

Gender(ed) patterns during heat waves: Evidence from Austria

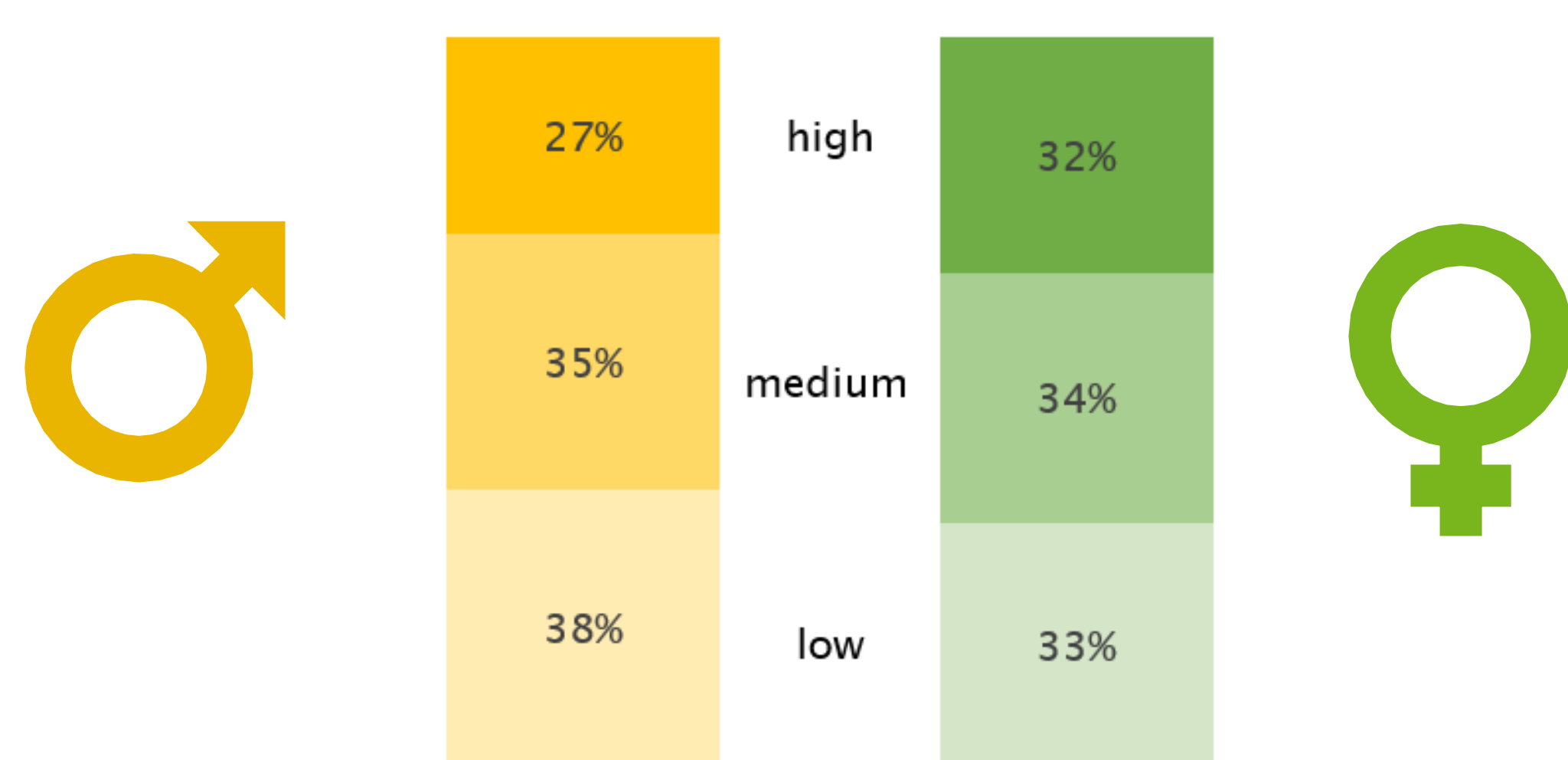
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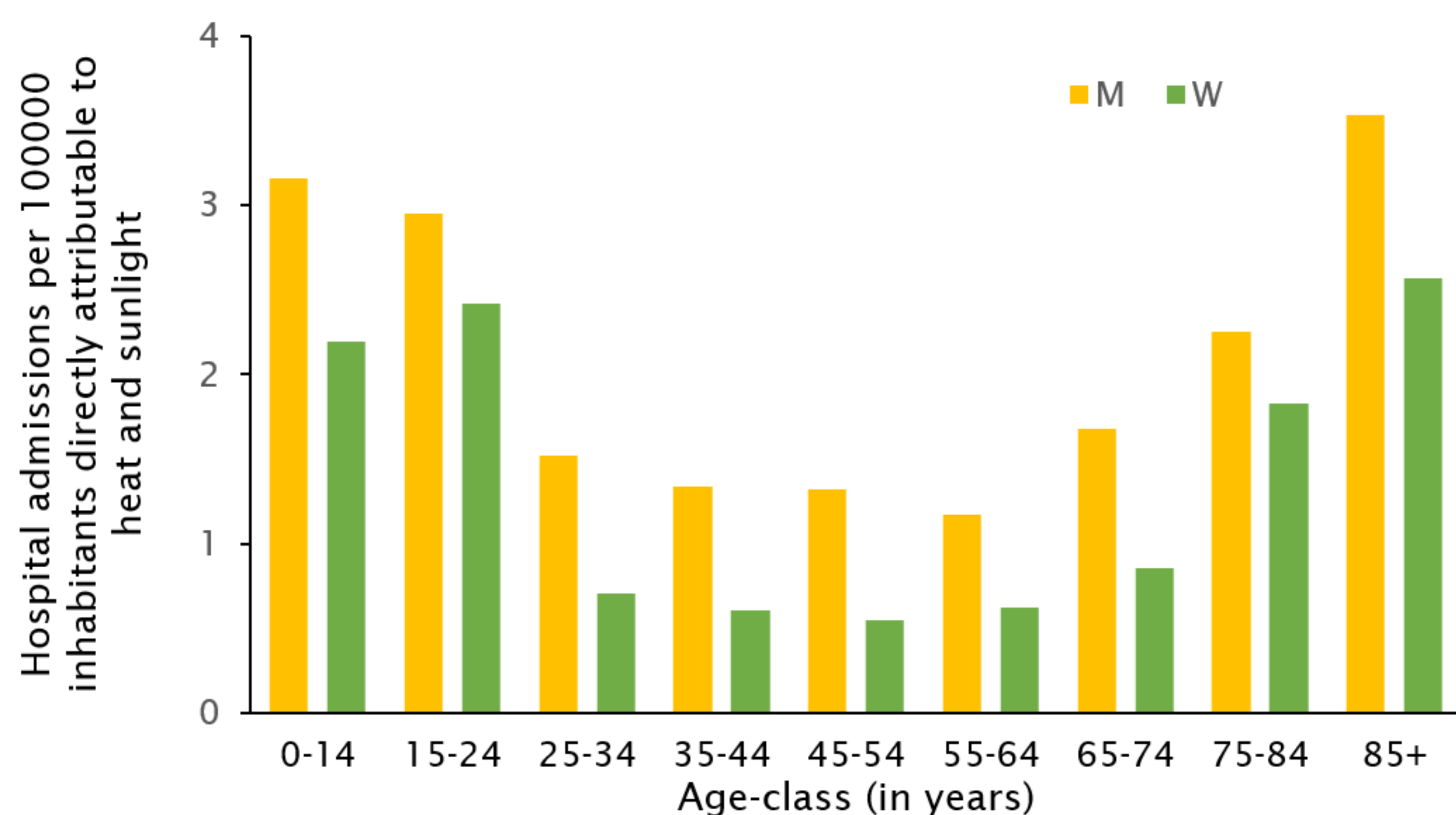
BACKGROUND & RESEARCH QUESTION

Due to climate change, average temperatures are rising in Europe with severe population health effects. Generally, women are more concerned about the climate crisis, also related to their family and relatives. In Austria, women report higher subjective exposure to heat even though men have a 1.6 higher likelihood to be hospitalized with heat strokes.

What is the extent of your physical strain from heat during a heat wave?



Additionally, it is known that men and women have different health-seeking behaviors yet research on behavior in acute health situations due to climate change is scarce.

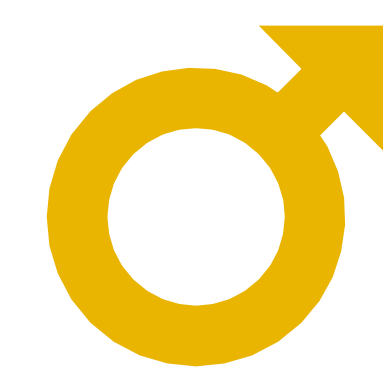


Our study aims to address the question of what may determine sex/gender differences in subjectively perceived heat exposure. We hypothesise that living in a couple, and having children are determinants for higher levels of perceived heat exposure among women but not among men.

ANALYTICAL APPROACH & RESULTS

Dataset: Austrian Microcensus 2019, environmental module (including household weights)

Analytical strategy: Separate binomial logistic regression models for men and women to estimate determinants of perceived heat exposure (low/medium vs. high).



n=1,710

No effect for type of family, except among single fathers with 15% higher odds (not statistically significant). Low-quality flat is a determinant for high perceived heat exposure (OR 2.12), as is residence in an urban area. Higher levels of education decrease heat exposure significantly.



n=2,041

Odds of perceiving high heat exposure increase by 25% for women living in families with children and by 15% among single mothers (both not significant). Odds of single women to report high perceived heat exposure are 48% higher than women living in couples. Higher job level and living in an urban area also increase the odds of high heat exposure.

	Men		Women	
	OR	95% CI	OR	95% CI
Age	1.00	(0.99;1.01)	1.01	(1.00;1.02)
Education	0.85**	(0.74;0.96)	0.99	(0.87;1.11)
Income	1.00	(0.99;1.01)	1.01	(0.99;1.02)
Job Level	1.00	(0.86;1.13)	0.89*	(0.78;1.01)
Migration Background				
no	1.00		1.00	
yes	0.72	(0.42;1.03)	1.15	(0.74;1.55)
Degree of Urbanisation	1.20*	(0.95;1.44)	1.23**	(1.01;1.46)
Type of Family				
couple w/o children	1.00		1.00	
couple w/ children	0.93	(0.61;1.25)	1.25	(0.86;1.64)
singles	1.01	(0.65;1.36)	1.48**	(0.97;1.99)
single parents	1.15	(0.38;1.92)	1.15	(0.64;1.65)
other	0.56*	(0.18;0.94)	0.45*	(0.08;0.81)
Flats in Building				
1 or 2	1.00		1.00	
3 or more	1.17	(0.76;1.57)	1.07	(0.75;1.40)
Category of Flat				
cat. A	1.00		1.00	
cat. B or below	2.12**	(0.67;3.58)	0.97	(0.32;1.63)

*p<0.1; **p<0.05; ***p<0.01

CONCLUSIONS

- Women's family status and men's place of living significantly determine their perceived heat exposure. This finding complements the extant literature and points to the existence of behavioural pathways in regard to perceived heat exposure.
- More research is needed to understand gendered patterns of climate change adaptation and draw conclusions on gender-specific measures (e.g. targeted heat action plans) for men, women, and families.
- Genetic research should be combined with social science research to investigate gender and sex differences during climate change.

Related Literature

Brugger, Katharina; Schmidt, Andrea E.; Delcour, Jennifer (2022): Krankenhausaufenthalte im direkten Zusammenhang mit Hitze und Sonnenlicht in Österreich (2002–2020). Factsheet. Gesundheit Österreich, Wien.
 Durstmüller, Felix (2022): Environmental Inequality in Austria: Sociodemographic Disparities in Perceived Environmental Quality. *Wirtschaft und Gesellschaft*, 48(2), 231–266.