Supplementary material

Supplement to: Arsenović, D., et al.(2024). Impact of urban outdoor thermal conditions on selected hospital admissions in Novi Sad, Serbia. *Vienna Yearbook of Population Research*, 22. https://doi.org/10.1553/p-m53z-m2eh

Table S.1 Summary statistics for daily weather variables in Novi Sad, Serbia (2016-2017)

Variables	Mean	SD	Min	P25	P50	P75	Max
PET	12.20	10.23	-16.47	5.03	11.60	20.67	33.49
Humidity	69.6	17.65	30.45	55.05	68.47	83.85	100.0
Wind	0.71	0.63	0.13	0.44	0.63	0.89	3.05

Note: P25=25th percentile; P50=50th percentile; P75=75th percentile.

Figure S.1 Average daily physiologically equivalent temperature (PETAverage), relative humidity (RHAverage) and temperature (TaAverage) in Novi Sad, 2016-2017

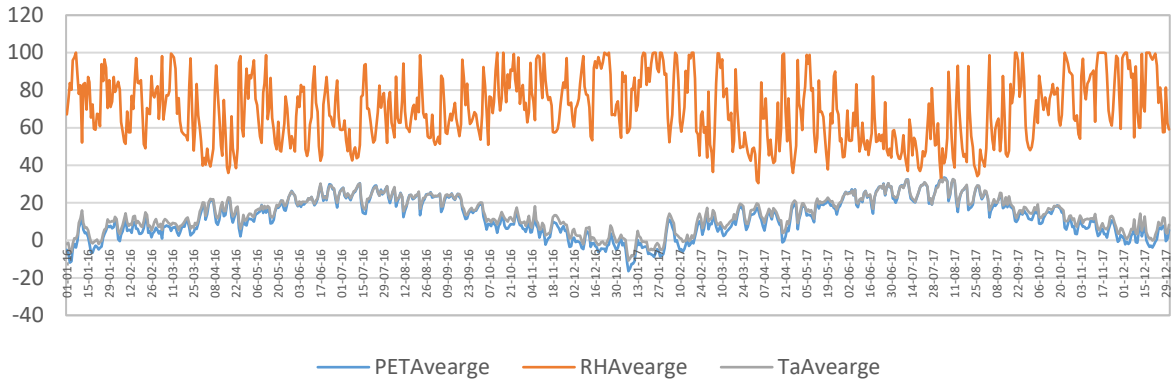


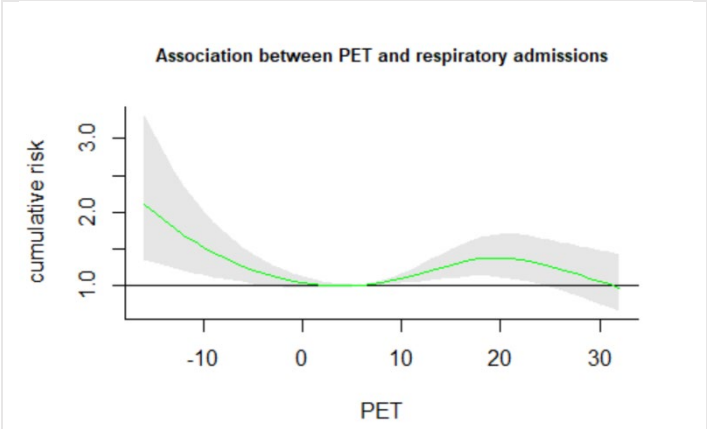
Table S.2 Cumulative effect of low and high PET on cardiovascular and respiratory hospital admission, by gender in various lag structure, Novi Sad, Serbia (2016-2017)[a,b]

Gender	Lag	Extremely low PET RR (95% CI)	Moderate low PET RR (95% CI)	Moderate high PET RR (95% CI)	Extremely high PET RR (95% CI)
Cardiovascular admission					
Total	Lag 0	**0.823 (0.713,0.950)**	**0.890 (0.824,0.961)**	1.041 (0.936,1.158)	1.023 (0.897,1.167)
	Lag 0-3	**0.786 (0.621,0.994)**	**0.852 (0.751,0.966)**	1.104 (0.910,1.339)	1.046 (0.820,1.333)
	Lag 0-7	0.948 (0.728,1.234)	0.928 (0.806,1.068)	1.119 (0.892,1.402)	1.009 (0.754,1.350)
	Lag 0-14	0.928 (0.658,1.309)	0.915 (0.763,1.096)	0.935 (0.677,1.289)	0.771 (0.510,1.164)
Male	Lag 0	**0.789 (0.657,0.948)**	0.855 (0.775,0.944)	**1.179 (1.028,1.354)**	1.159 (0.978,1.374)
	Lag 0-3	0.750 (0.555,1.014)	0.813 (0.692,0.956)	1.219 (0.951,1.563)	1.127 (0.824,1.543)
	Lag 0-7	0.956 (0.684,1.337)	0.930 (0.778,1.113)	0.998 (0.748,1.333)	0.850 (0.585,1.236)
	Lag 0-14	1.029 (0.665,1.591)	0.961 (0.764,1.210)	0.856 (0.568,1.291)	0.665 (0.393,1.126)
Female	Lag 0	0.877 (0.711,1.082)	0.943 (0.842,1.056)	0.874 (0.749,1.020)	0.859 (0.710,1.039)
	Lag 0-3	0.844 (0.598,1.191)	0.911 (0.758,1.096)	0.963 (0.727,1.275)	0.945 (0.664,1.343)
	Lag 0-7	0.939 (0.636,1.387)	0.925 (0.751,1.139)	1.322 (0.949,1.841)	1.293 (0.845,1.977)
	Lag 0-14	0.800 (0.480,1.333)	0.850 (0.649,1.112)	1.075 (0.669,1.728)	0.968 (0.528,1.776)
Respiratory admission					
Total	Lag 0	1.058 (0.913,1.225)	1.017 (0.940,1.102)	1.012 (0.888,1.153)	0.973 (0.825,1.148)
	Lag 0-3	1.186 (0.931,1.510)	1.053 (0.924,1.200)	1.168 (0.924,1.478)	1.092 (0.806,1.478)
	Lag 0-7	1.399 (1.058,1.850)	1.131 (0.973,1.313)	1.24 (0.943,1.631)	1.117 (0.778,1.603)
	Lag 0-14	**2.231 (1.539,3.232)**	**1.414 (1.163,1.719)**	0.976 (0.66,1.444)	0.714 (0.428,1.191)
Male	Lag 0	1.098 (0.902,1.337)	1.038 (0.933,1.155)	1.011 (0.850,1.203)	0.970 (0.778,1.209)
	Lag 0-3	1.209 (0.873,1.675)	1.067 (0.895,1.272)	1.135 (0.830,1.553)	1.057 (0.705,1.585)
	Lag 0-7	1.345 (0.922,1.962)	1.119 (0.915,1.370)	1.041 (0.722,1.501)	0.900 (0.554,1.462)
	Lag 0-14	**2.459 (1.496,4.043)**	**1.540 (1.186,2.001)**	0.663 (0.394,1.115)	**0.455 (0.229,0.902)**
Female	Lag 0	1.010 (0.814,1.253)	0.992 (0.882,1.116)	1.016 (0.838,1.233)	0.980 (0.768,1.251)
	Lag 0-3	1.158 (0.813,1.650)	1.035 (0.854,1.253)	1.215 (0.857,1.721)	1.137 (0.726,1.780)
	Lag 0-7	1.470 (0.978,2.210)	1.143 (0.918,1.424)	**1.547 (1.030,2.323)**	1.46 0(0.858,2.485)
	Lag 0-14	**1.980 (1.146,3.420)**	1.268 (0.951,1.692)	1.605 (0.896,2.875)	1.267 (0.594,2.700)

[a] Extremly low (PET=-11° C): 1th percentile of PET
Moderate low (PET=-5° C): 5tht percentile of PET
Moderate high (PET=28° C): 95th percentile of PET
Extremely high (PET=32° C): 99th percentile of PET

[b] Bold values indicate statistical significance at level <0.05.

Figure S.2 Cumulative effects of PET (using PET=6° C as reference value) on hospital admission due to respiratory disease over various lag structure



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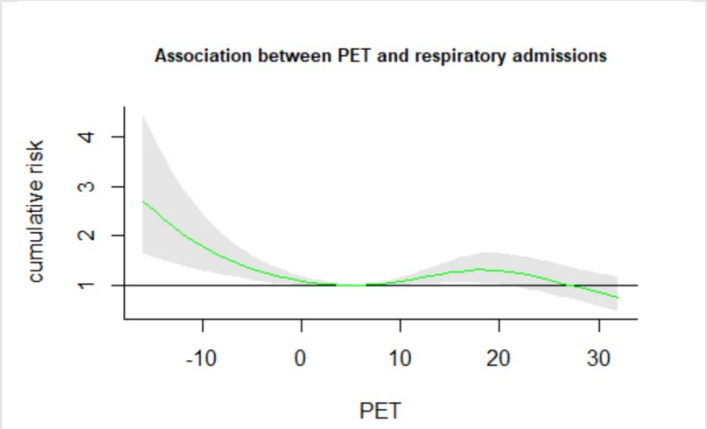

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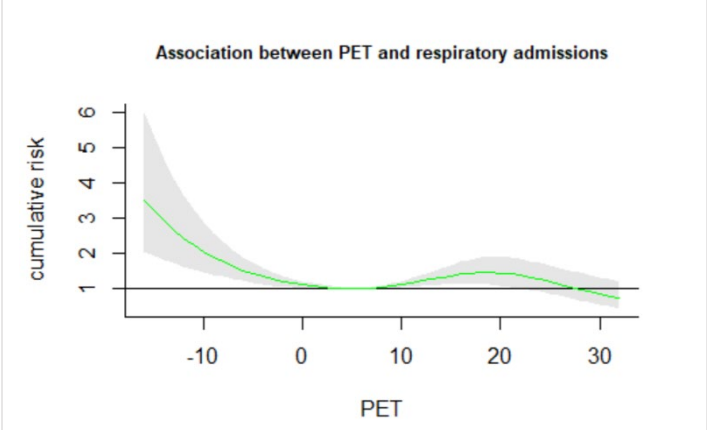

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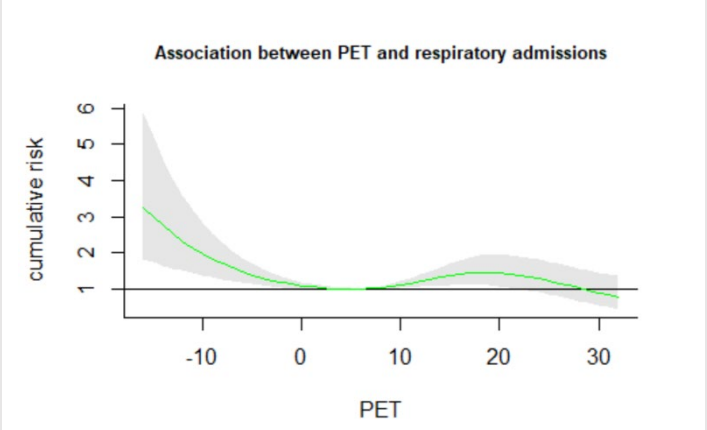

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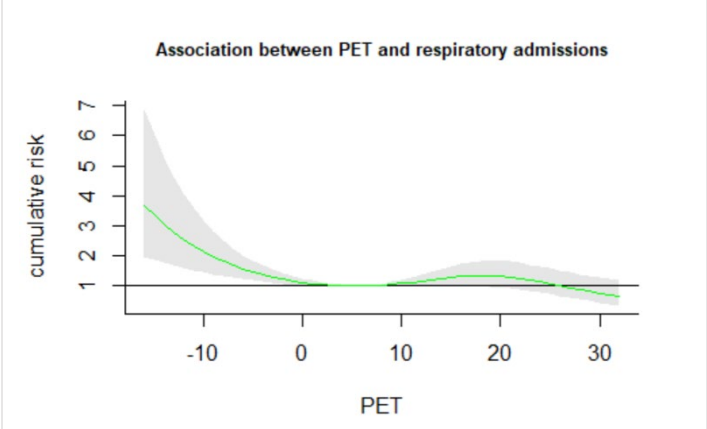
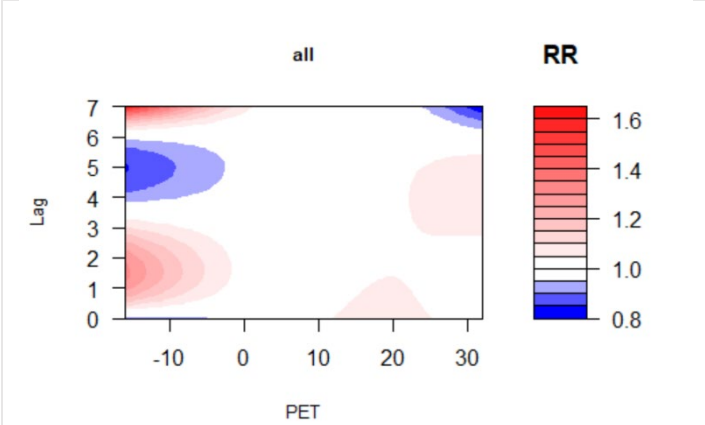


Lag=28

https://doi.org/10.1553/p-m53z-m2eh

Figure S.3 Relative risk of hospital admission (both, cardiovascular and respiratory observed as one) with PET (using PET=6 C as reference value) and various lag structure



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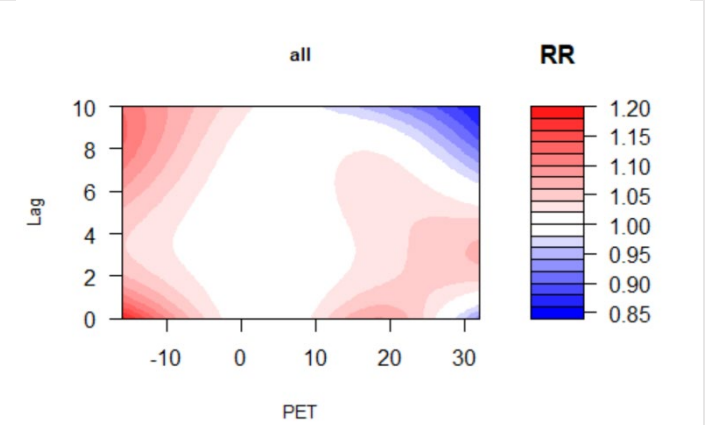

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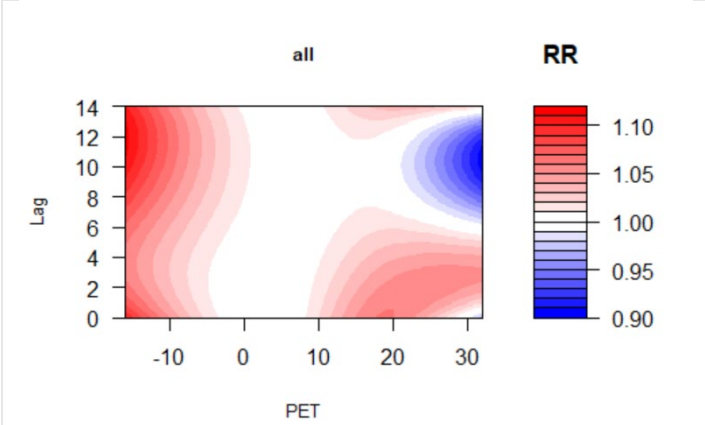

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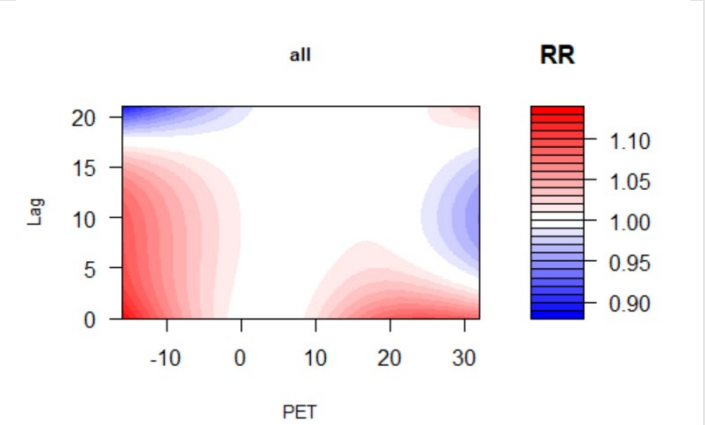

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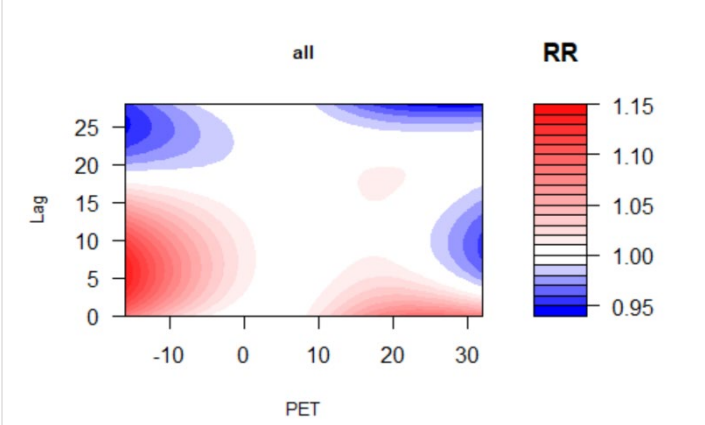
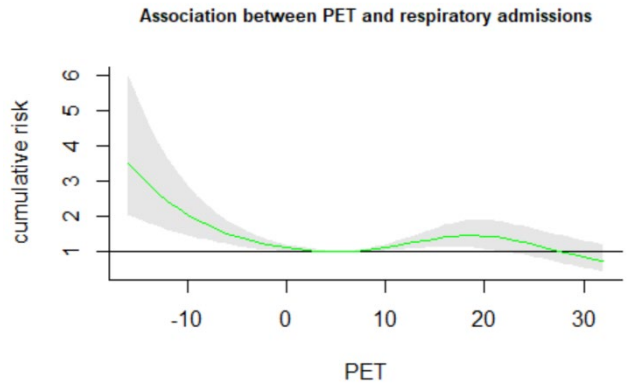


Lag=28

Figure S4 Cumulative risk (lag=14) of hospital admission due to respiratory disease with PET under changes in degrees of freedom (dfs) and degrees of polynomial (dpl)



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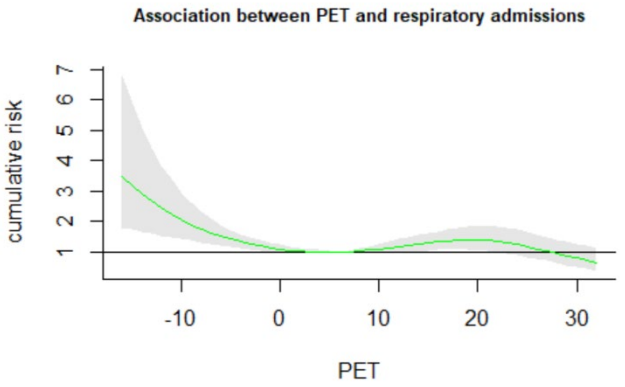

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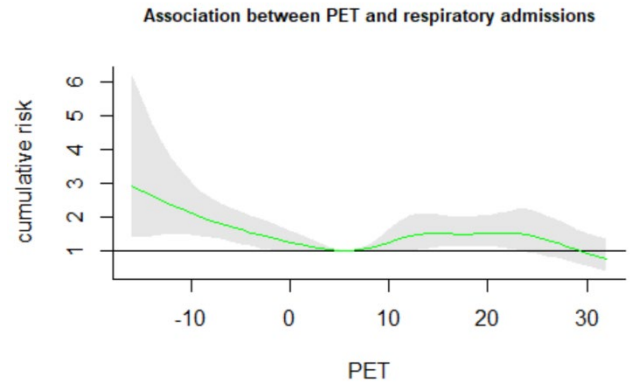

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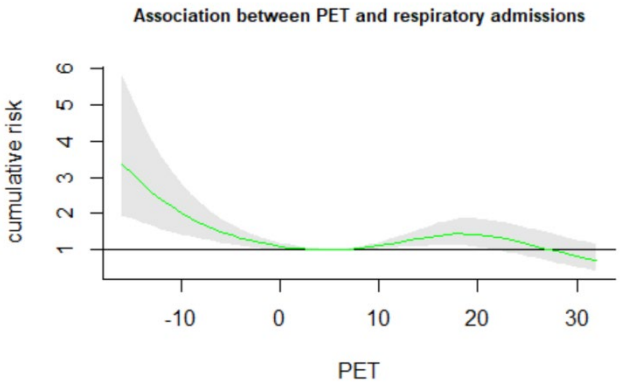

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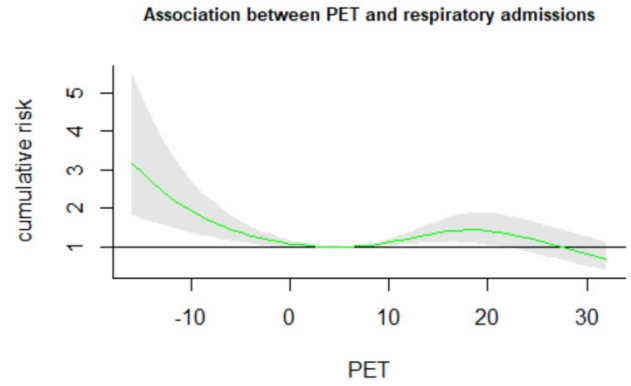

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https://doi.org/10.1553/p-m53z-m2eh