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Supplemental Material

Modification of Heat-Related Mortality in an Elderly Urban Population by Vegetation (Urban Green) and Proximity to Water (Urban Blue): Evidence from Lisbon, Portugal

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Table of Contents

Table S1: Average values of (equivalent) temperature, air pollution and death counts for the elderly above the age of 65 years

Table S2: Socioeconomic and sociospatial information on parish level

Figure S1: Difference in mortality increase among those > 65 years of age with a 1°C increase in UTCI above the 95th (a) and 99th (b) percentiles lags 0-2 for nighttime LST quartiles with 95% confidence intervals. GAMs allowing for interaction between UTCI and different nighttime LST classes were adjusted for long-term and seasonal trend (6 df per year), daily averages of O_3 and PM_{10} (lag 0-1), percent of parish population >65 years of age, building density, proportion of college graduates and percentage of population receiving social benefits. Nighttime LST quartiles were 16.6°C, 17.7°C and 18.1°C.

Figure S2: Difference in mortality increase among those > 65 years of age with a 1°C increase in UTCI above the 95th (a) and 99th (b) percentiles lags 0-2 for daytime LST quartiles with 95% confidence intervals. GAMs allowing for interaction between UTCI and different daytime LST classes were adjusted for long-term and seasonal trend (6 df per year), daily averages of O_3 and PM_{10} (lag 0-1), percent of parish population >65 years of age,

building density, proportion of college graduates and percentage of population receiving social benefits. Daytime LST quartiles were 32.3°C, 33.8°C and 35.0°C.

Figure S3: Difference in mortality increase among those > 65 years of age with a 1°C increase in temperature above the 95th (a) and 99th (b) percentiles lags 0-2 for NDVI quartiles with 95% confidence intervals. GAMs allowing for interaction between temperature and different NDVI classes were adjusted for long-term and seasonal trend (6 df per year), daily averages of O₃ and PM₁₀ (lag 0-1), percent of parish population >65 years of age, building density, proportion of college graduates and percentage of population receiving social benefits.

Figure S4: Difference in mortality increase among those > 65 years of age with a 1°C increase in temperature above the 95th (a) and 99th (b) percentile for lags 0-2 for areas with a distance of > 4 km and ≤ 4 km to the Atlantic Ocean and Tagus Estuary with 95% confidence intervals. GAMs allowing for interaction between temperature and distance classes were adjusted for long-term and seasonal trend (6 df per year), daily averages of O3 and PM10, percent of parish population >65 years of age, building density, proportion of college graduates and percentage of population receiving social benefits.

Figure S5: Difference in mortality increase among those > 65 years of age with a 1°C increase in UTCI above the 95th (a) and 99th (b) percentiles lags 0-2 for nightime LST quartiles with 95% confidence intervals. GAMs allowing for interaction between UTCI and different nighttime LST classes were adjusted for long-term and seasonal trend (6 df per year), daily averages of O₃ and PM₁₀ (lag 0-1), percent of parish population >65 years of age, building density, proportion of college graduates and percentage of population receiving social benefits. Nighttime LST quartiles were 16.6°C, 17.7°C and 18.1°C.

Figure S6: Difference in mortality increase among those > 65 years of age with a 1°C increase in UTCI above the 95th (a) and 99th (b) percentiles lags 0-2 for daytime LST quartiles with 95% confidence intervals. GAMs allowing for interaction between UTCI and different daytime LST classes were adjusted for long-term and seasonal trend (6 df per year), daily averages of O₃ and PM₁₀ (lag 0-1), percent of parish population >65 years of age, building density, proportion of college graduates and percentage of population receiving social benefits. Daytime LST quartiles were 32.3°C, 33.8°C and 35.0°C.

Table S1: Average values of (equivalent) temperature, air pollution and death counts for the elderly above the age of 65 years

	Temperature ^a [°C]	UTCI ^a [°C]	PM_{10}^{a} [$\mu g/m^{3}$]	O_3^a [$\mu g/m^3$]	Death counts b
Average	16.5	7.8	44.8	28.5	1657
Maximum	22.6	16.9	58.8	34.9	2167
Minimum	10.9	-0.8	27.5	23.6	1356

^aAnnual average

^bAnnual monthly average

 Table S2: Socioeconomic and sociospatial information on parish level

Fopul Build	ntage of built-up area lation vs. percentage of built-up area ing density ortion of foreigners	Percentage (area occupied by buildings/total area) in civil parishes Civil parish population/percentage of built-up area Number of buildings per km²
Popul Buildi Z Propo	ing density	
S Buildi Z Propo	6	Number of huildings per lem²
Z Propo	artion of foreigners	Number of buildings per kin
	ittion of foleighers	Percentage of population without portuguese nationality
□ Popul	ation density	Inhabitants per km ²
Popul	ation density in buildings	Inhabitants per building
Elderl	ly dependece index	Population aged 65 years or more as a percentage of the population between 15 and 64 years.
Perce	ntage of population aged 65 years and above	Population ages 65 and above as a percentage of the total population
H Aging	g buildings index	Number of buildings (Buildings built until 1945 / Buildings built after 1991) * 100
ĕ Avera	age age of buildings (years)	[(Number of buildings aged in class j * middle point of class j)/ Total buildings]*100
Avera	age age of residents (years)	Sum of ages of the resident population/ Resident population
Wido	wers	Percentage of widowers
Popul More	lation with compulsory education lation with an academic graduation socially valued professions acy rate	Percentage of population that completes compulsory education Percentage of population with college degree (Employed population in most valued professions / employed population)*100 [(Resident population 10 years and over (can not read or write) / resident population 10 years and over]*100
Sex ra	atio	Ratio of the population numbers of female and male
Sex ra	atio > 65 yrs.	Ratio of the population numbers of female and male (>65 years)
g Distar	nce to nearest hospital	Km
is Institu	utionalized population (total)	Percentage of population living in all kind of institutions
	utionalized people (in social suport and health utions)	Percentage of population living only in social suport and health institutions
	l security benefits /10000 inhab.	Population living from social security benefits /10000 inhabitants

Source: Portuguese Instituto Nacional de Estatística

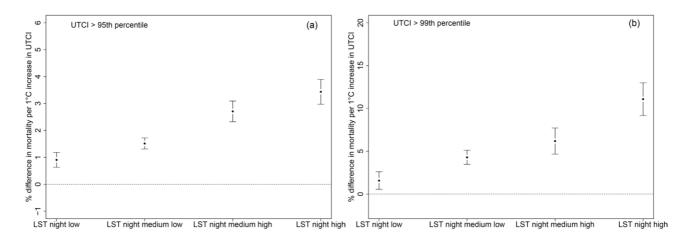


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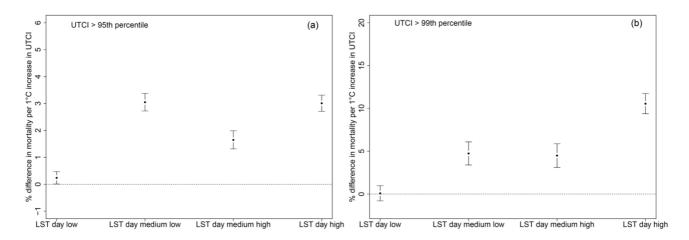


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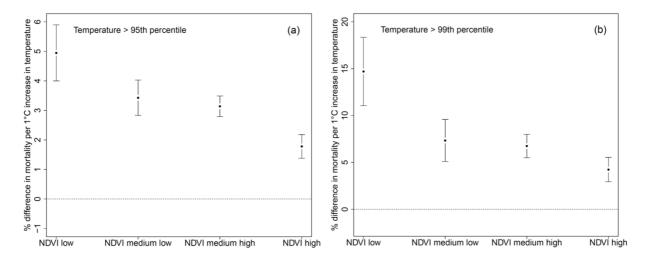


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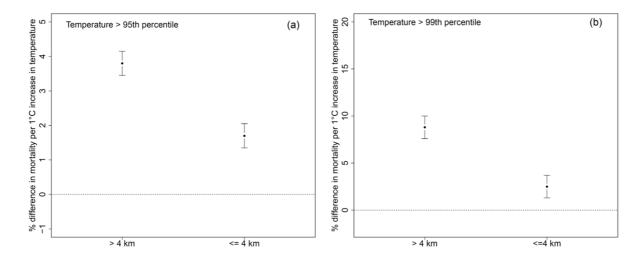


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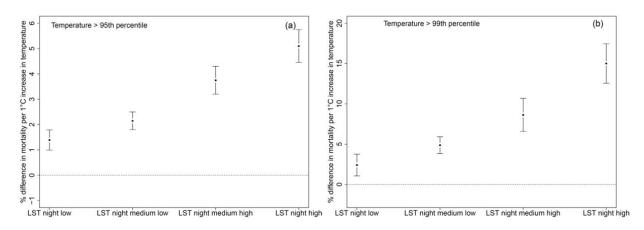


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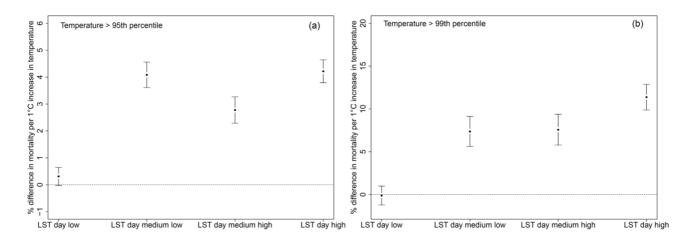


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