 1.14)	1.11 (0.96, 1.29)	1.37 (1.16, 1.62)	1.16 (1.06, 1.26)
165	Oviedo, Spain	1.12 (1.04, 1.21)	1.36 (1.18, 1.57)	1.05 (0.89, 1.24)	1.03 (0.95, 1.13)
166	A Coruña, Spain	1.01 (0.94, 1.1)	1.29 (1.08, 1.55)	1.15 (0.96, 1.39)	1.08 (0.98, 1.19)
167	Santander, Spain	1.1 (1.01, 1.19)	1.19 (1, 1.42)	1.01 (0.84, 1.2)	1 (0.92, 1.1)
168	South West, UK	1.12 (1.1, 1.14)	1.37 (1.3, 1.44)	1.05 (1.01, 1.1)	1.04 (1.01, 1.06)

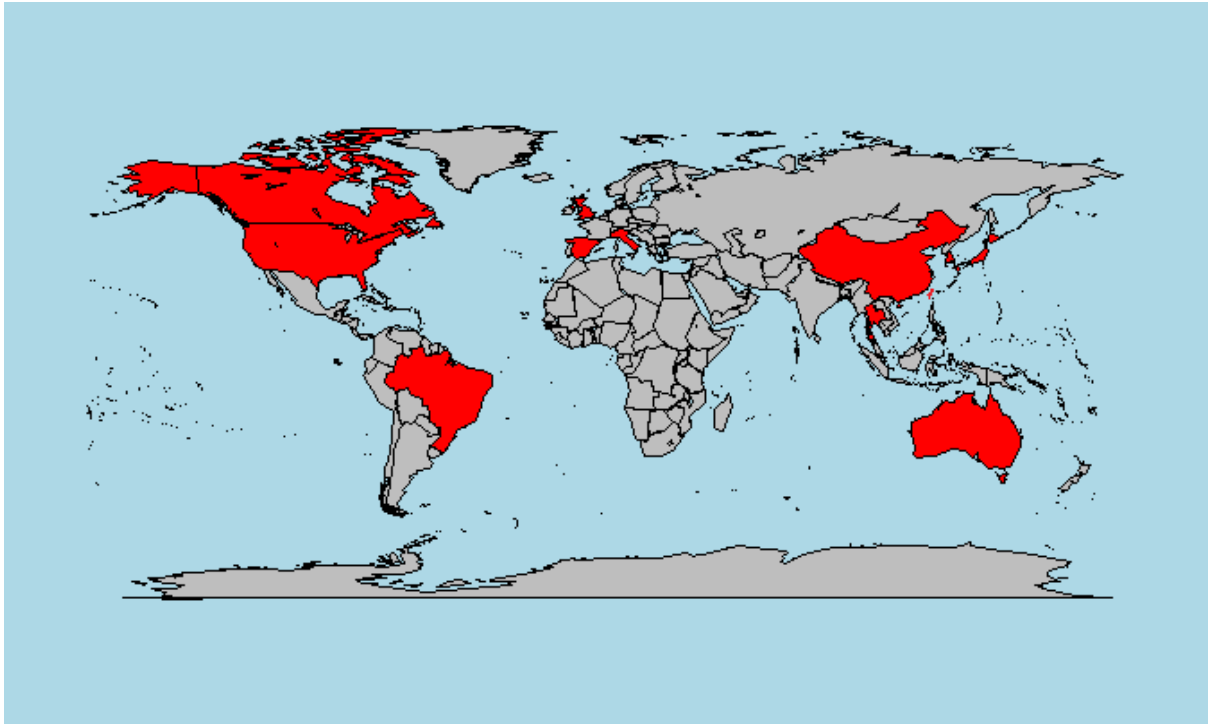
169	London, UK	1.11 (1.09, 1.13)	1.33 (1.26, 1.39)	1.07 (1.03, 1.11)	1.04 (1.02, 1.07)
170	South East, UK	1.11 (1.09, 1.13)	1.32 (1.26, 1.38)	1.05 (1.01, 1.08)	1.03 (1.01, 1.05)
171	Wales, UK	1.09 (1.06, 1.12)	1.32 (1.24, 1.41)	1.05 (0.99, 1.1)	1.03 (1, 1.06)
172	East, UK	1.11 (1.09, 1.13)	1.31 (1.24, 1.38)	1.05 (1.01, 1.09)	1.04 (1.01, 1.06)
173	West Midlands, UK	1.1 (1.08, 1.12)	1.28 (1.21, 1.35)	1.02 (0.98, 1.06)	1.02 (1, 1.04)
174	East Midlands, UK	1.1 (1.07, 1.12)	1.3 (1.22, 1.38)	1.04 (0.99, 1.08)	1.03 (1, 1.05)
175	North West, UK	1.07 (1.05, 1.09)	1.27 (1.21, 1.33)	1.06 (1.03, 1.1)	1.04 (1.02, 1.06)
176	Yorks & Hum, UK	1.07 (1.05, 1.09)	1.25 (1.18, 1.32)	1.05 (1.01, 1.09)	1.03 (1.01, 1.06)
177	North East, UK	1.09 (1.06, 1.12)	1.25 (1.17, 1.34)	1.06 (1.01, 1.12)	1.04 (1.01, 1.07)
178	Honolulu, USA	0.99 (0.91, 1.07)	1.11 (0.91, 1.36)	1.02 (0.83, 1.25)	1.01 (0.91, 1.13)
179	Miami, USA	1.09 (1.04, 1.14)	1.24 (1.11, 1.38)	1.09 (1, 1.18)	1.05 (1.01, 1.1)
180	Corpus Christi, USA	1.12 (0.99, 1.26)	1.21 (0.93, 1.57)	0.98 (0.82, 1.17)	0.99 (0.9, 1.09)
181	St. Petersburg, USA	1.03 (0.97, 1.09)	1.19 (1.04, 1.36)	0.96 (0.87, 1.06)	0.98 (0.93, 1.04)
182	Tampa, USA	1.08 (1.01, 1.17)	1.21 (1.02, 1.44)	1.08 (0.95, 1.22)	1.04 (0.98, 1.12)
183	Orlando, USA	1.05 (0.96, 1.15)	1.18 (0.95, 1.47)	1.05 (0.89, 1.23)	1.02 (0.94, 1.12)
184	San Antonio, USA	1.02 (0.94, 1.09)	1.23 (1.04, 1.46)	1.01 (0.91, 1.14)	1.01 (0.95, 1.07)
185	Houston, USA	1.09 (1.03, 1.15)	1.27 (1.13, 1.43)	1.02 (0.94, 1.1)	1.01 (0.96, 1.05)
186	New Orleans, USA	1.14 (1.03, 1.25)	1.37 (1.11, 1.71)	1.12 (0.96, 1.31)	1.07 (0.98, 1.16)
187	Lake Charles, USA	0.92 (0.83, 1.03)	0.82 (0.64, 1.06)	1.08 (0.92, 1.27)	1.03 (0.95, 1.12)
188	Lafayette, USA	1.04 (0.94, 1.16)	0.99 (0.78, 1.26)	0.81 (0.68, 0.96)	0.89 (0.82, 0.98)
189	Austin, USA	1 (0.9, 1.12)	1.21 (0.95, 1.54)	1.03 (0.88, 1.2)	1.01 (0.93, 1.09)
190	Jacksonville, USA	1.07 (0.98, 1.17)	1.29 (1.04, 1.59)	1.25 (1.04, 1.51)	1.13 (1.03, 1.24)
191	Baton Rouge, USA	1.19 (1.07, 1.33)	1.66 (1.3, 2.12)	1.05 (0.89, 1.26)	1.04 (0.95, 1.14)
192	Mobile, USA	0.99 (0.9, 1.1)	1.02 (0.81, 1.29)	1.1 (0.93, 1.29)	1.03 (0.95, 1.12)
193	El Paso, USA	1.02 (0.92, 1.13)	1 (0.74, 1.34)	1.01 (0.84, 1.21)	1 (0.91, 1.1)
194	Tucson, USA	1.05 (0.98, 1.13)	1.13 (0.93, 1.37)	1.15 (1.01, 1.32)	1.08 (1.01, 1.16)
195	Jackson, USA	1.06 (0.96, 1.18)	1.25 (0.98, 1.6)	1.12 (0.94, 1.35)	1.07 (0.97, 1.17)
196	Shreveport, USA	1.01 (0.91, 1.13)	1.17 (0.91, 1.49)	0.97 (0.81, 1.17)	0.99 (0.9, 1.09)
197	Columbus, USA	0.97 (0.89, 1.06)	0.87 (0.71, 1.08)	1.03 (0.88, 1.22)	1.01 (0.93, 1.1)

198	Dallas/Fort Worth, USA	1.01 (0.97, 1.06)	1.1 (0.98, 1.22)	1.03 (0.95, 1.11)	1.01 (0.97, 1.05)
199	San Diego, USA	1.05 (1.01, 1.09)	1.19 (1.07, 1.32)	1.09 (1, 1.19)	1.05 (1.01, 1.1)
200	Birmingham, USA	1.08 (1, 1.17)	1.28 (1.07, 1.54)	1.09 (0.93, 1.27)	1.04 (0.96, 1.13)
201	Phoenix, USA	0.98 (0.94, 1.02)	1.02 (0.9, 1.15)	0.99 (0.91, 1.08)	0.99 (0.95, 1.04)
202	Lubbock, USA	1.13 (1, 1.27)	1.14 (0.86, 1.51)	1.06 (0.87, 1.28)	1.03 (0.93, 1.14)
203	Atlanta, USA	1 (0.94, 1.07)	1.04 (0.88, 1.22)	0.99 (0.88, 1.11)	0.99 (0.93, 1.05)
204	Santa Ana/Anaheim, USA	1.06 (1.01, 1.1)	1.08 (0.97, 1.2)	1.02 (0.94, 1.11)	1.01 (0.97, 1.06)
205	Riverside, USA	1.04 (0.99, 1.09)	1.09 (0.94, 1.28)	1.1 (0.97, 1.24)	1.06 (1, 1.12)
206	Cayce, USA	1 (0.91, 1.1)	1.13 (0.89, 1.42)	1.09 (0.9, 1.32)	1.05 (0.95, 1.16)
207	Los Angeles, USA	1.01 (0.99, 1.04)	1.08 (1.02, 1.14)	1.07 (1.02, 1.11)	1.04 (1.01, 1.06)
208	San Bernardino, USA	1.08 (1.03, 1.13)	1.22 (1.05, 1.4)	1.03 (0.93, 1.15)	1.02 (0.97, 1.08)
209	Huntsville, USA	1.1 (0.99, 1.23)	1.41 (1.1, 1.82)	1.07 (0.88, 1.3)	1.04 (0.94, 1.15)
210	Little Rock, USA	1.05 (0.95, 1.17)	1.23 (0.95, 1.59)	1 (0.83, 1.21)	1 (0.91, 1.1)
211	Memphis, USA	1.03 (0.96, 1.11)	1.35 (1.13, 1.61)	1.04 (0.92, 1.18)	1.02 (0.96, 1.09)
212	Albuquerque, USA	1.03 (0.94, 1.14)	1.09 (0.81, 1.47)	1.03 (0.86, 1.24)	1.01 (0.92, 1.11)
213	Charlotte, USA	0.98 (0.89, 1.09)	1.07 (0.85, 1.36)	0.87 (0.73, 1.04)	0.93 (0.85, 1.03)
214	Bakersfield, USA	0.99 (0.9, 1.07)	1.13 (0.9, 1.43)	1.1 (0.93, 1.29)	1.05 (0.97, 1.14)
215	Oklahoma City, USA	1.06 (0.98, 1.14)	1.26 (1.04, 1.52)	0.97 (0.84, 1.11)	0.99 (0.93, 1.07)
216	Raleigh, USA	1.07 (0.96, 1.19)	1.29 (1.03, 1.63)	0.93 (0.76, 1.13)	0.95 (0.86, 1.05)
217	Knoxville, USA	1.06 (0.96, 1.17)	1.29 (1, 1.66)	1.17 (0.98, 1.41)	1.09 (0.99, 1.2)
218	Greensboro, USA	1.13 (1.01, 1.26)	1.24 (0.96, 1.61)	0.83 (0.68, 1.02)	0.92 (0.83, 1.02)
219	Tulsa, USA	0.98 (0.9, 1.07)	1 (0.82, 1.22)	0.97 (0.83, 1.12)	0.97 (0.9, 1.05)
220	Nashville, USA	1.01 (0.92, 1.11)	1.13 (0.91, 1.41)	1.16 (0.98, 1.36)	1.08 (0.99, 1.17)
221	Las Vegas, USA	0.93 (0.87, 0.99)	0.97 (0.79, 1.18)	1.11 (0.98, 1.26)	1.05 (0.98, 1.12)
222	Fresno, USA	1.03 (0.95, 1.11)	1.03 (0.82, 1.29)	1.05 (0.9, 1.22)	1.02 (0.95, 1.11)
223	Norfolk, USA	1.12 (1.01, 1.24)	1.18 (0.94, 1.5)	0.98 (0.81, 1.19)	1 (0.9, 1.1)
224	Newport News, USA	1.1 (0.99, 1.21)	1.16 (0.93, 1.46)	0.95 (0.79, 1.14)	0.97 (0.88, 1.07)
225	San Jose, USA	1.1 (1.04, 1.17)	1.18 (1.01, 1.38)	1.01 (0.89, 1.15)	1.01 (0.94, 1.09)
226	Richmond, USA	1.09 (0.97, 1.22)	1.31 (1, 1.71)	0.97 (0.78, 1.21)	0.99 (0.88, 1.11)

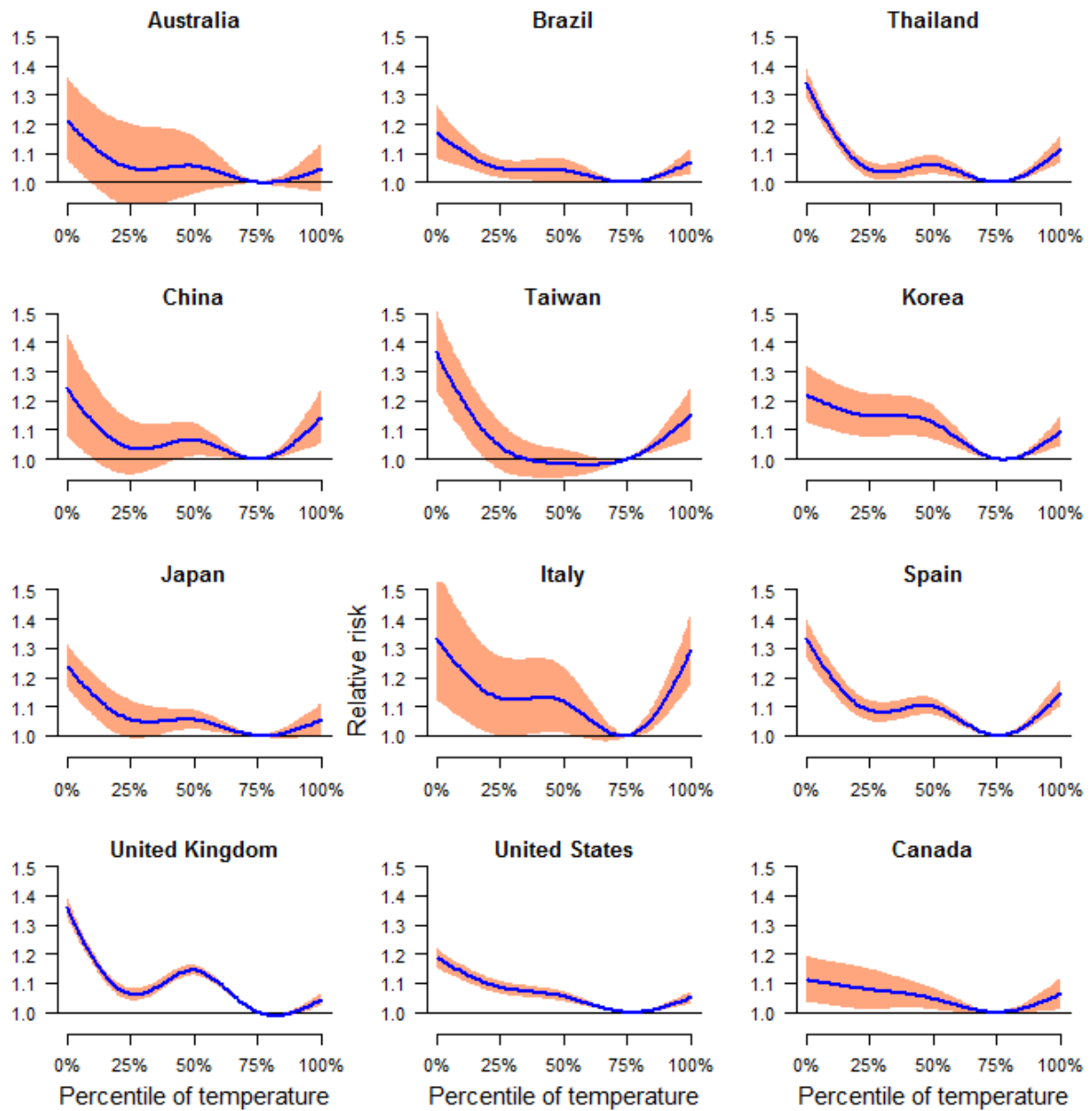
227	Modesto, USA	1.11 (1.01, 1.23)	1.19 (0.9, 1.59)	1.15 (0.95, 1.39)	1.07 (0.97, 1.18)
228	Wichita, USA	0.93 (0.84, 1.02)	0.83 (0.63, 1.08)	0.97 (0.8, 1.17)	0.98 (0.89, 1.08)
229	Oakland, USA	1.01 (0.96, 1.07)	1.09 (0.94, 1.27)	1.01 (0.88, 1.15)	1.01 (0.94, 1.08)
230	San Francisco, USA	1.04 (0.97, 1.11)	1.17 (0.99, 1.39)	0.98 (0.84, 1.13)	0.99 (0.92, 1.07)
231	Stockton, USA	1.12 (1.03, 1.22)	1.39 (1.09, 1.78)	0.99 (0.84, 1.17)	1 (0.91, 1.09)
232	Evansville, USA	0.96 (0.88, 1.06)	0.83 (0.66, 1.04)	1.05 (0.89, 1.24)	1.02 (0.94, 1.12)
233	Lexington, USA	1 (0.9, 1.12)	1.25 (0.97, 1.61)	1.18 (0.97, 1.43)	1.09 (0.99, 1.21)
234	Louisville, USA	1.11 (1.03, 1.2)	1.32 (1.1, 1.58)	1.08 (0.94, 1.25)	1.04 (0.97, 1.12)
235	Sacramento, USA	1.03 (0.97, 1.1)	1.09 (0.91, 1.31)	1.04 (0.91, 1.18)	1.02 (0.96, 1.09)
236	St. Louis, USA	1.05 (0.97, 1.15)	1.15 (0.93, 1.41)	0.98 (0.84, 1.13)	0.98 (0.91, 1.06)
237	Colorado Springs, USA	0.98 (0.88, 1.09)	1.1 (0.86, 1.4)	0.97 (0.82, 1.14)	0.99 (0.91, 1.08)
238	Arlington, USA	1.14 (0.9, 1.43)	1.32 (0.74, 2.35)	0.9 (0.55, 1.45)	0.95 (0.74, 1.22)
239	Washington, USA	0.97 (0.89, 1.06)	1.07 (0.88, 1.31)	1.02 (0.85, 1.22)	1.01 (0.92, 1.11)
240	Topeka, USA	0.99 (0.91, 1.09)	1.06 (0.83, 1.34)	0.86 (0.73, 1.02)	0.94 (0.86, 1.02)
241	Kansas City, USA	1.06 (0.97, 1.16)	1.33 (1.05, 1.68)	1.01 (0.86, 1.19)	1.02 (0.94, 1.1)
242	Kansas City, USA	1.08 (1.01, 1.15)	1.3 (1.09, 1.53)	1.07 (0.95, 1.2)	1.05 (0.99, 1.11)
243	Cincinnati, USA	1.07 (1, 1.14)	1.29 (1.1, 1.51)	0.95 (0.83, 1.09)	0.99 (0.92, 1.06)
244	Baltimore, USA	1.02 (0.95, 1.1)	1.3 (1.08, 1.55)	1.21 (1.04, 1.4)	1.11 (1.03, 1.2)
245	Denver, USA	0.98 (0.91, 1.06)	0.79 (0.67, 0.95)	1.02 (0.89, 1.16)	1 (0.94, 1.07)
246	Indianapolis, USA	1.07 (0.99, 1.14)	1.08 (0.91, 1.28)	1.04 (0.91, 1.2)	1.02 (0.95, 1.1)
247	Dayton, USA	1.07 (0.99, 1.16)	1.09 (0.89, 1.32)	0.95 (0.81, 1.12)	0.98 (0.9, 1.07)
248	Columbus, USA	1.02 (0.95, 1.1)	0.97 (0.82, 1.16)	1.02 (0.88, 1.17)	1 (0.93, 1.07)
249	Philadelphia, USA	1.08 (1.02, 1.13)	1.33 (1.16, 1.52)	1.19 (1.07, 1.34)	1.11 (1.04, 1.17)
250	Johnstown, USA	1.05 (0.94, 1.16)	1.16 (0.89, 1.5)	1.24 (0.98, 1.58)	1.13 (1, 1.28)
251	Pittsburgh, USA	1.02 (0.97, 1.07)	1.15 (1.02, 1.29)	1.05 (0.95, 1.16)	1.02 (0.97, 1.07)
252	New York, USA	1.04 (1.01, 1.07)	1.22 (1.14, 1.31)	1.17 (1.1, 1.23)	1.08 (1.05, 1.12)
253	Jersey City, USA	1.07 (0.98, 1.17)	1.2 (0.95, 1.53)	1.06 (0.86, 1.3)	1.03 (0.93, 1.15)
254	Newark, USA	1.06 (0.98, 1.14)	1.09 (0.89, 1.34)	1.14 (0.96, 1.36)	1.07 (0.98, 1.17)
255	Salt Lake City, USA	1.02 (0.94, 1.12)	1.01 (0.79, 1.29)	1.13 (0.93, 1.38)	1.07 (0.97, 1.18)

256	Lincoln, USA	1.04 (0.95, 1.14)	1.1 (0.86, 1.41)	0.94 (0.79, 1.12)	0.98 (0.9, 1.07)
257	Fort Wayne, USA	0.99 (0.91, 1.08)	1.06 (0.85, 1.33)	1.1 (0.92, 1.31)	1.05 (0.96, 1.15)
258	Akron, USA	1.07 (0.98, 1.17)	1.15 (0.94, 1.41)	1.07 (0.9, 1.26)	1.04 (0.96, 1.13)
259	Omaha, USA	0.98 (0.9, 1.07)	1.28 (1.01, 1.63)	1.11 (0.93, 1.31)	1.07 (0.97, 1.17)
260	Cleveland, USA	1.06 (1.01, 1.11)	1.28 (1.13, 1.45)	1.02 (0.92, 1.14)	1.02 (0.97, 1.08)
261	Des Moines, USA	1.07 (0.99, 1.16)	1.21 (0.97, 1.51)	1.15 (0.98, 1.36)	1.08 (0.99, 1.18)
262	Toledo, USA	1.04 (0.95, 1.13)	1.26 (1.02, 1.56)	1.08 (0.91, 1.3)	1.04 (0.95, 1.14)
263	Coventry, USA	0.99 (0.9, 1.08)	1.04 (0.81, 1.32)	0.92 (0.76, 1.12)	0.96 (0.87, 1.06)
264	Providence, USA	1.03 (0.95, 1.12)	1.17 (0.94, 1.46)	1.12 (0.93, 1.35)	1.07 (0.97, 1.17)
265	Chicago, USA	1.03 (1, 1.06)	1.18 (1.09, 1.27)	0.96 (0.9, 1.02)	0.98 (0.95, 1.02)
266	Kingston, USA	1.04 (0.96, 1.12)	1.05 (0.84, 1.31)	0.88 (0.74, 1.05)	0.94 (0.86, 1.03)
267	Cedar Rapids, USA	0.99 (0.92, 1.07)	1.07 (0.88, 1.3)	0.94 (0.82, 1.08)	0.96 (0.89, 1.03)
268	Worcester, USA	1.03 (0.95, 1.12)	1.26 (1.03, 1.56)	1.27 (1.05, 1.54)	1.13 (1.03, 1.25)
269	Boston, USA	0.99 (0.91, 1.08)	1.17 (0.93, 1.47)	1.1 (0.9, 1.34)	1.05 (0.95, 1.16)
270	Detroit, USA	1.04 (0.99, 1.08)	1.17 (1.04, 1.32)	1.06 (0.97, 1.16)	1.03 (0.98, 1.08)
271	Buffalo, USA	1.05 (0.99, 1.12)	1.27 (1.09, 1.48)	1.07 (0.93, 1.23)	1.04 (0.97, 1.12)
272	Grand Rapids, USA	1 (0.92, 1.09)	1.12 (0.91, 1.38)	0.83 (0.7, 0.98)	0.91 (0.83, 0.99)
273	Syracuse, USA	0.97 (0.88, 1.07)	1.02 (0.81, 1.29)	1.03 (0.84, 1.27)	1.02 (0.92, 1.13)
274	Milwaukee, USA	1.04 (0.98, 1.1)	1.35 (1.15, 1.58)	1.18 (1.03, 1.35)	1.1 (1.02, 1.17)
275	Madison, USA	1 (0.89, 1.13)	1.01 (0.74, 1.39)	0.99 (0.76, 1.29)	0.99 (0.87, 1.14)
276	Rochester, USA	0.99 (0.91, 1.07)	1.02 (0.84, 1.24)	1.04 (0.87, 1.23)	1.02 (0.93, 1.11)
277	Muskegon, USA	0.93 (0.84, 1.02)	0.99 (0.77, 1.26)	0.97 (0.8, 1.18)	0.99 (0.89, 1.09)
278	Biddeford, USA	0.93 (0.85, 1.02)	1.09 (0.84, 1.41)	1 (0.81, 1.22)	1 (0.9, 1.11)
279	Minneapolis/St. Paul, USA	1.03 (0.98, 1.09)	1.23 (1.06, 1.43)	1.05 (0.94, 1.17)	1.03 (0.97, 1.09)
280	Portland, USA	1.06 (1, 1.13)	1.25 (1.05, 1.49)	1.22 (1.05, 1.41)	1.11 (1.03, 1.2)
281	Olympia, USA	1.01 (0.92, 1.1)	1.17 (0.93, 1.48)	1.19 (0.98, 1.44)	1.09 (0.99, 1.21)
282	Tacoma, USA	1.03 (0.96, 1.11)	1.17 (0.94, 1.45)	1.07 (0.89, 1.29)	1.03 (0.94, 1.14)
283	Seattle, USA	1.1 (1.05, 1.16)	1.27 (1.1, 1.47)	1.06 (0.94, 1.21)	1.04 (0.97, 1.11)
284	Spokane, USA	1.07 (0.99, 1.16)	1.17 (0.92, 1.49)	1.03 (0.85, 1.25)	1.01 (0.92, 1.12)

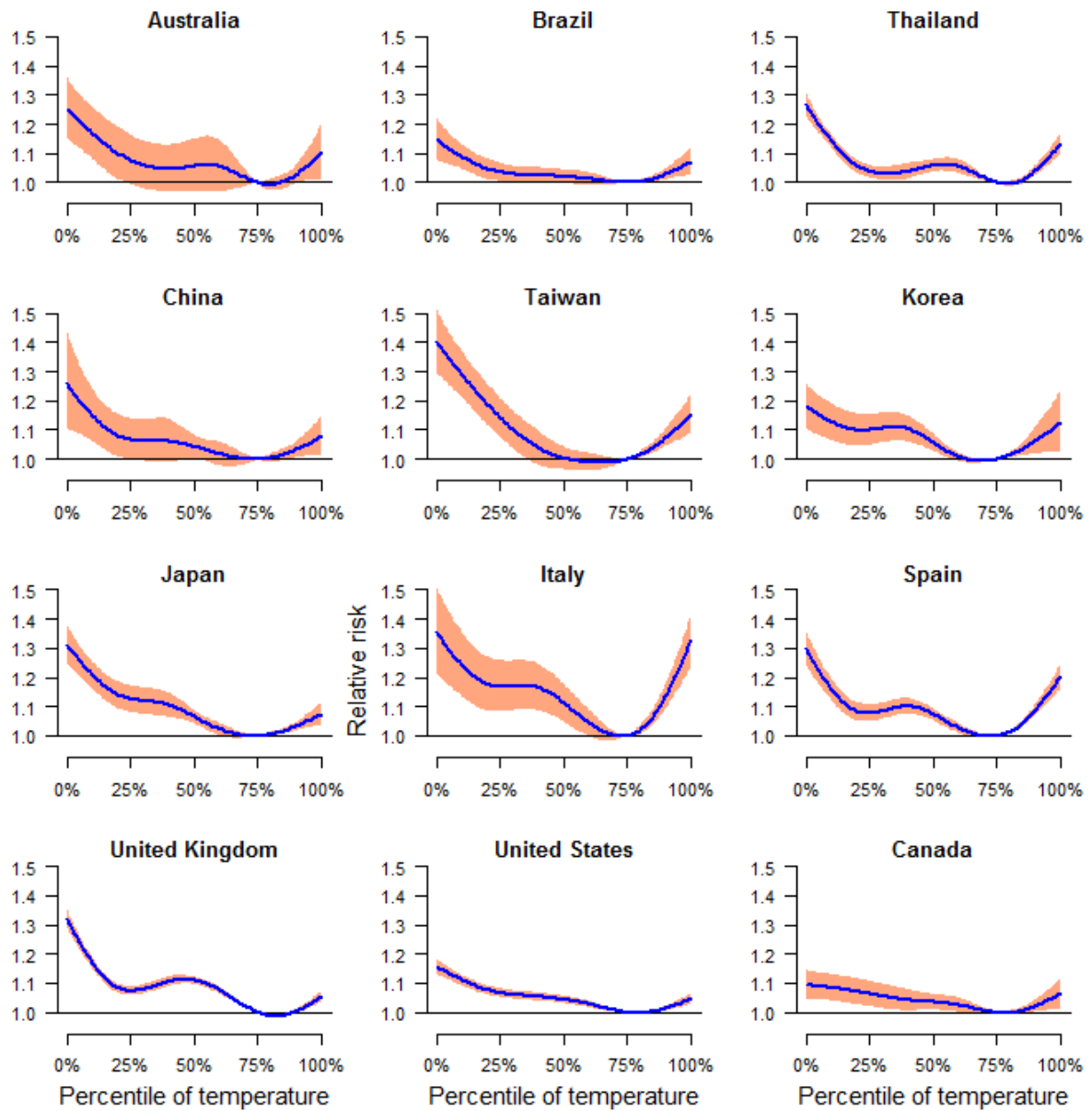
285	Anchorage, USA	1 (0.95, 1.06)	0.94 (0.75, 1.18)	0.96 (0.83, 1.11)	0.97 (0.9, 1.04)
286	Windsor, Canada	1.07 (0.99, 1.16)	1.37 (1.09, 1.73)	1.09 (0.89, 1.34)	1.06 (0.96, 1.17)
287	London, Canada	0.99 (0.92, 1.06)	1.05 (0.87, 1.28)	1.14 (0.97, 1.34)	1.06 (0.98, 1.15)
288	Hamilton, Canada	1.05 (0.98, 1.12)	0.98 (0.82, 1.18)	0.99 (0.85, 1.17)	0.99 (0.91, 1.07)
289	Kitchener-Waterloo, Canada	1.06 (0.97, 1.15)	1.37 (1.09, 1.72)	1.2 (0.99, 1.45)	1.1 (1, 1.21)
290	Toronto, Canada	1.02 (0.99, 1.05)	1.12 (1.04, 1.21)	1.12 (1.05, 1.19)	1.06 (1.02, 1.09)
291	Kingston, Canada	1.02 (0.89, 1.15)	1.24 (0.86, 1.78)	1.15 (0.86, 1.53)	1.06 (0.92, 1.21)
292	Halifax, Canada	0.95 (0.87, 1.05)	1.2 (0.93, 1.54)	0.9 (0.75, 1.08)	0.97 (0.88, 1.06)
293	Saint_john_NB, Canada	0.95 (0.84, 1.07)	1.22 (0.88, 1.69)	0.87 (0.67, 1.13)	0.94 (0.83, 1.07)
294	Ottawa, Canada	1 (0.94, 1.07)	1.11 (0.92, 1.34)	1.05 (0.92, 1.2)	1.02 (0.96, 1.09)
295	Montreal, Canada	1.05 (0.99, 1.1)	0.99 (0.85, 1.15)	1.2 (1.07, 1.35)	1.1 (1.04, 1.17)
296	Sudbury, Canada	0.98 (0.87, 1.11)	1 (0.71, 1.41)	1 (0.79, 1.26)	1 (0.89, 1.12)
297	St_john_NFL, Canada	0.95 (0.84, 1.07)	1.19 (0.9, 1.58)	1.05 (0.85, 1.31)	1.04 (0.94, 1.15)
298	Thunder bay, Canada	1.05 (0.92, 1.19)	1.06 (0.71, 1.6)	1.07 (0.79, 1.46)	1.02 (0.87, 1.18)
299	Victoria, Canada	0.99 (0.93, 1.07)	1.03 (0.85, 1.25)	0.96 (0.8, 1.16)	0.98 (0.89, 1.08)
300	Abbotsford, Canada	1.02 (0.9, 1.14)	0.88 (0.63, 1.22)	0.9 (0.67, 1.2)	0.91 (0.79, 1.06)
301	Vancouver, Canada	1 (0.97, 1.03)	1.1 (0.99, 1.22)	1.02 (0.94, 1.11)	1.02 (0.98, 1.06)
302	Winnipeg, Canada	1.08 (1.03, 1.13)	1.21 (1.05, 1.41)	1.04 (0.93, 1.16)	1.04 (0.98, 1.1)
303	Regina, Canada	1 (0.92, 1.08)	0.99 (0.77, 1.29)	0.98 (0.79, 1.21)	0.97 (0.87, 1.08)
304	Calgary, Canada	1.02 (0.97, 1.07)	0.99 (0.86, 1.14)	0.89 (0.79, 1.01)	0.95 (0.89, 1.01)
305	Saskatoon, Canada	0.99 (0.92, 1.07)	0.9 (0.71, 1.15)	1.2 (0.98, 1.46)	1.09 (0.99, 1.21)
306	Edmonton, Canada	1.01 (0.97, 1.06)	1.11 (0.96, 1.28)	1.06 (0.94, 1.19)	1.04 (0.98, 1.1)



eFigure 1: The location of the 12 study countries/regions.



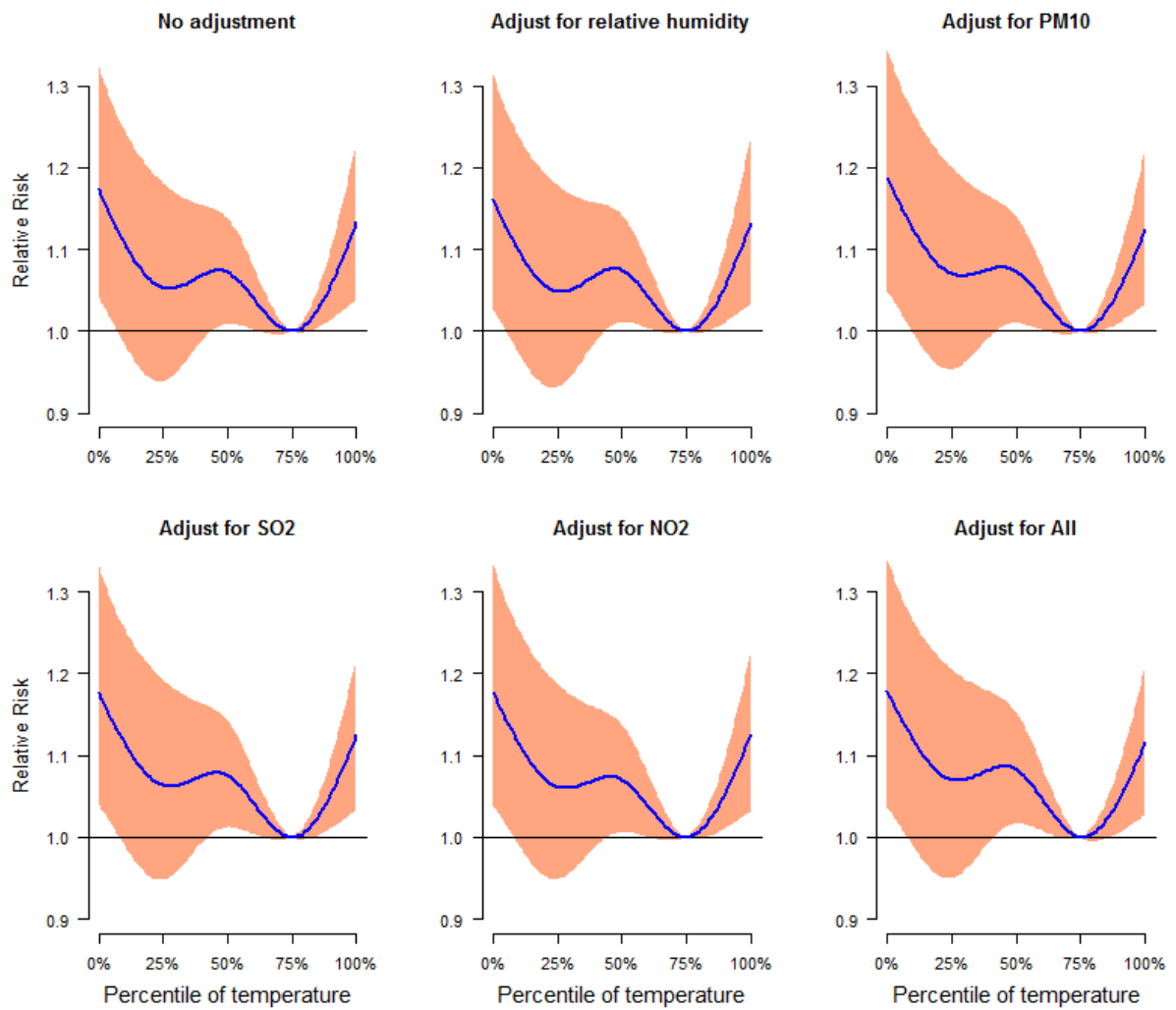
eFigure 2: The pooled relationship between temperature and deaths at lag of 0-28 days. Four degrees of freedom natural cubic spline was used for temperature, and four degrees of freedom natural cubic spline was used for lags.



eFigure 3: The pooled relationship between temperature and deaths at lag of 0-21 days. Five degrees of freedom natural cubic spline was used for temperature, and four degrees of freedom natural cubic spline was used for lags.



eFigure 4: The pooled relationship between temperature and deaths at lag of 0-21 days, controlling for relative humidity (except Spain). Five degrees of freedom natural cubic spline was used for temperature, and four degrees of freedom natural cubic spline was used for lags.



eFigure 5: The pooled relationship between temperature and deaths at lag of 0-21days in Guangzhou, Wuhan, Shanghai, Tianjin and Beijing in China, without and with controlling for relative humidity, PM₁₀, SO₂ and NO₂. Four degrees of freedom natural cubic spline was used for temperature.

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