

# Comparison for the effects of different components of temperature variability on mortality: a multi-country time-series study

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## **1. eMethods.**

### **1.1 Description of the data**

A detailed description of the mortality and environmental data used in the present study was provided in this section. As mentioned before, Mortality data and environment data were obtained from the Multi-country Multi-city (MCC) Collaborative Research Network (<https://mccstudy.lshtm.ac.uk/>). Generally, we have examined associations between mortality and many environmental exposures in the previous studies, including temperature variability (TV),(Guo et al. 2016) ambient temperature,(Gasparrini et al. 2015) particulate matter,(Liu et al. 2019) ozone,(Vicedo-Cabrera et al. 2020) nitrogen dioxide(Menget et al. 2021) and carbon monoxide (Chen et al. 2021). The current MCC network covers 760 locations from 47 countries or regions. For some countries, daily minimum temperatures and maximum temperatures (used to calculate inter-day and intra-day TV) were not available. Thus, we collected weather data from the ECMWF Reanalysis 5th Generation (ERA5) land dataset at  $0.5^\circ \times 0.5^\circ$  spatial resolution (<https://cds.climate.copernicus.eu/cdsapp#!/home>) for these countries.

For locations with daily minimum temperatures and maximum temperatures, we also checked the missing values and replaced all the observations of weather data when the missing rate was over 80% using the ERA5 dataset. For locations with a missing rate lower than 80%, we replaced the missing values on each location using the ERA5 dataset. For mortality data, two types of missing values were identified: missing at random and missing not at random. For the first type, missing values only could be observed on random days during the study period. For the second type, mortality data could be missing for several entire months in specific year on some locations. In that case, we excluded relative years containing non-random missing values on these locations. Finally, 758 locations included in this study all have a coverage over 2 years. The overall missing rate for all-cause mortality, cardiovascular mortality, respiratory mortality,

and minimum/maximum temperature was 0.001%, 0.08%, 0.14%, and 0.00014%, respectively.

## 1.2 Relationship with pre-existing indices

Diurnal temperature range (DTR) and temperature change between the neighbouring days (TCN) were previously used as indicators for intra-day and inter-day temperature (Huet al. 2021; Vicedo-Cabrera et al. 2016). Our newly defined intra-day and inter-day TV could be good proxy for DTR and TCN. For intra-day TV and DTR, we could give the relationship with the following equation:

$$TV_{intra-day,0-L} = \sqrt{\frac{\sum [(T_{l,min} - \bar{T}_l)^2 + (T_{l,max} - \bar{T}_l)^2]}{2L + 1}} = \sqrt{\frac{\sum (T_{l,max} - T_{l,min})^2}{2(2L + 1)}} = \sqrt{\frac{\sum (DTR_l^2)}{2(2L + 1)}}$$

For inter-day TV<sub>0-1</sub> and TCN, their relationship could be expressed as:

$$TV_{inter-day,0-1} = \frac{TCN}{\sqrt{3}}$$

It would be difficult to express the relationship between inter-day TV and TCN. Nevertheless, the decomposition made the percentage change in mortality risk and attributable fraction of the two indices comparable.

## 1.3 Calculation of attributable fraction (AF)

We calculated the attributable fractions (AF) using the following equations:

$$RR_{i,t} = \exp(\beta \times (TV_{i,t} - TV_{i,ref}))$$

$$AN_{i,t} = \text{Number of deaths}_{i,t} \times (RR_{i,t} - 1) / RR_{i,t}$$

$$AN = \sum_i \sum_t AN_{i,t}$$

$$AF = \frac{AN}{\text{Total number of deaths}}$$

where  $\beta$  is the pooled effect estimates associated with per 1 °C increase of inter-day TV or intra-day TV,  $TV_{i,t}$  is the inter-day TV or intra-day TV for city  $i$  on day  $t$ ,  $TV_{i,ref}$  is the minimum inter-day TV or intra-day TV (defined as the reference TV or the counterfactual

scenario),  $RR_{i,t}$  is the cumulative relative risk of inter-day or intra-day TV in city  $i$  on day  $t$ ,  $AN_{i,t}$  is the attributable number of deaths for city  $i$  on day  $t$ , and  $AF$  is the attributable fraction calculated at the global level. The AFs at the country level were calculated using the same method. Additionally, 95% confidence interval (CI) was calculated using the 95% CI of pooled effect estimates.

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## 2. Results

**Table S1. Summary of inter-day and intra-day TV<sub>0-1</sub> to TV<sub>0-6</sub> in 47 countries/regions**

Country/region	TV 0–1, Median (IQR)		TV 0–2, Median (IQR)		TV 0–3, Median (IQR)		TV 0–4, Median (IQR)		TV 0–5, Median (IQR)		TV 0–6, Median (IQR)	
	Inter-day	Intra-day	Inter-day	Intra-day	Inter-day	Intra-day	Inter-day	Intra-day	Inter-day	Intra-day	Inter-day	Intra-day
Argentina	1.2 (1.2, 1.3)	7.0 (5.6, 7.4)	1.7 (1.6, 1.8)	6.7 (5.4, 7.0)	2.0 (1.9, 2.1)	6.5 (5.3, 6.9)	2.2 (2.1, 2.3)	6.4 (5.2, 6.8)	2.4 (2.2, 2.5)	6.4 (5.2, 6.8)	2.5 (2.4, 2.6)	6.4 (5.1, 6.8)
Australia	0.9 (0.7, 1.2)	4.9 (4.6, 5.1)	1.2 (1.0, 1.7)	4.7 (4.4, 4.9)	1.4 (1.1, 1.9)	4.6 (4.3, 4.8)	1.5 (1.3, 2.1)	4.5 (4.2, 4.8)	1.6 (1.3, 2.2)	4.5 (4.2, 4.7)	1.7 (1.4, 2.3)	4.5 (4.2, 4.7)
Brazil	0.6 (0.5, 0.8)	5.7 (4.7, 6.4)	0.8 (0.6, 1.1)	5.4 (4.5, 6.1)	1.0 (0.7, 1.3)	5.3 (4.4, 6.0)	1.1 (0.8, 1.5)	5.3 (4.3, 5.9)	1.1 (0.8, 1.6)	5.3 (4.3, 5.9)	1.2 (0.9, 1.7)	5.2 (4.2, 5.8)
Canada	1.6 (1.4, 1.7)	5.5 (4.9, 6.1)	2.2 (2.0, 2.3)	5.3 (4.7, 5.9)	2.5 (2.3, 2.7)	5.2 (4.6, 5.8)	2.8 (2.5, 3.0)	5.1 (4.6, 5.7)	2.9 (2.7, 3.2)	5.1 (4.5, 5.7)	3.1 (2.8, 3.3)	5.1 (4.5, 5.7)
Chile	0.7 (0.5, 0.8)	6.0 (3.7, 6.9)	1.0 (0.6, 1.1)	5.8 (3.5, 6.6)	1.2 (0.7, 1.3)	5.7 (3.4, 6.5)	1.3 (0.8, 1.4)	5.6 (3.4, 6.4)	1.4 (0.9, 1.5)	5.6 (3.4, 6.4)	1.4 (0.9, 1.6)	5.6 (3.4, 6.3)
China	0.9 (0.8, 1.0)	5.5 (3.7, 6.3)	1.3 (1.2, 1.4)	5.3 (3.6, 6.0)	1.5 (1.4, 1.7)	5.2 (3.5, 5.9)	1.7 (1.5, 1.9)	5.2 (3.5, 5.8)	1.8 (1.6, 2.0)	5.1 (3.4, 5.8)	1.9 (1.8, 2.1)	5.1 (3.4, 5.7)
Colombia	0.5 (0.4, 0.5)	5.6 (4.2, 6.1)	0.6 (0.6, 0.7)	5.3 (4.0, 5.8)	0.7 (0.6, 0.8)	5.2 (4.0, 5.6)	0.8 (0.7, 0.8)	5.1 (3.9, 5.5)	0.8 (0.7, 0.8)	5.1 (3.9, 5.5)	0.8 (0.7, 0.9)	5.0 (3.9, 5.5)
Costa Rica	0.5 (0.4, 0.5)	5.0 (4.9, 5.1)	0.6 (0.6, 0.6)	4.8 (4.7, 4.8)	0.7 (0.6, 0.7)	4.7 (4.6, 4.7)	0.7 (0.7, 0.7)	4.6 (4.5, 4.7)	0.7 (0.7, 0.7)	4.6 (4.5, 4.6)	0.7 (0.7, 0.8)	4.5 (4.5, 4.6)
Czech Republic	1.2 (1.1, 1.2)	3.4 (3.2, 3.5)	1.6 (1.6, 1.7)	3.3 (3.1, 3.4)	1.9 (1.9, 2.0)	3.2 (3.0, 3.3)	2.2 (2.1, 2.2)	3.2 (3.0, 3.3)	2.3 (2.2, 2.4)	3.2 (3.0, 3.3)	2.5 (2.4, 2.6)	3.2 (3.0, 3.3)
Ecuador	0.6 (0.5, 0.6)	5.4 (4.1, 6.8)	0.8 (0.6, 0.8)	5.1 (3.9, 6.5)	0.8 (0.7, 0.9)	5.0 (3.8, 6.4)	0.9 (0.7, 1.0)	4.9 (3.8, 6.3)	0.9 (0.7, 1.0)	4.9 (3.7, 6.2)	0.9 (0.8, 1.0)	4.9 (3.7, 6.2)
Estonia	1.1 (1.0, 1.2)	4.6 (4.2, 4.8)	1.5 (1.4, 1.6)	4.4 (4.1, 4.6)	1.8 (1.7, 1.9)	4.3 (4.0, 4.5)	2.0 (1.9, 2.1)	4.3 (4.0, 4.5)	2.1 (2.0, 2.3)	4.3 (4.0, 4.5)	2.3 (2.2, 2.5)	4.2 (3.9, 4.4)
Finland	1.0 (1.0, 1.1)	3.7 (3.6, 3.9)	1.4 (1.3, 1.5)	3.6 (3.5, 3.7)	1.7 (1.6, 1.8)	3.5 (3.5, 3.7)	1.8 (1.8, 2.0)	3.5 (3.4, 3.6)	2.0 (1.9, 2.1)	3.5 (3.4, 3.6)	2.1 (2.0, 2.2)	3.5 (3.4, 3.6)
France	1.0 (0.9, 1.0)	5.2 (4.5, 5.5)	1.4 (1.2, 1.4)	5.0 (4.3, 5.3)	1.6 (1.5, 1.7)	4.9 (4.2, 5.2)	1.8 (1.6, 1.9)	4.9 (4.2, 5.2)	1.9 (1.7, 2.0)	4.8 (4.1, 5.1)	2.0 (1.8, 2.2)	4.8 (4.1, 5.1)
French Caribbean	0.4 (0.3, 0.4)	4.2 (3.9, 4.3)	0.5 (0.5, 0.5)	4.0 (3.7, 4.1)	0.5 (0.5, 0.5)	3.9 (3.6, 4.0)	0.6 (0.5, 0.6)	3.8 (3.6, 4.0)	0.6 (0.6, 0.6)	3.8 (3.6, 3.9)	0.6 (0.6, 0.6)	3.8 (3.5, 3.9)
French Guiana	0.4 (0.3, 0.4)	4.5 (4.4, 4.6)	0.4 (0.4, 0.5)	4.3 (4.2, 4.4)	0.5 (0.5, 0.5)	4.2 (4.1, 4.3)	0.5 (0.5, 0.5)	4.1 (4.1, 4.2)	0.5 (0.5, 0.6)	4.1 (4.0, 4.2)	0.5 (0.5, 0.6)	4.1 (4.0, 4.2)
Réunion	0.4 (0.4, 0.4)	3.9 (3.7, 4.0)	0.5 (0.5, 0.5)	3.7 (3.5, 3.8)	0.6 (0.5, 0.6)	3.6 (3.5, 3.7)	0.6 (0.6, 0.6)	3.6 (3.4, 3.7)	0.6 (0.6, 0.7)	3.5 (3.4, 3.7)	0.7 (0.6, 0.7)	3.5 (3.4, 3.6)
Germany	1.0 (1.0, 1.1)	4.9 (4.6, 5.1)	1.5 (1.4, 1.5)	4.7 (4.4, 4.9)	1.7 (1.7, 1.8)	4.6 (4.4, 4.8)	1.9 (1.9, 2.0)	4.5 (4.3, 4.8)	2.1 (2.0, 2.2)	4.5 (4.3, 4.7)	2.2 (2.1, 2.3)	4.5 (4.3, 4.7)
Greece	0.7 (0.7, 0.8)	4.5 (4.4, 4.7)	1.1 (1.0, 1.1)	4.3 (4.2, 4.5)	1.3 (1.2, 1.3)	4.2 (4.1, 4.4)	1.4 (1.4, 1.5)	4.2 (4.1, 4.4)	1.6 (1.5, 1.6)	4.2 (4.0, 4.3)	1.7 (1.6, 1.7)	4.1 (4.0, 4.3)
Guatemala	0.5 (0.5, 0.5)	5.3 (5.1, 5.3)	0.7 (0.6, 0.7)	5.0 (4.9, 5.1)	0.7 (0.7, 0.8)	4.9 (4.8, 5.0)	0.8 (0.8, 0.9)	4.9 (4.7, 4.9)	0.9 (0.8, 0.9)	4.8 (4.7, 4.9)	0.9 (0.9, 0.9)	4.8 (4.7, 4.8)
Iran	0.9 (0.9, 1.0)	6.1 (5.7, 7.4)	1.3 (1.3, 1.4)	5.8 (5.4, 7.1)	1.6 (1.5, 1.7)	5.7 (5.3, 6.9)	1.8 (1.7, 1.9)	5.6 (5.3, 6.8)	1.9 (1.9, 2.1)	5.6 (5.2, 6.8)	2.1 (2.0, 2.2)	5.5 (5.2, 6.8)
Ireland	0.8 (0.7, 0.9)	3.9 (3.5, 4.3)	1.1 (1.0, 1.2)	3.8 (3.4, 4.1)	1.3 (1.1, 1.4)	3.7 (3.3, 4.0)	1.4 (1.3, 1.5)	3.7 (3.3, 4.0)	1.5 (1.3, 1.6)	3.6 (3.2, 4.0)	1.5 (1.4, 1.7)	3.6 (3.2, 4.0)
Israel	0.7 (0.7, 0.7)	6.3 (6.1, 6.4)	0.9 (0.9, 1.0)	6.0 (5.8, 6.1)	1.1 (1.0, 1.2)	5.9 (5.7, 6.0)	1.2 (1.1, 1.3)	5.8 (5.6, 6.0)	1.3 (1.2, 1.3)	5.8 (5.6, 5.9)	1.3 (1.3, 1.4)	5.8 (5.6, 5.9)
Italy	0.7 (0.6, 0.7)	4.8 (4.0, 5.4)	0.9 (0.9, 1.0)	4.6 (3.8, 5.1)	1.1 (1.0, 1.2)	4.5 (3.7, 5.0)	1.2 (1.2, 1.3)	4.5 (3.7, 5.0)	1.3 (1.3, 1.4)	4.4 (3.7, 4.9)	1.4 (1.3, 1.5)	4.4 (3.7, 4.9)
Japan	0.9 (0.8, 1.0)	5.0 (4.5, 5.4)	1.2 (1.1, 1.3)	4.8 (4.3, 5.2)	1.4 (1.3, 1.5)	4.7 (4.2, 5.1)	1.6 (1.5, 1.7)	4.6 (4.2, 5.1)	1.7 (1.6, 1.8)	4.6 (4.2, 5.0)	1.7 (1.6, 1.9)	4.6 (4.1, 5.0)

Kuwait	0.6 (0.6, 0.6)	4.8 (4.7, 4.9)	0.8 (0.8, 0.8)	4.5 (4.5, 4.6)	1.0 (1.0, 1.0)	4.4 (4.4, 4.5)	1.1 (1.1, 1.1)	4.4 (4.3, 4.5)	1.2 (1.1, 1.2)	4.3 (4.3, 4.5)	1.2 (1.2, 1.2)	4.3 (4.3, 4.4)
Mexico	0.7 (0.5, 0.9)	7.7 (6.8, 8.3)	0.9 (0.7, 1.3)	7.4 (6.5, 7.9)	1.1 (0.8, 1.5)	7.2 (6.4, 7.8)	1.2 (0.9, 1.7)	7.1 (6.3, 7.7)	1.2 (0.9, 1.8)	7.1 (6.2, 7.6)	1.3 (1.0, 1.8)	7.0 (6.2, 7.6)
Moldova	1.1 (1.1, 1.2)	5.7 (5.1, 6.1)	1.6 (1.5, 1.6)	5.4 (4.9, 5.9)	1.8 (1.8, 2.0)	5.3 (4.8, 5.8)	2.1 (2.0, 2.2)	5.2 (4.7, 5.7)	2.2 (2.2, 2.4)	5.2 (4.7, 5.7)	2.4 (2.3, 2.5)	5.2 (4.7, 5.7)
Netherland	1.0 (0.9, 1.0)	4.6 (4.3, 4.9)	1.3 (1.3, 1.4)	4.4 (4.1, 4.7)	1.6 (1.5, 1.6)	4.3 (4.0, 4.6)	1.7 (1.7, 1.8)	4.3 (4.0, 4.6)	1.9 (1.8, 2.0)	4.2 (4.0, 4.5)	2.0 (1.9, 2.1)	4.2 (4.0, 4.5)
Norway	1.0 (1.0, 1.1)	4.1 (4.0, 4.3)	1.4 (1.3, 1.4)	4.0 (3.9, 4.1)	1.6 (1.6, 1.7)	3.9 (3.8, 4.0)	1.8 (1.7, 1.9)	3.9 (3.8, 4.0)	2.0 (1.9, 2.1)	3.9 (3.8, 4.0)	2.1 (2.0, 2.2)	3.8 (3.8, 4.0)
Panama	0.5 (0.4, 0.5)	4.4 (4.4, 4.5)	0.6 (0.6, 0.6)	4.2 (4.2, 4.3)	0.7 (0.7, 0.7)	4.1 (4.1, 4.2)	0.7 (0.7, 0.8)	4.1 (4.0, 4.2)	0.8 (0.7, 0.8)	4.0 (4.0, 4.1)	0.8 (0.7, 0.8)	4.0 (4.0, 4.1)
Paraguay	1.2 (1.2, 1.3)	6.2 (6.1, 6.3)	1.7 (1.7, 1.8)	5.9 (5.8, 6.0)	2.1 (2.0, 2.2)	5.8 (5.7, 5.9)	2.3 (2.3, 2.4)	5.8 (5.7, 5.8)	2.5 (2.4, 2.6)	5.7 (5.6, 5.8)	2.6 (2.6, 2.7)	5.7 (5.6, 5.7)
Peru	0.5 (0.4, 0.6)	6.9 (5.7, 8.0)	0.6 (0.6, 0.8)	6.6 (5.4, 7.6)	0.7 (0.6, 0.9)	6.4 (5.3, 7.4)	0.8 (0.7, 0.9)	6.3 (5.2, 7.3)	0.8 (0.7, 0.9)	6.3 (5.2, 7.3)	0.8 (0.7, 1.0)	6.2 (5.2, 7.2)
Philippines	0.3 (0.3, 0.3)	3.1 (2.9, 3.2)	0.4 (0.4, 0.4)	2.9 (2.8, 3.0)	0.5 (0.4, 0.5)	2.8 (2.7, 3.0)	0.5 (0.5, 0.6)	2.8 (2.7, 3.0)	0.6 (0.5, 0.6)	2.8 (2.7, 2.9)	0.6 (0.6, 0.6)	2.8 (2.7, 2.9)
Portugal	0.8 (0.8, 0.9)	5.5 (5.0, 6.2)	1.1 (1.1, 1.2)	5.2 (4.8, 6.0)	1.3 (1.3, 1.4)	5.1 (4.7, 5.8)	1.5 (1.4, 1.6)	5.1 (4.7, 5.8)	1.6 (1.5, 1.7)	5.1 (4.6, 5.7)	1.7 (1.6, 1.8)	5.0 (4.6, 5.7)
Puerto Rico	0.4 (0.4, 0.4)	3.9 (3.8, 4.0)	0.5 (0.5, 0.5)	3.7 (3.6, 3.8)	0.6 (0.5, 0.6)	3.6 (3.5, 3.7)	0.6 (0.6, 0.6)	3.6 (3.5, 3.7)	0.6 (0.6, 0.6)	3.6 (3.5, 3.7)	0.7 (0.6, 0.7)	3.5 (3.5, 3.6)
Romania	1.0 (1.0, 1.1)	6.1 (5.7, 6.6)	1.4 (1.4, 1.5)	5.8 (5.4, 6.4)	1.7 (1.6, 1.8)	5.7 (5.3, 6.2)	1.9 (1.8, 2.0)	5.7 (5.2, 6.2)	2.1 (2.0, 2.2)	5.6 (5.2, 6.1)	2.2 (2.1, 2.4)	5.6 (5.2, 6.1)
South Africa	1.0 (0.8, 1.2)	8.2 (7.4, 9.2)	1.4 (1.2, 1.7)	7.8 (7.1, 8.8)	1.6 (1.4, 1.9)	7.7 (6.9, 8.6)	1.7 (1.5, 2.1)	7.6 (6.9, 8.5)	1.8 (1.6, 2.2)	7.5 (6.8, 8.5)	1.9 (1.7, 2.3)	7.5 (6.8, 8.4)
South Korea	1.0 (0.9, 1.0)	5.8 (4.8, 6.6)	1.4 (1.3, 1.4)	5.6 (4.6, 6.4)	1.6 (1.5, 1.7)	5.5 (4.5, 6.2)	1.7 (1.6, 1.9)	5.4 (4.4, 6.2)	1.9 (1.7, 2.0)	5.4 (4.4, 6.1)	2.0 (1.8, 2.1)	5.3 (4.4, 6.1)
Spain	0.8 (0.6, 0.8)	5.6 (3.9, 6.3)	1.1 (0.9, 1.2)	5.4 (3.7, 6.0)	1.3 (1.0, 1.4)	5.3 (3.7, 5.9)	1.4 (1.2, 1.6)	5.2 (3.6, 5.8)	1.5 (1.2, 1.7)	5.2 (3.6, 5.7)	1.6 (1.3, 1.9)	5.1 (3.6, 5.7)
Sweden	0.9 (0.8, 1.0)	3.9 (3.7, 4.1)	1.2 (1.2, 1.3)	3.7 (3.5, 3.9)	1.5 (1.4, 1.5)	3.6 (3.4, 3.8)	1.6 (1.5, 1.7)	3.6 (3.4, 3.8)	1.7 (1.6, 1.8)	3.6 (3.4, 3.8)	1.8 (1.7, 2.0)	3.6 (3.4, 3.8)
Switzerland	0.9 (0.9, 1.0)	4.5 (4.0, 4.9)	1.3 (1.2, 1.4)	4.3 (3.8, 4.7)	1.6 (1.5, 1.7)	4.2 (3.8, 4.6)	1.8 (1.7, 1.9)	4.2 (3.7, 4.6)	1.9 (1.8, 2.1)	4.1 (3.7, 4.6)	2.1 (1.9, 2.2)	4.1 (3.7, 4.5)
Taiwan	0.7 (0.6, 0.8)	4.0 (3.7, 4.8)	0.9 (0.8, 1.2)	3.9 (3.6, 4.6)	1.1 (1.0, 1.4)	3.8 (3.5, 4.5)	1.2 (1.1, 1.5)	3.7 (3.5, 4.4)	1.3 (1.2, 1.6)	3.7 (3.5, 4.4)	1.4 (1.3, 1.7)	3.7 (3.5, 4.4)
Thailand	0.4 (0.4, 0.5)	5.7 (5.1, 6.2)	0.6 (0.5, 0.7)	5.5 (4.9, 5.9)	0.7 (0.6, 0.8)	5.3 (4.8, 5.7)	0.8 (0.6, 0.9)	5.3 (4.7, 5.7)	0.8 (0.7, 0.9)	5.2 (4.7, 5.6)	0.9 (0.7, 1.0)	5.2 (4.7, 5.6)
UK	0.8 (0.8, 0.9)	3.6 (3.0, 3.8)	1.2 (1.0, 1.2)	3.4 (2.9, 3.7)	1.3 (1.2, 1.4)	3.4 (2.9, 3.6)	1.5 (1.3, 1.6)	3.3 (2.8, 3.6)	1.6 (1.4, 1.7)	3.3 (2.8, 3.5)	1.7 (1.5, 1.8)	3.3 (2.8, 3.5)
Uruguay	1.1 (1.1, 1.2)	4.3 (4.3, 4.5)	1.5 (1.5, 1.6)	4.2 (4.2, 4.4)	1.8 (1.7, 1.8)	4.1 (4.1, 4.3)	2.0 (1.9, 2.0)	4.1 (4.1, 4.3)	2.1 (2.0, 2.1)	4.1 (4.1, 4.3)	2.2 (2.2, 2.2)	4.1 (4.1, 4.3)
USA	1.3 (1.0, 1.5)	5.5 (5.0, 6.1)	1.8 (1.4, 2.1)	5.3 (4.7, 5.8)	2.1 (1.7, 2.4)	5.2 (4.7, 5.7)	2.4 (1.9, 2.7)	5.2 (4.6, 5.7)	2.5 (2.0, 2.9)	5.1 (4.6, 5.6)	2.7 (2.1, 3.0)	5.1 (4.6, 5.6)
Vietnam	0.6 (0.4, 0.6)	4.9 (4.8, 4.9)	0.8 (0.5, 0.9)	4.6 (4.6, 4.7)	1.0 (0.6, 1.0)	4.5 (4.5, 4.6)	1.1 (0.7, 1.2)	4.5 (4.4, 4.5)	1.2 (0.7, 1.3)	4.4 (4.4, 4.5)	1.3 (0.7, 1.3)	4.4 (4.3, 4.5)
Pooled	0.9 (0.8, 1.2)	5.3 (4.2, 6.0)	1.3 (1.1, 1.7)	5.1 (4.0, 5.8)	1.5 (1.3, 2.0)	5.0 (4.0, 5.7)	1.7 (1.4, 2.2)	4.9 (3.9, 5.6)	1.8 (1.5, 2.4)	4.9 (3.9, 5.6)	1.9 (1.6, 2.5)	4.9 (3.9, 5.5)



**Table S2. The proportion of zero death counts in 47 countries/regions**

Country/region	Proportion (%)
Argentina	0.3
Australia	0.2
Brazil	2.7
Canada	0.9
Chile	1.1
China	0.5
Colombia	0
Costa Rica	1.3
Czech Republic	0
Ecuador	0
Estonia	10.2
Finland	0
France	0.2
French Caribbean	2.3
French Guiana	30.9
Réunion	10.3
Germany	0
Greece	0
Guatemala	0
Iran	0.9
Ireland	0
Israel	0
Italy	11.6
Japan	0
Kuwait	0.1
Mexico	0.1
Moldova	41.4
Netherland	0.2
Norway	1
Panama	0.1
Paraguay	0
Peru	2
Philippines	0
Portugal	0
Puerto Rico	0
Romania	0.1
South Africa	0.5
South Korea	5.3
Spain	10.4
Sweden	0
Switzerland	4.8
Taiwan	0
Thailand	1.8
UK	6.7
Uruguay	2.5

USA	0
Vietnam	3.2
Pooled	3.1

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**Table S3. Results for test of heterogeneity across all locations**

	All-cause mortality		Cardiovascular mortality		Respiratory mortality	
	I <sup>2</sup> (%)	Cochran <i>P</i> -value	I <sup>2</sup> (%)	Cochran <i>P</i> -value	I <sup>2</sup> (%)	Cochran <i>P</i> -value
TV 0-1	18.1	<0.01	0.0	0.92	5.3	0.15
TV 0-2	10.9	0.01	3.5	0.25	4.7	0.18
TV 0-3	11.0	0.01	0.8	0.43	9.9	0.02
TV 0-4	19.9	<0.01	10.2	0.02	10.7	0.02
TV 0-5	22.8	<0.01	10.2	0.02	15.3	<0.01
TV 0-6	24.7	<0.01	15.5	<0.01	13.7	<0.01
TV 0-7	25.8	<0.01	15.6	<0.01	8.3	0.05

**Table S4. Pooled percentage change (%) of all-cause, cardiovascular, and respiratory mortality risk per IQR increase in TV.**

Lag	TV	Percentage change (%; 95% CI)	<i>p</i> for difference
All-cause			
TV 0-1	Inter-day	-0.02 (-0.05, 0.01)	<0.001
TV 0-1	Intra-day	0.57 (0.52, 0.63)	Ref
TV 0-2	Inter-day	-0.04 (-0.07, -0.01)	<0.001
TV 0-2	Intra-day	0.59 (0.54, 0.63)	Ref
TV 0-3	Inter-day	0.08 (0.05, 0.11)	<0.001
TV 0-3	Intra-day	0.53 (0.48, 0.58)	Ref
TV 0-4	Inter-day	0.18 (0.14, 0.21)	<0.001
TV 0-4	Intra-day	0.50 (0.45, 0.55)	Ref
TV 0-5	Inter-day	0.22 (0.18, 0.26)	<0.001
TV 0-5	Intra-day	0.51 (0.45, 0.56)	Ref
TV 0-6	Inter-day	0.22 (0.18, 0.26)	<0.001
TV 0-6	Intra-day	0.54 (0.48, 0.60)	Ref
TV 0-7	Inter-day	0.22 (0.18, 0.26)	<0.001
TV 0-7	Intra-day	0.59 (0.53, 0.65)	Ref
Cardiovascular			
TV 0-1	Inter-day	0.09 (0.04, 0.13)	<0.001
TV 0-1	Intra-day	0.52 (0.45, 0.59)	Ref
TV 0-2	Inter-day	0.10 (0.05, 0.15)	<0.001
TV 0-2	Intra-day	0.62 (0.55, 0.68)	Ref
TV 0-3	Inter-day	0.22 (0.16, 0.27)	<0.001
TV 0-3	Intra-day	0.62 (0.55, 0.70)	Ref
TV 0-4	Inter-day	0.32 (0.26, 0.38)	<0.001
TV 0-4	Intra-day	0.61 (0.53, 0.68)	Ref
TV 0-5	Inter-day	0.40 (0.34, 0.46)	<0.001
TV 0-5	Intra-day	0.59 (0.51, 0.67)	Ref
TV 0-6	Inter-day	0.41 (0.35, 0.47)	<0.001
TV 0-6	Intra-day	0.62 (0.53, 0.70)	Ref
TV 0-7	Inter-day	0.44 (0.37, 0.50)	<0.001
TV 0-7	Intra-day	0.64 (0.56, 0.73)	Ref
Respiratory			
TV 0-1	Inter-day	0.05 (-0.04, 0.13)	0.004
TV 0-1	Intra-day	0.25 (0.14, 0.36)	Ref
TV 0-2	Inter-day	0.02 (-0.06, 0.10)	<0.001
TV 0-2	Intra-day	0.35 (0.23, 0.46)	Ref
TV 0-3	Inter-day	0.18 (0.09, 0.27)	0.025
TV 0-3	Intra-day	0.35 (0.23, 0.47)	Ref
TV 0-4	Inter-day	0.30 (0.20, 0.39)	0.276
TV 0-4	Intra-day	0.39 (0.25, 0.53)	Ref
TV 0-5	Inter-day	0.33 (0.22, 0.43)	0.139
TV 0-5	Intra-day	0.46 (0.31, 0.61)	Ref
TV 0-6	Inter-day	0.31 (0.21, 0.41)	0.017
TV 0-6	Intra-day	0.54 (0.38, 0.69)	Ref
TV 0-7	Inter-day	0.31 (0.21, 0.41)	<0.001

TV 0-7

Intra-day

0.65 (0.49, 0.80)

Ref

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**Table S5. Percentage change (%) of all-cause mortality risk per IQR increase in TV.**

Country/region	TV 0-1		TV 0-2		TV 0-3		TV 0-4		TV 0-5		TV 0-6		TV 0-7	
	Inter-day	Intra-day	Inter-day	Intra-day	Inter-day	Intra-day	Inter-day	Intra-day	Inter-day	Intra-day	Inter-day	Intra-day	Inter-day	Intra-day
Argentina	-0.07 (-0.22, 0.07)	1.08 (0.77, 1.39)	-0.12 (-0.26, 0.02)	0.94 (0.69, 1.19)	-0.04 (-0.20, 0.11)	0.91 (0.65, 1.17)	0.02 (-0.16, 0.21)	0.85 (0.57, 1.13)	0.07 (-0.14, 0.27)	0.82 (0.53, 1.11)	0.10 (-0.11, 0.31)	0.81 (0.51, 1.11)	0.07 (-0.15, 0.29)	0.83 (0.52, 1.15)
Australia	0.02 (-0.12, 0.16)	0.25 (-0.07, 0.58)	-0.06 (-0.19, 0.08)	0.51 (0.26, 0.76)	0.06 (-0.10, 0.21)	0.53 (0.27, 0.79)	0.18 (-0.00, 0.36)	0.50 (0.22, 0.78)	0.22 (0.01, 0.43)	0.54 (0.24, 0.83)	0.25 (0.04, 0.47)	0.59 (0.25, 0.92)	0.29 (0.07, 0.51)	0.66 (0.22, 1.09)
Brazil	-0.04 (-0.10, 0.02)	0.74 (0.59, 0.90)	-0.06 (-0.12, -0.00)	0.66 (0.55, 0.77)	0.06 (-0.00, 0.13)	0.57 (0.46, 0.69)	0.14 (0.06, 0.21)	0.53 (0.41, 0.65)	0.17 (0.08, 0.26)	0.53 (0.41, 0.66)	0.16 (0.07, 0.25)	0.57 (0.44, 0.70)	0.17 (0.07, 0.26)	0.64 (0.49, 0.79)
Canada	-0.03 (-0.08, 0.02)	0.57 (0.45, 0.70)	-0.04 (-0.09, 0.01)	0.59 (0.50, 0.69)	0.07 (0.02, 0.13)	0.55 (0.45, 0.65)	0.16 (0.10, 0.23)	0.50 (0.40, 0.61)	0.21 (0.13, 0.28)	0.51 (0.40, 0.62)	0.20 (0.13, 0.28)	0.54 (0.42, 0.65)	0.20 (0.12, 0.28)	0.58 (0.46, 0.70)
Chile	-0.03 (-0.17, 0.10)	0.37 (-0.08, 0.82)	-0.04 (-0.16, 0.08)	0.46 (0.21, 0.70)	0.05 (-0.09, 0.19)	0.39 (0.11, 0.67)	0.14 (-0.03, 0.31)	0.31 (-0.03, 0.64)	0.17 (-0.02, 0.36)	0.27 (-0.07, 0.62)	0.18 (-0.02, 0.38)	0.28 (-0.08, 0.64)	0.18 (-0.03, 0.38)	0.28 (-0.10, 0.66)
China	-0.02 (-0.09, 0.05)	0.61 (0.42, 0.79)	-0.04 (-0.10, 0.03)	0.63 (0.50, 0.76)	0.07 (-0.00, 0.15)	0.61 (0.47, 0.74)	0.17 (0.08, 0.26)	0.60 (0.45, 0.75)	0.23 (0.12, 0.33)	0.61 (0.45, 0.76)	0.24 (0.13, 0.35)	0.63 (0.46, 0.79)	0.25 (0.14, 0.37)	0.65 (0.48, 0.83)
Colombia	0.00 (-0.11, 0.11)	0.51 (0.24, 0.77)	-0.02 (-0.13, 0.09)	0.54 (0.34, 0.74)	0.10 (-0.02, 0.22)	0.40 (0.19, 0.62)	0.15 (0.01, 0.30)	0.37 (0.14, 0.60)	0.18 (0.02, 0.34)	0.36 (0.12, 0.60)	0.19 (0.02, 0.36)	0.33 (0.08, 0.58)	0.21 (0.04, 0.38)	0.33 (0.07, 0.60)
Costa Rica	-0.04 (-0.31, 0.23)	0.71 (-0.04, 1.47)	-0.03 (-0.29, 0.23)	0.60 (0.09, 1.10)	0.10 (-0.19, 0.38)	0.50 (-0.04, 1.03)	0.19 (-0.16, 0.55)	0.42 (-0.17, 1.00)	0.26 (-0.15, 0.67)	0.42 (-0.19, 1.03)	0.27 (-0.15, 0.69)	0.42 (-0.22, 1.04)	0.30 (-0.14, 0.74)	0.38 (-0.30, 1.06)
Czech Republic	-0.02 (-0.14, 0.11)	0.28 (-0.05, 0.61)	-0.00 (-0.13, 0.12)	0.47 (0.23, 0.71)	0.10 (-0.03, 0.24)	0.42 (0.17, 0.68)	0.21 (0.05, 0.37)	0.40 (0.12, 0.67)	0.27 (0.09, 0.45)	0.40 (0.12, 0.69)	0.25 (0.07, 0.44)	0.45 (0.16, 0.75)	0.27 (0.08, 0.46)	0.50 (0.18, 0.81)
Ecuador	0.01 (-0.18, 0.19)	0.80 (0.27, 1.33)	-0.04 (-0.22, 0.14)	0.62 (0.26, 0.98)	0.05 (-0.15, 0.25)	0.60 (0.22, 0.98)	0.12 (-0.12, 0.37)	0.59 (0.17, 1.01)	0.13 (-0.15, 0.42)	0.60 (0.16, 1.03)	0.12 (-0.18, 0.41)	0.59 (0.14, 1.04)	0.13 (-0.18, 0.43)	0.63 (0.14, 1.11)
Estonia	-0.01 (-0.13, 0.11)	0.57 (0.21, 0.92)	-0.03 (-0.15, 0.08)	0.60 (0.36, 0.83)	0.09 (-0.04, 0.21)	0.54 (0.29, 0.78)	0.19 (0.03, 0.35)	0.52 (0.24, 0.79)	0.22 (0.03, 0.40)	0.53 (0.25, 0.81)	0.21 (0.03, 0.40)	0.57 (0.28, 0.86)	0.22 (0.03, 0.42)	0.62 (0.30, 0.93)
Finland	-0.11 (-0.36, 0.15)	0.59 (-0.08, 1.25)	-0.08 (-0.33, 0.16)	0.59 (0.11, 1.08)	0.06 (-0.21, 0.33)	0.53 (0.01, 1.04)	0.13 (-0.20, 0.46)	0.55 (-0.01, 1.11)	0.19 (-0.18, 0.56)	0.54 (-0.04, 1.11)	0.18 (-0.20, 0.56)	0.55 (-0.05, 1.15)	0.13 (-0.26, 0.52)	0.58 (-0.06, 1.22)
France	0.00 (-0.06, 0.07)	0.52 (0.35, 0.69)	-0.03 (-0.09, 0.03)	0.56 (0.45, 0.68)	0.07 (0.00, 0.13)	0.50 (0.37, 0.62)	0.15 (0.07, 0.23)	0.47 (0.33, 0.60)	0.17 (0.07, 0.27)	0.47 (0.33, 0.62)	0.17 (0.06, 0.28)	0.51 (0.36, 0.65)	0.16 (0.05, 0.27)	0.55 (0.39, 0.71)
French Caribbean	-0.02 (-0.22, 0.17)	0.86 (0.30, 1.42)	-0.04 (-0.22, 0.15)	0.70 (0.33, 1.07)	0.06 (-0.14, 0.27)	0.66 (0.27, 1.05)	0.16 (-0.10, 0.41)	0.63 (0.20, 1.06)	0.19 (-0.10, 0.48)	0.60 (0.16, 1.04)	0.18 (-0.12, 0.48)	0.62 (0.16, 1.07)	0.19 (-0.13, 0.50)	0.61 (0.11, 1.10)
French Guiana	-0.02 (-0.29, 0.26)	0.63 (-0.21, 1.46)	-0.04 (-0.29, 0.22)	0.60 (0.07, 1.13)	0.09 (-0.20, 0.38)	0.55 (-0.02, 1.11)	0.20 (-0.16, 0.57)	0.52 (-0.11, 1.14)	0.25 (-0.17, 0.67)	0.53 (-0.11, 1.17)	0.25 (-0.18, 0.68)	0.56 (-0.11, 1.22)	0.25 (-0.20, 0.70)	0.61 (-0.11, 1.33)
Réunion	0.02 (-0.26, 0.29)	0.49 (-0.31, 1.30)	-0.02 (-0.28, 0.23)	0.57 (0.05, 1.09)	0.06 (-0.23, 0.35)	0.51 (-0.05, 1.06)	0.14 (-0.22, 0.50)	0.48 (-0.13, 1.08)	0.18 (-0.24, 0.60)	0.41 (-0.22, 1.04)	0.19 (-0.24, 0.62)	0.43 (-0.23, 1.08)	0.21 (-0.24, 0.65)	0.45 (-0.26, 1.15)
Germany	0.01 (-0.06, 0.08)	0.34 (0.16, 0.51)	-0.02 (-0.09, 0.05)	0.50 (0.36, 0.64)	0.05 (-0.02, 0.13)	0.45 (0.31, 0.60)	0.13 (0.05, 0.22)	0.42 (0.26, 0.57)	0.15 (0.05, 0.24)	0.43 (0.27, 0.60)	0.13 (0.03, 0.23)	0.48 (0.31, 0.65)	0.13 (0.03, 0.24)	0.55 (0.37, 0.73)
Greece	0.05 (-0.19, 0.29)	0.52 (-0.07, 1.10)	-0.02 (-0.25, 0.21)	0.66 (0.21, 1.12)	0.09 (-0.16, 0.35)	0.70 (0.22, 1.19)	0.20 (-0.10, 0.50)	0.74 (0.21, 1.27)	0.27 (-0.06, 0.61)	0.74 (0.19, 1.29)	0.30 (-0.05, 0.64)	0.76 (0.19, 1.33)	0.26 (-0.10, 0.62)	0.82 (0.21, 1.42)
Guatemala	-0.04 (-0.31, 0.22)	0.82 (0.11, 1.53)	-0.05 (-0.30, 0.20)	0.63 (0.12, 1.13)	0.08 (-0.21, 0.36)	0.46 (-0.08, 0.99)	0.13 (-0.21, 0.48)	0.34 (-0.25, 0.93)	0.14 (-0.26, 0.54)	0.34 (-0.27, 0.96)	0.10 (-0.31, 0.51)	0.36 (-0.28, 0.99)	0.06 (-0.36, 0.49)	0.42 (-0.27, 1.11)
Iran	-0.05 (-0.21, 0.11)	0.14 (-0.22, 0.49)	-0.07 (-0.23, 0.09)	0.38 (0.09, 0.68)	0.06 (-0.12, 0.24)	0.39 (0.07, 0.70)	0.14 (-0.07, 0.35)	0.32 (-0.02, 0.67)	0.27 (0.04, 0.51)	0.22 (-0.14, 0.58)	0.28 (0.03, 0.52)	0.21 (-0.16, 0.59)	0.29 (0.04, 0.54)	0.29 (-0.11, 0.69)
Ireland	-0.03 (-0.14, 0.07)	0.36 (0.13, 0.59)	-0.05 (-0.15, 0.05)	0.45 (0.27, 0.63)	0.07 (-0.04, 0.18)	0.38 (0.19, 0.57)	0.12 (-0.01, 0.25)	0.33 (0.13, 0.54)	0.17 (0.02, 0.32)	0.33 (0.12, 0.55)	0.20 (0.05, 0.36)	0.32 (0.10, 0.54)	0.24 (0.08, 0.40)	0.32 (0.08, 0.55)
Israel	0.05 (-0.18, 0.28)	0.61 (0.17, 1.04)	0.07 (-0.15, 0.29)	0.71 (0.32, 1.10)	0.15 (-0.10, 0.40)	0.71 (0.29, 1.12)	0.21 (-0.09, 0.51)	0.72 (0.28, 1.17)	0.23 (-0.11, 0.57)	0.71 (0.25, 1.17)	0.20 (-0.16, 0.56)	0.70 (0.22, 1.18)	0.23 (-0.14, 0.61)	0.61 (0.10, 1.12)
Italy	-0.02 (-0.10, 0.06)	0.45 (0.24, 0.67)	-0.04 (-0.12, 0.04)	0.58 (0.43, 0.73)	0.07 (-0.02, 0.15)	0.56 (0.40, 0.72)	0.17 (0.07, 0.28)	0.54 (0.37, 0.71)	0.22 (0.10, 0.34)	0.55 (0.37, 0.73)	0.23 (0.11, 0.35)	0.58 (0.40, 0.77)	0.25 (0.12, 0.37)	0.63 (0.43, 0.83)
Japan	0.03 (-0.00, 0.06)	0.48 (0.42, 0.54)	0.00 (-0.03, 0.03)	0.61 (0.56, 0.65)	0.12 (0.09, 0.15)	0.61 (0.57, 0.66)	0.25 (0.21, 0.29)	0.64 (0.59, 0.69)	0.32 (0.27, 0.36)	0.68 (0.63, 0.74)	0.31 (0.26, 0.35)	0.73 (0.67, 0.79)	0.30 (0.25, 0.34)	0.80 (0.74, 0.87)
Kuwait	-0.04 (-0.30, 0.22)	0.44 (-0.24, 1.12)	-0.06 (-0.31, 0.18)	0.58 (0.09, 1.07)	0.06 (-0.21, 0.34)	0.60 (0.08, 1.11)	0.14 (-0.20, 0.47)	0.62 (0.05, 1.19)	0.14 (-0.25, 0.53)	0.64 (0.05, 1.22)	0.15 (-0.25, 0.55)	0.65 (0.04, 1.26)	0.18 (-0.23, 0.59)	0.68 (0.02, 1.33)
Mexico	-0.09 (-0.16, -0.01)	0.78 (0.59, 0.98)	-0.08 (-0.15, -0.01)	0.69 (0.54, 0.84)	0.01 (-0.07, 0.09)	0.65 (0.49, 0.80)	0.07 (-0.03, 0.16)	0.65 (0.48, 0.82)	0.09 (-0.02, 0.20)	0.64 (0.47, 0.82)	0.09 (-0.03, 0.21)	0.67 (0.49, 0.85)	0.09 (-0.04, 0.22)	0.74 (0.54, 0.93)
Moldova	-0.03 (-0.16, 0.11)	0.57 (0.16, 0.98)	-0.03 (-0.16, 0.09)	0.59 (0.32, 0.85)	0.08 (-0.07, 0.22)	0.53 (0.26, 0.81)	0.18 (-0.00, 0.36)	0.51 (0.20, 0.82)	0.22 (0.01, 0.43)	0.52 (0.20, 0.83)	0.22 (0.01, 0.44)	0.54 (0.21, 0.87)	0.23 (0.01, 0.46)	0.58 (0.23, 0.94)

Netherland	-0.01 (-0.13, 0.10)	0.51 (0.20, 0.83)	-0.04 (-0.15, 0.07)	0.57 (0.35, 0.79)	0.05 (-0.07, 0.18)	0.51 (0.27, 0.74)	0.14 (-0.01, 0.29)	0.45 (0.18, 0.70)	0.15 (-0.02, 0.33)	0.45 (0.18, 0.72)	0.13 (-0.05, 0.30)	0.47 (0.19, 0.75)	0.13 (-0.05, 0.32)	0.51 (0.21, 0.81)
Norway	0.10 (-0.15, 0.34)	-0.00 (-0.62, 0.61)	0.07 (-0.17, 0.31)	0.34 (-0.13, 0.80)	0.21 (-0.06, 0.47)	0.30 (-0.19, 0.78)	0.31 (-0.01, 0.63)	0.37 (-0.17, 0.89)	0.38 (0.02, 0.75)	0.39 (-0.16, 0.93)	0.28 (-0.09, 0.66)	0.45 (-0.12, 1.02)	0.28 (-0.11, 0.67)	0.50 (-0.11, 1.11)
Panama	-0.00 (-0.28, 0.27)	0.57 (-0.25, 1.39)	-0.03 (-0.29, 0.22)	0.58 (0.05, 1.11)	0.08 (-0.21, 0.37)	0.54 (-0.01, 1.10)	0.19 (-0.17, 0.55)	0.53 (-0.09, 1.14)	0.23 (-0.19, 0.65)	0.54 (-0.09, 1.18)	0.22 (-0.21, 0.65)	0.58 (-0.08, 1.23)	0.23 (-0.22, 0.68)	0.61 (-0.11, 1.32)
Paraguay	-0.05 (-0.32, 0.22)	1.12 (0.40, 1.83)	-0.09 (-0.34, 0.17)	0.74 (0.24, 1.24)	-0.04 (-0.32, 0.25)	0.63 (0.10, 1.15)	-0.01 (-0.36, 0.34)	0.53 (-0.06, 1.10)	-0.01 (-0.42, 0.40)	0.52 (-0.07, 1.12)	0.02 (-0.40, 0.44)	0.51 (-0.11, 1.13)	0.04 (-0.40, 0.48)	0.53 (-0.14, 1.19)
Peru	-0.02 (-0.09, 0.04)	0.63 (0.44, 0.82)	-0.03 (-0.09, 0.03)	0.60 (0.48, 0.72)	0.07 (0.01, 0.14)	0.55 (0.42, 0.68)	0.17 (0.08, 0.25)	0.52 (0.38, 0.66)	0.20 (0.10, 0.30)	0.52 (0.38, 0.67)	0.19 (0.09, 0.29)	0.56 (0.40, 0.71)	0.20 (0.09, 0.30)	0.60 (0.43, 0.76)
Philippines	-0.05 (-0.12, 0.03)	0.50 (0.29, 0.71)	-0.05 (-0.11, 0.02)	0.53 (0.39, 0.67)	0.07 (-0.01, 0.14)	0.44 (0.29, 0.58)	0.14 (0.05, 0.24)	0.41 (0.24, 0.57)	0.19 (0.08, 0.29)	0.43 (0.26, 0.60)	0.21 (0.10, 0.32)	0.46 (0.28, 0.63)	0.20 (0.09, 0.32)	0.51 (0.32, 0.70)
Portugal	-0.02 (-0.11, 0.08)	0.26 (0.03, 0.49)	-0.05 (-0.14, 0.05)	0.56 (0.38, 0.74)	0.01 (-0.10, 0.11)	0.60 (0.41, 0.79)	0.07 (-0.06, 0.19)	0.63 (0.43, 0.84)	0.08 (-0.06, 0.22)	0.62 (0.41, 0.83)	0.09 (-0.05, 0.23)	0.64 (0.42, 0.86)	0.10 (-0.05, 0.25)	0.68 (0.45, 0.91)
Puerto Rico	-0.00 (-0.27, 0.26)	0.55 (-0.20, 1.29)	-0.01 (-0.27, 0.24)	0.56 (0.05, 1.07)	0.09 (-0.20, 0.38)	0.47 (-0.07, 1.01)	0.16 (-0.20, 0.51)	0.46 (-0.13, 1.05)	0.15 (-0.26, 0.56)	0.50 (-0.11, 1.11)	0.15 (-0.27, 0.57)	0.54 (-0.09, 1.17)	0.15 (-0.29, 0.58)	0.55 (-0.13, 1.23)
Romania	-0.00 (-0.09, 0.09)	0.63 (0.38, 0.87)	-0.01 (-0.10, 0.08)	0.60 (0.43, 0.78)	0.11 (0.01, 0.21)	0.56 (0.38, 0.75)	0.20 (0.08, 0.31)	0.56 (0.36, 0.76)	0.23 (0.10, 0.37)	0.56 (0.35, 0.77)	0.23 (0.09, 0.37)	0.60 (0.38, 0.82)	0.23 (0.09, 0.38)	0.67 (0.43, 0.90)
South Africa	-0.06 (-0.09, -0.02)	0.82 (0.71, 0.93)	-0.05 (-0.08, -0.02)	0.58 (0.51, 0.64)	0.08 (0.04, 0.12)	0.48 (0.41, 0.55)	0.20 (0.15, 0.24)	0.44 (0.36, 0.52)	0.25 (0.20, 0.30)	0.46 (0.38, 0.54)	0.24 (0.19, 0.30)	0.51 (0.43, 0.60)	0.23 (0.18, 0.29)	0.58 (0.49, 0.67)
South Korea	-0.04 (-0.08, 0.01)	0.51 (0.39, 0.62)	-0.04 (-0.09, -0.00)	0.57 (0.48, 0.65)	0.07 (0.02, 0.12)	0.53 (0.44, 0.61)	0.16 (0.11, 0.22)	0.51 (0.41, 0.60)	0.21 (0.15, 0.28)	0.52 (0.42, 0.62)	0.21 (0.14, 0.28)	0.57 (0.46, 0.67)	0.22 (0.15, 0.29)	0.63 (0.52, 0.74)
Spain	-0.02 (-0.06, 0.01)	0.44 (0.34, 0.54)	-0.04 (-0.07, -0.00)	0.55 (0.48, 0.62)	0.07 (0.03, 0.11)	0.51 (0.44, 0.59)	0.15 (0.11, 0.20)	0.50 (0.42, 0.58)	0.19 (0.13, 0.24)	0.52 (0.43, 0.60)	0.19 (0.13, 0.24)	0.55 (0.46, 0.63)	0.19 (0.14, 0.25)	0.59 (0.50, 0.68)
Sweden	0.05 (-0.10, 0.19)	0.05 (-0.43, 0.53)	0.03 (-0.11, 0.17)	0.35 (0.07, 0.62)	0.11 (-0.04, 0.26)	0.32 (0.03, 0.61)	0.20 (0.02, 0.38)	0.25 (-0.07, 0.56)	0.22 (0.02, 0.42)	0.26 (-0.07, 0.59)	0.24 (0.03, 0.45)	0.32 (-0.02, 0.66)	0.24 (0.02, 0.45)	0.36 (-0.01, 0.73)
Switzerland	-0.01 (-0.11, 0.09)	0.49 (0.20, 0.77)	-0.03 (-0.12, 0.06)	0.57 (0.38, 0.75)	0.07 (-0.03, 0.17)	0.50 (0.31, 0.70)	0.15 (0.02, 0.28)	0.48 (0.26, 0.69)	0.17 (0.03, 0.32)	0.49 (0.27, 0.72)	0.18 (0.03, 0.33)	0.54 (0.31, 0.77)	0.19 (0.04, 0.35)	0.59 (0.34, 0.84)
Taiwan	-0.02 (-0.15, 0.12)	0.43 (-0.06, 0.92)	-0.06 (-0.19, 0.08)	0.52 (0.28, 0.75)	0.03 (-0.11, 0.18)	0.60 (0.35, 0.84)	0.07 (-0.11, 0.25)	0.64 (0.38, 0.91)	0.05 (-0.15, 0.25)	0.63 (0.36, 0.91)	0.08 (-0.13, 0.28)	0.63 (0.34, 0.92)	0.09 (-0.13, 0.30)	0.67 (0.37, 0.98)
Thailand	-0.03 (-0.06, 0.01)	0.68 (0.58, 0.78)	-0.04 (-0.07, -0.01)	0.61 (0.54, 0.68)	0.07 (0.04, 0.11)	0.55 (0.48, 0.62)	0.17 (0.12, 0.21)	0.51 (0.44, 0.59)	0.20 (0.15, 0.25)	0.52 (0.44, 0.60)	0.20 (0.14, 0.25)	0.55 (0.46, 0.63)	0.19 (0.14, 0.25)	0.60 (0.51, 0.69)
UK	-0.02 (-0.05, 0.01)	0.51 (0.43, 0.59)	-0.03 (-0.06, -0.00)	0.56 (0.50, 0.61)	0.08 (0.05, 0.11)	0.48 (0.42, 0.55)	0.18 (0.14, 0.22)	0.44 (0.37, 0.51)	0.22 (0.17, 0.26)	0.44 (0.37, 0.51)	0.22 (0.17, 0.27)	0.47 (0.40, 0.54)	0.23 (0.18, 0.28)	0.51 (0.44, 0.59)
Uruguay	0.03 (-0.22, 0.28)	0.72 (0.06, 1.36)	-0.08 (-0.33, 0.16)	0.77 (0.31, 1.23)	-0.02 (-0.29, 0.25)	0.72 (0.23, 1.20)	0.08 (-0.25, 0.40)	0.69 (0.18, 1.20)	0.11 (-0.26, 0.48)	0.67 (0.15, 1.18)	0.12 (-0.26, 0.49)	0.80 (0.27, 1.33)	0.20 (-0.19, 0.59)	0.79 (0.23, 1.34)
USA	-0.02 (-0.04, -0.01)	0.59 (0.55, 0.63)	-0.04 (-0.06, -0.02)	0.61 (0.57, 0.64)	0.08 (0.06, 0.10)	0.55 (0.51, 0.58)	0.18 (0.16, 0.21)	0.51 (0.47, 0.54)	0.24 (0.21, 0.26)	0.51 (0.47, 0.55)	0.24 (0.21, 0.27)	0.54 (0.50, 0.58)	0.25 (0.22, 0.27)	0.59 (0.55, 0.63)
Vietnam	-0.04 (-0.23, 0.15)	0.39 (-0.14, 0.91)	-0.06 (-0.24, 0.12)	0.51 (0.15, 0.87)	0.04 (-0.16, 0.24)	0.45 (0.07, 0.82)	0.12 (-0.13, 0.37)	0.39 (-0.03, 0.80)	0.16 (-0.13, 0.45)	0.43 (0.00, 0.86)	0.19 (-0.11, 0.49)	0.46 (0.02, 0.90)	0.23 (-0.08, 0.54)	0.51 (0.04, 0.98)

**Table S6. Percentage change (%) of cardiovascular mortality risk per IQR increase in TV.**

Country/region	TV 0-1		TV 0-2		TV 0-3		TV 0-4		TV 0-5		TV 0-6		TV 0-7	
	Inter-day	Intra-day	Inter-day	Intra-day	Inter-day	Intra-day	Inter-day	Intra-day	Inter-day	Intra-day	Inter-day	Intra-day	Inter-day	Intra-day
Brazil	0.09 (0.08, 0.10)	0.57 (0.44, 0.70)	0.10 (0.03, 0.18)	0.63 (0.51, 0.74)	0.23 (0.14, 0.32)	0.63 (0.50, 0.76)	0.32 (0.21, 0.44)	0.62 (0.48, 0.76)	0.39 (0.27, 0.51)	0.60 (0.46, 0.74)	0.41 (0.29, 0.53)	0.62 (0.47, 0.77)	0.45 (0.32, 0.57)	0.65 (0.49, 0.81)
Canada	0.09 (0.08, 0.09)	0.54 (0.43, 0.64)	0.12 (0.06, 0.18)	0.61 (0.52, 0.70)	0.23 (0.16, 0.30)	0.63 (0.53, 0.73)	0.34 (0.26, 0.43)	0.63 (0.52, 0.73)	0.41 (0.33, 0.50)	0.61 (0.51, 0.72)	0.42 (0.34, 0.51)	0.66 (0.54, 0.77)	0.45 (0.36, 0.54)	0.68 (0.56, 0.79)
China	0.09 (0.07, 0.10)	0.54 (0.40, 0.69)	0.11 (0.03, 0.19)	0.65 (0.53, 0.78)	0.27 (0.17, 0.36)	0.65 (0.51, 0.80)	0.40 (0.27, 0.52)	0.64 (0.49, 0.79)	0.47 (0.34, 0.59)	0.62 (0.47, 0.78)	0.47 (0.35, 0.60)	0.63 (0.47, 0.80)	0.50 (0.37, 0.63)	0.65 (0.47, 0.82)
Colombia	0.09 (0.07, 0.10)	0.47 (0.23, 0.70)	0.11 (-0.03, 0.25)	0.55 (0.34, 0.76)	0.22 (0.05, 0.38)	0.51 (0.27, 0.75)	0.27 (0.07, 0.48)	0.49 (0.25, 0.74)	0.34 (0.13, 0.55)	0.47 (0.21, 0.72)	0.36 (0.14, 0.57)	0.46 (0.19, 0.73)	0.38 (0.15, 0.60)	0.44 (0.16, 0.73)
Costa Rica	0.09 (0.04, 0.13)	0.60 (0.04, 1.15)	0.11 (-0.20, 0.42)	0.59 (0.11, 1.07)	0.23 (-0.14, 0.61)	0.62 (0.07, 1.17)	0.31 (-0.18, 0.80)	0.63 (0.04, 1.20)	0.44 (-0.05, 0.93)	0.58 (-0.02, 1.18)	0.44 (-0.07, 0.94)	0.65 (0.01, 1.28)	0.47 (-0.05, 0.99)	0.67 (-0.01, 1.35)
Czech Republic	0.09 (0.06, 0.11)	0.41 (0.15, 0.67)	0.13 (-0.02, 0.28)	0.60 (0.36, 0.84)	0.24 (0.05, 0.42)	0.60 (0.32, 0.87)	0.30 (0.06, 0.54)	0.60 (0.31, 0.88)	0.38 (0.14, 0.62)	0.57 (0.27, 0.87)	0.37 (0.12, 0.62)	0.60 (0.28, 0.91)	0.41 (0.15, 0.66)	0.61 (0.28, 0.95)
Ecuador	0.09 (0.06, 0.12)	0.58 (0.18, 0.97)	0.03 (-0.18, 0.24)	0.81 (0.49, 1.13)	0.16 (-0.09, 0.42)	0.83 (0.46, 1.19)	0.28 (-0.05, 0.60)	0.83 (0.44, 1.21)	0.42 (0.09, 0.74)	0.77 (0.38, 1.17)	0.42 (0.09, 0.75)	0.83 (0.41, 1.24)	0.45 (0.11, 0.80)	0.81 (0.37, 1.25)
Estonia	0.09 (0.07, 0.10)	0.53 (0.28, 0.78)	0.13 (-0.01, 0.27)	0.60 (0.39, 0.81)	0.26 (0.10, 0.43)	0.59 (0.36, 0.83)	0.42 (0.21, 0.63)	0.60 (0.35, 0.85)	0.49 (0.28, 0.70)	0.58 (0.32, 0.84)	0.49 (0.27, 0.70)	0.61 (0.33, 0.88)	0.52 (0.29, 0.74)	0.63 (0.33, 0.92)
Finland	0.09 (0.04, 0.13)	0.48 (-0.06, 1.02)	0.10 (-0.21, 0.41)	0.60 (0.12, 1.09)	0.22 (-0.16, 0.60)	0.59 (0.02, 1.15)	0.33 (-0.17, 0.83)	0.55 (-0.05, 1.14)	0.42 (-0.08, 0.92)	0.53 (-0.09, 1.14)	0.42 (-0.10, 0.94)	0.55 (-0.11, 1.20)	0.46 (-0.08, 0.99)	0.59 (-0.11, 1.28)
Greece	0.09 (0.04, 0.13)	0.40 (-0.11, 0.90)	0.09 (-0.20, 0.37)	0.59 (0.14, 1.05)	0.23 (-0.11, 0.56)	0.68 (0.16, 1.20)	0.32 (-0.10, 0.73)	0.68 (0.13, 1.23)	0.42 (-0.01, 0.84)	0.65 (0.07, 1.21)	0.44 (-0.00, 0.87)	0.65 (0.04, 1.25)	0.45 (-0.01, 0.90)	0.66 (0.01, 1.29)
Iran	0.09 (0.06, 0.12)	0.47 (0.13, 0.80)	0.09 (-0.13, 0.31)	0.64 (0.30, 0.98)	0.20 (-0.06, 0.47)	0.64 (0.25, 1.03)	0.31 (-0.04, 0.65)	0.63 (0.23, 1.04)	0.40 (0.05, 0.75)	0.61 (0.18, 1.03)	0.43 (0.07, 0.79)	0.59 (0.14, 1.04)	0.47 (0.09, 0.84)	0.62 (0.14, 1.09)
Ireland	0.09 (0.07, 0.10)	0.49 (0.28, 0.70)	0.12 (-0.01, 0.24)	0.61 (0.42, 0.81)	0.24 (0.08, 0.39)	0.62 (0.39, 0.84)	0.36 (0.16, 0.55)	0.58 (0.35, 0.82)	0.41 (0.21, 0.61)	0.58 (0.33, 0.82)	0.43 (0.22, 0.64)	0.61 (0.35, 0.87)	0.48 (0.26, 0.69)	0.63 (0.36, 0.91)
Japan	0.09 (0.08, 0.09)	0.46 (0.40, 0.52)	0.12 (0.07, 0.16)	0.61 (0.54, 0.67)	0.24 (0.19, 0.29)	0.63 (0.56, 0.71)	0.35 (0.29, 0.42)	0.62 (0.54, 0.70)	0.44 (0.37, 0.50)	0.61 (0.53, 0.69)	0.45 (0.38, 0.52)	0.66 (0.57, 0.74)	0.48 (0.41, 0.54)	0.69 (0.60, 0.78)
Kuwait	0.09 (0.04, 0.13)	0.52 (-0.01, 1.05)	0.06 (-0.25, 0.37)	0.65 (0.17, 1.13)	0.20 (-0.18, 0.57)	0.62 (0.06, 1.17)	0.27 (-0.22, 0.75)	0.59 (0.01, 1.17)	0.33 (-0.16, 0.82)	0.55 (-0.05, 1.16)	0.37 (-0.13, 0.87)	0.55 (-0.09, 1.19)	0.39 (-0.13, 0.91)	0.56 (-0.12, 1.24)
Mexico	0.09 (0.07, 0.10)	0.51 (0.34, 0.68)	0.09 (-0.01, 0.19)	0.59 (0.44, 0.74)	0.20 (0.08, 0.32)	0.58 (0.41, 0.75)	0.29 (0.14, 0.44)	0.57 (0.39, 0.75)	0.39 (0.23, 0.54)	0.54 (0.36, 0.73)	0.40 (0.24, 0.55)	0.58 (0.38, 0.77)	0.44 (0.28, 0.60)	0.58 (0.37, 0.79)
Norway	0.09 (0.04, 0.13)	0.41 (-0.12, 0.93)	0.12 (-0.19, 0.43)	0.51 (0.03, 0.98)	0.23 (-0.15, 0.60)	0.46 (-0.09, 1.01)	0.36 (-0.13, 0.84)	0.36 (-0.22, 0.94)	0.44 (-0.05, 0.93)	0.37 (-0.23, 0.96)	0.43 (-0.07, 0.94)	0.40 (-0.24, 1.03)	0.47 (-0.06, 0.99)	0.42 (-0.26, 1.08)
Panama	0.09 (0.04, 0.13)	0.55 (-0.02, 1.11)	0.12 (-0.19, 0.43)	0.62 (0.13, 1.10)	0.23 (-0.15, 0.61)	0.63 (0.07, 1.19)	0.35 (-0.15, 0.85)	0.62 (0.03, 1.21)	0.46 (-0.04, 0.95)	0.60 (-0.02, 1.21)	0.45 (-0.07, 0.96)	0.65 (-0.01, 1.30)	0.47 (-0.07, 1.00)	0.69 (-0.01, 1.38)
Paraguay	0.09 (0.04, 0.13)	0.68 (0.12, 1.22)	0.09 (-0.23, 0.40)	0.71 (0.23, 1.19)	0.16 (-0.22, 0.54)	0.67 (0.12, 1.23)	0.22 (-0.28, 0.71)	0.63 (0.05, 1.22)	0.32 (-0.18, 0.82)	0.61 (0.01, 1.22)	0.34 (-0.17, 0.85)	0.63 (-0.02, 1.26)	0.37 (-0.17, 0.90)	0.64 (-0.04, 1.32)
Philippines	0.09 (0.07, 0.10)	0.51 (0.36, 0.66)	0.10 (0.01, 0.18)	0.62 (0.48, 0.75)	0.21 (0.11, 0.32)	0.62 (0.47, 0.78)	0.30 (0.16, 0.44)	0.61 (0.44, 0.77)	0.39 (0.25, 0.52)	0.60 (0.43, 0.77)	0.41 (0.27, 0.55)	0.62 (0.44, 0.80)	0.43 (0.28, 0.58)	0.65 (0.45, 0.84)
Portugal	0.09 (0.06, 0.11)	0.45 (0.15, 0.75)	0.09 (-0.13, 0.31)	0.59 (0.25, 0.93)	0.17 (-0.10, 0.43)	0.61 (0.21, 1.00)	0.22 (-0.12, 0.57)	0.58 (0.16, 1.00)	0.30 (-0.05, 0.64)	0.56 (0.13, 1.00)	0.30 (-0.06, 0.66)	0.59 (0.13, 1.05)	0.33 (-0.04, 0.70)	0.62 (0.13, 1.11)
South Africa	0.09 (0.08, 0.09)	0.54 (0.47, 0.62)	0.10 (0.05, 0.14)	0.61 (0.54, 0.68)	0.20 (0.15, 0.25)	0.61 (0.53, 0.68)	0.30 (0.23, 0.37)	0.59 (0.52, 0.67)	0.38 (0.32, 0.45)	0.58 (0.50, 0.66)	0.40 (0.33, 0.46)	0.60 (0.52, 0.69)	0.42 (0.35, 0.49)	0.64 (0.55, 0.73)
South Korea	0.09 (0.08, 0.09)	0.52 (0.43, 0.62)	0.10 (0.05, 0.15)	0.60 (0.52, 0.67)	0.22 (0.16, 0.28)	0.60 (0.52, 0.69)	0.34 (0.26, 0.41)	0.61 (0.52, 0.70)	0.41 (0.33, 0.49)	0.61 (0.51, 0.71)	0.42 (0.34, 0.50)	0.63 (0.53, 0.73)	0.45 (0.36, 0.53)	0.66 (0.55, 0.77)
Spain	0.09 (0.08, 0.09)	0.49 (0.42, 0.57)	0.10 (0.06, 0.14)	0.62 (0.55, 0.68)	0.21 (0.16, 0.26)	0.62 (0.55, 0.70)	0.30 (0.24, 0.37)	0.61 (0.53, 0.69)	0.38 (0.31, 0.45)	0.60 (0.52, 0.68)	0.39 (0.32, 0.46)	0.62 (0.53, 0.70)	0.42 (0.35, 0.49)	0.65 (0.56, 0.74)
Sweden	0.09 (0.06, 0.11)	0.36 (0.05, 0.66)	0.09 (-0.09, 0.27)	0.59 (0.31, 0.86)	0.20 (-0.02, 0.42)	0.60 (0.28, 0.92)	0.32 (0.04, 0.61)	0.61 (0.27, 0.94)	0.42 (0.13, 0.70)	0.59 (0.25, 0.94)	0.44 (0.15, 0.73)	0.63 (0.26, 1.00)	0.48 (0.18, 0.78)	0.64 (0.25, 1.03)
Switzerland	0.09 (0.07, 0.10)	0.49 (0.29, 0.68)	0.09 (-0.02, 0.19)	0.66 (0.49, 0.82)	0.18 (0.06, 0.31)	0.68 (0.46, 0.89)	0.30 (0.14, 0.46)	0.66 (0.42, 0.90)	0.41 (0.25, 0.57)	0.66 (0.40, 0.91)	0.44 (0.28, 0.61)	0.72 (0.45, 0.99)	0.46 (0.29, 0.63)	0.77 (0.49, 1.05)
Taiwan	0.09 (0.06, 0.11)	0.54 (0.25, 0.84)	0.12 (-0.06, 0.30)	0.62 (0.34, 0.90)	0.24 (0.02, 0.46)	0.61 (0.29, 0.94)	0.36 (0.08, 0.65)	0.63 (0.29, 0.97)	0.41 (0.12, 0.69)	0.61 (0.26, 0.97)	0.39 (0.10, 0.68)	0.62 (0.24, 0.99)	0.42 (0.11, 0.72)	0.62 (0.23, 1.02)



Thailand	0.09 (0.08, 0.09)	0.53 (0.46, 0.60)	0.10 (0.06, 0.14)	0.61 (0.55, 0.67)	0.22 (0.17, 0.27)	0.62 (0.55, 0.69)	0.32 (0.25, 0.38)	0.61 (0.54, 0.68)	0.39 (0.33, 0.45)	0.59 (0.51, 0.66)	0.40 (0.33, 0.46)	0.61 (0.53, 0.69)	0.42 (0.35, 0.48)	0.63 (0.54, 0.71)
UK	0.09 (0.08, 0.09)	0.51 (0.45, 0.58)	0.10 (0.07, 0.14)	0.61 (0.55, 0.67)	0.22 (0.18, 0.27)	0.62 (0.56, 0.68)	0.32 (0.27, 0.38)	0.60 (0.53, 0.67)	0.40 (0.34, 0.46)	0.59 (0.52, 0.66)	0.41 (0.35, 0.47)	0.62 (0.54, 0.69)	0.44 (0.38, 0.50)	0.65 (0.58, 0.73)
USA	0.09 (0.08, 0.09)	0.54 (0.51, 0.58)	0.10 (0.08, 0.12)	0.62 (0.59, 0.66)	0.21 (0.19, 0.24)	0.63 (0.59, 0.66)	0.32 (0.29, 0.35)	0.62 (0.58, 0.65)	0.40 (0.37, 0.43)	0.60 (0.56, 0.64)	0.41 (0.38, 0.45)	0.63 (0.59, 0.67)	0.44 (0.41, 0.48)	0.66 (0.61, 0.70)
Vietnam	0.09 (0.06, 0.12)	0.49 (0.10, 0.88)	0.08 (-0.13, 0.30)	0.65 (0.33, 0.97)	0.19 (-0.07, 0.45)	0.70 (0.33, 1.06)	0.31 (-0.03, 0.64)	0.70 (0.31, 1.08)	0.37 (0.03, 0.71)	0.69 (0.29, 1.09)	0.35 (-0.00, 0.70)	0.73 (0.31, 1.15)	0.36 (-0.00, 0.73)	0.72 (0.28, 1.17)

**Table S7. Percentage change (%) of respiratory mortality risk per IQR increase in TV.**

Country/region	TV 0-1		TV 0-2		TV 0-3		TV 0-4		TV 0-5		TV 0-6		TV 0-7	
	Inter-day	Intra-day	Inter-day	Intra-day	Inter-day	Intra-day	Inter-day	Intra-day	Inter-day	Intra-day	Inter-day	Intra-day	Inter-day	Intra-day
Brazil	0.00 (-0.13, 0.14)	0.31 (0.13, 0.49)	0.01 (-0.08, 0.11)	0.38 (0.23, 0.54)	0.18 (0.05, 0.31)	0.37 (0.22, 0.53)	0.29 (0.15, 0.43)	0.49 (0.23, 0.74)	0.30 (0.12, 0.48)	0.62 (0.32, 0.93)	0.29 (0.12, 0.45)	0.69 (0.38, 0.99)	0.29 (0.15, 0.43)	0.83 (0.52, 1.14)
Canada	0.05 (-0.06, 0.16)	0.25 (0.10, 0.40)	0.02 (-0.06, 0.09)	0.36 (0.23, 0.48)	0.17 (0.06, 0.28)	0.37 (0.24, 0.49)	0.29 (0.17, 0.40)	0.44 (0.23, 0.66)	0.32 (0.17, 0.47)	0.52 (0.26, 0.78)	0.31 (0.18, 0.45)	0.55 (0.28, 0.81)	0.31 (0.20, 0.43)	0.63 (0.36, 0.90)
China	0.03 (-0.12, 0.17)	0.31 (0.12, 0.51)	0.01 (-0.09, 0.11)	0.40 (0.23, 0.57)	0.17 (0.03, 0.31)	0.39 (0.22, 0.56)	0.30 (0.14, 0.45)	0.51 (0.23, 0.79)	0.33 (0.13, 0.53)	0.64 (0.29, 0.99)	0.32 (0.14, 0.50)	0.69 (0.34, 1.04)	0.33 (0.17, 0.48)	0.79 (0.43, 1.14)
Colombia	0.03 (-0.22, 0.27)	0.29 (-0.05, 0.62)	0.02 (-0.15, 0.19)	0.38 (0.10, 0.67)	0.16 (-0.07, 0.40)	0.36 (0.07, 0.65)	0.27 (0.01, 0.53)	0.32 (-0.15, 0.79)	0.27 (-0.05, 0.60)	0.24 (-0.34, 0.81)	0.25 (-0.05, 0.55)	0.23 (-0.35, 0.80)	0.28 (0.02, 0.54)	0.30 (-0.29, 0.89)
Costa Rica	-0.02 (-0.60, 0.55)	0.27 (-0.51, 1.04)	0.01 (-0.38, 0.40)	0.33 (-0.33, 0.98)	0.18 (-0.37, 0.74)	0.31 (-0.36, 0.97)	0.32 (-0.28, 0.93)	0.24 (-0.88, 1.36)	0.32 (-0.46, 1.10)	0.23 (-1.19, 1.62)	0.33 (-0.38, 1.03)	0.29 (-1.12, 1.68)	0.32 (-0.28, 0.92)	0.41 (-1.03, 1.83)
Czech Republic	0.05 (-0.23, 0.34)	0.18 (-0.21, 0.56)	0.02 (-0.17, 0.22)	0.31 (-0.02, 0.64)	0.16 (-0.12, 0.43)	0.32 (-0.01, 0.65)	0.29 (-0.01, 0.59)	0.35 (-0.21, 0.90)	0.33 (-0.05, 0.71)	0.38 (-0.32, 1.07)	0.31 (-0.03, 0.66)	0.47 (-0.22, 1.16)	0.33 (0.03, 0.62)	0.61 (-0.10, 1.31)
Ecuador	0.04 (-0.36, 0.44)	0.31 (-0.23, 0.86)	0.03 (-0.25, 0.30)	0.39 (-0.08, 0.85)	0.17 (-0.22, 0.55)	0.36 (-0.11, 0.83)	0.26 (-0.16, 0.69)	0.44 (-0.35, 1.22)	0.26 (-0.28, 0.81)	0.50 (-0.49, 1.48)	0.25 (-0.24, 0.75)	0.46 (-0.53, 1.44)	0.28 (-0.14, 0.70)	0.59 (-0.41, 1.59)
Estonia	0.06 (-0.20, 0.31)	0.25 (-0.10, 0.59)	0.02 (-0.15, 0.20)	0.35 (0.05, 0.64)	0.18 (-0.07, 0.43)	0.35 (0.05, 0.64)	0.30 (0.03, 0.57)	0.38 (-0.13, 0.89)	0.33 (-0.02, 0.68)	0.46 (-0.18, 1.10)	0.32 (-0.00, 0.64)	0.54 (-0.10, 1.18)	0.32 (0.05, 0.59)	0.65 (0.00, 1.30)
Finland	0.04 (-0.52, 0.60)	0.28 (-0.49, 1.05)	0.02 (-0.37, 0.40)	0.38 (-0.27, 1.04)	0.24 (-0.31, 0.78)	0.37 (-0.30, 1.03)	0.41 (-0.19, 1.00)	0.40 (-0.71, 1.50)	0.42 (-0.35, 1.18)	0.64 (-0.75, 2.01)	0.34 (-0.35, 1.03)	0.69 (-0.70, 2.07)	0.34 (-0.25, 0.93)	0.77 (-0.65, 2.17)
France	0.03 (-0.10, 0.17)	0.26 (0.07, 0.44)	0.02 (-0.08, 0.11)	0.35 (0.19, 0.50)	0.16 (0.03, 0.29)	0.35 (0.19, 0.50)	0.28 (0.14, 0.42)	0.38 (0.11, 0.64)	0.30 (0.12, 0.48)	0.45 (0.12, 0.78)	0.29 (0.13, 0.46)	0.53 (0.20, 0.86)	0.30 (0.16, 0.44)	0.65 (0.31, 0.99)
Greece	0.10 (-0.43, 0.63)	0.39 (-0.36, 1.13)	0.07 (-0.31, 0.45)	0.44 (-0.20, 1.08)	0.19 (-0.33, 0.71)	0.45 (-0.20, 1.10)	0.35 (-0.22, 0.91)	0.75 (-0.32, 1.81)	0.31 (-0.40, 1.03)	1.09 (-0.22, 2.38)	0.28 (-0.38, 0.94)	1.14 (-0.18, 2.44)	0.24 (-0.33, 0.81)	1.32 (-0.02, 2.65)
Iran	-0.05 (-0.43, 0.32)	0.13 (-0.39, 0.65)	0.00 (-0.26, 0.27)	0.28 (-0.17, 0.73)	0.23 (-0.15, 0.60)	0.24 (-0.22, 0.69)	0.41 (0.00, 0.82)	0.07 (-0.68, 0.81)	0.56 (0.04, 1.06)	-0.15 (-1.06, 0.76)	0.49 (0.02, 0.96)	-0.12 (-1.04, 0.79)	0.39 (-0.02, 0.79)	0.01 (-0.93, 0.94)
Ireland	-0.02 (-0.25, 0.20)	0.28 (-0.02, 0.57)	-0.01 (-0.16, 0.15)	0.32 (0.06, 0.57)	0.10 (-0.12, 0.32)	0.30 (0.03, 0.56)	0.20 (-0.04, 0.43)	0.24 (-0.17, 0.65)	0.21 (-0.09, 0.50)	0.26 (-0.28, 0.80)	0.27 (-0.00, 0.54)	0.28 (-0.28, 0.83)	0.32 (0.08, 0.55)	0.34 (-0.19, 0.87)
Japan	0.15 (0.08, 0.22)	0.16 (0.07, 0.25)	0.06 (0.01, 0.12)	0.35 (0.26, 0.43)	0.23 (0.16, 0.30)	0.39 (0.31, 0.48)	0.34 (0.27, 0.42)	0.55 (0.43, 0.67)	0.40 (0.31, 0.49)	0.67 (0.52, 0.81)	0.35 (0.27, 0.43)	0.77 (0.62, 0.91)	0.33 (0.26, 0.41)	0.92 (0.77, 1.06)
Kuwait	0.07 (-0.50, 0.63)	0.18 (-0.59, 0.94)	0.03 (-0.36, 0.41)	0.31 (-0.35, 0.96)	0.18 (-0.37, 0.72)	0.34 (-0.33, 1.00)	0.22 (-0.38, 0.81)	0.47 (-0.64, 1.57)	0.17 (-0.60, 0.93)	0.58 (-0.81, 1.94)	0.22 (-0.48, 0.91)	0.68 (-0.70, 2.04)	0.27 (-0.32, 0.86)	0.79 (-0.62, 2.18)
Mexico	-0.03 (-0.20, 0.13)	0.29 (0.05, 0.53)	-0.00 (-0.12, 0.12)	0.35 (0.15, 0.56)	0.13 (-0.04, 0.30)	0.34 (0.13, 0.55)	0.26 (0.08, 0.44)	0.36 (0.03, 0.70)	0.31 (0.08, 0.53)	0.42 (0.01, 0.84)	0.31 (0.10, 0.52)	0.51 (0.09, 0.92)	0.32 (0.14, 0.50)	0.62 (0.19, 1.05)
Norway	0.07 (-0.48, 0.61)	0.13 (-0.62, 0.88)	-0.01 (-0.39, 0.37)	0.26 (-0.38, 0.91)	0.13 (-0.41, 0.66)	0.23 (-0.42, 0.89)	0.27 (-0.32, 0.85)	0.22 (-0.85, 1.28)	0.33 (-0.41, 1.07)	0.26 (-1.06, 1.56)	0.26 (-0.42, 0.94)	0.29 (-1.03, 1.60)	0.29 (-0.29, 0.87)	0.45 (-0.90, 1.79)
Panama	0.04 (-0.54, 0.61)	0.21 (-0.57, 0.99)	0.02 (-0.37, 0.41)	0.32 (-0.35, 0.98)	0.17 (-0.38, 0.73)	0.32 (-0.35, 0.99)	0.29 (-0.32, 0.90)	0.35 (-0.79, 1.48)	0.33 (-0.46, 1.11)	0.40 (-1.04, 1.82)	0.30 (-0.41, 1.01)	0.49 (-0.95, 1.90)	0.31 (-0.29, 0.91)	0.59 (-0.88, 2.03)
Paraguay	-0.04 (-0.61, 0.53)	0.21 (-0.56, 0.98)	-0.03 (-0.41, 0.36)	0.31 (-0.35, 0.97)	0.10 (-0.45, 0.65)	0.32 (-0.34, 0.99)	0.19 (-0.41, 0.80)	0.31 (-0.81, 1.41)	0.12 (-0.66, 0.90)	0.37 (-1.03, 1.74)	0.13 (-0.58, 0.84)	0.43 (-0.96, 1.80)	0.20 (-0.40, 0.80)	0.58 (-0.84, 1.97)
Philippines	0.07 (-0.09, 0.22)	0.24 (0.03, 0.46)	0.03 (-0.07, 0.14)	0.32 (0.13, 0.50)	0.20 (0.05, 0.35)	0.31 (0.13, 0.49)	0.29 (0.12, 0.45)	0.30 (-0.01, 0.60)	0.32 (0.11, 0.53)	0.38 (-0.00, 0.77)	0.31 (0.12, 0.50)	0.50 (0.11, 0.88)	0.32 (0.15, 0.48)	0.62 (0.23, 1.01)
Portugal	0.03 (-0.19, 0.26)	0.12 (-0.18, 0.42)	0.01 (-0.14, 0.17)	0.28 (0.02, 0.54)	0.13 (-0.09, 0.34)	0.31 (0.04, 0.57)	0.24 (0.01, 0.47)	0.33 (-0.10, 0.75)	0.24 (-0.05, 0.54)	0.39 (-0.14, 0.90)	0.25 (-0.02, 0.53)	0.50 (-0.02, 1.02)	0.28 (0.05, 0.52)	0.59 (0.06, 1.13)
South Africa	0.02 (-0.06, 0.09)	0.28 (0.17, 0.38)	0.01 (-0.04, 0.07)	0.33 (0.24, 0.42)	0.18 (0.11, 0.26)	0.32 (0.23, 0.41)	0.31 (0.23, 0.39)	0.30 (0.15, 0.45)	0.35 (0.25, 0.45)	0.33 (0.15, 0.52)	0.33 (0.24, 0.43)	0.43 (0.24, 0.61)	0.32 (0.24, 0.40)	0.55 (0.36, 0.73)
South Korea	0.04 (-0.05, 0.14)	0.25 (0.12, 0.38)	0.02 (-0.04, 0.09)	0.35 (0.24, 0.46)	0.18 (0.09, 0.27)	0.35 (0.24, 0.46)	0.30 (0.20, 0.40)	0.40 (0.21, 0.58)	0.32 (0.19, 0.45)	0.48 (0.25, 0.71)	0.31 (0.19, 0.43)	0.54 (0.31, 0.78)	0.31 (0.21, 0.41)	0.66 (0.42, 0.89)
Spain	0.05 (-0.03, 0.13)	0.24 (0.14, 0.35)	0.02 (-0.03, 0.07)	0.35 (0.26, 0.44)	0.17 (0.10, 0.25)	0.35 (0.26, 0.44)	0.29 (0.21, 0.37)	0.41 (0.25, 0.56)	0.30 (0.20, 0.41)	0.51 (0.32, 0.70)	0.31 (0.21, 0.40)	0.58 (0.39, 0.77)	0.31 (0.23, 0.39)	0.69 (0.50, 0.89)
Sweden	0.04 (-0.28, 0.36)	0.22 (-0.22, 0.66)	0.04 (-0.18, 0.26)	0.34 (-0.04, 0.71)	0.19 (-0.12, 0.49)	0.33 (-0.05, 0.71)	0.33 (-0.01, 0.67)	0.30 (-0.34, 0.93)	0.35 (-0.08, 0.78)	0.28 (-0.51, 1.07)	0.34 (-0.05, 0.73)	0.40 (-0.40, 1.19)	0.32 (-0.02, 0.65)	0.55 (-0.27, 1.35)
Switzerland	0.05 (-0.16, 0.25)	0.25 (-0.03, 0.52)	0.02 (-0.12, 0.16)	0.34 (0.11, 0.57)	0.17 (-0.03, 0.37)	0.34 (0.10, 0.57)	0.29 (0.07, 0.50)	0.36 (-0.04, 0.76)	0.29 (0.02, 0.57)	0.42 (-0.08, 0.92)	0.29 (0.04, 0.54)	0.49 (-0.01, 0.99)	0.30 (0.09, 0.52)	0.61 (0.09, 1.12)
Taiwan	-0.05 (-0.36, 0.25)	0.20 (-0.22, 0.62)	-0.03 (-0.25, 0.19)	0.29 (-0.07, 0.65)	0.08 (-0.23, 0.39)	0.34 (-0.03, 0.71)	0.23 (-0.11, 0.56)	0.39 (-0.20, 0.98)	0.19 (-0.23, 0.61)	0.47 (-0.23, 1.17)	0.26 (-0.13, 0.65)	0.51 (-0.21, 1.22)	0.31 (-0.02, 0.65)	0.60 (-0.13, 1.32)

Thailand	0.04 (-0.03, 0.11)	0.26 (0.16, 0.36)	0.02 (-0.03, 0.07)	0.35 (0.27, 0.44)	0.17 (0.10, 0.24)	0.35 (0.26, 0.43)	0.29 (0.21, 0.37)	0.40 (0.25, 0.54)	0.31 (0.21, 0.41)	0.47 (0.29, 0.65)	0.30 (0.21, 0.39)	0.55 (0.37, 0.73)	0.31 (0.23, 0.38)	0.66 (0.48, 0.84)
UK	0.04 (-0.03, 0.11)	0.25 (0.15, 0.34)	0.01 (-0.03, 0.06)	0.35 (0.27, 0.42)	0.16 (0.10, 0.22)	0.33 (0.26, 0.41)	0.28 (0.21, 0.35)	0.36 (0.23, 0.48)	0.29 (0.20, 0.38)	0.41 (0.26, 0.57)	0.28 (0.20, 0.37)	0.49 (0.33, 0.65)	0.30 (0.23, 0.37)	0.60 (0.43, 0.76)
USA	0.05 (0.01, 0.08)	0.26 (0.21, 0.31)	0.02 (-0.01, 0.05)	0.35 (0.31, 0.40)	0.18 (0.14, 0.21)	0.35 (0.30, 0.39)	0.30 (0.26, 0.34)	0.39 (0.32, 0.47)	0.33 (0.28, 0.38)	0.47 (0.37, 0.56)	0.32 (0.27, 0.36)	0.53 (0.44, 0.62)	0.32 (0.28, 0.36)	0.63 (0.54, 0.72)
Vietnam	0.02 (-0.39, 0.42)	0.24 (-0.31, 0.78)	0.01 (-0.26, 0.29)	0.34 (-0.13, 0.80)	0.14 (-0.25, 0.53)	0.35 (-0.12, 0.81)	0.27 (-0.16, 0.70)	0.44 (-0.35, 1.22)	0.28 (-0.27, 0.83)	0.55 (-0.43, 1.52)	0.28 (-0.22, 0.78)	0.61 (-0.37, 1.58)	0.31 (-0.11, 0.73)	0.76 (-0.24, 1.75)

**Table S8. Percentage change (%) of all-cause mortality risk by climate areas per IQR increase in TV.**

		Cold area	Moderate cold	Moderate warm	Warm area
TV 0-1	Inter-day	0.02 (-0.04, 0.08)	-0.01 (-0.07, 0.05)	-0.02 (-0.07, 0.03)	-0.09 (-0.16, -0.03)
	Intra-day	0.38 (0.28, 0.48)	0.57 (0.49, 0.65)	0.56 (0.47, 0.66)	0.96 (0.80, 1.12)
TV 0-2	Inter-day	0.00 (-0.07, 0.07)	-0.06 (-0.12, 0.00)	-0.02 (-0.07, 0.03)	-0.08 (-0.16, -0.01)
	Intra-day	0.42 (0.33, 0.52)	0.62 (0.54, 0.70)	0.60 (0.53, 0.68)	0.75 (0.61, 0.88)
TV 0-3	Inter-day	0.08 (0.01, 0.14)	0.06 (-0.01, 0.12)	0.10 (0.04, 0.16)	0.04 (-0.03, 0.11)
	Intra-day	0.36 (0.26, 0.46)	0.57 (0.49, 0.65)	0.59 (0.51, 0.67)	0.60 (0.46, 0.74)
TV 0-4	Inter-day	0.17 (0.10, 0.23)	0.17 (0.10, 0.23)	0.23 (0.16, 0.30)	0.08 (0.01, 0.16)
	Intra-day	0.31 (0.20, 0.41)	0.56 (0.48, 0.63)	0.59 (0.50, 0.67)	0.53 (0.38, 0.68)
TV 0-5	Inter-day	0.19 (0.12, 0.26)	0.21 (0.14, 0.29)	0.31 (0.24, 0.37)	0.09 (0.00, 0.17)
	Intra-day	0.32 (0.21, 0.43)	0.55 (0.47, 0.63)	0.60 (0.51, 0.69)	0.54 (0.39, 0.70)
TV 0-6	Inter-day	0.21 (0.13, 0.28)	0.22 (0.14, 0.30)	0.29 (0.23, 0.36)	0.07 (-0.02, 0.17)
	Intra-day	0.35 (0.23, 0.46)	0.59 (0.51, 0.67)	0.64 (0.55, 0.73)	0.54 (0.38, 0.70)
TV 0-7	Inter-day	0.23 (0.16, 0.31)	0.24 (0.16, 0.32)	0.29 (0.22, 0.36)	0.04 (-0.06, 0.14)
	Intra-day	0.39 (0.27, 0.51)	0.64 (0.55, 0.72)	0.71 (0.62, 0.80)	0.56 (0.40, 0.73)

**Table S9. Percentage change (%) of cardiovascular mortality risk by climate areas per IQR increase in TV.**

		Cold area	Moderate cold	Moderate warm	Warm area
TV 0-1	Inter-day	0.09 (0.01, 0.17)	0.08 (-0.02, 0.18)	0.08 (-0.01, 0.16)	0.09 (0.00, 0.17)
	Intra-day	0.56 (0.43, 0.69)	0.59 (0.45, 0.72)	0.43 (0.28, 0.57)	0.49 (0.34, 0.65)
TV 0-2	Inter-day	0.11 (0.02, 0.20)	0.08 (-0.03, 0.19)	0.08 (-0.02, 0.19)	0.13 (0.03, 0.24)
	Intra-day	0.73 (0.61, 0.85)	0.65 (0.53, 0.78)	0.52 (0.37, 0.66)	0.49 (0.33, 0.65)
TV 0-3	Inter-day	0.25 (0.16, 0.34)	0.25 (0.14, 0.37)	0.17 (0.06, 0.28)	0.21 (0.09, 0.33)
	Intra-day	0.71 (0.58, 0.84)	0.63 (0.50, 0.77)	0.57 (0.42, 0.73)	0.51 (0.35, 0.68)
TV 0-4	Inter-day	0.34 (0.23, 0.44)	0.39 (0.27, 0.52)	0.28 (0.16, 0.40)	0.28 (0.15, 0.42)
	Intra-day	0.69 (0.56, 0.83)	0.59 (0.46, 0.73)	0.59 (0.43, 0.76)	0.52 (0.35, 0.70)
TV 0-5	Inter-day	0.45 (0.35, 0.55)	0.49 (0.36, 0.61)	0.36 (0.23, 0.48)	0.32 (0.17, 0.46)
	Intra-day	0.67 (0.53, 0.82)	0.56 (0.42, 0.70)	0.59 (0.42, 0.76)	0.53 (0.35, 0.70)
TV 0-6	Inter-day	0.46 (0.35, 0.57)	0.53 (0.41, 0.65)	0.36 (0.23, 0.50)	0.30 (0.16, 0.45)
	Intra-day	0.71 (0.56, 0.86)	0.54 (0.37, 0.70)	0.63 (0.45, 0.80)	0.58 (0.41, 0.75)
TV 0-7	Inter-day	0.48 (0.36, 0.59)	0.57 (0.45, 0.70)	0.38 (0.25, 0.52)	0.32 (0.18, 0.47)
	Intra-day	0.75 (0.59, 0.91)	0.52 (0.35, 0.70)	0.66 (0.48, 0.84)	0.62 (0.45, 0.80)

**Table S10. Percentage change (%) of respiratory mortality risk by climate areas per IQR increase in TV.**

		Cold area	Moderate cold	Moderate warm	Warm area
TV 0-1	Inter-day	0.14 (-0.03, 0.32)	0.06 (-0.09, 0.22)	-0.02 (-0.17, 0.13)	0.02 (-0.16, 0.19)
	Intra-day	0.28 (-0.00, 0.56)	0.22 (0.01, 0.44)	0.24 (0.07, 0.41)	0.29 (0.06, 0.51)
TV 0-2	Inter-day	0.09 (-0.10, 0.28)	-0.03 (-0.20, 0.14)	-0.03 (-0.16, 0.11)	0.05 (-0.13, 0.23)
	Intra-day	0.29 (0.02, 0.55)	0.43 (0.20, 0.66)	0.43 (0.25, 0.62)	0.24 (0.00, 0.48)
TV 0-3	Inter-day	0.25 (0.04, 0.47)	0.19 (0.01, 0.36)	0.13 (-0.03, 0.30)	0.13 (-0.07, 0.33)
	Intra-day	0.28 (0.03, 0.54)	0.35 (0.11, 0.59)	0.45 (0.25, 0.66)	0.23 (-0.04, 0.50)
TV 0-4	Inter-day	0.36 (0.15, 0.56)	0.35 (0.16, 0.54)	0.24 (0.06, 0.42)	0.27 (0.08, 0.45)
	Intra-day	0.40 (0.09, 0.71)	0.39 (0.14, 0.64)	0.44 (0.19, 0.69)	0.27 (-0.04, 0.58)
TV 0-5	Inter-day	0.33 (0.09, 0.57)	0.39 (0.18, 0.59)	0.29 (0.10, 0.47)	0.32 (0.15, 0.50)
	Intra-day	0.55 (0.23, 0.86)	0.43 (0.15, 0.71)	0.47 (0.19, 0.75)	0.36 (0.02, 0.70)
TV 0-6	Inter-day	0.32 (0.07, 0.57)	0.35 (0.16, 0.55)	0.26 (0.06, 0.45)	0.31 (0.13, 0.49)
	Intra-day	0.69 (0.38, 1.00)	0.45 (0.19, 0.72)	0.54 (0.23, 0.84)	0.42 (0.07, 0.76)
TV 0-7	Inter-day	0.36 (0.11, 0.60)	0.29 (0.09, 0.49)	0.30 (0.12, 0.49)	0.28 (0.10, 0.46)
	Intra-day	0.88 (0.57, 1.19)	0.53 (0.25, 0.80)	0.64 (0.32, 0.95)	0.49 (0.14, 0.83)

**Table S11. Percentage change (%) of all-cause mortality risk by seasons per IQR increase in TV.**

		Cold season	Moderate season	Warm season
TV 0-1	Inter-day	0.01 (-0.04, 0.05)	0.00 (-0.04, 0.05)	-0.02 (-0.07, 0.03)
	Intra-day	0.31 (0.24, 0.38)	0.64 (0.56, 0.72)	0.60 (0.50, 0.70)
TV 0-2	Inter-day	-0.00 (-0.06, 0.05)	-0.03 (-0.08, 0.02)	-0.15 (-0.20, -0.09)
	Intra-day	0.28 (0.21, 0.35)	0.67 (0.59, 0.74)	0.59 (0.50, 0.68)
TV 0-3	Inter-day	0.11 (0.06, 0.17)	0.09 (0.04, 0.15)	-0.10 (-0.16, -0.04)
	Intra-day	0.15 (0.07, 0.23)	0.62 (0.55, 0.69)	0.54 (0.46, 0.63)
TV 0-4	Inter-day	0.21 (0.15, 0.27)	0.24 (0.18, 0.29)	-0.03 (-0.09, 0.04)
	Intra-day	0.08 (0.00, 0.17)	0.57 (0.49, 0.65)	0.52 (0.43, 0.61)
TV 0-5	Inter-day	0.23 (0.17, 0.29)	0.33 (0.27, 0.40)	-0.01 (-0.08, 0.06)
	Intra-day	0.08 (-0.01, 0.16)	0.56 (0.49, 0.64)	0.54 (0.45, 0.63)
TV 0-6	Inter-day	0.18 (0.12, 0.25)	0.36 (0.29, 0.42)	0.01 (-0.07, 0.08)
	Intra-day	0.08 (-0.01, 0.17)	0.61 (0.53, 0.69)	0.60 (0.50, 0.69)
TV 0-7	Inter-day	0.17 (0.10, 0.24)	0.35 (0.28, 0.42)	0.02 (-0.06, 0.10)
	Intra-day	0.13 (0.04, 0.22)	0.70 (0.62, 0.79)	0.67 (0.57, 0.78)

**Table S12. Percentage change (%) of cardiovascular mortality risk by seasons per IQR increase in TV.**

		Cold season	Moderate season	Warm season
TV 0-1	Inter-day	0.11 (0.04, 0.18)	0.05 (-0.03, 0.12)	0.07 (-0.01, 0.16)
	Intra-day	0.30 (0.19, 0.41)	0.58 (0.47, 0.70)	0.40 (0.30, 0.51)
TV 0-2	Inter-day	0.12 (0.04, 0.21)	0.07 (-0.01, 0.16)	-0.07 (-0.15, 0.02)
	Intra-day	0.30 (0.18, 0.42)	0.78 (0.66, 0.90)	0.49 (0.36, 0.62)
TV 0-3	Inter-day	0.26 (0.17, 0.35)	0.19 (0.10, 0.28)	-0.05 (-0.15, 0.04)
	Intra-day	0.21 (0.07, 0.34)	0.82 (0.69, 0.94)	0.53 (0.39, 0.66)
TV 0-4	Inter-day	0.32 (0.22, 0.43)	0.32 (0.23, 0.42)	0.04 (-0.07, 0.15)
	Intra-day	0.18 (0.03, 0.32)	0.80 (0.67, 0.93)	0.50 (0.37, 0.64)
TV 0-5	Inter-day	0.35 (0.24, 0.46)	0.49 (0.39, 0.59)	0.13 (0.01, 0.24)
	Intra-day	0.17 (0.02, 0.31)	0.73 (0.59, 0.87)	0.52 (0.37, 0.67)
TV 0-6	Inter-day	0.30 (0.18, 0.41)	0.57 (0.47, 0.68)	0.17 (0.04, 0.29)
	Intra-day	0.19 (0.04, 0.34)	0.74 (0.58, 0.89)	0.60 (0.44, 0.75)
TV 0-7	Inter-day	0.28 (0.16, 0.39)	0.57 (0.45, 0.68)	0.22 (0.08, 0.35)
	Intra-day	0.21 (0.05, 0.36)	0.80 (0.65, 0.94)	0.67 (0.50, 0.84)



**Table S13. Percentage change (%) of respiratory mortality risk by seasons per IQR increase in TV.**

		Cold season	Moderate season	Warm season
TV 0-1	Inter-day	-0.03 (-0.15, 0.10)	0.18 (0.04, 0.32)	0.15 (0.01, 0.30)
	Intra-day	0.11 (-0.06, 0.27)	0.23 (0.04, 0.43)	0.36 (0.15, 0.56)
TV 0-2	Inter-day	0.00 (-0.13, 0.13)	0.01 (-0.13, 0.15)	0.06 (-0.10, 0.21)
	Intra-day	0.10 (-0.08, 0.27)	0.37 (0.17, 0.58)	0.53 (0.32, 0.73)
TV 0-3	Inter-day	0.15 (-0.00, 0.31)	0.15 (-0.00, 0.31)	0.10 (-0.07, 0.28)
	Intra-day	-0.02 (-0.20, 0.16)	0.39 (0.19, 0.59)	0.51 (0.30, 0.72)
TV 0-4	Inter-day	0.29 (0.13, 0.46)	0.30 (0.14, 0.46)	0.16 (-0.02, 0.35)
	Intra-day	-0.07 (-0.27, 0.12)	0.50 (0.29, 0.71)	0.60 (0.37, 0.82)
TV 0-5	Inter-day	0.30 (0.12, 0.48)	0.45 (0.28, 0.62)	0.12 (-0.08, 0.32)
	Intra-day	-0.04 (-0.25, 0.17)	0.48 (0.25, 0.71)	0.69 (0.44, 0.94)
TV 0-6	Inter-day	0.22 (0.02, 0.41)	0.51 (0.32, 0.69)	0.08 (-0.12, 0.29)
	Intra-day	-0.02 (-0.24, 0.20)	0.55 (0.31, 0.80)	0.77 (0.50, 1.04)
TV 0-7	Inter-day	0.17 (-0.03, 0.36)	0.54 (0.34, 0.73)	0.10 (-0.11, 0.31)
	Intra-day	0.06 (-0.18, 0.30)	0.66 (0.40, 0.93)	0.98 (0.70, 1.26)

**Table S14. Percentage change (%) of all-cause mortality risk by Köppen-Geiger climate groups per IQR increase in TV.**

		Tropical	Dry	Temperate	Continental	Polar
TV 0-1	Inter-day	-0.07 (-0.18, 0.03)	-0.24 (-0.36, -0.12)	-0.00 (-0.03, 0.03)	-0.00 (-0.08, 0.07)	0.26 (-0.77, 1.27)
	Intra-day	1.20 (0.88, 1.52)	0.92 (0.65, 1.18)	0.54 (0.48, 0.59)	0.47 (0.35, 0.59)	0.20 (-1.68, 2.05)
TV 0-2	Inter-day	-0.04 (-0.15, 0.07)	-0.15 (-0.27, -0.03)	-0.03 (-0.07, 0.01)	-0.01 (-0.09, 0.08)	-0.11 (-1.28, 1.05)
	Intra-day	0.68 (0.43, 0.93)	0.76 (0.52, 0.99)	0.58 (0.53, 0.64)	0.54 (0.42, 0.65)	0.56 (-1.49, 2.56)
TV 0-3	Inter-day	0.04 (-0.06, 0.15)	0.05 (-0.07, 0.17)	0.08 (0.04, 0.12)	0.11 (0.03, 0.20)	-0.17 (-1.10, 0.74)
	Intra-day	0.44 (0.16, 0.72)	0.61 (0.37, 0.86)	0.55 (0.50, 0.60)	0.49 (0.37, 0.61)	0.94 (-1.25, 3.09)
TV 0-4	Inter-day	0.01 (-0.10, 0.13)	0.19 (0.06, 0.31)	0.18 (0.14, 0.23)	0.23 (0.14, 0.32)	-0.18 (-1.69, 1.32)
	Intra-day	0.36 (0.07, 0.66)	0.56 (0.32, 0.81)	0.52 (0.46, 0.58)	0.46 (0.34, 0.59)	0.74 (-1.84, 3.27)
TV 0-5	Inter-day	-0.00 (-0.12, 0.12)	0.26 (0.11, 0.40)	0.23 (0.19, 0.28)	0.27 (0.19, 0.36)	-0.13 (-2.71, 2.39)
	Intra-day	0.35 (0.05, 0.64)	0.59 (0.35, 0.83)	0.52 (0.46, 0.58)	0.49 (0.37, 0.61)	0.85 (-1.59, 3.24)
TV 0-6	Inter-day	-0.02 (-0.15, 0.12)	0.21 (0.06, 0.37)	0.23 (0.19, 0.28)	0.28 (0.18, 0.37)	0.19 (-1.64, 1.98)
	Intra-day	0.26 (-0.03, 0.55)	0.70 (0.47, 0.94)	0.56 (0.49, 0.62)	0.51 (0.39, 0.63)	0.17 (-2.46, 2.72)
TV 0-7	Inter-day	-0.05 (-0.18, 0.09)	0.17 (0.01, 0.33)	0.24 (0.20, 0.29)	0.29 (0.19, 0.39)	0.42 (-0.69, 1.52)
	Intra-day	0.26 (-0.06, 0.58)	0.82 (0.54, 1.10)	0.61 (0.54, 0.68)	0.54 (0.42, 0.67)	-0.39 (-3.17, 2.31)

**Table S15. Percentage change (%) of cardiovascular mortality risk by Köppen-Geiger climate groups per IQR increase in TV.**

		Tropical	Dry	Temperate	Continental	Polar
TV 0-1	Inter-day	0.10 (-0.02, 0.21)	0.01 (-0.18, 0.19)	0.11 (0.05, 0.16)	0.00 (-0.11, 0.12)	–
	Intra-day	0.56 (0.38, 0.74)	0.58 (0.23, 0.94)	0.52 (0.43, 0.61)	0.50 (0.37, 0.64)	–
TV 0-2	Inter-day	0.16 (0.02, 0.30)	-0.05 (-0.24, 0.14)	0.12 (0.06, 0.19)	0.02 (-0.11, 0.15)	–
	Intra-day	0.65 (0.45, 0.85)	0.58 (0.29, 0.88)	0.60 (0.51, 0.69)	0.66 (0.52, 0.80)	–
TV 0-3	Inter-day	0.18 (0.04, 0.32)	0.16 (-0.05, 0.36)	0.23 (0.16, 0.31)	0.21 (0.09, 0.34)	–
	Intra-day	0.72 (0.51, 0.93)	0.39 (0.07, 0.71)	0.62 (0.52, 0.71)	0.64 (0.48, 0.80)	–
TV 0-4	Inter-day	0.26 (0.10, 0.43)	0.34 (0.12, 0.55)	0.33 (0.25, 0.41)	0.32 (0.19, 0.46)	–
	Intra-day	0.74 (0.53, 0.96)	0.27 (-0.09, 0.62)	0.61 (0.51, 0.70)	0.64 (0.47, 0.81)	–
TV 0-5	Inter-day	0.35 (0.19, 0.51)	0.33 (0.11, 0.55)	0.42 (0.33, 0.50)	0.41 (0.28, 0.54)	–
	Intra-day	0.72 (0.49, 0.95)	0.28 (-0.11, 0.66)	0.62 (0.52, 0.71)	0.56 (0.37, 0.74)	–
TV 0-6	Inter-day	0.37 (0.20, 0.54)	0.30 (0.07, 0.53)	0.44 (0.36, 0.52)	0.39 (0.24, 0.54)	–
	Intra-day	0.73 (0.48, 0.98)	0.36 (0.01, 0.72)	0.65 (0.55, 0.75)	0.56 (0.37, 0.75)	–
TV 0-7	Inter-day	0.42 (0.24, 0.61)	0.38 (0.15, 0.62)	0.46 (0.38, 0.54)	0.39 (0.23, 0.55)	–
	Intra-day	0.74 (0.48, 1.01)	0.39 (0.00, 0.77)	0.68 (0.58, 0.78)	0.58 (0.39, 0.77)	–

**Table S16. Percentage change (%) of respiratory mortality risk by Köppen-Geiger climate groups per IQR increase in TV.**

		Tropical	Dry	Temperate	Continental	Polar
TV 0-1	Inter-day	0.06 (-0.20, 0.33)	-0.32 (-0.62, -0.03)	0.07 (-0.03, 0.17)	0.07 (-0.13, 0.27)	–
	Intra-day	0.38 (-0.12, 0.87)	0.22 (-0.30, 0.73)	0.23 (0.10, 0.36)	0.36 (0.10, 0.61)	–
TV 0-2	Inter-day	0.17 (-0.13, 0.47)	-0.07 (-0.40, 0.25)	0.02 (-0.08, 0.12)	-0.05 (-0.26, 0.17)	–
	Intra-day	0.14 (-0.42, 0.70)	0.10 (-0.41, 0.61)	0.34 (0.21, 0.47)	0.54 (0.26, 0.82)	–
TV 0-3	Inter-day	0.35 (0.04, 0.67)	0.21 (-0.15, 0.56)	0.15 (0.04, 0.26)	0.20 (-0.03, 0.42)	–
	Intra-day	-0.33 (-1.05, 0.39)	-0.16 (-0.67, 0.36)	0.37 (0.24, 0.50)	0.58 (0.28, 0.88)	–
TV 0-4	Inter-day	0.18 (-0.15, 0.51)	0.27 (-0.10, 0.64)	0.31 (0.19, 0.42)	0.33 (0.10, 0.56)	–
	Intra-day	-0.57 (-1.41, 0.25)	-0.13 (-0.66, 0.40)	0.42 (0.27, 0.57)	0.71 (0.42, 1.00)	–
TV 0-5	Inter-day	0.11 (-0.23, 0.45)	0.23 (-0.16, 0.61)	0.36 (0.23, 0.48)	0.35 (0.11, 0.58)	–
	Intra-day	-0.42 (-1.29, 0.45)	0.01 (-0.59, 0.60)	0.48 (0.31, 0.65)	0.81 (0.45, 1.17)	–
TV 0-6	Inter-day	0.10 (-0.27, 0.47)	0.16 (-0.24, 0.55)	0.35 (0.22, 0.47)	0.32 (0.07, 0.56)	–
	Intra-day	-0.35 (-1.27, 0.56)	0.21 (-0.40, 0.82)	0.56 (0.39, 0.74)	0.78 (0.46, 1.09)	–
TV 0-7	Inter-day	-0.01 (-0.40, 0.38)	0.15 (-0.26, 0.56)	0.35 (0.23, 0.47)	0.34 (0.09, 0.58)	–
	Intra-day	-0.16 (-1.11, 0.78)	0.45 (-0.21, 1.10)	0.68 (0.49, 0.86)	0.80 (0.46, 1.13)	–

**Table S17. Attributable fractions (%) of both inter-day TV and intra-day TV for all-cause mortality**

Country/region	TV 0-1		TV 0-2		TV 0-3		TV 0-4		TV 0-5		TV 0-6	
	Inter-day	Intra-day	Inter-day	Intra-day	Inter-day	Intra-day	Inter-day	Intra-day	Inter-day	Intra-day	Inter-day	Intra-day
Argentina	-0.03 (-0.06, 0.00)	1.25 (1.14, 1.37)	-0.06 (-0.11, -0.02)	1.44 (1.32, 1.56)	0.12 (0.07, 0.17)	1.36 (1.23, 1.49)	0.31 (0.25, 0.37)	1.31 (1.17, 1.45)	0.41 (0.34, 0.48)	1.33 (1.19, 1.48)	0.41 (0.34, 0.48)	1.41 (1.26, 1.56)
Australia	-0.02 (-0.05, 0.00)	0.95 (0.86, 1.03)	-0.05 (-0.09, -0.02)	1.02 (0.94, 1.11)	0.10 (0.06, 0.14)	0.97 (0.88, 1.07)	0.25 (0.20, 0.30)	0.96 (0.85, 1.06)	0.32 (0.27, 0.37)	1.07 (0.95, 1.18)	0.33 (0.27, 0.39)	1.22 (1.09, 1.35)
Brazil	-0.02 (-0.04, 0.00)	1.08 (0.98, 1.18)	-0.04 (-0.06, -0.01)	1.20 (1.10, 1.30)	0.07 (0.04, 0.10)	1.14 (1.03, 1.25)	0.18 (0.15, 0.22)	1.14 (1.02, 1.27)	0.24 (0.20, 0.28)	1.22 (1.09, 1.36)	0.25 (0.20, 0.29)	1.39 (1.24, 1.54)
Canada	-0.04 (-0.08, 0.00)	1.16 (1.05, 1.27)	-0.08 (-0.13, -0.02)	1.29 (1.19, 1.40)	0.15 (0.08, 0.21)	1.25 (1.13, 1.37)	0.37 (0.30, 0.45)	1.23 (1.10, 1.36)	0.49 (0.41, 0.57)	1.31 (1.17, 1.46)	0.50 (0.42, 0.58)	1.46 (1.31, 1.62)
Chile	-0.02 (-0.04, 0.00)	1.35 (1.23, 1.47)	-0.04 (-0.06, -0.01)	1.49 (1.37, 1.61)	0.06 (0.04, 0.09)	1.38 (1.24, 1.51)	0.16 (0.13, 0.20)	1.34 (1.20, 1.49)	0.22 (0.18, 0.25)	1.36 (1.21, 1.51)	0.22 (0.19, 0.26)	1.49 (1.33, 1.64)
China	-0.02 (-0.04, 0.00)	0.88 (0.80, 0.96)	-0.05 (-0.08, -0.01)	0.98 (0.90, 1.06)	0.09 (0.05, 0.12)	0.92 (0.83, 1.01)	0.22 (0.18, 0.27)	0.87 (0.77, 0.96)	0.29 (0.25, 0.34)	0.91 (0.81, 1.01)	0.30 (0.25, 0.36)	1.00 (0.90, 1.11)
Colombia	-0.01 (-0.03, 0.00)	0.90 (0.81, 0.98)	-0.03 (-0.04, -0.01)	0.88 (0.81, 0.95)	0.05 (0.03, 0.07)	0.83 (0.75, 0.91)	0.11 (0.09, 0.14)	0.83 (0.74, 0.92)	0.14 (0.12, 0.16)	0.91 (0.81, 1.01)	0.14 (0.12, 0.16)	1.04 (0.93, 1.15)
Costa Rica	-0.01 (-0.02, 0.00)	0.98 (0.89, 1.07)	-0.02 (-0.04, -0.01)	1.02 (0.93, 1.10)	0.04 (0.02, 0.06)	0.91 (0.82, 1.00)	0.11 (0.09, 0.13)	0.92 (0.82, 1.02)	0.13 (0.11, 0.16)	1.04 (0.92, 1.15)	0.12 (0.10, 0.14)	1.20 (1.07, 1.32)
Czech Republic	-0.03 (-0.06, 0.00)	0.83 (0.75, 0.90)	-0.06 (-0.11, -0.02)	0.96 (0.88, 1.04)	0.12 (0.07, 0.17)	0.93 (0.84, 1.02)	0.31 (0.25, 0.37)	0.92 (0.82, 1.02)	0.41 (0.34, 0.48)	0.98 (0.87, 1.09)	0.43 (0.35, 0.50)	1.09 (0.98, 1.21)
Ecuador	-0.01 (-0.03, 0.00)	1.01 (0.92, 1.11)	-0.03 (-0.05, -0.01)	0.89 (0.81, 0.96)	0.05 (0.03, 0.07)	0.73 (0.66, 0.80)	0.13 (0.10, 0.15)	0.73 (0.65, 0.81)	0.15 (0.12, 0.17)	0.84 (0.75, 0.93)	0.13 (0.11, 0.15)	0.99 (0.89, 1.10)
Estonia	-0.03 (-0.06, 0.00)	1.01 (0.92, 1.10)	-0.06 (-0.10, -0.02)	1.15 (1.06, 1.25)	0.11 (0.06, 0.16)	1.11 (1.00, 1.21)	0.28 (0.23, 0.34)	1.09 (0.97, 1.21)	0.36 (0.30, 0.42)	1.13 (1.01, 1.25)	0.38 (0.31, 0.44)	1.24 (1.10, 1.37)
Finland	-0.02 (-0.05, 0.00)	0.86 (0.78, 0.94)	-0.06 (-0.09, -0.02)	0.97 (0.89, 1.05)	0.10 (0.06, 0.15)	0.93 (0.84, 1.02)	0.27 (0.22, 0.33)	0.93 (0.83, 1.03)	0.37 (0.31, 0.43)	1.00 (0.89, 1.11)	0.37 (0.31, 0.44)	1.13 (1.01, 1.25)
France	-0.02 (-0.05, 0.00)	1.05 (0.96, 1.15)	-0.05 (-0.09, -0.02)	1.19 (1.09, 1.29)	0.09 (0.05, 0.14)	1.13 (1.02, 1.23)	0.25 (0.20, 0.29)	1.12 (1.00, 1.24)	0.32 (0.26, 0.37)	1.19 (1.06, 1.32)	0.32 (0.27, 0.38)	1.34 (1.20, 1.48)
French Caribbean	-0.01 (-0.02, 0.00)	0.70 (0.64, 0.77)	-0.02 (-0.03, -0.01)	0.80 (0.73, 0.86)	0.03 (0.02, 0.05)	0.71 (0.64, 0.78)	0.08 (0.06, 0.09)	0.76 (0.68, 0.84)	0.10 (0.08, 0.11)	0.85 (0.76, 0.95)	0.09 (0.08, 0.11)	0.98 (0.88, 1.09)
French Guiana	-0.01 (-0.02, 0.00)	0.83 (0.75, 0.90)	-0.02 (-0.03, -0.01)	0.94 (0.86, 1.02)	0.03 (0.02, 0.04)	0.97 (0.88, 1.07)	0.07 (0.06, 0.09)	1.01 (0.90, 1.12)	0.09 (0.08, 0.11)	1.10 (0.98, 1.23)	0.09 (0.07, 0.10)	1.25 (1.12, 1.38)
Réunion	-0.01 (-0.02, 0.00)	0.71 (0.65, 0.78)	-0.02 (-0.03, -0.01)	0.78 (0.72, 0.85)	0.03 (0.02, 0.05)	0.75 (0.67, 0.82)	0.08 (0.07, 0.10)	0.67 (0.59, 0.74)	0.10 (0.08, 0.12)	0.66 (0.59, 0.74)	0.10 (0.09, 0.12)	0.74 (0.66, 0.82)
Germany	-0.03 (-0.05, 0.00)	1.09 (0.99, 1.19)	-0.06 (-0.10, -0.02)	1.22 (1.12, 1.32)	0.11 (0.06, 0.15)	1.17 (1.05, 1.28)	0.28 (0.23, 0.34)	1.16 (1.03, 1.28)	0.36 (0.30, 0.42)	1.23 (1.09, 1.36)	0.37 (0.31, 0.43)	1.37 (1.22, 1.51)
Greece	-0.02 (-0.04, 0.00)	1.04 (0.95, 1.14)	-0.04 (-0.07, -0.01)	1.13 (1.04, 1.23)	0.08 (0.04, 0.11)	1.10 (1.00, 1.21)	0.20 (0.16, 0.24)	1.08 (0.96, 1.20)	0.28 (0.23, 0.32)	1.17 (1.04, 1.30)	0.29 (0.24, 0.34)	1.32 (1.18, 1.46)
Guatemala	-0.01 (-0.03, 0.00)	1.05 (0.95, 1.14)	-0.03 (-0.04, -0.01)	1.15 (1.06, 1.25)	0.05 (0.03, 0.07)	1.04 (0.94, 1.14)	0.13 (0.10, 0.15)	0.90 (0.80, 1.00)	0.16 (0.13, 0.19)	0.97 (0.87, 1.08)	0.15 (0.12, 0.17)	1.14 (1.01, 1.26)
Iran	-0.02 (-0.05, 0.00)	1.30 (1.18, 1.42)	-0.05 (-0.09, -0.02)	1.43 (1.31, 1.55)	0.10 (0.06, 0.14)	1.32 (1.19, 1.44)	0.26 (0.21, 0.31)	1.35 (1.21, 1.50)	0.34 (0.29, 0.40)	1.49 (1.32, 1.65)	0.36 (0.30, 0.42)	1.69 (1.51, 1.87)
Ireland	-0.02 (-0.04, 0.00)	0.84 (0.77, 0.92)	-0.04 (-0.07, -0.01)	0.95 (0.87, 1.03)	0.08 (0.04, 0.11)	0.91 (0.83, 1.00)	0.20 (0.16, 0.24)	0.91 (0.81, 1.01)	0.26 (0.22, 0.30)	0.92 (0.82, 1.02)	0.27 (0.22, 0.31)	1.01 (0.91, 1.12)
Israel	-0.02 (-0.04, 0.00)	1.17 (1.07, 1.28)	-0.04 (-0.06, -0.01)	1.26 (1.16, 1.37)	0.07 (0.04, 0.10)	1.19 (1.08, 1.31)	0.18 (0.14, 0.21)	1.17 (1.04, 1.30)	0.24 (0.20, 0.27)	1.17 (1.04, 1.30)	0.24 (0.20, 0.28)	1.20 (1.07, 1.32)
Italy	-0.02 (-0.04, 0.00)	0.98 (0.89, 1.07)	-0.04 (-0.06, -0.01)	1.10 (1.01, 1.19)	0.07 (0.04, 0.10)	1.05 (0.95, 1.15)	0.18 (0.14, 0.22)	1.08 (0.97, 1.20)	0.24 (0.20, 0.28)	1.19 (1.06, 1.32)	0.25 (0.21, 0.30)	1.35 (1.21, 1.49)
Japan	-0.02 (-0.05, 0.00)	1.02 (0.92, 1.11)	-0.05 (-0.08, -0.02)	1.11 (1.02, 1.20)	0.09 (0.05, 0.13)	1.05 (0.95, 1.15)	0.23 (0.18, 0.27)	1.03 (0.91, 1.14)	0.30 (0.25, 0.35)	1.08 (0.97, 1.20)	0.30 (0.25, 0.36)	1.18 (1.06, 1.31)
Kuwait	-0.01 (-0.03, 0.00)	0.90 (0.82, 0.98)	-0.03 (-0.06, -0.01)	0.99 (0.91, 1.07)	0.06 (0.04, 0.09)	0.95 (0.86, 1.04)	0.16 (0.13, 0.20)	0.91 (0.81, 1.01)	0.22 (0.18, 0.26)	0.92 (0.81, 1.02)	0.23 (0.19, 0.27)	1.00 (0.89, 1.10)
Mexico	-0.01 (-0.03, 0.00)	1.51 (1.37, 1.65)	-0.03 (-0.06, -0.01)	1.63 (1.50, 1.76)	0.06 (0.03, 0.09)	1.48 (1.33, 1.62)	0.16 (0.13, 0.19)	1.37 (1.22, 1.52)	0.21 (0.17, 0.24)	1.37 (1.22, 1.51)	0.21 (0.18, 0.25)	1.54 (1.38, 1.70)

Moldova	-0.03 (-0.06, 0.00)	1.16 (1.06, 1.27)	-0.06 (-0.10, -0.02)	1.28 (1.17, 1.39)	0.11 (0.06, 0.16)	1.19 (1.08, 1.31)	0.29 (0.23, 0.35)	1.21 (1.08, 1.34)	0.38 (0.32, 0.45)	1.31 (1.17, 1.46)	0.40 (0.33, 0.47)	1.48 (1.32, 1.64)
Netherland	-0.02 (-0.05, 0.00)	1.00 (0.90, 1.09)	-0.05 (-0.09, -0.02)	1.12 (1.02, 1.21)	0.10 (0.05, 0.14)	1.05 (0.95, 1.15)	0.25 (0.20, 0.30)	0.98 (0.87, 1.08)	0.33 (0.27, 0.38)	1.05 (0.93, 1.16)	0.34 (0.28, 0.40)	1.19 (1.07, 1.32)
Norway	-0.03 (-0.05, 0.00)	0.96 (0.88, 1.05)	-0.06 (-0.09, -0.02)	1.10 (1.01, 1.19)	0.11 (0.06, 0.15)	1.08 (0.98, 1.18)	0.28 (0.22, 0.33)	1.08 (0.96, 1.20)	0.36 (0.30, 0.42)	1.15 (1.02, 1.27)	0.38 (0.32, 0.45)	1.25 (1.12, 1.39)
Panama	-0.01 (-0.02, 0.00)	0.82 (0.74, 0.89)	-0.02 (-0.04, -0.01)	0.78 (0.72, 0.85)	0.04 (0.02, 0.06)	0.77 (0.69, 0.84)	0.11 (0.09, 0.13)	0.72 (0.65, 0.80)	0.14 (0.12, 0.17)	0.72 (0.64, 0.80)	0.15 (0.12, 0.17)	0.80 (0.71, 0.88)
Paraguay	-0.03 (-0.06, 0.00)	1.37 (1.25, 1.50)	-0.07 (-0.12, -0.02)	1.48 (1.36, 1.60)	0.13 (0.07, 0.19)	1.43 (1.30, 1.57)	0.36 (0.29, 0.43)	1.40 (1.25, 1.56)	0.48 (0.40, 0.56)	1.48 (1.32, 1.65)	0.51 (0.42, 0.60)	1.63 (1.46, 1.80)
Peru	-0.01 (-0.02, 0.00)	1.07 (0.97, 1.16)	-0.02 (-0.04, -0.01)	1.15 (1.06, 1.25)	0.04 (0.02, 0.05)	1.09 (0.98, 1.19)	0.09 (0.07, 0.11)	1.10 (0.98, 1.22)	0.12 (0.10, 0.13)	1.21 (1.08, 1.35)	0.12 (0.10, 0.14)	1.38 (1.24, 1.53)
Philippines	-0.01 (-0.02, 0.00)	0.60 (0.55, 0.66)	-0.02 (-0.03, -0.00)	0.62 (0.56, 0.67)	0.03 (0.02, 0.04)	0.56 (0.51, 0.62)	0.07 (0.06, 0.09)	0.56 (0.50, 0.62)	0.10 (0.08, 0.11)	0.61 (0.55, 0.68)	0.10 (0.08, 0.12)	0.70 (0.62, 0.77)
Portugal	-0.02 (-0.04, 0.00)	1.16 (1.05, 1.26)	-0.04 (-0.07, -0.01)	1.29 (1.19, 1.40)	0.08 (0.05, 0.12)	1.26 (1.14, 1.38)	0.22 (0.17, 0.26)	1.26 (1.12, 1.40)	0.27 (0.23, 0.31)	1.36 (1.21, 1.51)	0.28 (0.23, 0.33)	1.52 (1.36, 1.69)
Puerto Rico	-0.01 (-0.02, 0.00)	0.63 (0.58, 0.69)	-0.02 (-0.03, -0.01)	0.64 (0.58, 0.69)	0.04 (0.02, 0.05)	0.63 (0.57, 0.69)	0.09 (0.08, 0.11)	0.68 (0.61, 0.75)	0.11 (0.09, 0.13)	0.77 (0.69, 0.86)	0.11 (0.09, 0.13)	0.89 (0.80, 0.99)
Romania	-0.03 (-0.05, 0.00)	1.50 (1.36, 1.64)	-0.06 (-0.09, -0.02)	1.71 (1.57, 1.85)	0.10 (0.06, 0.15)	1.66 (1.50, 1.82)	0.28 (0.22, 0.33)	1.65 (1.47, 1.82)	0.37 (0.31, 0.44)	1.75 (1.56, 1.94)	0.39 (0.33, 0.46)	1.90 (1.70, 2.10)
South Africa	-0.02 (-0.05, 0.00)	1.74 (1.58, 1.90)	-0.05 (-0.09, -0.02)	1.88 (1.72, 2.03)	0.10 (0.05, 0.14)	1.74 (1.57, 1.91)	0.25 (0.20, 0.30)	1.66 (1.48, 1.84)	0.32 (0.27, 0.37)	1.74 (1.55, 1.92)	0.33 (0.27, 0.38)	1.94 (1.73, 2.15)
South Korea	-0.02 (-0.05, 0.00)	1.13 (1.03, 1.24)	-0.05 (-0.09, -0.02)	1.25 (1.15, 1.36)	0.10 (0.06, 0.14)	1.16 (1.04, 1.27)	0.26 (0.21, 0.31)	1.10 (0.98, 1.22)	0.34 (0.29, 0.40)	1.14 (1.02, 1.27)	0.35 (0.29, 0.41)	1.23 (1.10, 1.36)
Spain	-0.02 (-0.04, 0.00)	1.07 (0.97, 1.17)	-0.04 (-0.07, -0.01)	1.20 (1.10, 1.30)	0.07 (0.04, 0.10)	1.16 (1.05, 1.27)	0.19 (0.15, 0.23)	1.16 (1.04, 1.29)	0.25 (0.21, 0.29)	1.25 (1.11, 1.39)	0.26 (0.21, 0.30)	1.41 (1.26, 1.56)
Sweden	-0.02 (-0.05, 0.00)	0.85 (0.77, 0.93)	-0.05 (-0.08, -0.02)	0.97 (0.89, 1.05)	0.09 (0.05, 0.13)	0.95 (0.86, 1.04)	0.24 (0.19, 0.29)	0.96 (0.85, 1.06)	0.31 (0.26, 0.36)	1.02 (0.90, 1.13)	0.32 (0.26, 0.37)	1.12 (1.00, 1.24)
Switzerland	-0.02 (-0.05, 0.00)	1.01 (0.92, 1.10)	-0.05 (-0.09, -0.02)	1.14 (1.05, 1.24)	0.10 (0.06, 0.14)	1.08 (0.98, 1.19)	0.26 (0.20, 0.31)	1.06 (0.95, 1.18)	0.34 (0.28, 0.40)	1.12 (1.00, 1.25)	0.35 (0.29, 0.41)	1.24 (1.11, 1.38)
Taiwan	-0.02 (-0.04, 0.00)	0.87 (0.79, 0.95)	-0.04 (-0.07, -0.01)	0.95 (0.87, 1.03)	0.08 (0.04, 0.11)	0.89 (0.80, 0.97)	0.20 (0.16, 0.24)	0.90 (0.80, 1.00)	0.27 (0.22, 0.31)	0.95 (0.85, 1.06)	0.28 (0.23, 0.33)	1.09 (0.97, 1.20)
Thailand	-0.01 (-0.02, 0.00)	1.07 (0.98, 1.17)	-0.02 (-0.04, -0.01)	1.14 (1.04, 1.23)	0.04 (0.02, 0.06)	1.03 (0.93, 1.13)	0.11 (0.09, 0.13)	0.96 (0.85, 1.06)	0.15 (0.12, 0.17)	1.00 (0.89, 1.11)	0.15 (0.13, 0.18)	1.14 (1.02, 1.26)
UK	-0.02 (-0.04, 0.00)	0.76 (0.69, 0.83)	-0.04 (-0.08, -0.01)	0.86 (0.79, 0.94)	0.08 (0.05, 0.12)	0.84 (0.76, 0.92)	0.21 (0.17, 0.25)	0.83 (0.74, 0.92)	0.27 (0.23, 0.32)	0.89 (0.79, 0.99)	0.28 (0.23, 0.33)	1.00 (0.90, 1.11)
Uruguay	-0.03 (-0.06, 0.00)	0.97 (0.88, 1.06)	-0.06 (-0.10, -0.02)	1.12 (1.03, 1.22)	0.10 (0.06, 0.15)	1.05 (0.95, 1.15)	0.27 (0.21, 0.32)	0.99 (0.88, 1.10)	0.32 (0.27, 0.38)	1.01 (0.90, 1.12)	0.34 (0.28, 0.40)	1.14 (1.02, 1.26)
USA	-0.03 (-0.06, 0.00)	1.07 (0.97, 1.17)	-0.06 (-0.11, -0.02)	1.19 (1.09, 1.28)	0.12 (0.07, 0.17)	1.12 (1.01, 1.22)	0.31 (0.25, 0.37)	1.08 (0.96, 1.20)	0.41 (0.34, 0.48)	1.12 (1.00, 1.25)	0.42 (0.35, 0.49)	1.21 (1.08, 1.34)
Vietnam	-0.01 (-0.02, 0.00)	0.72 (0.66, 0.79)	-0.02 (-0.04, -0.01)	0.68 (0.62, 0.74)	0.04 (0.02, 0.06)	0.65 (0.58, 0.71)	0.10 (0.08, 0.12)	0.72 (0.65, 0.80)	0.12 (0.10, 0.15)	0.84 (0.75, 0.93)	0.13 (0.10, 0.15)	0.99 (0.88, 1.09)
Pooled	-0.02 (-0.05, 0.00)	1.09 (0.99, 1.19)	-0.05 (-0.09, -0.02)	1.20 (1.10, 1.30)	0.10 (0.05, 0.14)	1.13 (1.02, 1.24)	0.25 (0.20, 0.30)	1.10 (0.98, 1.22)	0.33 (0.27, 0.38)	1.16 (1.03, 1.29)	0.33 (0.28, 0.39)	1.28 (1.14, 1.41)

**Table S18. Attributable fractions (%) of both inter-day TV and intra-day TV for cardiovascular mortality**

Country/region	TV 0-1		TV 0-2		TV 0-3		TV 0-4		TV 0-5		TV 0-6	
	Inter-day	Intra-day	Inter-day	Intra-day	Inter-day	Intra-day	Inter-day	Intra-day	Inter-day	Intra-day	Inter-day	Intra-day
Brazil	0.06 (0.03, 0.09)	1.05 (0.91, 1.19)	0.09 (0.04, 0.13)	1.31 (1.15, 1.46)	0.21 (0.16, 0.26)	1.39 (1.22, 1.57)	0.33 (0.27, 0.40)	1.43 (1.24, 1.63)	0.44 (0.37, 0.50)	1.48 (1.27, 1.69)	0.46 (0.38, 0.53)	1.64 (1.41, 1.88)
Canada	0.12 (0.06, 0.17)	1.12 (0.97, 1.27)	0.17 (0.08, 0.26)	1.40 (1.23, 1.57)	0.42 (0.31, 0.53)	1.51 (1.32, 1.70)	0.66 (0.54, 0.79)	1.54 (1.33, 1.75)	0.87 (0.74, 1.00)	1.58 (1.36, 1.81)	0.90 (0.76, 1.04)	1.72 (1.47, 1.96)
China	0.07 (0.04, 0.11)	0.88 (0.77, 1.00)	0.11 (0.05, 0.16)	1.10 (0.97, 1.24)	0.26 (0.19, 0.32)	1.15 (1.00, 1.29)	0.40 (0.33, 0.48)	1.11 (0.96, 1.27)	0.53 (0.45, 0.62)	1.13 (0.97, 1.29)	0.56 (0.47, 0.65)	1.22 (1.05, 1.40)
Colombia	0.04 (0.02, 0.06)	0.86 (0.75, 0.98)	0.06 (0.03, 0.09)	0.96 (0.84, 1.07)	0.13 (0.10, 0.17)	1.01 (0.88, 1.14)	0.20 (0.16, 0.24)	1.03 (0.89, 1.17)	0.24 (0.21, 0.28)	1.09 (0.93, 1.24)	0.25 (0.21, 0.29)	1.22 (1.04, 1.39)
Costa Rica	0.04 (0.02, 0.05)	0.95 (0.82, 1.08)	0.05 (0.02, 0.08)	1.10 (0.97, 1.23)	0.12 (0.09, 0.15)	1.10 (0.96, 1.24)	0.19 (0.15, 0.22)	1.15 (0.99, 1.31)	0.24 (0.20, 0.27)	1.25 (1.07, 1.43)	0.21 (0.18, 0.24)	1.41 (1.21, 1.61)
Czech Republic	0.09 (0.05, 0.14)	0.80 (0.69, 0.90)	0.14 (0.07, 0.21)	1.04 (0.91, 1.16)	0.35 (0.26, 0.44)	1.12 (0.98, 1.26)	0.55 (0.45, 0.65)	1.14 (0.98, 1.30)	0.72 (0.61, 0.83)	1.17 (1.00, 1.34)	0.76 (0.64, 0.88)	1.28 (1.09, 1.46)
Ecuador	0.04 (0.02, 0.06)	0.95 (0.82, 1.07)	0.06 (0.03, 0.09)	0.92 (0.81, 1.03)	0.14 (0.10, 0.17)	0.83 (0.72, 0.93)	0.22 (0.18, 0.26)	0.87 (0.75, 0.98)	0.26 (0.22, 0.30)	0.96 (0.82, 1.10)	0.23 (0.19, 0.27)	1.12 (0.96, 1.28)
Estonia	0.09 (0.04, 0.13)	0.97 (0.84, 1.10)	0.13 (0.06, 0.20)	1.24 (1.09, 1.39)	0.32 (0.24, 0.40)	1.33 (1.16, 1.50)	0.50 (0.40, 0.59)	1.35 (1.17, 1.54)	0.64 (0.54, 0.74)	1.35 (1.16, 1.55)	0.68 (0.57, 0.79)	1.45 (1.24, 1.65)
Finland	0.08 (0.04, 0.12)	0.83 (0.72, 0.94)	0.12 (0.06, 0.18)	1.05 (0.92, 1.18)	0.30 (0.22, 0.38)	1.12 (0.98, 1.27)	0.49 (0.39, 0.58)	1.16 (1.00, 1.32)	0.65 (0.55, 0.75)	1.20 (1.03, 1.37)	0.67 (0.57, 0.78)	1.33 (1.14, 1.52)
Greece	0.06 (0.03, 0.09)	1.00 (0.87, 1.13)	0.09 (0.04, 0.14)	1.22 (1.07, 1.36)	0.22 (0.17, 0.28)	1.32 (1.15, 1.49)	0.36 (0.29, 0.43)	1.34 (1.16, 1.53)	0.49 (0.42, 0.56)	1.40 (1.20, 1.60)	0.53 (0.44, 0.61)	1.55 (1.33, 1.77)
Iran	0.08 (0.04, 0.12)	1.24 (1.07, 1.40)	0.12 (0.06, 0.18)	1.52 (1.34, 1.71)	0.28 (0.21, 0.36)	1.56 (1.36, 1.76)	0.45 (0.37, 0.53)	1.66 (1.43, 1.88)	0.60 (0.51, 0.70)	1.76 (1.51, 2.01)	0.64 (0.54, 0.74)	1.95 (1.67, 2.22)
Ireland	0.06 (0.03, 0.09)	0.81 (0.70, 0.92)	0.09 (0.04, 0.14)	1.02 (0.90, 1.15)	0.22 (0.16, 0.28)	1.10 (0.96, 1.24)	0.35 (0.29, 0.42)	1.13 (0.98, 1.29)	0.46 (0.39, 0.53)	1.10 (0.94, 1.25)	0.47 (0.40, 0.55)	1.18 (1.01, 1.35)
Japan	0.07 (0.04, 0.11)	0.99 (0.86, 1.12)	0.11 (0.05, 0.17)	1.21 (1.06, 1.35)	0.26 (0.19, 0.33)	1.27 (1.11, 1.44)	0.41 (0.33, 0.48)	1.29 (1.11, 1.47)	0.53 (0.45, 0.61)	1.31 (1.12, 1.50)	0.55 (0.46, 0.64)	1.40 (1.20, 1.60)
Kuwait	0.05 (0.02, 0.07)	0.87 (0.75, 0.99)	0.07 (0.04, 0.11)	1.07 (0.94, 1.20)	0.18 (0.13, 0.22)	1.14 (1.00, 1.29)	0.29 (0.23, 0.34)	1.14 (0.98, 1.29)	0.39 (0.33, 0.45)	1.10 (0.94, 1.26)	0.42 (0.35, 0.49)	1.17 (1.00, 1.33)
Mexico	0.05 (0.02, 0.07)	1.45 (1.26, 1.64)	0.07 (0.04, 0.11)	1.76 (1.54, 1.97)	0.18 (0.13, 0.23)	1.77 (1.55, 2.00)	0.28 (0.23, 0.34)	1.70 (1.47, 1.93)	0.37 (0.32, 0.43)	1.63 (1.40, 1.86)	0.39 (0.33, 0.46)	1.80 (1.55, 2.06)
Norway	0.08 (0.04, 0.13)	0.93 (0.81, 1.05)	0.13 (0.06, 0.19)	1.19 (1.05, 1.33)	0.31 (0.23, 0.39)	1.30 (1.14, 1.47)	0.50 (0.40, 0.59)	1.35 (1.16, 1.53)	0.63 (0.54, 0.73)	1.38 (1.18, 1.57)	0.69 (0.58, 0.80)	1.47 (1.26, 1.68)
Panama	0.04 (0.02, 0.06)	0.79 (0.68, 0.89)	0.05 (0.02, 0.08)	0.85 (0.74, 0.95)	0.12 (0.09, 0.15)	0.93 (0.81, 1.05)	0.19 (0.16, 0.23)	0.90 (0.78, 1.02)	0.25 (0.21, 0.29)	0.87 (0.74, 0.99)	0.26 (0.22, 0.31)	0.93 (0.80, 1.07)
Paraguay	0.10 (0.05, 0.15)	1.33 (1.15, 1.50)	0.15 (0.07, 0.23)	1.60 (1.41, 1.79)	0.38 (0.28, 0.48)	1.73 (1.51, 1.95)	0.63 (0.51, 0.75)	1.75 (1.51, 1.99)	0.85 (0.72, 0.98)	1.78 (1.53, 2.04)	0.92 (0.78, 1.06)	1.92 (1.64, 2.19)
Philippines	0.02 (0.01, 0.04)	0.58 (0.51, 0.66)	0.04 (0.02, 0.05)	0.67 (0.59, 0.75)	0.08 (0.06, 0.11)	0.69 (0.60, 0.77)	0.13 (0.11, 0.16)	0.70 (0.61, 0.80)	0.17 (0.14, 0.19)	0.74 (0.63, 0.85)	0.18 (0.15, 0.21)	0.82 (0.71, 0.94)
Portugal	0.06 (0.03, 0.10)	1.11 (0.96, 1.26)	0.10 (0.05, 0.15)	1.39 (1.22, 1.56)	0.24 (0.18, 0.30)	1.50 (1.31, 1.69)	0.38 (0.31, 0.45)	1.56 (1.34, 1.77)	0.47 (0.40, 0.54)	1.62 (1.39, 1.85)	0.50 (0.42, 0.58)	1.78 (1.52, 2.03)
South Africa	0.08 (0.04, 0.12)	1.69 (1.47, 1.92)	0.11 (0.06, 0.17)	2.05 (1.80, 2.29)	0.27 (0.20, 0.34)	2.11 (1.85, 2.38)	0.43 (0.35, 0.51)	2.09 (1.80, 2.37)	0.56 (0.47, 0.64)	2.11 (1.81, 2.40)	0.58 (0.49, 0.67)	2.30 (1.97, 2.62)
South Korea	0.08 (0.04, 0.12)	1.09 (0.95, 1.24)	0.12 (0.06, 0.18)	1.35 (1.19, 1.51)	0.29 (0.21, 0.36)	1.39 (1.21, 1.57)	0.46 (0.38, 0.55)	1.37 (1.18, 1.56)	0.61 (0.52, 0.70)	1.37 (1.18, 1.57)	0.64 (0.54, 0.74)	1.44 (1.24, 1.65)
Spain	0.06 (0.03, 0.08)	1.03 (0.89, 1.16)	0.09 (0.04, 0.13)	1.29 (1.13, 1.44)	0.21 (0.15, 0.26)	1.39 (1.21, 1.56)	0.33 (0.27, 0.39)	1.43 (1.24, 1.63)	0.44 (0.37, 0.50)	1.49 (1.27, 1.70)	0.46 (0.39, 0.53)	1.64 (1.41, 1.87)
Sweden	0.07 (0.04, 0.11)	0.82 (0.71, 0.93)	0.11 (0.05, 0.16)	1.04 (0.92, 1.17)	0.26 (0.19, 0.33)	1.14 (1.00, 1.29)	0.42 (0.34, 0.50)	1.19 (1.02, 1.35)	0.54 (0.46, 0.63)	1.22 (1.04, 1.39)	0.57 (0.48, 0.66)	1.31 (1.13, 1.50)
Switzerland	0.08 (0.04, 0.11)	0.97 (0.84, 1.09)	0.12 (0.06, 0.18)	1.23 (1.08, 1.37)	0.28 (0.21, 0.35)	1.30 (1.13, 1.46)	0.45 (0.37, 0.54)	1.31 (1.13, 1.49)	0.60 (0.51, 0.69)	1.34 (1.15, 1.53)	0.63 (0.53, 0.73)	1.45 (1.24, 1.65)
Taiwan	0.06 (0.03, 0.09)	0.84 (0.73, 0.95)	0.10 (0.05, 0.15)	1.04 (0.91, 1.16)	0.23 (0.17, 0.29)	1.08 (0.94, 1.22)	0.37 (0.30, 0.44)	1.13 (0.97, 1.28)	0.48 (0.41, 0.55)	1.15 (0.99, 1.32)	0.51 (0.43, 0.59)	1.29 (1.10, 1.47)

Thailand	0.03 (0.02, 0.05)	1.03 (0.89, 1.16)	0.05 (0.02, 0.08)	1.22 (1.08, 1.37)	0.12 (0.09, 0.15)	1.23 (1.08, 1.39)	0.19 (0.16, 0.23)	1.19 (1.03, 1.35)	0.25 (0.22, 0.29)	1.20 (1.03, 1.37)	0.27 (0.23, 0.31)	1.33 (1.14, 1.52)
UK	0.07 (0.03, 0.10)	0.73 (0.63, 0.82)	0.10 (0.05, 0.15)	0.93 (0.82, 1.04)	0.24 (0.17, 0.30)	1.01 (0.88, 1.14)	0.37 (0.30, 0.44)	1.03 (0.89, 1.17)	0.48 (0.41, 0.55)	1.06 (0.91, 1.21)	0.50 (0.42, 0.58)	1.17 (1.00, 1.34)
USA	0.09 (0.05, 0.14)	1.02 (0.89, 1.16)	0.14 (0.07, 0.22)	1.27 (1.12, 1.42)	0.35 (0.26, 0.43)	1.33 (1.16, 1.50)	0.55 (0.45, 0.65)	1.33 (1.15, 1.52)	0.72 (0.61, 0.83)	1.34 (1.15, 1.53)	0.75 (0.64, 0.87)	1.41 (1.21, 1.61)
Vietnam	0.03 (0.02, 0.05)	0.71 (0.61, 0.80)	0.05 (0.02, 0.07)	0.76 (0.67, 0.85)	0.11 (0.08, 0.14)	0.81 (0.70, 0.91)	0.18 (0.14, 0.21)	0.93 (0.80, 1.06)	0.23 (0.19, 0.26)	1.03 (0.88, 1.18)	0.23 (0.20, 0.27)	1.18 (1.02, 1.35)
Pooled	0.08 (0.04, 0.12)	1.02 (0.88, 1.15)	0.12 (0.06, 0.18)	1.26 (1.10, 1.41)	0.28 (0.21, 0.36)	1.32 (1.16, 1.49)	0.45 (0.36, 0.53)	1.34 (1.15, 1.52)	0.58 (0.50, 0.67)	1.35 (1.16, 1.55)	0.61 (0.51, 0.70)	1.45 (1.25, 1.66)



**Table S19. Attributable fractions (%) of both inter-day TV and intra-day TV for respiratory mortality**

Country/region	TV 0-1		TV 0-2		TV 0-3		TV 0-4		TV 0-5		TV 0-6	
	Inter-day	Intra-day	Inter-day	Intra-day	Inter-day	Intra-day	Inter-day	Intra-day	Inter-day	Intra-day	Inter-day	Intra-day
Brazil	0.02 (-0.03, 0.08)	0.52 (0.30, 0.73)	-0.00 (-0.08, 0.07)	0.72 (0.48, 0.96)	0.16 (0.07, 0.25)	0.74 (0.46, 1.01)	0.31 (0.21, 0.41)	0.91 (0.58, 1.23)	0.34 (0.22, 0.46)	1.14 (0.76, 1.51)	0.33 (0.21, 0.45)	1.38 (0.97, 1.78)
Canada	0.05 (-0.07, 0.17)	0.54 (0.31, 0.77)	-0.01 (-0.16, 0.14)	0.76 (0.51, 1.01)	0.33 (0.15, 0.51)	0.78 (0.49, 1.07)	0.63 (0.42, 0.83)	0.96 (0.62, 1.30)	0.69 (0.45, 0.92)	1.19 (0.80, 1.58)	0.66 (0.41, 0.90)	1.42 (1.00, 1.83)
China	0.03 (-0.04, 0.09)	0.38 (0.22, 0.54)	-0.00 (-0.09, 0.08)	0.54 (0.36, 0.71)	0.18 (0.08, 0.29)	0.54 (0.34, 0.74)	0.35 (0.23, 0.47)	0.63 (0.40, 0.85)	0.39 (0.25, 0.52)	0.77 (0.51, 1.02)	0.38 (0.24, 0.52)	0.90 (0.64, 1.17)
Colombia	0.02 (-0.02, 0.06)	0.43 (0.25, 0.61)	-0.00 (-0.05, 0.05)	0.52 (0.35, 0.70)	0.10 (0.05, 0.16)	0.53 (0.33, 0.73)	0.19 (0.13, 0.25)	0.65 (0.42, 0.89)	0.19 (0.13, 0.26)	0.83 (0.56, 1.11)	0.18 (0.11, 0.25)	1.02 (0.72, 1.32)
Costa Rica	0.02 (-0.02, 0.05)	0.46 (0.27, 0.66)	-0.00 (-0.05, 0.04)	0.60 (0.40, 0.79)	0.09 (0.04, 0.15)	0.57 (0.36, 0.78)	0.18 (0.12, 0.24)	0.72 (0.46, 0.98)	0.19 (0.12, 0.25)	0.94 (0.63, 1.25)	0.15 (0.10, 0.21)	1.16 (0.82, 1.51)
Czech Republic	0.04 (-0.06, 0.14)	0.38 (0.22, 0.55)	-0.01 (-0.13, 0.11)	0.56 (0.38, 0.75)	0.27 (0.12, 0.42)	0.58 (0.37, 0.80)	0.52 (0.35, 0.69)	0.71 (0.46, 0.97)	0.57 (0.37, 0.76)	0.89 (0.59, 1.18)	0.56 (0.35, 0.76)	1.06 (0.75, 1.37)
Ecuador	0.02 (-0.03, 0.06)	0.48 (0.28, 0.69)	-0.00 (-0.06, 0.05)	0.53 (0.36, 0.71)	0.11 (0.05, 0.17)	0.47 (0.30, 0.65)	0.21 (0.14, 0.28)	0.58 (0.38, 0.79)	0.20 (0.13, 0.27)	0.78 (0.52, 1.04)	0.17 (0.11, 0.23)	0.99 (0.70, 1.28)
Estonia	0.04 (-0.05, 0.13)	0.48 (0.28, 0.68)	-0.01 (-0.12, 0.11)	0.68 (0.46, 0.91)	0.25 (0.11, 0.39)	0.70 (0.44, 0.96)	0.47 (0.32, 0.63)	0.86 (0.55, 1.16)	0.51 (0.33, 0.69)	1.04 (0.69, 1.38)	0.50 (0.32, 0.69)	1.22 (0.86, 1.57)
Finland	0.04 (-0.05, 0.12)	0.41 (0.24, 0.58)	-0.01 (-0.11, 0.10)	0.58 (0.39, 0.77)	0.25 (0.11, 0.38)	0.60 (0.38, 0.81)	0.48 (0.32, 0.64)	0.74 (0.48, 1.00)	0.53 (0.35, 0.72)	0.93 (0.62, 1.23)	0.51 (0.32, 0.69)	1.12 (0.79, 1.45)
France	0.03 (-0.04, 0.11)	0.49 (0.28, 0.69)	-0.00 (-0.10, 0.09)	0.69 (0.46, 0.92)	0.21 (0.09, 0.33)	0.70 (0.44, 0.95)	0.41 (0.27, 0.55)	0.86 (0.55, 1.17)	0.44 (0.29, 0.59)	1.07 (0.72, 1.42)	0.42 (0.27, 0.58)	1.29 (0.91, 1.66)
Greece	0.03 (-0.04, 0.09)	0.49 (0.29, 0.70)	-0.00 (-0.08, 0.07)	0.67 (0.45, 0.90)	0.18 (0.08, 0.27)	0.70 (0.44, 0.96)	0.34 (0.23, 0.45)	0.85 (0.55, 1.16)	0.38 (0.25, 0.52)	1.08 (0.72, 1.43)	0.38 (0.24, 0.52)	1.30 (0.92, 1.69)
Iran	0.03 (-0.05, 0.12)	0.60 (0.35, 0.85)	-0.01 (-0.11, 0.10)	0.83 (0.55, 1.10)	0.23 (0.10, 0.35)	0.81 (0.51, 1.11)	0.43 (0.29, 0.58)	1.04 (0.67, 1.41)	0.48 (0.32, 0.65)	1.33 (0.89, 1.76)	0.48 (0.30, 0.65)	1.62 (1.14, 2.09)
Ireland	0.03 (-0.04, 0.09)	0.39 (0.23, 0.56)	-0.00 (-0.08, 0.08)	0.56 (0.37, 0.74)	0.18 (0.08, 0.27)	0.57 (0.36, 0.78)	0.34 (0.23, 0.45)	0.71 (0.46, 0.96)	0.37 (0.24, 0.49)	0.83 (0.56, 1.11)	0.35 (0.22, 0.48)	0.99 (0.70, 1.28)
Japan	0.03 (-0.04, 0.11)	0.48 (0.28, 0.68)	-0.00 (-0.10, 0.09)	0.66 (0.44, 0.88)	0.20 (0.09, 0.31)	0.67 (0.42, 0.91)	0.38 (0.25, 0.51)	0.81 (0.52, 1.10)	0.41 (0.27, 0.56)	1.00 (0.67, 1.32)	0.39 (0.25, 0.54)	1.16 (0.82, 1.51)
Kuwait	0.02 (-0.03, 0.07)	0.42 (0.24, 0.60)	-0.00 (-0.07, 0.06)	0.58 (0.39, 0.77)	0.14 (0.06, 0.22)	0.59 (0.37, 0.81)	0.27 (0.18, 0.36)	0.71 (0.45, 0.96)	0.31 (0.20, 0.41)	0.82 (0.55, 1.10)	0.31 (0.19, 0.42)	0.96 (0.68, 1.24)
Mexico	0.02 (-0.03, 0.07)	0.73 (0.42, 1.04)	-0.00 (-0.07, 0.06)	0.99 (0.66, 1.32)	0.14 (0.06, 0.22)	0.96 (0.61, 1.31)	0.26 (0.18, 0.35)	1.11 (0.71, 1.50)	0.29 (0.19, 0.39)	1.29 (0.86, 1.71)	0.28 (0.18, 0.38)	1.56 (1.10, 2.01)
Norway	0.04 (-0.05, 0.12)	0.45 (0.26, 0.65)	-0.01 (-0.12, 0.10)	0.65 (0.43, 0.86)	0.25 (0.11, 0.39)	0.68 (0.43, 0.93)	0.48 (0.32, 0.64)	0.85 (0.54, 1.15)	0.52 (0.34, 0.69)	1.05 (0.70, 1.39)	0.52 (0.33, 0.71)	1.23 (0.86, 1.59)
Panama	0.02 (-0.02, 0.05)	0.38 (0.22, 0.54)	-0.00 (-0.05, 0.04)	0.45 (0.30, 0.60)	0.09 (0.04, 0.15)	0.48 (0.30, 0.65)	0.18 (0.12, 0.24)	0.56 (0.36, 0.75)	0.19 (0.13, 0.26)	0.64 (0.43, 0.86)	0.19 (0.12, 0.26)	0.76 (0.54, 0.98)
Paraguay	0.04 (-0.06, 0.14)	0.65 (0.37, 0.92)	-0.01 (-0.14, 0.12)	0.88 (0.58, 1.17)	0.30 (0.13, 0.47)	0.91 (0.58, 1.25)	0.61 (0.41, 0.81)	1.11 (0.71, 1.50)	0.68 (0.44, 0.91)	1.36 (0.92, 1.81)	0.67 (0.43, 0.92)	1.61 (1.13, 2.08)
Philippines	0.01 (-0.01, 0.03)	0.29 (0.16, 0.41)	-0.00 (-0.03, 0.03)	0.37 (0.24, 0.49)	0.07 (0.03, 0.10)	0.36 (0.23, 0.49)	0.12 (0.08, 0.16)	0.44 (0.29, 0.60)	0.13 (0.09, 0.18)	0.56 (0.38, 0.75)	0.13 (0.08, 0.18)	0.69 (0.48, 0.89)
Portugal	0.03 (-0.04, 0.09)	0.54 (0.31, 0.77)	-0.00 (-0.09, 0.08)	0.76 (0.50, 1.01)	0.19 (0.08, 0.29)	0.79 (0.50, 1.08)	0.36 (0.24, 0.48)	0.98 (0.63, 1.33)	0.37 (0.24, 0.50)	1.23 (0.83, 1.64)	0.37 (0.23, 0.50)	1.48 (1.05, 1.92)
South Africa	0.03 (-0.05, 0.11)	0.86 (0.50, 1.22)	-0.00 (-0.10, 0.09)	1.16 (0.78, 1.55)	0.22 (0.09, 0.34)	1.15 (0.73, 1.57)	0.41 (0.27, 0.54)	1.37 (0.88, 1.85)	0.44 (0.29, 0.59)	1.66 (1.11, 2.20)	0.42 (0.27, 0.58)	1.99 (1.40, 2.57)
South Korea	0.03 (-0.05, 0.12)	0.55 (0.32, 0.78)	-0.01 (-0.11, 0.10)	0.76 (0.51, 1.01)	0.23 (0.10, 0.36)	0.75 (0.47, 1.03)	0.44 (0.30, 0.59)	0.89 (0.57, 1.20)	0.48 (0.32, 0.65)	1.07 (0.72, 1.42)	0.47 (0.30, 0.64)	1.23 (0.87, 1.60)
Spain	0.02 (-0.03, 0.08)	0.51 (0.30, 0.73)	-0.00 (-0.08, 0.07)	0.72 (0.48, 0.97)	0.17 (0.07, 0.26)	0.75 (0.47, 1.03)	0.32 (0.21, 0.43)	0.93 (0.60, 1.27)	0.35 (0.23, 0.47)	1.17 (0.79, 1.55)	0.34 (0.21, 0.46)	1.42 (1.00, 1.83)
Sweden	0.03 (-0.04, 0.11)	0.40 (0.23, 0.57)	-0.00 (-0.10, 0.09)	0.57 (0.38, 0.76)	0.21 (0.09, 0.32)	0.60 (0.38, 0.82)	0.41 (0.27, 0.54)	0.75 (0.48, 1.01)	0.43 (0.28, 0.58)	0.92 (0.62, 1.22)	0.42 (0.26, 0.57)	1.09 (0.77, 1.41)
Switzerland	0.03 (-0.04, 0.11)	0.47 (0.27, 0.67)	-0.00 (-0.10, 0.09)	0.67 (0.45, 0.89)	0.22 (0.10, 0.34)	0.68 (0.43, 0.92)	0.42 (0.28, 0.56)	0.82 (0.53, 1.11)	0.47 (0.31, 0.63)	1.01 (0.68, 1.34)	0.45 (0.28, 0.62)	1.20 (0.85, 1.55)

Taiwan	0.03 (-0.04, 0.09)	0.42 (0.24, 0.59)	-0.00 (-0.08, 0.08)	0.57 (0.38, 0.76)	0.18 (0.08, 0.28)	0.57 (0.36, 0.78)	0.35 (0.23, 0.46)	0.72 (0.46, 0.98)	0.37 (0.24, 0.50)	0.89 (0.60, 1.19)	0.37 (0.23, 0.50)	1.09 (0.77, 1.41)
Thailand	0.01 (-0.02, 0.05)	0.51 (0.30, 0.73)	-0.00 (-0.05, 0.04)	0.69 (0.46, 0.91)	0.09 (0.04, 0.15)	0.66 (0.42, 0.91)	0.18 (0.12, 0.24)	0.77 (0.49, 1.04)	0.20 (0.13, 0.27)	0.94 (0.63, 1.25)	0.20 (0.12, 0.27)	1.13 (0.80, 1.47)
UK	0.03 (-0.04, 0.10)	0.35 (0.20, 0.50)	-0.00 (-0.09, 0.08)	0.50 (0.33, 0.67)	0.19 (0.08, 0.29)	0.52 (0.33, 0.71)	0.36 (0.24, 0.48)	0.64 (0.41, 0.87)	0.39 (0.25, 0.52)	0.80 (0.53, 1.06)	0.37 (0.23, 0.51)	0.96 (0.68, 1.24)
USA	0.04 (-0.06, 0.14)	0.51 (0.30, 0.73)	-0.01 (-0.13, 0.12)	0.71 (0.48, 0.95)	0.27 (0.12, 0.42)	0.72 (0.45, 0.98)	0.52 (0.35, 0.69)	0.87 (0.56, 1.17)	0.57 (0.37, 0.77)	1.05 (0.70, 1.39)	0.55 (0.35, 0.75)	1.21 (0.85, 1.57)
Vietnam	0.01 (-0.02, 0.05)	0.34 (0.19, 0.48)	-0.00 (-0.04, 0.04)	0.39 (0.26, 0.52)	0.08 (0.04, 0.13)	0.40 (0.25, 0.54)	0.16 (0.10, 0.21)	0.56 (0.36, 0.76)	0.17 (0.11, 0.22)	0.75 (0.51, 1.00)	0.16 (0.10, 0.22)	0.95 (0.67, 1.23)
Pooled	0.03 (-0.04, 0.11)	0.52 (0.30, 0.73)	-0.00 (-0.10, 0.09)	0.71 (0.47, 0.95)	0.21 (0.09, 0.33)	0.72 (0.45, 0.98)	0.41 (0.27, 0.54)	0.87 (0.56, 1.18)	0.44 (0.29, 0.59)	1.06 (0.71, 1.41)	0.42 (0.27, 0.58)	1.25 (0.88, 1.62)

**Table S20. Annual average attributable deaths of both inter-day TV and intra-day TV for all-cause mortality**

Country/region	TV 0-1		TV 0-2		TV 0-3		TV 0-4		TV 0-5		TV 0-6	
	Inter-day	Intra-day	Inter-day	Intra-day	Inter-day	Intra-day	Inter-day	Intra-day	Inter-day	Intra-day	Inter-day	Intra-day
Argentina	-19 (-40, 2)	781 (710, 853)	-40 (-68, -13)	900 (826, 974)	76 (43, 108)	847 (765, 928)	195 (157, 233)	818 (729, 906)	255 (213, 297)	832 (741, 923)	258 (214, 301)	883 (789, 976)
Australia	-13 (-28, 2)	506 (460, 553)	-29 (-48, -9)	547 (502, 592)	52 (30, 75)	521 (471, 572)	133 (107, 159)	513 (457, 568)	172 (144, 201)	572 (509, 634)	177 (147, 207)	656 (586, 725)
Brazil	-31 (-66, 4)	1,925 (1,749, 2,100)	-68 (-115, -22)	2,134 (1,958, 2,310)	127 (72, 183)	2,039 (1,843, 2,235)	328 (263, 392)	2,035 (1,814, 2,255)	431 (360, 502)	2,183 (1,943, 2,422)	441 (366, 516)	2,474 (2,211, 2,736)
Canada	-44 (-94, 6)	1,443 (1,311, 1,575)	-97 (-164, -31)	1,608 (1,475, 1,740)	181 (102, 259)	1,553 (1,403, 1,702)	465 (374, 557)	1,533 (1,366, 1,699)	611 (511, 711)	1,636 (1,456, 1,815)	622 (517, 728)	1,821 (1,628, 2,014)
Chile	-7 (-16, 1)	605 (550, 660)	-16 (-27, -5)	668 (613, 723)	29 (16, 41)	616 (557, 675)	72 (58, 87)	601 (536, 666)	96 (80, 111)	610 (543, 677)	99 (83, 116)	665 (594, 735)
China	-51 (-108, 6)	2,229 (2,025, 2,432)	-112 (-189, -35)	2,483 (2,278, 2,688)	208 (118, 298)	2,317 (2,094, 2,540)	534 (429, 639)	2,186 (1,949, 2,423)	707 (591, 823)	2,298 (2,046, 2,550)	731 (607, 855)	2,559 (2,287, 2,831)
Colombia	-8 (-16, 1)	536 (487, 585)	-16 (-27, -5)	527 (484, 571)	27 (16, 39)	499 (451, 547)	68 (55, 81)	494 (440, 547)	83 (70, 97)	542 (482, 601)	84 (69, 98)	620 (554, 686)
Costa Rica	-0 (-0, 0)	17 (15, 19)	-0 (-1, -0)	18 (16, 19)	1 (0, 1)	16 (14, 17)	2 (1, 2)	16 (14, 18)	2 (2, 3)	18 (16, 20)	2 (2, 2)	21 (18, 23)
Czech Republic	-9 (-20, 1)	268 (243, 293)	-21 (-35, -6)	312 (286, 337)	39 (22, 56)	302 (273, 331)	101 (81, 121)	298 (265, 330)	133 (111, 154)	317 (282, 352)	138 (115, 162)	353 (316, 391)
Ecuador	-3 (-6, 0)	227 (207, 248)	-6 (-10, -2)	199 (183, 215)	11 (6, 16)	164 (148, 180)	28 (23, 34)	164 (146, 182)	33 (28, 38)	188 (167, 209)	29 (24, 34)	223 (200, 247)
Estonia	-2 (-4, 0)	77 (70, 84)	-4 (-8, -1)	88 (81, 95)	8 (5, 12)	84 (76, 93)	21 (17, 26)	83 (74, 92)	28 (23, 32)	86 (77, 96)	29 (24, 34)	94 (84, 104)
Finland	-2 (-4, 0)	63 (57, 68)	-4 (-7, -1)	71 (65, 77)	8 (4, 11)	68 (61, 74)	20 (16, 24)	68 (61, 75)	27 (23, 31)	73 (65, 81)	27 (23, 32)	82 (74, 91)
France	-26 (-54, 3)	1,154 (1,049, 1,260)	-56 (-94, -18)	1,307 (1,199, 1,414)	104 (59, 149)	1,234 (1,115, 1,353)	270 (216, 322)	1,229 (1,096, 1,363)	346 (289, 402)	1,308 (1,165, 1,452)	355 (295, 415)	1,470 (1,314, 1,626)
French Caribbean	-0 (-1, 0)	20 (18, 22)	-1 (-1, -0)	23 (21, 25)	1 (1, 1)	21 (19, 23)	2 (2, 3)	22 (19, 24)	3 (2, 3)	25 (22, 27)	3 (2, 3)	28 (25, 31)
French Guiana	-0 (-0, 0)	4 (3, 4)	-0 (-0, -0)	4 (4, 5)	0 (0, 0)	4 (4, 5)	0 (0, 0)	4 (4, 5)	0 (0, 0)	5 (4, 5)	0 (0, 0)	6 (5, 6)
Réunion	-0 (-0, 0)	6 (6, 7)	-0 (-0, -0)	7 (6, 7)	0 (0, 0)	6 (6, 7)	1 (1, 1)	6 (5, 6)	1 (1, 1)	6 (5, 6)	1 (1, 1)	6 (6, 7)
Germany	-35 (-74, 4)	1,478 (1,343, 1,613)	-77 (-130, -24)	1,651 (1,515, 1,787)	145 (82, 208)	1,575 (1,424, 1,727)	378 (304, 453)	1,564 (1,395, 1,734)	491 (410, 571)	1,659 (1,477, 1,841)	502 (417, 587)	1,848 (1,651, 2,044)
Greece	-5 (-11, 1)	300 (273, 328)	-12 (-20, -4)	326 (299, 353)	22 (13, 32)	317 (287, 348)	59 (47, 70)	312 (278, 345)	80 (67, 93)	338 (300, 375)	84 (70, 98)	381 (341, 422)
Guatemala	-1 (-2, 0)	82 (75, 90)	-2 (-4, -1)	90 (83, 98)	4 (2, 6)	82 (74, 90)	10 (8, 12)	71 (63, 78)	13 (11, 15)	76 (68, 85)	12 (10, 14)	89 (80, 98)
Iran	-15 (-32, 2)	818 (744, 893)	-33 (-56, -11)	900 (826, 974)	61 (35, 88)	830 (751, 910)	159 (127, 190)	854 (761, 946)	214 (178, 249)	937 (834, 1,040)	222 (184, 260)	1,063 (950, 1,176)
Ireland	-9 (-18, 1)	372 (338, 406)	-19 (-31, -6)	419 (385, 454)	34 (19, 49)	403 (364, 442)	89 (71, 106)	403 (359, 446)	115 (96, 134)	405 (360, 449)	117 (97, 137)	448 (400, 495)
Israel	-2 (-4, 0)	114 (104, 125)	-4 (-6, -1)	123 (113, 133)	7 (4, 10)	116 (105, 127)	17 (14, 21)	114 (102, 126)	23 (19, 27)	114 (102, 127)	24 (20, 28)	116 (104, 129)
Italy	-9 (-19, 1)	508 (461, 554)	-20 (-33, -6)	568 (522, 615)	37 (21, 53)	541 (489, 593)	97 (78, 116)	551 (491, 610)	130 (108, 151)	602 (536, 668)	135 (112, 158)	681 (609, 754)
Japan	-204 (-434, 26)	9,214 (8,371, 10,057)	-444 (-748, -140)	10,049 (9,219, 10,878)	814 (461, 1,167)	9,495 (8,579, 10,410)	2,080 (1,671, 2,490)	9,312 (8,301, 10,322)	2,722 (2,275, 3,169)	9,839 (8,757, 10,918)	2,763 (2,294, 3,232)	10,741 (9,598, 11,882)
Kuwait	-1 (-1, 0)	39 (36, 43)	-1 (-2, -0)	43 (39, 47)	3 (2, 4)	41 (37, 45)	7 (6, 8)	40 (35, 44)	10 (8, 11)	40 (35, 44)	10 (8, 12)	43 (39, 48)
Mexico	-26 (-56, 3)	2,647 (2,405, 2,888)	-58 (-97, -18)	2,858 (2,622, 3,093)	108 (61, 154)	2,587 (2,338, 2,836)	276 (222, 331)	2,400 (2,140, 2,660)	364 (304, 424)	2,393 (2,131, 2,655)	375 (311, 439)	2,701 (2,414, 2,987)

Moldova	-2 (-3, 0)	71 (65, 78)	-4 (-6, -1)	79 (72, 85)	7 (4, 10)	73 (66, 80)	18 (14, 21)	74 (66, 82)	24 (20, 27)	81 (72, 89)	24 (20, 28)	91 (81, 100)
Netherland	-5 (-10, 1)	205 (186, 224)	-11 (-18, -3)	230 (211, 249)	20 (11, 28)	217 (196, 238)	51 (41, 61)	202 (180, 224)	67 (56, 79)	216 (192, 240)	70 (58, 82)	246 (220, 272)
Norway	-1 (-3, 0)	51 (46, 56)	-3 (-5, -1)	58 (53, 63)	6 (3, 8)	57 (52, 63)	15 (12, 18)	57 (51, 64)	19 (16, 22)	61 (54, 67)	20 (17, 24)	66 (59, 73)
Panama	-0 (-1, 0)	23 (21, 26)	-1 (-1, -0)	22 (21, 24)	1 (1, 2)	22 (20, 24)	3 (3, 4)	21 (18, 23)	4 (3, 5)	21 (18, 23)	4 (3, 5)	23 (20, 25)
Paraguay	-1 (-2, 0)	41 (37, 45)	-2 (-3, -1)	44 (41, 48)	4 (2, 6)	43 (39, 47)	11 (9, 13)	42 (38, 47)	14 (12, 17)	45 (40, 49)	15 (13, 18)	49 (44, 54)
Peru	-10 (-20, 1)	963 (875, 1,051)	-20 (-33, -6)	1,044 (958, 1,130)	33 (19, 48)	984 (889, 1,079)	83 (67, 100)	996 (888, 1,104)	104 (87, 121)	1,098 (977, 1,218)	106 (88, 124)	1,252 (1,119, 1,384)
Philippines	-5 (-11, 1)	428 (389, 467)	-11 (-19, -4)	442 (406, 479)	21 (12, 30)	406 (366, 445)	54 (43, 65)	405 (361, 449)	70 (58, 81)	440 (392, 489)	73 (61, 86)	499 (445, 552)
Portugal	-10 (-21, 1)	571 (519, 623)	-22 (-37, -7)	639 (586, 692)	41 (23, 59)	621 (561, 680)	107 (86, 129)	623 (555, 690)	133 (111, 155)	671 (597, 744)	139 (116, 163)	753 (673, 832)
Puerto Rico	-0 (-1, 0)	21 (19, 23)	-1 (-1, -0)	21 (19, 23)	1 (1, 2)	21 (19, 23)	3 (2, 4)	23 (20, 25)	4 (3, 4)	26 (23, 28)	4 (3, 4)	30 (27, 33)
Romania	-11 (-22, 1)	621 (564, 677)	-23 (-39, -7)	708 (650, 766)	43 (25, 62)	685 (619, 751)	115 (93, 138)	681 (607, 754)	155 (129, 180)	724 (645, 803)	163 (135, 190)	786 (703, 869)
South Africa	-121 (-256, 15)	8,724 (7,929, 9,517)	-262 (-441, -83)	9,393 (8,621, 10,164)	481 (272, 689)	8,703 (7,867, 9,538)	1,235 (992, 1,478)	8,310 (7,411, 9,208)	1,605 (1,341, 1,868)	8,686 (7,735, 9,635)	1,635 (1,357, 1,912)	9,710 (8,681, 10,737)
South Korea	-34 (-72, 4)	1,583 (1,438, 1,727)	-75 (-126, -24)	1,749 (1,605, 1,893)	139 (79, 200)	1,612 (1,457, 1,767)	364 (292, 435)	1,540 (1,373, 1,707)	480 (401, 559)	1,597 (1,422, 1,772)	495 (411, 579)	1,714 (1,532, 1,897)
Spain	-21 (-45, 3)	1,293 (1,175, 1,411)	-47 (-79, -15)	1,449 (1,330, 1,569)	88 (50, 126)	1,399 (1,264, 1,533)	229 (184, 274)	1,401 (1,249, 1,553)	302 (252, 351)	1,508 (1,342, 1,673)	311 (258, 364)	1,702 (1,521, 1,882)
Sweden	-6 (-13, 1)	226 (206, 247)	-13 (-22, -4)	258 (236, 279)	24 (14, 35)	253 (228, 277)	64 (51, 76)	254 (227, 282)	82 (69, 95)	270 (240, 299)	84 (70, 98)	298 (266, 330)
Switzerland	-3 (-6, 0)	129 (118, 141)	-7 (-11, -2)	147 (135, 159)	13 (7, 18)	139 (125, 152)	33 (26, 39)	136 (121, 151)	44 (36, 51)	144 (128, 160)	45 (37, 52)	159 (142, 176)
Taiwan	-11 (-23, 1)	499 (454, 545)	-24 (-41, -8)	547 (502, 593)	45 (25, 64)	511 (462, 561)	117 (94, 141)	518 (462, 574)	153 (128, 178)	548 (488, 608)	160 (133, 187)	625 (559, 692)
Thailand	-19 (-41, 2)	1,964 (1,784, 2,143)	-42 (-71, -13)	2,080 (1,908, 2,251)	78 (44, 112)	1,879 (1,698, 2,060)	204 (163, 244)	1,751 (1,561, 1,941)	269 (225, 313)	1,834 (1,632, 2,035)	279 (232, 327)	2,076 (1,855, 2,297)
UK	-46 (-98, 6)	1,728 (1,569, 1,886)	-102 (-171, -32)	1,973 (1,810, 2,136)	187 (106, 269)	1,921 (1,735, 2,106)	486 (390, 581)	1,901 (1,695, 2,108)	626 (523, 729)	2,031 (1,808, 2,254)	641 (532, 750)	2,288 (2,045, 2,532)
Uruguay	-9 (-18, 1)	298 (270, 325)	-18 (-31, -6)	345 (317, 374)	32 (18, 46)	323 (291, 354)	82 (66, 98)	304 (271, 337)	100 (83, 116)	310 (276, 344)	104 (86, 122)	350 (313, 387)
USA	-330 (-701, 42)	12,353 (11,224, 13,481)	-736 (-1,239, -232)	13,681 (12,552, 14,809)	1,379 (781, 1,977)	12,861 (11,622, 14,099)	3,583 (2,878, 4,287)	12,471 (11,118, 13,823)	4,716 (3,942, 5,490)	12,975 (11,550, 14,398)	4,831 (4,011, 5,650)	13,982 (12,495, 15,467)
Vietnam	-3 (-6, 0)	192 (174, 209)	-6 (-10, -2)	180 (165, 195)	10 (6, 15)	171 (154, 187)	26 (21, 31)	192 (171, 213)	33 (28, 38)	222 (198, 247)	33 (28, 39)	262 (234, 290)
Pooled	-1,168 (-2,484, 147)	57,420 (52,172, 62,661)	-2,568 (-4,327, -810)	63,014 (57,816, 68,206)	4,762 (2,697, 6,826)	59,179 (53,477, 64,872)	12,296 (9,878, 14,713)	57,589 (51,342, 63,828)	16,092 (13,449, 18,732)	60,605 (53,951, 67,248)	16,476 (13,678, 19,271)	67,035 (59,909, 74,149)

**Table S21. Annual average attributable deaths of both inter-day TV and intra-day TV for cardiovascular mortality**

Country/region	TV 0-1		TV 0-2		TV 0-3		TV 0-4		TV 0-5		TV 0-6	
	Inter-day	Intra-day	Inter-day	Intra-day	Inter-day	Intra-day	Inter-day	Intra-day	Inter-day	Intra-day	Inter-day	Intra-day
Brazil	33 (16, 49)	589 (511, 667)	49 (23, 74)	732 (644, 820)	118 (88, 149)	781 (682, 880)	187 (152, 222)	804 (693, 914)	246 (208, 283)	831 (712, 949)	257 (216, 297)	921 (790, 1,052)
Canada	49 (24, 74)	473 (410, 535)	74 (35, 112)	590 (519, 661)	177 (131, 222)	636 (555, 716)	279 (227, 332)	648 (559, 736)	366 (310, 421)	666 (571, 761)	380 (320, 439)	725 (622, 828)
China	69 (35, 104)	899 (780, 1,018)	103 (50, 157)	1,116 (982, 1,251)	248 (184, 311)	1,160 (1,012, 1,307)	389 (316, 462)	1,125 (971, 1,279)	515 (437, 593)	1,142 (979, 1,305)	542 (457, 627)	1,243 (1,066, 1,420)
Colombia	7 (4, 11)	145 (126, 164)	10 (5, 15)	160 (141, 179)	22 (16, 28)	169 (148, 191)	34 (27, 40)	173 (149, 196)	41 (35, 47)	182 (156, 208)	42 (35, 48)	204 (175, 233)
Costa Rica	0 (0, 0)	5 (4, 6)	0 (0, 0)	6 (5, 6)	1 (0, 1)	6 (5, 6)	1 (1, 1)	6 (5, 7)	1 (1, 1)	6 (6, 7)	1 (1, 1)	7 (6, 8)
Czech Republic	15 (8, 23)	130 (113, 147)	23 (11, 35)	170 (149, 190)	57 (42, 71)	183 (160, 207)	90 (73, 107)	187 (161, 212)	118 (100, 136)	192 (164, 219)	125 (106, 145)	209 (179, 238)
Ecuador	3 (1, 4)	62 (54, 71)	4 (2, 6)	60 (53, 68)	9 (7, 11)	54 (47, 61)	14 (12, 17)	57 (49, 65)	17 (14, 19)	63 (54, 72)	15 (13, 17)	73 (63, 84)
Estonia	3 (2, 5)	38 (33, 43)	5 (2, 8)	48 (43, 54)	12 (9, 16)	52 (45, 59)	19 (16, 23)	53 (46, 60)	25 (21, 29)	53 (45, 60)	27 (22, 31)	56 (48, 64)
Finland	2 (1, 3)	23 (20, 26)	3 (2, 5)	29 (25, 32)	8 (6, 10)	31 (27, 35)	13 (11, 16)	32 (27, 36)	18 (15, 20)	33 (28, 38)	18 (15, 21)	36 (31, 42)
Greece	8 (4, 12)	136 (118, 154)	12 (6, 19)	166 (146, 186)	31 (23, 38)	180 (157, 203)	49 (40, 59)	183 (158, 208)	67 (57, 77)	191 (164, 218)	72 (61, 83)	211 (181, 241)
Iran	21 (10, 32)	334 (290, 379)	32 (15, 49)	412 (363, 462)	76 (56, 96)	423 (369, 477)	121 (98, 143)	449 (388, 511)	162 (137, 186)	476 (408, 544)	172 (145, 199)	528 (453, 603)
Ireland	9 (4, 13)	115 (100, 130)	13 (6, 20)	145 (127, 162)	31 (23, 39)	155 (136, 175)	50 (41, 60)	160 (138, 182)	65 (55, 75)	155 (133, 178)	67 (57, 78)	168 (144, 192)
Japan	229 (114, 344)	3,061 (2,655, 3,466)	339 (163, 515)	3,741 (3,290, 4,193)	805 (598, 1,013)	3,944 (3,442, 4,446)	1,262 (1,026, 1,499)	3,994 (3,445, 4,541)	1,647 (1,397, 1,897)	4,064 (3,484, 4,644)	1,704 (1,437, 1,972)	4,335 (3,717, 4,952)
Kuwait	1 (1, 2)	18 (16, 20)	2 (1, 2)	22 (20, 25)	4 (3, 5)	24 (21, 27)	6 (5, 7)	24 (20, 27)	8 (7, 9)	23 (20, 26)	9 (7, 10)	24 (21, 28)
Mexico	22 (11, 34)	651 (565, 737)	34 (16, 51)	790 (695, 885)	81 (60, 102)	799 (697, 900)	128 (104, 152)	765 (661, 870)	169 (143, 194)	734 (630, 839)	177 (149, 205)	812 (696, 927)
Norway	2 (1, 3)	19 (16, 21)	3 (1, 4)	24 (21, 27)	6 (5, 8)	26 (23, 29)	10 (8, 12)	27 (23, 31)	13 (11, 15)	27 (24, 31)	14 (12, 16)	29 (25, 34)
Panama	0 (0, 1)	8 (7, 9)	1 (0, 1)	8 (7, 9)	1 (1, 1)	9 (8, 10)	2 (2, 2)	9 (7, 10)	2 (2, 3)	8 (7, 10)	3 (2, 3)	9 (8, 10)
Paraguay	1 (0, 1)	13 (11, 14)	1 (1, 2)	15 (14, 17)	4 (3, 5)	17 (14, 19)	6 (5, 7)	17 (14, 19)	8 (7, 9)	17 (15, 20)	9 (7, 10)	18 (16, 21)
Philippines	6 (3, 9)	149 (129, 169)	9 (4, 14)	173 (152, 194)	22 (16, 27)	177 (154, 199)	34 (28, 41)	182 (157, 207)	44 (37, 51)	191 (164, 218)	47 (40, 55)	211 (181, 241)
Portugal	12 (6, 18)	204 (177, 231)	18 (9, 27)	256 (225, 287)	44 (33, 55)	277 (242, 312)	70 (57, 84)	287 (248, 326)	87 (74, 100)	298 (256, 340)	93 (78, 107)	327 (281, 373)
South Africa	59 (30, 89)	1,294 (1,123, 1,465)	88 (42, 133)	1,563 (1,375, 1,751)	209 (155, 262)	1,616 (1,411, 1,820)	329 (268, 391)	1,595 (1,377, 1,812)	428 (363, 493)	1,610 (1,381, 1,838)	445 (375, 514)	1,758 (1,509, 2,007)
South Korea	25 (13, 38)	349 (302, 395)	38 (18, 58)	431 (379, 483)	92 (68, 116)	444 (387, 500)	147 (120, 175)	438 (378, 498)	194 (165, 224)	438 (376, 501)	204 (172, 236)	460 (394, 525)
Spain	24 (12, 35)	427 (371, 484)	36 (17, 54)	536 (472, 601)	87 (64, 109)	578 (504, 651)	139 (113, 164)	597 (515, 679)	182 (154, 210)	620 (531, 708)	191 (161, 221)	683 (586, 780)
Sweden	8 (4, 13)	94 (82, 107)	13 (6, 19)	120 (106, 135)	30 (22, 38)	132 (115, 148)	49 (40, 58)	137 (118, 155)	63 (53, 72)	140 (120, 160)	65 (55, 76)	151 (130, 173)
Switzerland	4 (2, 5)	46 (40, 52)	6 (3, 8)	59 (52, 66)	13 (10, 17)	62 (54, 70)	22 (18, 26)	63 (54, 71)	29 (24, 33)	64 (55, 73)	30 (25, 35)	69 (59, 79)
Taiwan	8 (4, 12)	108 (94, 122)	12 (6, 19)	133 (117, 149)	30 (22, 37)	138 (121, 156)	48 (39, 57)	145 (125, 165)	62 (52, 71)	148 (127, 169)	66 (56, 76)	165 (141, 188)

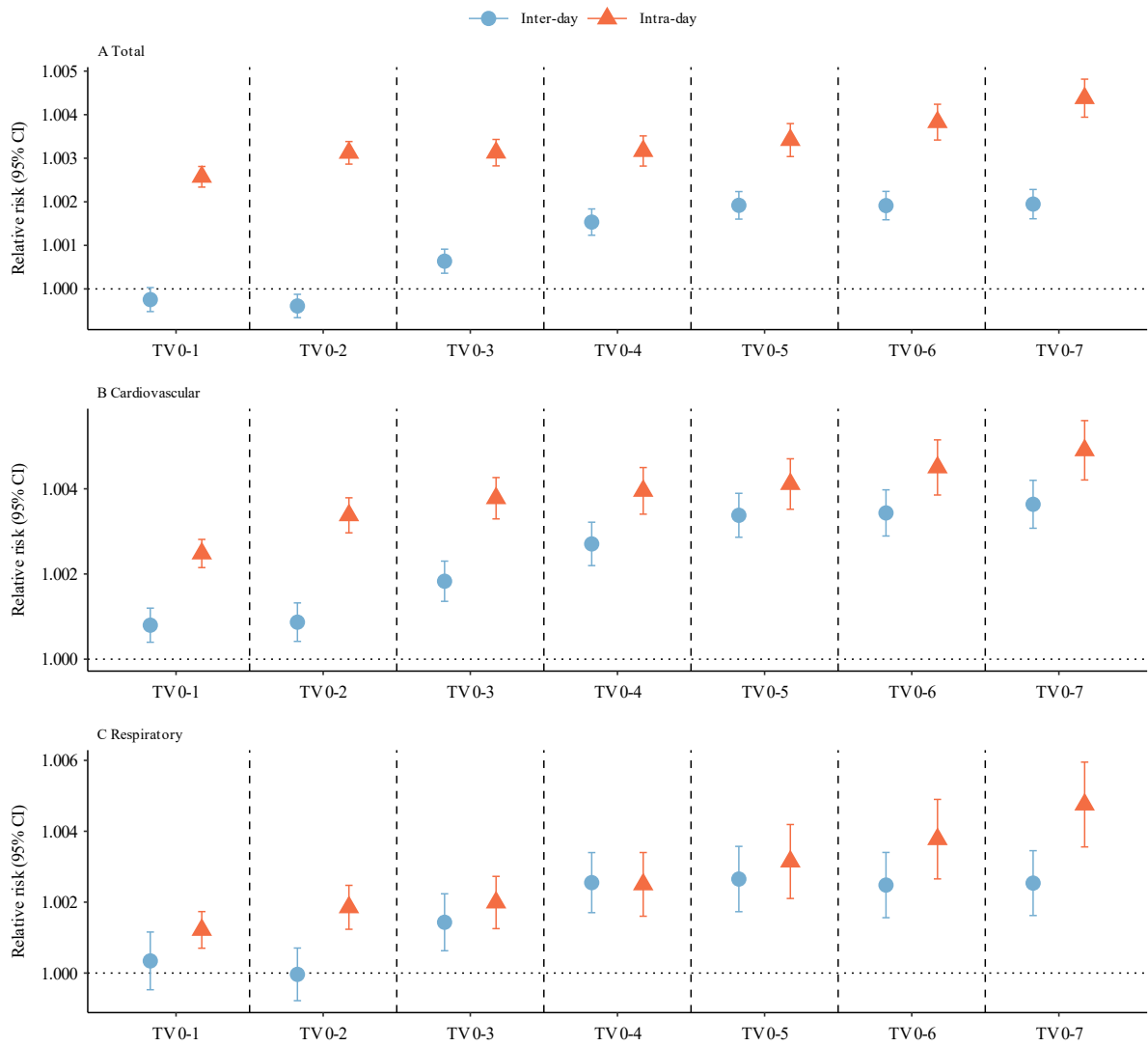
Thailand	12 (6, 17)	348 (302, 394)	17 (8, 26)	414 (364, 464)	41 (30, 51)	418 (365, 471)	66 (53, 78)	403 (347, 458)	86 (73, 99)	407 (349, 465)	91 (77, 106)	451 (386, 515)
UK	55 (27, 83)	606 (526, 687)	82 (40, 125)	776 (682, 870)	197 (146, 248)	843 (736, 951)	313 (254, 372)	862 (744, 981)	403 (342, 464)	888 (761, 1,015)	421 (355, 487)	978 (839, 1,117)
USA	386 (192, 579)	4,202 (3,645, 4,758)	585 (281, 888)	5,217 (4,587, 5,845)	1,421 (1,055, 1,786)	5,474 (4,777, 6,170)	2,264 (1,840, 2,688)	5,487 (4,734, 6,238)	2,972 (2,521, 3,422)	5,508 (4,722, 6,293)	3,101 (2,615, 3,587)	5,795 (4,969, 6,618)
Vietnam	2 (1, 3)	42 (37, 48)	3 (1, 4)	45 (39, 50)	7 (5, 8)	48 (42, 54)	10 (8, 12)	55 (47, 63)	13 (11, 15)	61 (52, 70)	14 (12, 16)	70 (60, 80)
Pooled	1,077 (537, 1,617)	14,589 (12,657, 16,518)	1,613 (775, 2,450)	17,959 (15,791, 20,122)	3,883 (2,884, 4,882)	18,854 (16,453, 21,250)	6,153 (5,000, 7,305)	18,960 (16,360, 21,555)	8,048 (6,826, 9,269)	19,239 (16,493, 21,978)	8,401 (7,082, 9,718)	20,727 (17,776, 23,671)

**Table S22. Annual average attributable deaths of both inter-day TV and intra-day TV for respiratory mortality**

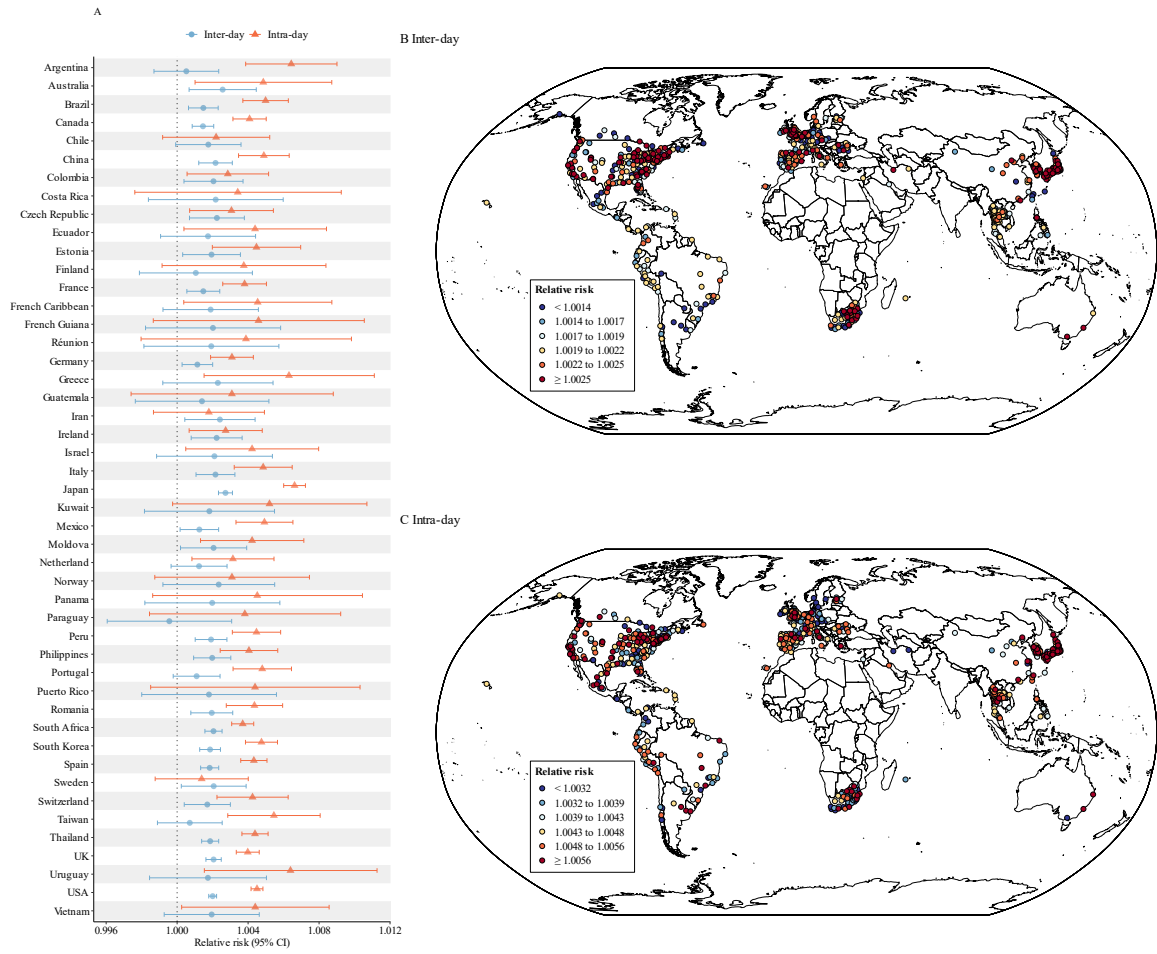
Country/region	TV 0-1		TV 0-2		TV 0-3		TV 0-4		TV 0-5		TV 0-6	
	Inter-day	Intra-day	Inter-day	Intra-day	Inter-day	Intra-day	Inter-day	Intra-day	Inter-day	Intra-day	Inter-day	Intra-day
Brazil	5 (-7, 18)	109 (63, 155)	-1 (-16, 15)	152 (101, 202)	35 (15, 54)	155 (98, 212)	66 (44, 88)	192 (123, 260)	72 (47, 97)	240 (161, 318)	69 (44, 95)	291 (205, 377)
Canada	5 (-7, 18)	57 (33, 81)	-1 (-17, 15)	80 (53, 106)	35 (15, 54)	83 (52, 113)	66 (44, 88)	101 (65, 137)	72 (47, 97)	126 (84, 167)	69 (44, 95)	150 (106, 194)
China	9 (-12, 30)	128 (74, 182)	-1 (-28, 25)	180 (120, 240)	58 (26, 91)	181 (114, 248)	111 (74, 148)	212 (136, 287)	122 (80, 165)	258 (173, 343)	119 (75, 164)	307 (216, 397)
Colombia	1 (-2, 4)	27 (15, 38)	-0 (-3, 3)	33 (22, 44)	6 (3, 10)	33 (21, 45)	12 (8, 16)	41 (26, 55)	12 (8, 16)	52 (35, 69)	11 (7, 15)	64 (45, 82)
Costa Rica	0 (-0, 0)	1 (0, 1)	-0 (-0, 0)	1 (1, 1)	0 (0, 0)	1 (1, 1)	0 (0, 0)	1 (1, 1)	0 (0, 0)	1 (1, 2)	0 (0, 0)	2 (1, 2)
Czech Republic	1 (-1, 2)	7 (4, 10)	-0 (-2, 2)	10 (7, 14)	5 (2, 8)	11 (7, 14)	9 (6, 13)	13 (8, 18)	10 (7, 14)	16 (11, 21)	10 (6, 14)	19 (14, 25)
Ecuador	0 (-1, 2)	13 (7, 18)	-0 (-1, 1)	14 (9, 18)	3 (1, 5)	12 (8, 17)	5 (4, 7)	15 (10, 21)	5 (3, 7)	20 (14, 27)	4 (3, 6)	26 (18, 33)
Estonia	0 (-0, 0)	1 (1, 2)	-0 (-0, 0)	2 (1, 2)	1 (0, 1)	2 (1, 2)	1 (1, 2)	2 (1, 3)	1 (1, 2)	3 (2, 4)	1 (1, 2)	3 (2, 4)
Finland	0 (-0, 1)	2 (1, 3)	-0 (-1, 0)	3 (2, 4)	1 (1, 2)	3 (2, 4)	2 (1, 3)	3 (2, 5)	2 (2, 3)	4 (3, 6)	2 (1, 3)	5 (4, 7)
France	2 (-3, 8)	33 (19, 48)	-0 (-7, 6)	47 (32, 63)	15 (6, 23)	48 (30, 66)	28 (19, 37)	59 (38, 80)	30 (20, 40)	73 (49, 97)	29 (18, 40)	88 (62, 114)
Greece	1 (-1, 3)	14 (8, 20)	-0 (-2, 2)	19 (13, 26)	5 (2, 8)	20 (13, 28)	10 (7, 13)	25 (16, 33)	11 (7, 15)	31 (21, 41)	11 (7, 15)	38 (26, 49)
Iran	2 (-2, 5)	27 (16, 38)	-0 (-5, 4)	37 (25, 50)	10 (4, 16)	37 (23, 50)	19 (13, 26)	47 (30, 63)	22 (14, 29)	60 (40, 79)	21 (13, 29)	73 (51, 94)
Ireland	2 (-3, 6)	27 (16, 38)	-0 (-6, 5)	38 (25, 51)	12 (5, 19)	39 (25, 54)	23 (15, 31)	49 (31, 66)	25 (16, 34)	57 (38, 76)	24 (15, 33)	68 (48, 87)
Japan	36 (-50, 122)	550 (317, 782)	-5 (-111, 101)	752 (502, 1,002)	231 (102, 360)	762 (481, 1,042)	435 (291, 579)	926 (595, 1,256)	474 (310, 637)	1,139 (764, 1,514)	451 (284, 618)	1,331 (938, 1,722)
Kuwait	0 (-0, 0)	1 (1, 2)	-0 (-0, 0)	2 (1, 3)	0 (0, 1)	2 (1, 3)	1 (1, 1)	2 (2, 3)	1 (1, 1)	3 (2, 4)	1 (1, 1)	3 (2, 4)
Mexico	4 (-5, 12)	122 (71, 174)	-1 (-11, 10)	165 (110, 220)	23 (10, 36)	160 (101, 219)	44 (29, 59)	185 (119, 251)	48 (32, 65)	215 (144, 286)	47 (29, 64)	260 (184, 337)
Norway	0 (-0, 1)	2 (1, 3)	-0 (-1, 1)	3 (2, 5)	1 (1, 2)	4 (2, 5)	3 (2, 3)	4 (3, 6)	3 (2, 4)	6 (4, 7)	3 (2, 4)	6 (5, 8)
Panama	0 (-0, 0)	1 (1, 1)	-0 (-0, 0)	1 (1, 1)	0 (0, 0)	1 (1, 2)	0 (0, 1)	1 (1, 2)	0 (0, 1)	2 (1, 2)	0 (0, 1)	2 (1, 2)
Paraguay	0 (-0, 0)	2 (1, 3)	-0 (-0, 0)	2 (2, 3)	1 (0, 1)	3 (2, 3)	2 (1, 2)	3 (2, 4)	2 (1, 3)	4 (3, 5)	2 (1, 3)	4 (3, 6)
Philippines	1 (-1, 4)	29 (17, 41)	-0 (-3, 3)	38 (25, 50)	7 (3, 11)	37 (23, 51)	13 (9, 17)	46 (30, 62)	14 (9, 19)	58 (39, 77)	14 (9, 19)	70 (50, 91)
Portugal	1 (-2, 4)	25 (14, 36)	-0 (-4, 4)	35 (23, 47)	9 (4, 14)	37 (23, 50)	17 (11, 22)	46 (29, 62)	17 (11, 23)	57 (38, 76)	17 (11, 23)	69 (49, 89)
South Africa	21 (-28, 70)	530 (306, 753)	-3 (-64, 58)	715 (478, 952)	133 (58, 207)	709 (448, 969)	251 (168, 334)	841 (541, 1,139)	272 (178, 365)	1,021 (685, 1,354)	260 (164, 356)	1,224 (864, 1,582)
South Korea	4 (-5, 12)	55 (32, 79)	-1 (-11, 10)	77 (51, 102)	23 (10, 36)	76 (48, 104)	45 (30, 59)	90 (58, 122)	49 (32, 66)	108 (73, 144)	47 (30, 65)	125 (88, 161)
Spain	3 (-5, 11)	70 (40, 100)	-1 (-11, 10)	99 (66, 131)	23 (10, 36)	102 (65, 140)	44 (29, 58)	127 (82, 172)	48 (31, 64)	159 (107, 212)	46 (29, 63)	193 (136, 249)
Sweden	1 (-1, 2)	8 (5, 12)	-0 (-2, 2)	12 (8, 15)	4 (2, 7)	12 (8, 17)	8 (6, 11)	15 (10, 21)	9 (6, 12)	19 (13, 25)	8 (5, 12)	22 (16, 29)
Switzerland	0 (-0, 1)	4 (2, 6)	-0 (-1, 1)	6 (4, 7)	2 (1, 3)	6 (4, 8)	4 (2, 5)	7 (4, 9)	4 (3, 5)	9 (6, 11)	4 (2, 5)	10 (7, 13)

Taiwan	1 (-2, 5)	23 (13, 33)	-0 (-5, 4)	32 (21, 42)	10 (4, 15)	32 (20, 44)	19 (13, 25)	40 (26, 54)	21 (14, 28)	50 (33, 66)	20 (13, 28)	60 (43, 78)
Thailand	3 (-5, 11)	116 (67, 165)	-0 (-10, 9)	155 (103, 206)	21 (9, 33)	150 (94, 205)	41 (27, 55)	174 (111, 235)	45 (29, 61)	211 (142, 281)	44 (28, 60)	256 (180, 331)
UK	10 (-13, 33)	117 (68, 167)	-1 (-30, 28)	168 (112, 224)	63 (28, 99)	176 (111, 240)	122 (81, 162)	216 (138, 293)	130 (85, 175)	268 (180, 356)	126 (79, 172)	324 (228, 419)
USA	43 (-58, 143)	542 (313, 771)	-6 (-135, 122)	753 (502, 1,003)	286 (126, 445)	758 (478, 1,037)	549 (367, 730)	912 (586, 1,237)	600 (393, 807)	1,106 (741, 1,469)	578 (364, 791)	1,278 (901, 1,653)
Vietnam	0 (-0, 1)	7 (4, 11)	-0 (-1, 1)	9 (6, 12)	2 (1, 3)	9 (6, 12)	3 (2, 5)	12 (8, 17)	4 (2, 5)	17 (11, 22)	4 (2, 5)	21 (15, 28)
Pooled	157 (-215, 528)	2,652 (1,529, 3,772)	-23 (-489, 442)	3,640 (2,429, 4,847)	1,025 (451, 1,598)	3,658 (2,309, 5,003)	1,954 (1,307, 2,599)	4,407 (2,831, 5,977)	2,126 (1,390, 2,861)	5,392 (3,615, 7,162)	2,045 (1,289, 2,799)	6,392 (4,508, 8,268)

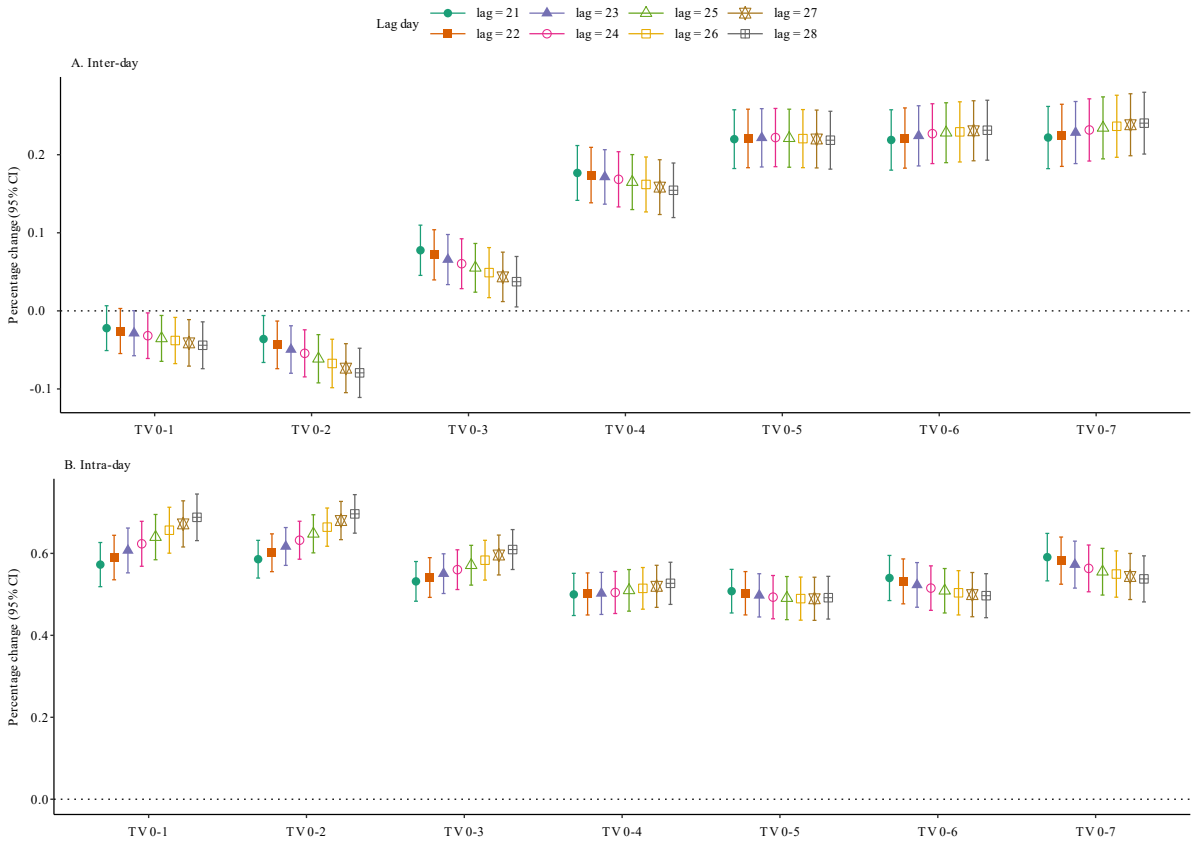




**Figure S1. Sensitivity analyses of comparing effects of inter-day and intra-day TV per 1°C increase in TV.**



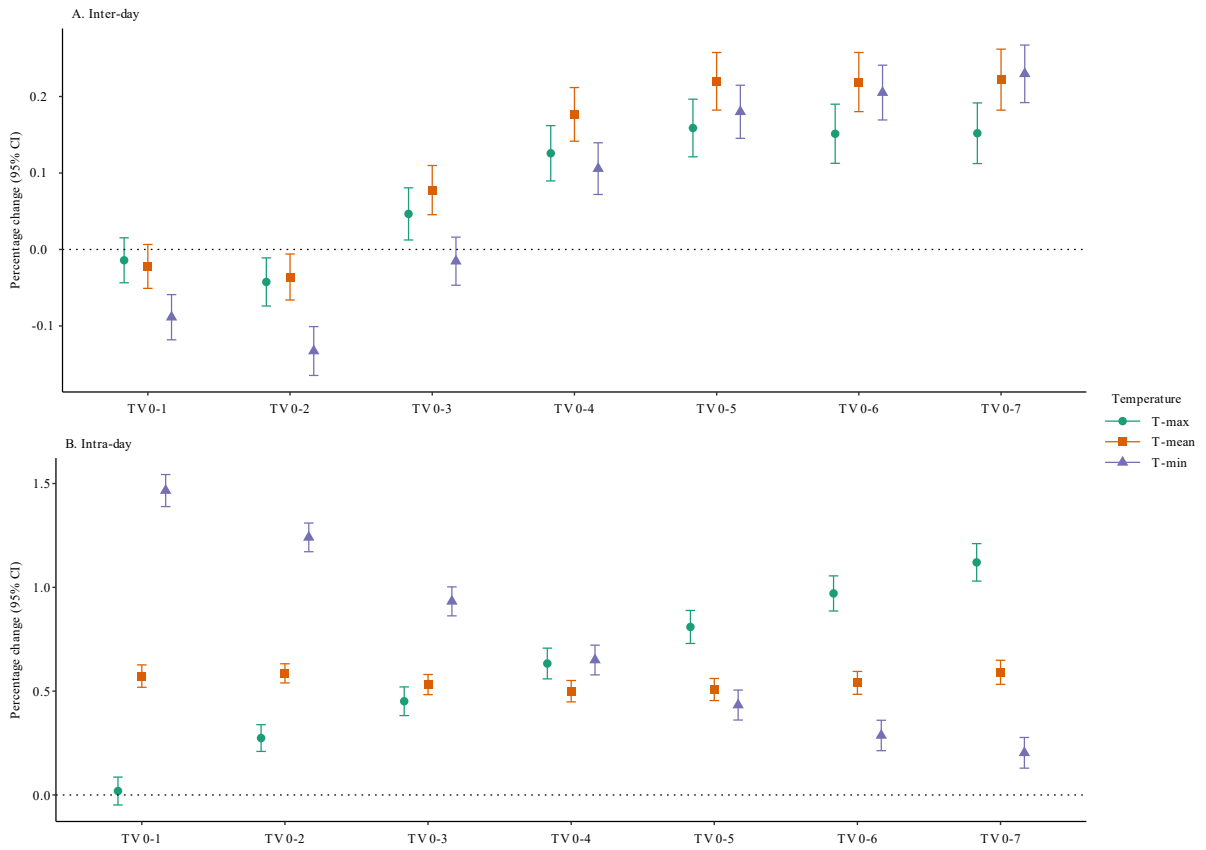
**Figure S2. Sensitivity analyses of comparing effects of inter-day and intra-day TV per 1°C increase of TV in all countries/regions (A) and locations (B and C).**



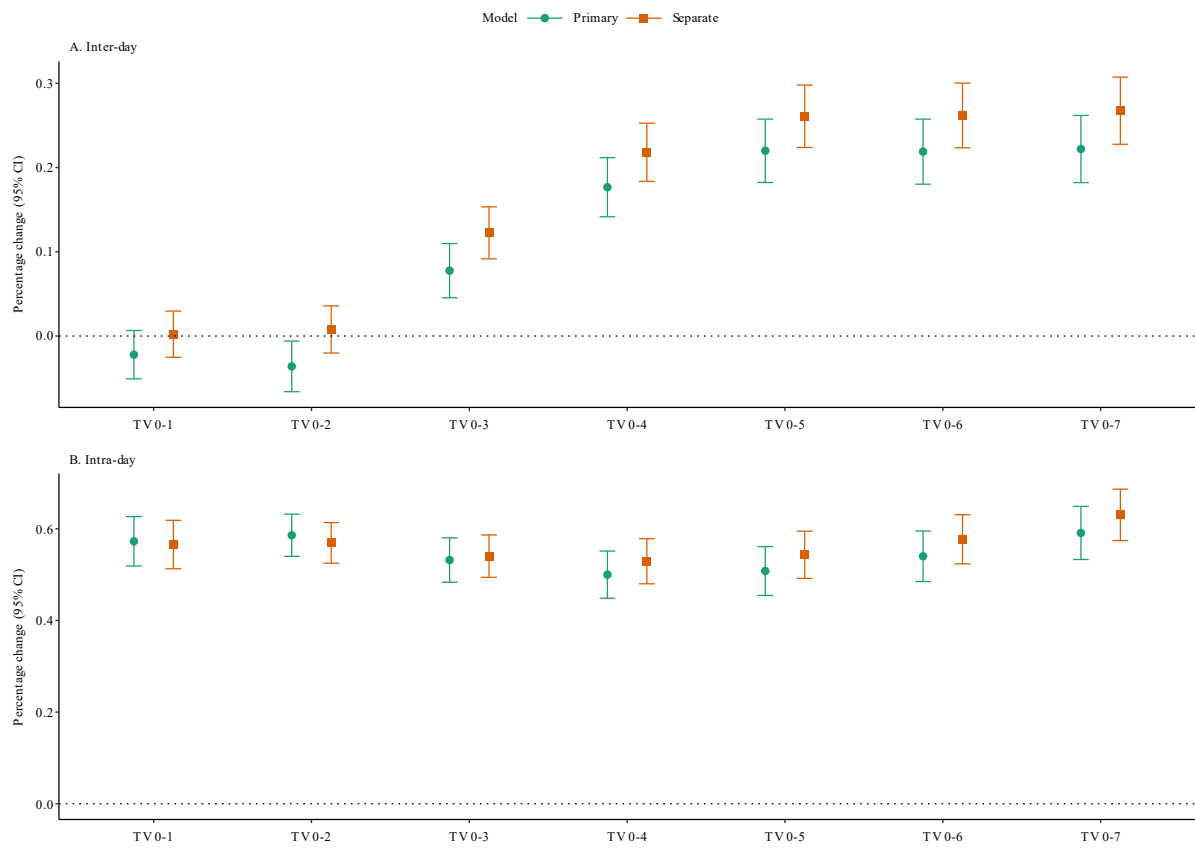
**Figure S3. Sensitivity analyses to change lag days for daily mean temperatures (21 to 28 days)**



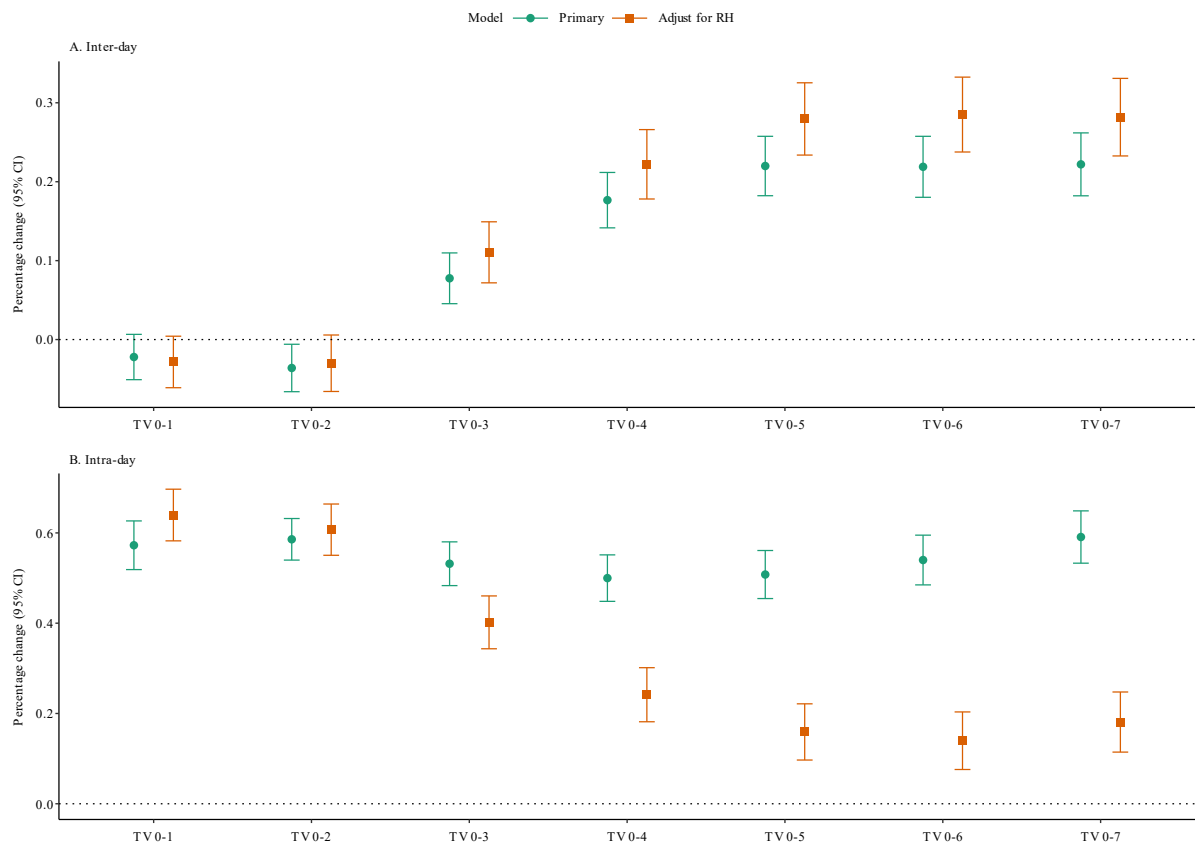
**Figure S4. Sensitivity analyses to change df for daily mean temperatures (3–6 df)**



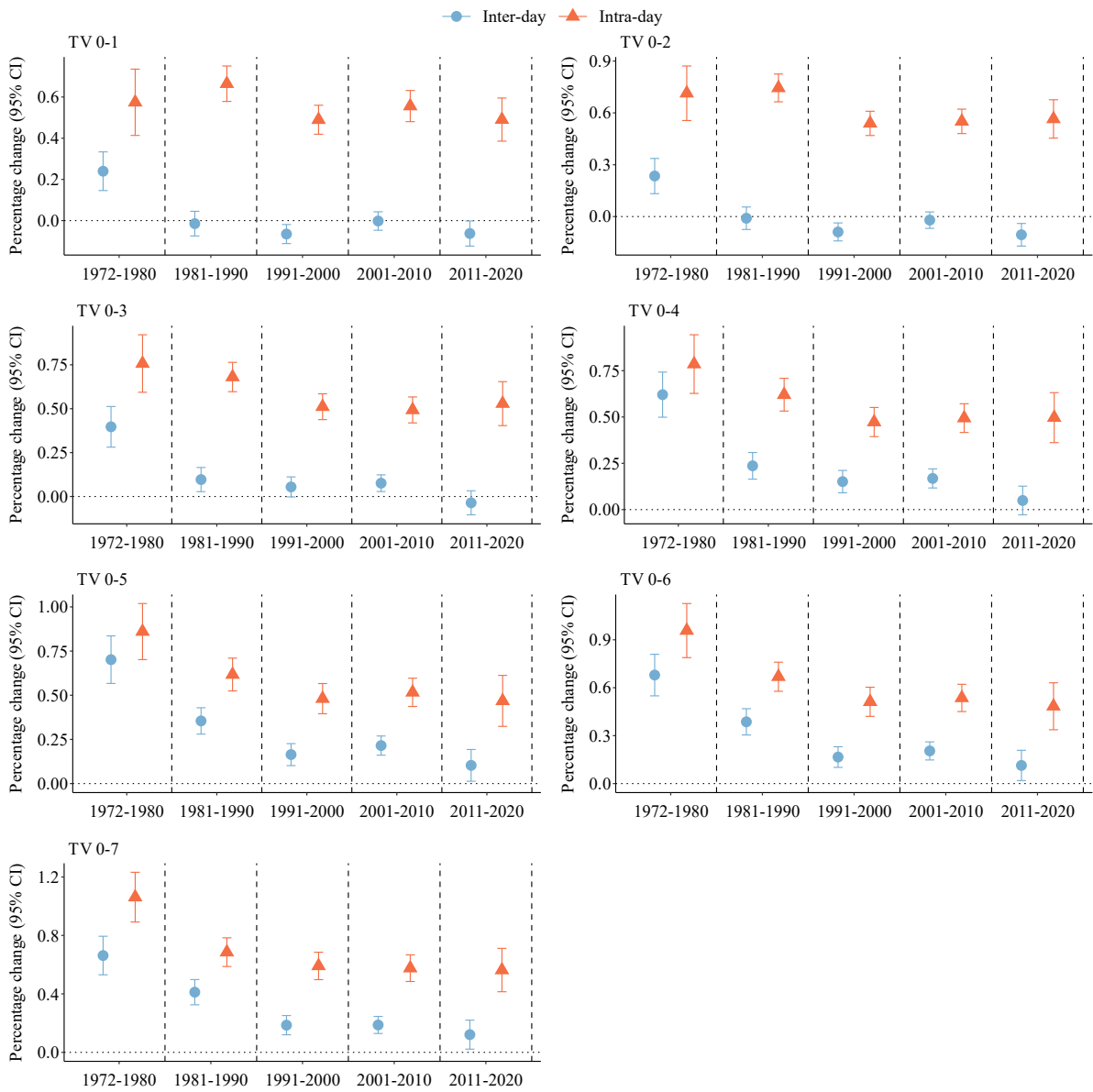
**Figure S5. Sensitivity analyses to change daily mean temperature to daily maximum or minimum temperature. T-max = daily maximum temperature, T-mean = daily mean temperature, T-min = daily minimum temperature.**



**Figure S6. Sensitivity analyses to include only one of TV indicators (inter-day TV and intra-day TV) in the models.**



**Figure S7. Sensitivity analyses to include relative humidity in the model.**



**Figure S8. Overall percentage change (%) of mortality risk over one interquartile range of inter-day and intra-day TV (TV0–1 to TV0–7) by study period (1972–1980, 1981–1990, 1991–2000, 2001–2010, 2011–2020).**