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Systems-based framework for measuring heatwave resilience

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The question of how to live in a rapidly urbanising, climate change impacted world with more frequent and intense heatwaves is more urgent than ever. While recent heatwaves have increased awareness of the immediacy and seriousness of the heatwave threat in some regions, significant questions remain about if and how better awareness will translate into effective resilience building actions that target the underlying drivers of heat risk. Many challenges remain in improving heatwave resilience including an absence of data and understanding about the direct and indirect linkages between heat impacts which have been problematic for the governance of anticipatory planning and action to mitigate risks.

This presentation outlines the key findings from our experience of adapting the approach of the Zurich Flood Resilience Alliance for measuring community flood resilience, to heatwaves. It is widely recognized that operationalising and measuring progress in building resilience is extremely challenging, yet measurement is critical for more accurate and nuanced tracking of key indicators to inform prioritisation, policy, and planning. Using examples of indicators – called ‘sources of resilience’ – from the heatwave framework we will illustrate the way in which we have responded to key themes, specifically the resilience of heatwave for critical urban systems; heatwave vulnerability and equity; and heatwave governance and capacity. It is hoped that this approach can help lead to more anticipatory and integrated heatwave responses that are community specific, and which can help enable transformational change. We also show how we have attempted to integrate climate change adaptation planning into the resilience measurement. The framework we present here is, to our knowledge, the only standardized and holistic, yet globally applicable, heatwave resilience measurement framework available.