Public health adaptation to heat extremes in German cities

Aim of the study

Since the last two decades extreme heat events caused by climate change continue to increase in frequency, duration and intensity, globally, and in Germany too. People living in cities in particular are exposed to heat as a result of the urban heat island effect. Although negative effects can be mitigated by heat health action plans (HHAP), it remains unknown how many German cities have implemented such plans or other measures to reduce the health risks from heat. Therefore, in 2021 this study had been conducted to survey the status of published or planned HHAP with adaptation measures appropriate to protect human health in Germany.

Subject and Methods

Based on WHO Heat Health documents, since 2017 "Recommendations for Heat Health Action Plans" and suggestions to Public Health had been published as part of the German Adaptation Strategy to Climate Change. About 10% of German large and medium-sized cities with the greatest population density were sampled for the study (n=70 cities). A frequency analysis of city concepts and city webpages was conducted to determine whether cities have already introduced concepts for climate adaptation, climate protection or a HHAP, and which measures are planned in detail.



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Results

51 cities have implemented measures to protect health from heat events. 41 cities integrated such measures into concepts, and only one city formulated a HHAP. Large cities in particular published measures. Long-term measures proved most common, for example improved building envelope insulation and urban greening. Besides advice on individual behavior, hardly any acute heat health measures are being taken so far.



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Conclusion

Public health authorities can play an active role in communicating the health risks of heat and implementing preventive actions, such HHAP. To this end, the health risks of climate change needs to be addressed consistently by all policy fields. There is also a need for further research in the evaluation of intersectoral HHAP related adaptation measures and interventions. The study results are accepted to be published timely (Hannemann et al. 2023).

References

Recommendations for Action: Heat Action Plans to Protect Human Health (2017). Federal Ministry for the Environment, Nature Conservation and Nuclear Safety (ed.) Bonn, Germany, p.

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