

Heat and storms: research helps suburban homes adapt to climate change

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As the heat wave turns to thunder and lightning, concerns about the impact of heat on the elderly and vulnerable in their homes remain. A research project led by UWE Bristol offers practical advice on how homes in suburban neighbourhoods can adapt to weather extremes and this has led to changes in local and national policy.

Professor Katie Williams from UWE led the research project, Sustainable Neighbourhood Adaptation for a Changing Climate (SNACC). She explains, "Over 80% of us in England live in suburbs and will experience more [heat waves](#), storms and floods in the future.

"We studied six types of suburbs, with homes ranging from flats and terraced housing to new build and large detached homes, in Bristol, Stockport and Oxford.

"Homes most likely to overheat are in the middle of terraces, single storey homes or flats, those with large areas of glazing, especially skylights, and older homes with less insulation.

"Our report shows how best to adapt homes, gardens, streets and public spaces. Understanding the problem of overheating in homes can be summed up as management of heat gains (internal and solar) and [heat transfer](#)."

Key ways to tackle overheating are:

- reducing external temperatures by managing the local [microclimate](#) such as tree shading
- Minimising the effect of direct or indirect [solar radiation](#) into the home eg by shutters or deeper eaves
- Controlling heat within the building such as better insulation on hot water tanks, or secure windows that allow ventilation

The research set up workshops with local residents to find out which measures they were already using or would be most likely to adopt.

Katie continues, "In terms of policy it is important that householders get the right information when they do DIY and build extensions. We are working with several government departments, including the Department for Energy and Climate Change (DECC), to ensure that our findings feed into national programmes to help householders and local organisations cope with [climate change](#)."

"Our research showed the government's energy-saving Green Deal scheme could lead to problems with overheating and this is now likely to be addressed in new guidance for Green Deal Assessors and to installers from the insulation industry."

The research also looked at actions neighbourhoods and individuals can take to cope with extreme weather events such as high winds, heavy rain and flooding.

More information: www.snacc-research.org/

Provided by University of the West of England

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