Supplementary Material

Supplement to: Zanasi, F., and Conte Keivabu, R. (2024). Extreme temperatures and morbidity in old age in Europe. *Vienna Yearbook of Population Research*, 22. https://doi.org/10.1553/p-8z36-6mmj

Table S.1: Sample characteristics (S2) for hospitalization (yes/no), by NUTS-2 regions and survey wave

	No	Yes					Total
NUTS-2		Wave 1	Wave 2	Wave 4	Wave 5	Wave 6	
AT11	275	3	2	25	17	21	343
AT12	809	30	42	108	118	79	1,186
AT13	1,050	15	27	117	173	114	1,496
AT21	269	10	8	33	43	27	390
AT22	886	16	30	128	122	83	1,265
AT31	736	44	44	68	96	80	1,068
AT32	199	9	11	27	25	26	297
AT33	223	4	9	21	23	14	294
AT34	150	4	8	22	26	23	233
BE10	430	2	7	22	50	49	560
BE21	1,285	35	63	85	87	85	1,640
BE22	405	23	20	25	35	29	537
BE23	510	14	19	32	37	32	644
BE24	542	18	29	37	38	31	695
BE25	928	42	50	63	55	47	1,185
BE31	286	5	8	16	32	27	374
BE32	805	25	40	57	61	49	1,037
BE33	805	23	26	61	75	50	1,040
BE34	188	1	5	18	19	14	245
BE35	345	19	28	27	26	14	459
CH01	670	4	14	39	43	46	816
CH02	789	10	17	50	65	43	974
CH03	424	3	5	41	47	32	552
CH04	609	5	20	41	45	45	765
CH05	621	6	20	47	46	35	775
CH06	335	3	9	19	17	20	403
CH07	127	4	4	9	4	18	166
CZ01	611	0	4	52	77	58	802
CZ02	500	0	15	57	59	42	673
CZ03	760	0	14	61	75	76	986
CZ04	436	0	5	26	56	51	574
CZ05	816	0	9	68	99	83	1,075
CZ06	974	0	11	80	107	98	1,270
CZ07	738	0	21	61	91	90	1,001
CZ08	848	0	26	75	99	94	1,142
DK01	940	20	43	33	59	61	1,156
DK02	550	18	27	37	46	30	708

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	No	Yes					Total
NUTS-2		Wave 1	Wave 2	Wave 4	Wave 5	Wave 6	
AT11	275	3	2	25	17	21	343
DK03	1,102	23	43	52	79	78	1,377
DK04	752	10	33	36	48	50	929
DK05	501	9	20	34	38	31	633
EE00	7,177	0	0	523	838	597	9,135
EL30	825	63	48	0	0	0	936
EL41	37	2	5	0	0	0	44
EL42	16	1	1	0	0	0	18
EL43	57	4	1	0	0	0	62
EL51	83	5	2	0	0	0	90
EL52	257	17	18	0	0	0	292
EL53	13	1	2	0	0	0	16
EL54	29	5	4	0	0	0	38
EL61	163	18	15	0	0	0	196
EL62	48	2	4	0	0	0	54
EL63	87	6	9	0	0	0	102
EL64	134	4	16	0	0	0	154
EL65	88	4	2	0	0	0	94
ES11	211	4	9	29	26	10	289
ES12	124	2	13	4	14	5	162
ES13	72	1	4	2	7	5	91
ES21	168	1	4	13	14	9	209
ES22	154	3	8	14	8	7	194
ES23	59	0	4	3	5	2	73
ES24	184	4	14	13	21	7	243
ES30	567	11	19	28	56	42	723
ES41	388	9	16	21	22	23	479
ES42	466	5	25	31	34	30	591
ES43	87	0	0	3	6	5	101
ES51	737	19	27	52	51	41	927
ES52	579	10	21	33	36	28	707
ES53	50	0	1	2	11	4	68
ES61	1,430	48	75	110	111	85	1,859
ES62	221	5	10	14	15	15	280
ES70	179	4	6	5	17	9	220
FR10	838	38	42	44	45	30	1,037
FRB0	218	0	0	18	16	7	259
FRC1	149	0	0	12	16	8	185
FRC2	125	0	0	11	14	9	159
FRD1	156	0	0	18	22	19	215
FRD2	119	0	0	5	10	4	138
FRE1	528	32	40	45	33	16	694
FRE2	105	0	0	8	15	8	136
FRF1	147	0	0	12	14	8	181
FRF2	116	0	0	8	20	7	151

	No	Yes					Total
NUTS-2		Wave 1	Wave 2	Wave 4	Wave 5	Wave 6	
AT11	275	3	2	25	17	21	343
FRF3	234	0	0	17	14	14	279
FRG0	497	36	48	36	18	19	654
FRH0	286	0	0	19	29	15	349
FRI1	447	27	28	37	29	21	589
FRI2	108	0	0	9	13	9	139
FRI3	204	0	0	11	10	14	239
FRJ1	406	23	29	33	20	10	521
FRJ2	332	0	0	20	23	14	389
FRK1	140	0	0	8	14	5	167
FRK2	786	36	48	49	42	30	991
FRL0	285	1	17	23	15	8	349
FRM0	4	0	0	0	1	0	5
ITC1	366	7	16	18	25	26	458
ITC3	99	3	3	7	5	4	121
ITC4	591	11	22	24	45	31	724
ITF1	76	2	2	1	3	6	90
ITF3	432	14	28	37	30	15	556
ITF4	382	4	20	22	24	24	476
ITF5	169	4	17	21	11	5	227
ITF6	303	8	16	16	22	12	377
ITG1	555	15	20	30	32	47	699
ITG2	149	5	6	5	8	4	177
ITH1	12	0	0	1	0	1	14
ITH2	63	3	4	10	2	2	84
ITH3	429	7	27	22	24	20	529
ITH4	213	3	11	10	8	9	254
ITH5	333	4	15	20	26	14	412
ITI1	479	5	11	28	14	17	554
ITI2	365	8	13	14	26	20	446
ITI3	375	12	18	26	25	21	477
ITI4	371	5	15	23	25	23	462
NL11	132	0	6	5	7	0	150
NL12	166	7	11	13	9	0	206
NL13	131	2	6	4	4	0	147
NL21	317	9	14	16	14	0	370
NL22	142	5	7	5	5	0	164
NL23	14	0	0	0	1	0	15
NL31	245	9	23	21	13	0	311
NL32	337	9	17	23	19	0	405
NL33	617	25	31	30	23	0	726
NL34	50	0	2	6	4	0	62
NL41	379	11	24	26	15	0	455
NL42	270	11	19	17	10	0	327
PL21	21	0	1	2	0	2	26

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	No	Yes					Total
NUTS-2		Wave 1	Wave 2	Wave 4	Wave 5	Wave 6	
AT11	275	3	2	25	17	21	343
PL22	128	0	18	34	0	12	192
PL41	153	0	12	19	0	9	193
PL42	104	0	12	25	0	8	149
PL43	28	0	2	4	0	5	39
PL51	92	0	6	13	0	5	116
PL52	70	0	8	17	0	10	105
PL61	53	0	5	10	0	5	73
PL62	93	0	10	17	0	18	138
PL63	23	0	2	8	0	2	35
PL71	125	0	12	24	0	11	172
PL72	103	0	6	27	0	9	145
PL81	32	0	2	5	0	0	39
PL82	109	0	8	22	0	7	146
PL84	118	0	13	16	0	11	158
PL92	195	0	26	38	0	15	274
PT11	250	0	0	18	0	22	290
PT16	221	0	0	10	0	19	250
PT17	276	0	0	15	0	35	326
PT18	85	0	0	9	0	8	102
PT30	23	0	0	1	0	4	28
SE11	971	26	48	43	54	46	1,188
SE12	1,019	22	50	50	57	51	1,249
SE21	581	26	26	27	44	33	737
SE22	848	15	35	32	56	62	1,048
SE23	908	13	35	40	67	48	1,111
SE31	650	17	19	28	43	23	780
SE32	331	10	17	15	32	26	431
SE33	340	8	12	12	33	21	426
SI03	1,533	0	0	95	154	144	1,926
SI04	1,298	0	0	64	123	127	1,612
Total	64,492	1,253	2,280	4,494	5,225	4,273	82,017

Table S.2: Sample characteristics (S1) for heart medication intake (yes/no), by NUTS-2 regions and survey wave: number of observations

	No	Yes					Total
NUTS-2		Wave 1	Wave 2	Wave 4	Wave 5	Wave 6	
AT11	254	7	2	23	22	16	324
AT12	840	28	28	57	66	69	1,088
AT13	1,065	12	18	95	116	80	1,386
AT21	290	4	6	21	20	24	365
AT22	833	12	31	103	118	83	1,180
AT31	749	22	27	56	57	58	969

	No	Yes					Total
NUTS-2		Wave 1	Wave 2	Wave 4	Wave 5	Wave 6	
AT11	254	7	2	23	22	16	324
AT32	194	4	5	20	29	28	280
AT33	203	3	3	21	21	26	277
AT34	163	3	2	21	22	15	226
BE10	405	6	10	21	35	38	515
BE21	1,178	57	69	84	77	66	1,531
BE22	361	26	21	38	30	27	503
BE23	447	19	27	40	46	42	621
BE24	481	26	25	33	51	42	658
BE25	809	62	68	62	58	59	1,118
BE31	258	7	10	25	28	17	345
BE32	670	46	52	65	69	58	960
BE33	601	41	45	89	98	72	946
BE34	163	8	7	17	18	13	226
BE35	312	16	28	17	29	22	424
CH01	645	6	10	36	42	41	780
CH02	784	13	15	33	37	35	917
CH03	445	4	9	15	28	22	523
CH04	631	10	12	26	26	20	725
CH05	624	11	15	22	30	23	725
CH06	330	3	2	19	12	19	385
CH07	111	7	2	12	11	12	155
CZ01	546	0	2	57	62	52	719
CZ02	436	0	10	41	48	55	590
CZ03	673	0	17	56	77	63	886
CZ04	396	0	3	34	48	39	520
CZ05	728	0	19	74	85	80	986
CZ06	828	0	17	91	103	100	1,139
CZ07	681	0	26	48	68	61	884
CZ08	711	0	20	86	116	96	1,029
DK01	844	19	49	39	43	47	1,041
DK02	504	16	26	23	22	15	606
DK03	969	20	40	52	63	49	1,193
DK04	654	25	41	34	48	47	849
DK05	446	5	17	27	24	28	547
EE00	5,251	0	0	987	1,023	865	8,126
EL30	945	96	96	0	0	66	1,203
EL41	41	4	8	0	0	6	59
EL42	30	1	2	0	0	0	33
EL43	61	13	13	0	0	15	102
EL51	94	9	7	0	0	8	118
EL52	340	29	31	0	0	31	431
EL53	19	1	2	0	0	1	23
EL54	49	3	1	0	0	0	53
EL61	156	31	36	0	0	20	243

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	No	Yes				Total
NUTS-2		Wave 1	Wave 2	Wave 4	Wave 5	Wave 6	
AT11	254	7	2	23	22	16	324
EL62	34	9	11	0	0	4	58
EL63	91	3	2	0	0	2	98
EL64	141	14	17	0	0	16	188
EL65	106	8	7	0	0	6	127
ES11	175	7	11	23	17	9	242
ES12	107	4	6	8	8	3	136
ES13	61	0	2	4	10	7	84
ES21	156	4	5	10	10	7	192
ES22	145	5	4	7	6	3	170
ES23	57	2	4	0	0	3	66
ES24	145	4	9	19	20	11	208
ES30	528	16	17	33	28	31	653
ES41	354	9	16	26	21	14	440
ES42	408	8	15	25	29	31	516
ES43	65	2	0	8	7	9	91
ES51	682	9	24	46	34	26	821
ES52	503	17	19	37	24	21	621
ES53	43	1	1	3	4	3	55
ES61	1,255	44	53	96	95	96	1,639
ES62	171	6	11	21	22	23	254
ES70	148	5	4	16	12	5	190
FR10	788	55	54	50	29	23	999
FRB0	169	0	0	25	20	26	240
FRC1	142	0	0	9	11	5	167
FRC2	116	0	0	11	15	5	147
FRD1	141	0	0	22	22	12	197
FRD2	112	0	0	6	9	10	137
FRE1	427	53	50	40	28	34	632
FRE2	88	0	0	7	14	6	115
FRF1	130	0	0	14	16	10	170
FRF2	93	0	0	13	20	12	138
FRF3	195	0	0	19	26	15	255
FRG0	436	38	46	40	27	22	609
FRH0	257	0	0	25	23	17	322
FRI1	389	33	33	41	28	24	548
FRI2	91	0	0	13	15	9	128
FRI3	186	0	0	12	17	12	227
FRJ1	367	23	29	24	23	19	485
FRJ2	289	0	0	25	29	24	367
FRK1	117	0	0	13	11	13	154
FRK2	727	32	38	50	39	24	910
FRL0	266	0	19	17	20	12	334
FRM0	2	0	0	0	0	1	3
ITC1	318	13	18	23	23	31	426

	No	Yes				Total
NUTS-2		Wave 1	Wave 2	Wave 4	Wave 5	Wave 6	
AT11	254	7	2	23	22	16	324
ITC3	85	3	5	10	3	3	109
ITC4	526	13	23	26	53	37	678
ITF1	60	2	2	0	7	9	80
ITF3	327	25	35	36	26	24	473
ITF4	294	6	20	28	38	39	425
ITF5	154	2	12	22	12	7	209
ITF6	243	12	18	17	28	25	343
ITG1	445	15	26	48	53	59	646
ITG2	143	1	1	3	7	10	165
ITH1	14	0	0	0	0	0	14
ITH2	60	2	7	4	2	0	75
ITH3	396	7	15	23	29	22	492
ITH4	163	8	23	18	12	8	232
ITH5	272	10	18	24	20	19	363
ITI1	411	7	13	23	32	29	515
ITI2	298	9	14	20	32	45	418
ITI3	279	13	26	45	43	42	448
ITI4	339	10	18	18	21	32	438
NL11	114	4	7	6	7	0	138
NL12	148	7	13	11	13	0	192
NL13	119	4	3	6	7	0	139
NL21	276	13	18	18	15	0	340
NL22	112	11	8	11	10	0	152
NL23	12	0	0	2	1	0	15
NL31	210	15	13	24	20	0	282
NL32	294	7	16	29	23	0	369
NL33	552	36	37	34	35	0	694
NL34	40	0	4	8	4	0	56
NL41	308	16	20	25	36	0	405
NL42	224	17	20	20	18	0	299
PL21	16	0	2	3	0	3	24
PL22	83	0	17	38	0	24	162
PL41	96	0	23	38	0	24	181
PL42	77	0	14	15	0	17	123
PL43	21	0	2	7	0	7	37
PL51	67	0	9	13	0	9	98
PL52	56	0	9	13	0	15	93
PL61	40	0	6	12	0	11	69
PL62	77	0	18	21	0	15	131
PL63	18	0	5	4	0	4	31
PL71	88	0	18	28	0	16	150
PL72	58	0	25	28	0	14	125
PL81	31	0	0	1	0	1	33
PL82	70	0	15	22	0	17	124

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	No	Yes				Total
NUTS-2		Wave 1	Wave 2	Wave 4	Wave 5	Wave 6	
AT11	254	7	2	23	22	16	324
PL84	83	0	22	22	0	19	146
PL92	154	0	41	30	0	27	252
PT11	204	0	0	36	0	50	290
PT16	155	0	0	32	0	63	250
PT17	213	0	0	46	0	67	326
PT18	82	0	0	6	0	14	102
PT30	17	0	0	3	0	8	28
SE11	875	35	39	32	61	61	1,103
SE12	891	35	37	34	94	88	1,179
SE21	518	22	30	28	45	39	682
SE22	730	33	40	21	70	75	969
SE23	787	42	40	37	70	64	1,040
SE31	551	27	23	20	43	50	714
SE32	279	13	13	13	32	39	389
SE33	284	14	13	14	35	28	388
SI03	1,206	0	0	159	200	204	1,769
SI04	1,085	0	0	102	168	152	1,507
Total	56,299	1,655	2,453	5,038	5,263	5,102	75,810

Table S.3: Sample characteristics (S2) for onset of CVDs (yes/no), by NUTS-2 regions and survey wave: number of observations

	No	Yes				Total
NUTS2		Wave 1	Wave 2	Wave 4	Wave 5	Wave 6	
AT11	332	1	3	3	3	1	343
AT12	1,119	0	14	16	27	10	1,186
AT13	1,438	0	6	10	32	10	1,496
AT21	372	2	1	2	5	8	390
AT22	1,204	0	10	15	22	14	1,265
AT31	1,001	4	9	12	23	19	1,068
AT32	283	0	2	1	7	4	297
AT33	283	1	2	2	4	2	294
AT34	215	1	1	1	10	5	233
BE10	540	1	2	1	7	9	560
BE21	1,576	1	18	19	17	9	1,640
BE22	515	4	7	6	4	1	537
BE23	618	2	3	11	6	4	644
BE24	672	3	5	5	4	6	695
BE25	1,124	8	16	12	15	10	1,185
BE31	359	3	3	2	5	2	374
BE32	985	6	11	12	11	12	1,037
BE33	980	2	8	16	22	12	1,040
BE34	236	1	1	4	2	1	245

BE35	431	1	10	6	6	5	459
CH01	787	0	2	14	7	6	816
CH02	944	0	2	7	15	6	974
CH03	541	0	0	2	4	5	552
CH04	738	0	3	10	9	5	765
CH05	742	2	8	8	9	6	775
CH06	392	0	1	5	4	1	403
CH07	162	0	1	2	0	1	166
CZ01	741	0	1	9	32	19	802
CZ02	621	0	0	15	22	15	673
CZ03	928	0	3	21	22	12	986
CZ04	542	0	1	6	11	14	574
CZ05	1,009	0	1	17	30	18	1,075
CZ06	1,173	0	0	28	42	27	1,270
CZ07	905	0	0	26	43	27	1,001
CZ08	1,064	0	2	24	28	24	1,142
DK01	1,099	1	11	15	18	12	1,156
DK02	676	1	4	12	13	2	708
DK03	1,326	5	6	16	14	10	1,377
DK04	891	0	9	11	10	8	929
DK05	602	1	6	9	9	6	633
EE00	8,614	0	0	68	310	143	9,135
EL30	900	6	30	0	0	0	936
EL41	40	2	2	0	0	0	44
EL42	18	0	0	0	0	0	18
EL43	60	1	1	0	0	0	62
EL51	90	0	0	0	0	0	90
EL52	285	2	5	0	0	0	292
EL53	15	0	1	0	0	0	16
EL54	38	0	0	0	0	0	38
EL61	182	3	11	0	0	0	196
EL62	48	1	5	0	0	0	54
EL63	98	0	4	0	0	0	102
EL64	147	1	6	0	0	0	154
EL65	92	1	1	0	0	0	94
ES11	273	2	2	3	9	0	289
ES12	154	0	1	0	6	1	162
ES13	87	0	1	1	1	1	91
ES21	204	1	0	1	3	0	209
ES22	183	1	2	6	1	1	194
ES23	67	0	1	2	2	1	73
ES24	225	0	4	7	7	0	243
ES30	688	0	3	13	12	7	723
ES41	451	2	8	8	7	3	479
ES42	559	1	7	9	12	3	591
ES43	98	0	0	1	1	1	101
ES51	884	0	11	9	21	2	927

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ES52	675	0	6	8	12	6	707
ES53	65	0	0	1	1	1	68
ES61	1,730	8	33	49	30	9	1,859
ES62	265	1	3	1	6	4	280
ES70	209	1	1	2	6	1	220
FR10	1,000	3	12	9	8	5	1,037
FRB0	245	0	0	2	7	5	259
FRC1	182	0	0	0	3	0	185
FRC2	153	0	0	1	3	2	159
FRD1	205	0	0	2	6	2	215
FRD2	134	0	0	0	2	2	138
FRE1	648	6	12	12	10	6	694
FRE2	131	0	0	2	2	1	136
FRF1	177	0	0	0	4	0	181
FRF2	143	0	0	0	5	3	151
FRF3	271	0	0	1	5	2	279
FRG0	611	2	12	13	8	8	654
FRH0	338	0	0	4	5	2	349
FRI1	565	3	6	10	4	1	589
FRI2	133	0	0	0	5	1	139
FRI3	232	0	0	0	7	0	239
FRJ1	496	1	7	9	4	4	521
FRJ2	380	0	0	1	4	4	389
FRK1	158	0	0	1	4	4	167
FRK2	947	1	7	18	9	9	991
FRL0	339	0	1	7	2	0	349
FRM0	4	0	0	0	1	0	5
ITC1	434	4	5	2	6	7	458
ITC3	115	0	1	3	1	1	121
ITC4	700	1	1	4	10	8	724
ITF1	86	0	1	0	1	2	90
ITF3	519	0	13	15	8	1	556
ITF4	462	0	2	4	5	3	476
ITF5	213	0	5	6	3	0	227
ITF6	361	1	4	4	3	4	377
ITG1	639	0	9	17	16	18	699
ITG2	171	0	0	2	3	1	177
ITH1	13	0	0	0	1	0	14
ITH2	81	0	1	2	0	0	84
ITH3	502	1	9	8	8	1	529
ITH4	237	0	2	11	1	3	254
ITH5	391	0	3	8	6	4	412
ITI1	526	1	2	10	7	8	554
ITI2	410	1	6	8	14	7	446
ITI3	447	1	3	8	8	10	477
ITI4	450	0	0	5	3	4	462
NL11	142	0	1	4	3	0	150

NL12	192	1	8	3	2	0	206
NL13	143	0	1	2	1	0	147
NL21	349	4	2	10	5	0	370
NL22	152	0	4	6	2	0	164
NL23	15	0	0	0	0	0	15
NL31	292	1	6	7	5	0	311
NL32	377	0	4	18	6	0	405
NL33	704	1	5	13	3	0	726
NL34	61	0	0	1	0	0	62
NL41	428	2	8	10	7	0	455
NL42	301	4	7	9	6	0	327
PL21	23	0	0	2	0	1	26
PL22	167	0	1	20	0	4	192
PL41	181	0	1	9	0	2	193
PL42	134	0	1	9	0	5	149
PL43	31	0	3	4	0	1	39
PL51	108	0	1	5	0	2	116
PL52	100	0	1	3	0	1	105
PL61	67	0	0	4	0	2	73
PL62	127	0	1	7	0	3	138
PL63	29	0	1	2	0	3	35
PL71	163	0	0	8	0	1	172
PL72	130	0	1	10	0	4	145
PL81	37	0	0	1	0	1	39
PL82	129	0	0	15	0	2	146
PL84	147	0	1	7	0	3	158
PL92	251	0	2	15	0	6	274
PT11	277	0	0	3	0	10	290
PT16	234	0	0	3	0	13	250
PT17	302	0	0	4	0	20	326
PT18	100	0	0	0	0	2	102
PT30	25	0	0	0	0	3	28
SE11	1,113	6	15	20	17	17	1,188
SE12	1,177	1	24	12	11	24	1,249
SE21	700	4	8	11	7	7	737
SE22	991	1	11	15	14	16	1,048
SE23	1,050	2	6	21	16	16	1,111
SE31	736	2	5	16	12	9	780
SE32	404	4	6	6	4	7	431
SE33	397	1	7	6	10	5	426
SI03	1,826	0	0	9	48	43	1,926
SI04	1,540	0	0	9	34	29	1,612
Total	77,711	145	608	1,150	1,446	957	82,017

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Table S.4: LPMs for the effects of exposure to temperature bins in the 12 months before the interview (S1, only living respondents), or death (S2, including observations from deceased respondents) on the risk of hospitalisation (M1, M2); use of medications for heart problems (M3), and experiencing CVDs (M4)

	Hospitalisation (S1)		**Hospitalisation (S2)**		**Heart meds (S1)**		**CVDs (S2)**	
	(M1)		**(M2)**		**(M3)**		**(M4)**	
	Coef.		**Coef.**		**Coef.**		**Coef.**	
Less than -10°C	.000		.003	***	.000		.001	*
	(.000)		(.001)		(.001)		(.000)	
-10 to -5 °C	-.001		-.001		.000		.000	
	(.000)		(.001)		(.000)		(.001)	
-5°C to 0°C	.000		.000		.000		.001	***
	(.000)		(.000)		(.000)		(.000)	
0 to 5°C	.000		.000		.000		.000	
	(.000)		(.000)		(.000)		(.000)	
5 to 10°C	.000		.000		.000		.000	
	(.000)		(.000)		(.000)		(.000)	
10 to 15°C (ref.)								
15 to 20°C	.000		.000		.000		.001	***
	(.000)		(.000)		(.000)		(.000)	
20 to 25°C	.000		.000		.001	*	.000	
	(.000)		(.000)		(.000)		(.000)	
25 to 30°C	.000		.000		-.001	*	.000	
	(.000)		(.000)		(.000)		(.000)	
Over 30°C	-.004		-.007		-.003		.008	**
	(.005)		(.004)		(.004)		(.003)	
Age	.009	***	.019	***	.013	***	.008	***
	(.001)		(.001)		(.001)		(.001)	
Constant	-.458	***	-1.235	***	-.765	***	-.660	***
	(.064)		(.100)		(.079)		(.077)	

Note: All models include individual-level FE and standard errors clustered at the NUTS2 region level. Standard errors in parentheses.
* p<0.05, ** p<0.01, *** p<0.001
Source: SHARE survey (2004-2015). S1 N=75052, S2 N=82017

Table S.5: Effects of exposure to percentiles of temperature in the preceding 12 months on the risk of hospitalisation (S1, only living respondents): different LPMs specifications

	(1) Coef.		(2) Coef.		(3) Coef.		(4) Coef.		(5) Coef.	
< 1st percentile	-.0016		-.0013		.0014		.0010		.0010	
	(.0009)		(.0009)		(.0010)		(.0009)		(.0009)	
1st to 5th percentile	.0003		.0001		-.0003		-.0004		-.0004	
	(.0004)		(.0004)		(.0004)		(.0004)		(.0004)	
5th to 10th percentile	-.0004		-.0006		-.0005		-.0003		-.0003	
	(.0003)		(.0003)		(.0003)		(.0003)		(.0003)	
10th to 25th percentile	.0004		.0003		.0003		.0003		.0003	
	(.0003)		(.0003)		(.0002)		(.0002)		(.0002)	
25th to 75th percentile (ref.)										
75th to 90th percentile	-.0002		-.0002		.0003		.0004		.0003	
	(.0003)		(.0003)		(.0002)		(.0002)		(.0002)	
90th to 95th percentile	-.0013		-.0013		.0002		.0002		.0002	
	(.0007)		(.0007)		(.0004)		(.0004)		(.0004)	
95th to 99th percentile	.0010		.0009		.0002		.0005		.0003	
	(.0005)		(.0005)		(.0004)		(.0004)		(.0004)	
>99th percentile	-.0017	**	-.0017	**	-.0001		.0001		.0000	
	(.0006)		(.0007)		(.0005)		(.0005)		(.0005)	
Age	.0044	***	.0044	***	-.0048		.0096	***	.0096	***
	(.0003)		(.0003)		(.0050)		(.0007)		(.0007)	
Constant	-.1350	***	-.1220	***	.5090		-.5670	***	-.5600	***
	(.0340)		(.0360)		(.3700)		(.0560)		(.0600)	
Fixed Effects										
Individual	NO		NO		YES		YES		YES	
Wave	YES		YES		YES		NO		NO	
Interview Month	NO		YES		YES		NO		YES	
Cluster SE: NUTS-2	YES		YES		YES		YES		YES	
N	75051		75051		75051		75051		75051	

Note: Model (1) adds wave (1, 2, 4, 5, 6) FE. Model (2) is augmented with month of interview FE. Model (3) further includes individual-level FE. Finally, model (4) includes FE only at the individual level. Model (5) includes FE at the individual and the interview month level, and it refers to Figure 2 (left panel, black symbols). All models include standard errors clustered at the NUTS-2 region level. Standard errors in parentheses. * p<0.05, ** p<0.01, *** p<0.001 Source: SHARE (2004-2015).

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Table S.6: Effects of exposure to percentiles of temperature in the preceding 12 months on the risk of hospitalisation (S2, including observations from deceased respondents): different LPMs specifications

	(1)		(2)		(3)		(4)		(5)	
	Coef.		**Coef.**		**Coef.**		**Coef.**		**Coef.**	
< 1st percentile	.0102	***	.0106	***	.0078	***	.0085	***	.0087	***
	(.0014)		(.0016)		(0.001)		(.0012)		(.0011)	
1st to 5th percentile	-.0019	**	-.0023	***	-.0022	***	-.0017	**	-.0015	**
	(.0006)		(.0005)		(.0005)		(.0006)		(.0005)	
5th to 10th percentile	-.0011	*	-.0021	***	-.0022	***	-.0006		-.0010	
	(.0005)		(.0005)		(.0005)		(.0006)		(.0006)	
10th to 25th percentile	.0000		.0001		.0002		.0004		.0006	
	(.0004)		(.0004)		(.0003)		(.0003)		(.0003)	
25th to 75th percentile (ref.)										
75th to 90th percentile	.0001		-.0003		.0007	**	.0011	***	.0009	**
	(.0003)		(.0004)		(.0003)		(.0003)		(.0003)	
90th to 95th percentile	-.0002		-.0001		.0016	***	.0022	***	.0022	***
	(.0008)		(.0008)		(.0004)		(.0005)		(.0005)	
95th to 99th percentile	.0010		.0007		.0004		.0006		.0003	
	(.0008)		(.0008)		(.0005)		(.0005)		(.0005)	
>99th percentile	-.0021	**	-.0022	**	-.0014	*	-.0003		-.0003	
	(.0007)		(.0007)		(.0007)		(.0008)		(.0008)	
Age	.0076	***	.0075	***	-.1020	***	.0174	***	.0186	***
	(.0004)		(.0004)		(.0060)		(.0009)		(.0010)	
Constant	-.3440	***	-.2910	***	7.8620	***	-1.2060	***	-1.2840	***
	(.0420)		(.0490)		(.4600)		(.0670)		(.0740)	
Fixed Effects										
Individual	NO		NO		YES		YES		YES	
Wave	YES		YES		YES		NO		NO	
Interview Month	NO		YES		YES		NO		YES	
Cluster SE: NUTS-2	YES		YES		YES		YES		YES	
N	82017		82017		82017		82017		82017	

Note: Model (1) adds wave (1, 2, 4, 5, 6) FE. Model (2) is augmented with month of interview FE. Model (3) further includes individual-level FE. Finally, model (4) includes FE only at the individual level. Model (5) includes FE at the individual and the interview month level, and it refers to Figure 2 (left panel, grey symbols). All models include standard errors clustered at the NUTS-2 region level. Standard errors in parentheses. * p<0.05, ** p<0.01, *** p<0.001 Source: SHARE (2004-2015).

Table S.7: Effects of exposure to percentiles of temperature in the preceding 12 months on the risk of using medications for heart problems (S1, only living respondents): different LPMs specifications

	(1) Coef.	(2) Coef.	(3) Coef.	(4) Coef.	(5) Coef.
< 1st percentile	.0019	.0023	.0019 *	.0016 *	.0015 *
	(.0014)	(.0014)	(.0008)	(.0007)	(.0007)
1st to 5th percentile	-.0023 *	-.0021 *	-.0001	-.0005	-.0005
	(.0009)	(.0009)	(.0004)	(.0003)	(.0003)
5th to 10th percentile	.0026	.0026 *	.0006	.0004	.0005
	(.0013)	(0.0012)	(.0004)	(.0003)	(.0003)
10th to 25th percentile	-.0004	-.0003	.0000	.0001	-.0001
	(.0003)	(.0003)	(.0002)	(.0002)	(.0002)
25th to 75th percentile (ref.)					
75th to 90th percentile	.0003	.0004	.0001	.0000	.0001
	(.0003)	(.0003)	(.0002)	(.0002)	(.0002)
90th to 95th percentile	-.0013 *	-.0012 *	-.0004	-.0006	-.0007 *
	(.0006)	(.0006)	(.0004)	(.0003)	(.0003)
95th to 99th percentile	.0019 **	.0021 ***	.0000	.0000	.0001
	(.0006)	(.0006)	(.0005)	(.0004)	(.0005)
>99th percentile	-.0004	-.0003	.0002	.0001	.0001
	(.0007)	(.0007)	(.0006)	(.0006)	(.0006)
Age	.0109 ***	.0109 ***	.0012	.0130 ***	.0125 ***
	(.0005)	(.0005)	(.0045)	(.0008)	(.0008)
Constant	-.5760 ***	-.5940 ***	.1530	-.7080 ***	-.6660 ***
	(.0500)	(.0490)	(.3400)	(.0590)	(.0630)
Fixed Effects					
Individual	NO	NO	YES	YES	YES
Wave	YES	YES	YES	NO	NO
Interview Month	NO	YES	YES	NO	YES
Cluster SE	YES	YES	YES	YES	YES
N	75052	75052	75051	75051	75051

Note: Model (1) adds wave (1, 2, 4, 5, 6) FE. Model (2) is augmented with month of interview FE. Model (3) further includes individual-level FE. Finally, model (4) includes FE only at the individual level. Model (5) includes FE at the individual and the interview month level, and it refers to Figure 2 (right panel, black symbols). All models include standard errors clustered at the NUTS-2 region level. Standard errors in parentheses. * p<0.05, ** p<0.01, *** p<0.001 Source: SHARE (2004-2015)

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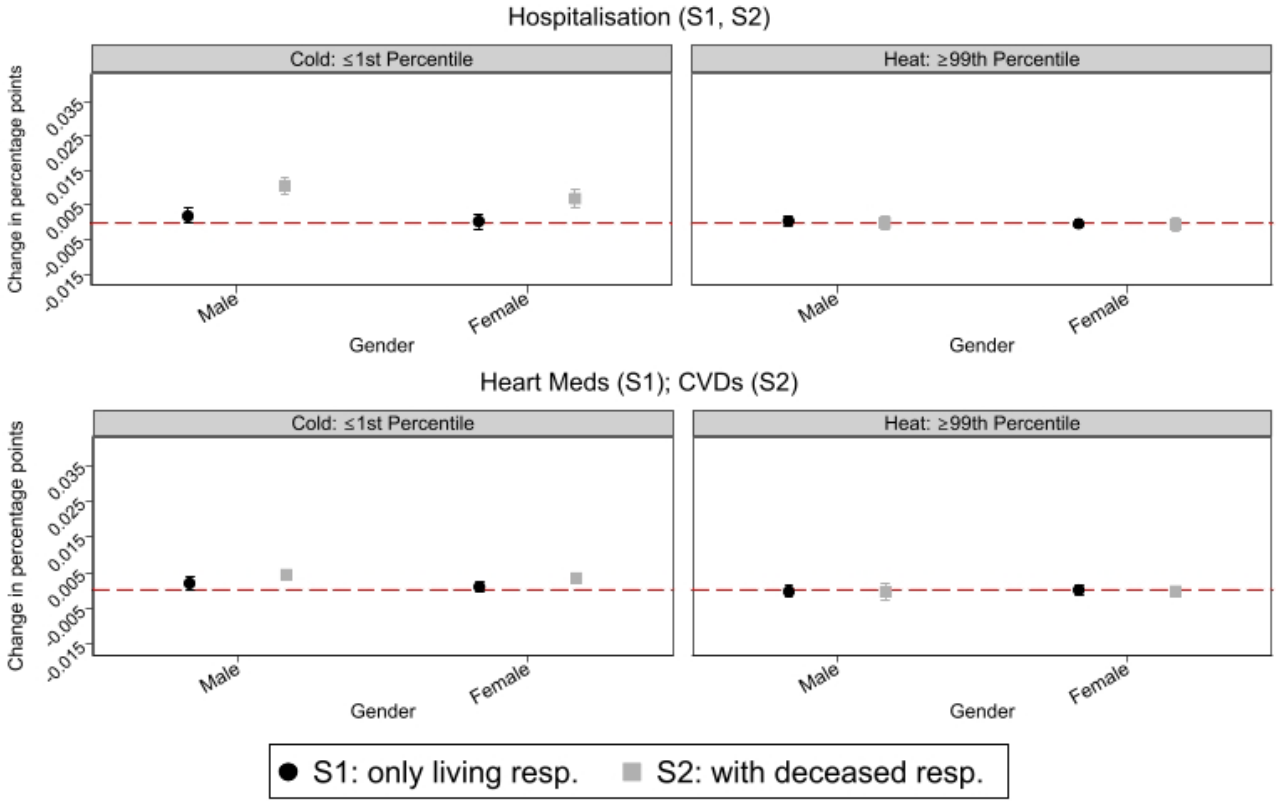
Table S.8: Effects of exposure to percentiles of temperature in the preceding 12 months on the risk of experiencing CVDs (S2, including deceased respondent's observations): different LPMs specifications

	(1)		(2)		(3)		(4)		(5)	
	Coef.		**Coef.**		**Coef.**		**Coef.**		**Coef.**	
< 1st percentile	.0102	***	.0053	***	.0035	***	.0040	***	.0040	***
	(.0014)		(.0007)		(.0007)		(.0006)		(.0006)	
1st to 5th percentile	-.0019	**	-.0011	***	-.0010	**	-.0004		-.0003	
	(.0006)		(.0003)		(.0004)		(.0003)		(.0003)	
5th to 10th percentile	-.0011	*	-.0008	**	-.0009	*	-.0003		-.0004	
	(.0005)		(.0002)		(.0004)		(.0003)		(.0003)	
10th to 25th percentile	.0000		.0004	***	.0005	***	.0005	**	.0005	**
	(.0004)		(.0004)		(.0001)		(.0002)		(.0002)	
25th to 75th percentile (ref.)										
75th to 90th percentile	.0001		.0002		.0003		.0007	**	.0007	**
	(.0003)		(.0002)		(.0002)		(.0002)		(.0002)	
90th to 95th percentile	-.0002		.0001		.0005	*	.0013	***	.0013	***
	(.0008)		(.0002)		(.0002)		(.0002)		(.0002)	
95th to 99th percentile	.0010		.0004		.0000		.0005		.0003	
	(.0008)		(.0003)		(.0003)		(.0003)		(.0003)	
>99th percentile	-.0021	**	-.0008		-.0008		-.0001		-.0002	
	(.0007)		(.0006)		(.0007)		(.0008)		(.0008)	
Age	.0076	***	.0029	***	-.0309	***	.0089	***	.0086	***
	(.0004)		(.0002)		(.0038)		(.0006)		(.0006)	
Constant	-.3440	***	-.1840	***	2.3440	***	-.7020	***	-.6830	***
	(.0420)		(.0160)		(.3000)		(.0460)		(.0440)	
Fixed Effects										
Individual	NO		NO		YES		YES		YES	
Wave	YES		YES		YES		NO		NO	
Interview Month	NO		YES		YES		NO		YES	
Cluster SE	YES		YES		YES		YES		YES	
N	82017		82017		82017		82017		82017	

Note: Model (1) adds wave (1, 2, 4, 5, 6) FE. Model (2) is augmented with month of interview FE. Model (3) further includes individual-level FE. Finally, model (4) includes FE only at the individual level. Model (5) includes FE at the individual and the interview month level, and it refers to Figure 2 (right panel, grey symbols). All models include standard errors clustered at the NUTS-2 region level. Standard errors in parentheses. * p<0.05, ** p<0.01, *** p<0.001 Source: SHARE (2004-2015).

Figure S.1: Effects of exposure to extreme temperatures (1st and 99th percentile bins) in the 12 months before the interview (S1, black dots, only living respondents) or death (S2, grey squares, including observations from deceased respondents) on the risk of being hospitalised (top panels), using medications for heart problems (only S1) and experiencing CVDs (only S2) (bottom panels); by gender



Note: Figure S.1 shows the percentage-point increase in the probability of being hospitalised (upper panel) and taking medications for heart problems (bottom panels) in the previous 12 months (Y-axis), given exposure to an additional cold day (1st percentile bin, left panels) and an additional warm day (99th percentile bin, right panels) compared to the comfort zone, according to individuals' gender (X-axis). LPMs with individual and interview month FE, augmented with interaction terms between exposure variables and gender. Standard errors are clustered at the NUTS-2 level. 95% CI. Source: SHARE (2004-2015).

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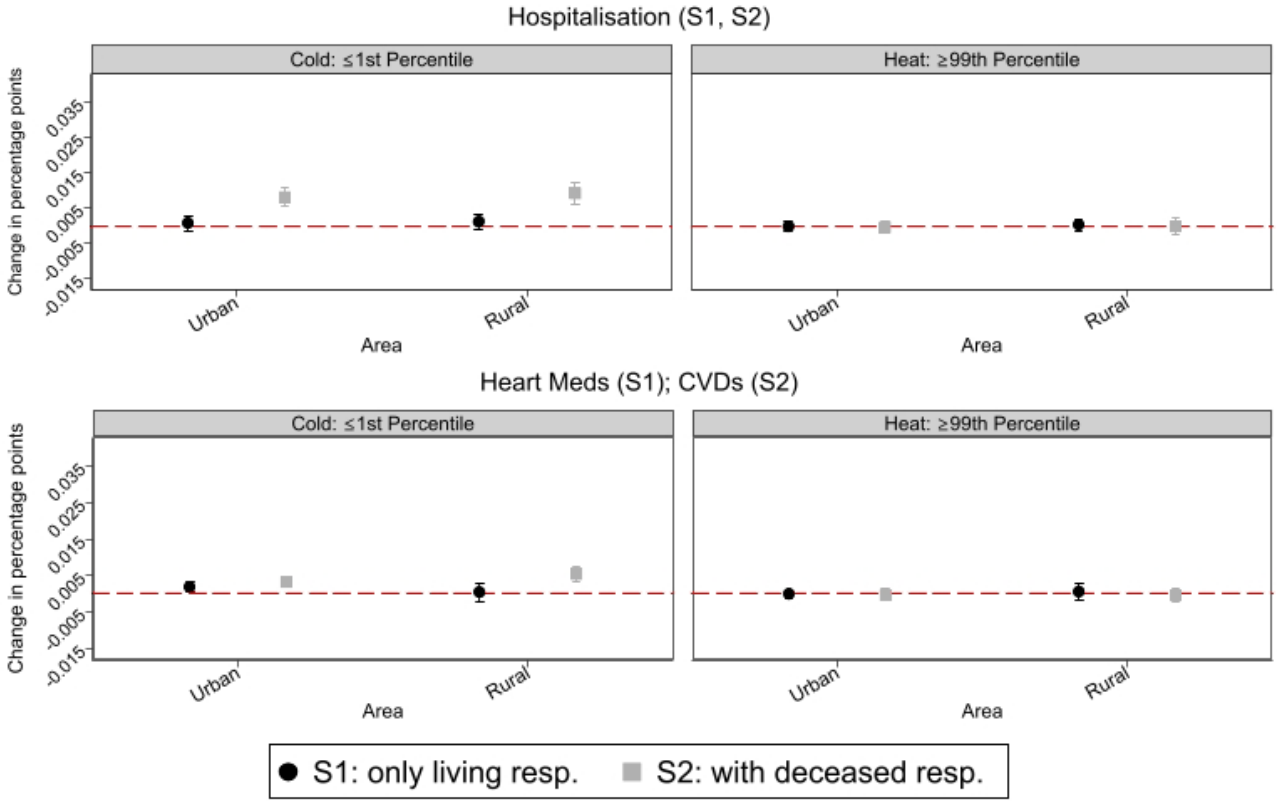
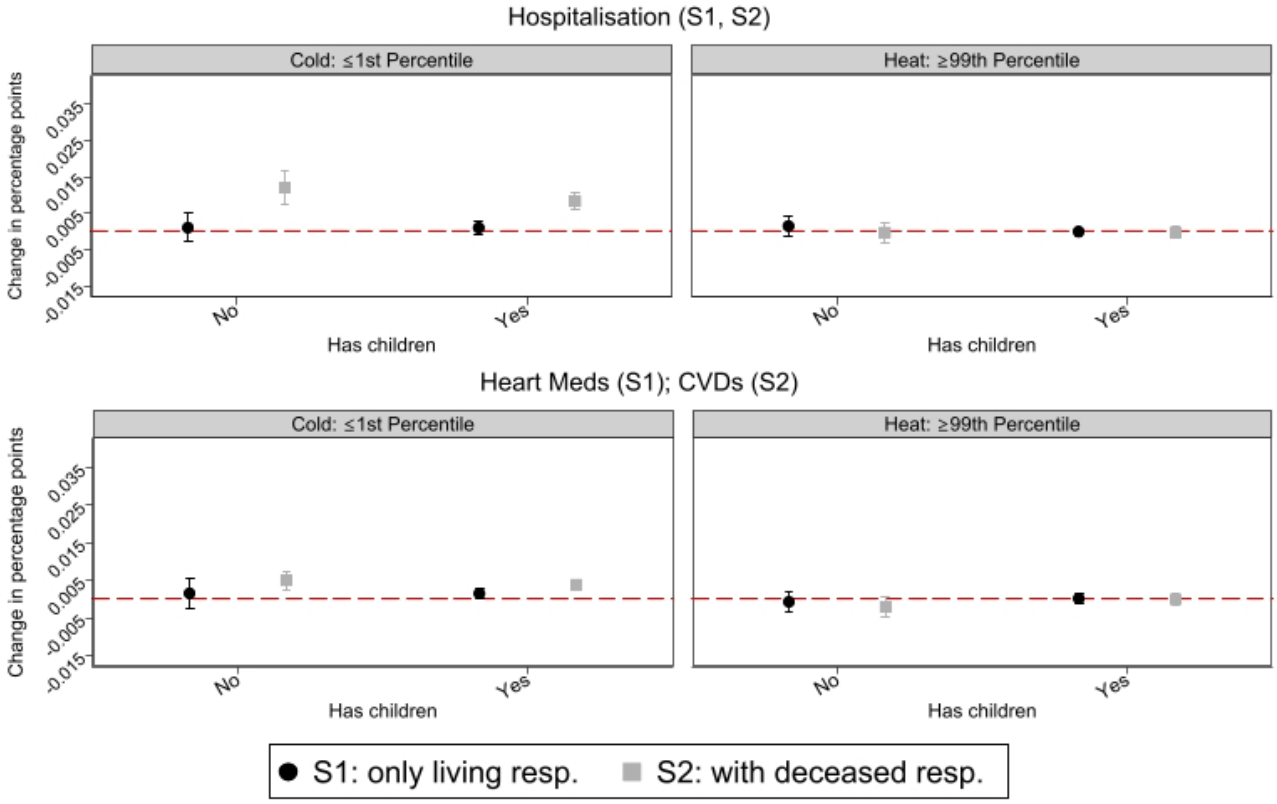
Figure S.2: Effects of exposure to extreme temperatures (1st and 99th percentile bins) in the 12 months before the interview (S1, black dots, only living respondents) or death (S2, grey squares, including observations from deceased respondents) on the risk of being hospitalised (top panels), using medications for heart problems (only S1), and experiencing CVDs (only S2) (bottom panels); by area of residence (urban/rural)



Note: Figure S.2 shows the percentage-point increase in the probability of being hospitalised (upper panel) and taking medications for heart problems (bottom panels) in the previous 12 months (Y-axis), given exposure to an additional cold day (1st percentile bin, left panels) and an additional warm day (99th percentile bin, right panels) compared to the comfort zone, according to individuals' area of residence (urban/rural) (X-axis). LPMs with individual and interview month FE; augmented with interaction terms between exposure variables and area of residence. Standard errors are clustered at the NUTS-2 level. 95% CI. Source: SHARE (2004-2015).

Figure S.3: Effects of exposure to extreme temperatures (1st and 99th percentile bins) in the 12 months before the interview (S1, black dots, only living respondents) or death (S2, grey squares, including observations from deceased respondents) on the risk of being hospitalised (top panels), using medications for heart problems (only S1) and experiencing CVDs (only S2) (bottom panels); by parenthood status (has children)



Note: Figure S.3 shows the percentage-point increase in the probability of being hospitalised (upper panel) and taking medications for heart problems (bottom panels) in the previous 12 months (Y-axis), given exposure to an additional cold day (1st percentile bin, left panels) and an additional warm day (99th percentile bin, right panels) compared to the comfort zone, according to individuals' parenthood status (has children) (X-axis). LPMs with individual and interview month FE; augmented with interaction terms between exposure variables and parenthood status (has children). Standard errors are clustered at the NUTS-2 level. 95% CI. Source: SHARE (2004-2015).

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