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Flood Risk Management and Health Consequences: a case-study of the 2021 floods in Germany

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Owing to changing climate and growing urban cities, the frequency and intensity of extreme flood events are rising. Often, the impacts of flooding on the economic front is the focus of science and policy. On the other hand, floods adversely affect the health and well-being of exposed populations which are difficult to quantify through conventional risk assessment frameworks.

There is currently a lack of a comprehensive understanding of the Flood–Human-health system. In specific, understanding and quantification of the drivers and feedback-effects leading to health-related consequences is crucial for developing inclusive flood risk management strategies.

Focusing on the 2021 flooding in Germany, we aim to identify and elucidate the drivers and processes that led to health consequences with a focus on aspects of flood risk management – mitigation, preparedness, response and recovery. Our study employs data-driven approaches, utilizing a substantial sample of empirical household surveys on flood characteristics, consequences and risk management aspects. The presentation of key findings will shed light on the pathways leading to consequences on human health, encompassing elements of risk management