Sustainability | Individual communication

IC - (20842) - "PLANETARY HEALTH" AS CONCEPTUAL FRAMEWORK FOR HEAT-RESILIENT NEIGHBOURHOODS

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Background and objectives
In health research, a paradigm shift is evolving, leading to a stronger focus on individual health risks in the context of natural systems ("Planetary Health"). In particular, cities are focal points of health risks. Due to varying building structures, environmental stressors are heterogeneously distributed. Thus, critical intervention points and respective adaptation measures need to be identified.
Climate change has a global dimension, but resulting health risks have local impacts. Consequently, our ongoing project focuses on heat stress at neighbourhood scale. Starting from the entire city scale, we aim for a "Neighbourhood-Planetary-Health" concept by combining micrometeorological simulations and sociological analyses considering the individual perceptions of different socio-demographic groups of residents. We derive recommendations for adaptation options at neighbourhood scale for heat stress reduction.

Process and methods (for empirical research)
Simulations with PALM-4U and ENVI-met are combined with sociological survey results as well as municipal data (e. g. air quality, map of climate functions). Interviews with representatives from the municipality (departments of health, planning, environment, social affairs) and housing companies as well as common workshops guarantee practice oriented results.

Main results (or main arguments in the case of critical reviews)
The synthesis of health, environmental and social aspects allows for a multifactorial view of urban health and will improve urban resilience. In close collaboration with practice partners, appropriate target group products will be developed (tool kit supporting prioritisation measures against heat stress, maps of perceived temperature, design concept for green infrastructure, 3D-visualisations of the results).

Implications for research and practice/policy | Importance and originality of the contribution
Our approach to a "Neighbourhood-Planetary-Health" is innovative, especially since many Planetary Health studies miss original empirical evidence.

At IAPS2022 we will present and discuss our methodological approach and first insights.

Palavras-chave : planetary health, heat stress, neighbourhood scale, interdisciplinarity, adaptation