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Supplemental Material

Assessment of Short- and Long-Term Mortality Displacement in Heat-Related Deaths in Brisbane, Australia, 1996–2004

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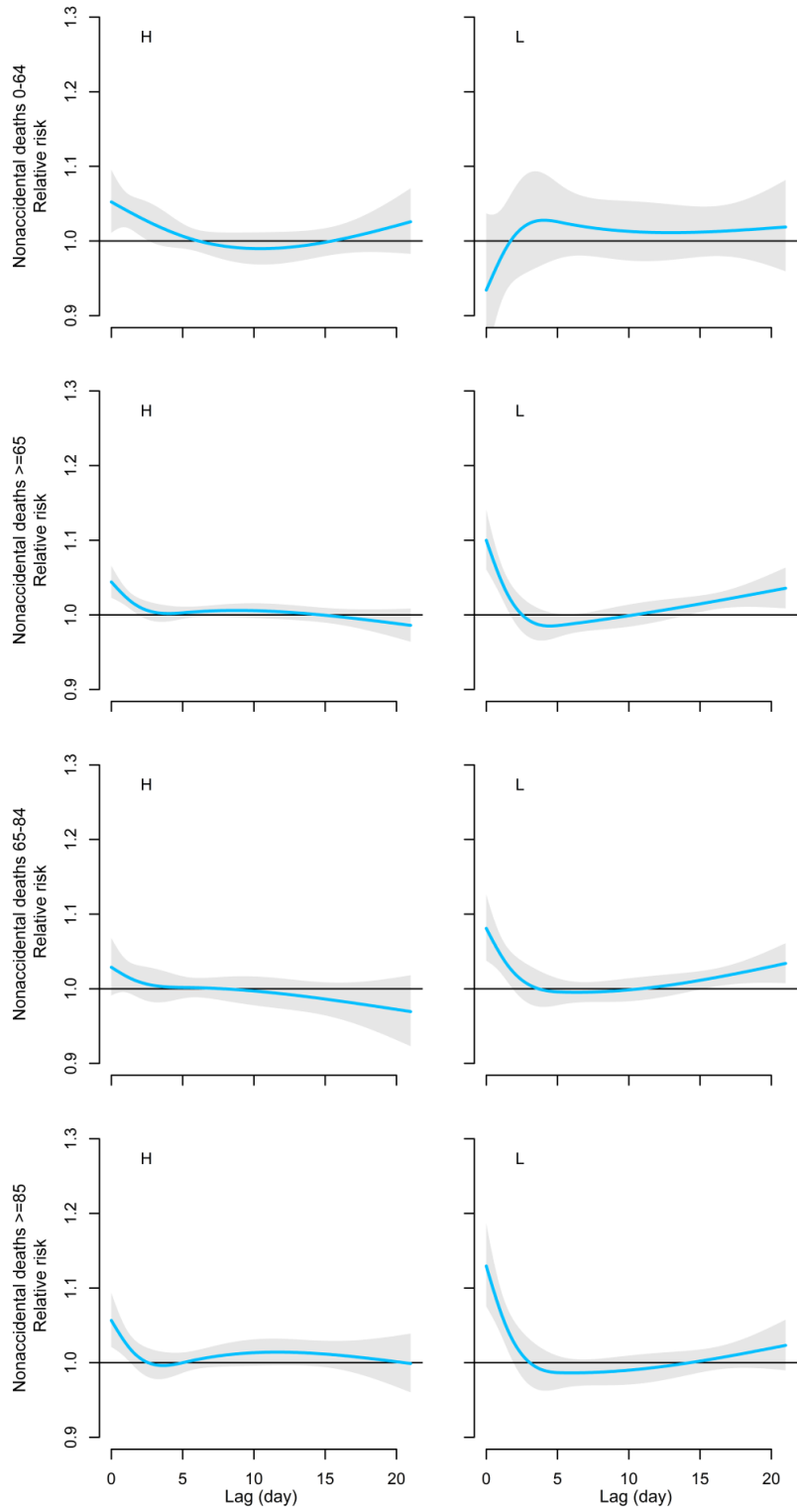
Table S1. Yearly residuals for each winter and overall mean residual for all winters in the whole study period for non-accidental mortality (all ages combined). Residuals are from the model which regressed the time-series of daily counts of deaths against trend. Provided as an example to clarify how the H/L classification relates to the daily number of deaths.

Figure S1. The estimated relative risk of dying on a day with 29°C compared with a day with 28°C (threshold temperature) over 21 days of lag for the stratum of “H” summer (H) and for “L” summer (L) on each age and mortality categories.

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Year (winter)	Average daily number of deaths (winter)	Yearly residuals for each winter (μ_i)	Overall mean residual for all winters (μ_w)	Classification of the following summer
1996	21.5	0.071338050	-0.04318664	H
1997	19.9	-0.048803101	-0.04318664	L
1998	19.1	0.008873423	-0.04318664	H
1999	20.1	-0.109256300	-0.04318664	L
2000	17.9	-0.172940006	-0.04318664	L
2001	18.2	-0.080683982	-0.04318664	L
2002	19.3	0.010870957	-0.04318664	H
2003	18.2	0.010710604	-0.04318664	H
2004	17.8	-0.078789381	-0.04318664	L



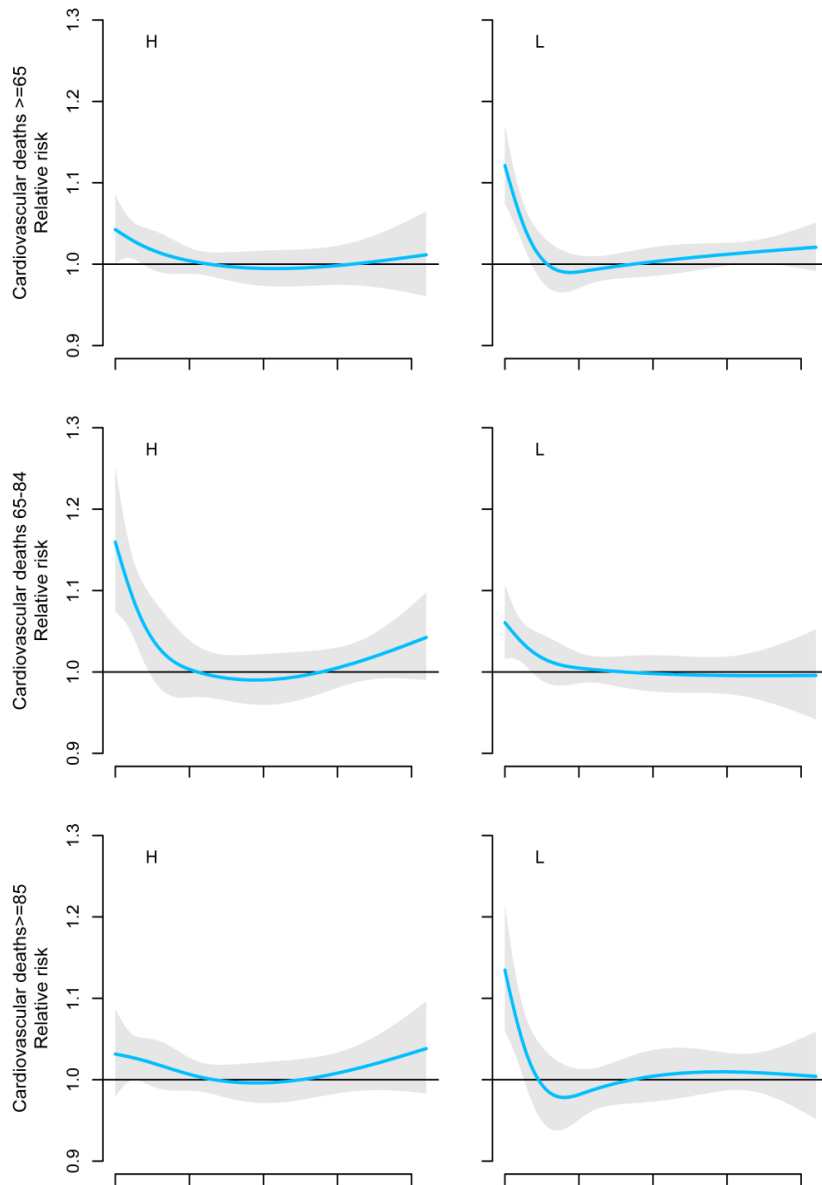


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Table S2. Estimated effects associated with 1°C increase in summer temperature (mean temperature, lag 0–1) by age and diseases in Brisbane, Australia, 1996–2004.

Disease categories	Age groups	Percentage increase in mortality ^a			P ^d
		All summers	“H” summer ^b	“L” summer ^c	
Nonaccidental	All ages	3.88 (2.85, 4.93)	3.64 (2.23, 5.06)	4.01 (2.47, 5.57)	0.710
	0–64 years	3.37 (0.92, 5.87)	4.94 (1.94, 8.02)	0.72 (-3.63, 5.27)	0.070
	≥ 65 years	4.00 (2.83, 5.18)	3.13 (1.63, 4.65)	5.41 (3.49, 7.36)	0.051
	65–84 years	3.39 (1.84, 4.97)	2.20 (-0.31, 4.76)	4.07 (2.07, 6.10)	0.298
	≥ 85 years	4.91 (3.05, 6.81)	4.24 (1.49, 7.06)	5.95 (3.31, 8.65)	0.454
Cardiovascular	all ages	4.09 (2.40, 5.81)	2.86 (0.52, 5.25)	5.20 (2.72, 7.74)	0.098
	0–64 years ^e	—	—	—	—
	≥ 65 years	4.50 (2.71, 6.32)	2.99 (0.24, 5.814)	5.55 (3.15, 8.01)	0.223
	65–84 years	3.92 (1.43, 6.47)	3.77 (0.00, 7.68)	3.89 (0.48, 7.42)	0.861
	≥ 85 years	5.15 (2.54, 7.84)	3.19 (-0.56, 7.09)	7.11 (3.41, 10.94)	0.120
Respiratory	all ages	0.00 (-3.81, 3.96)	2.64 (-1.10, 6.51)	0.00 (-6.56, 7.02)	0.102

^aPercentage increase in daily mortality with a 1°C temperature (mean temperature, lag 0–1) increase. ^b“H” summer stratum, summers with high previous winter mortality. ^c“L” summer stratum, summers with low previous winter mortality. ^dp -Value for the interaction term between previous winter mortality levels and summer temperature variable. ^eNot estimated due to insufficient death counts.