

# Adaptation Sub-Committee 2014 progress report

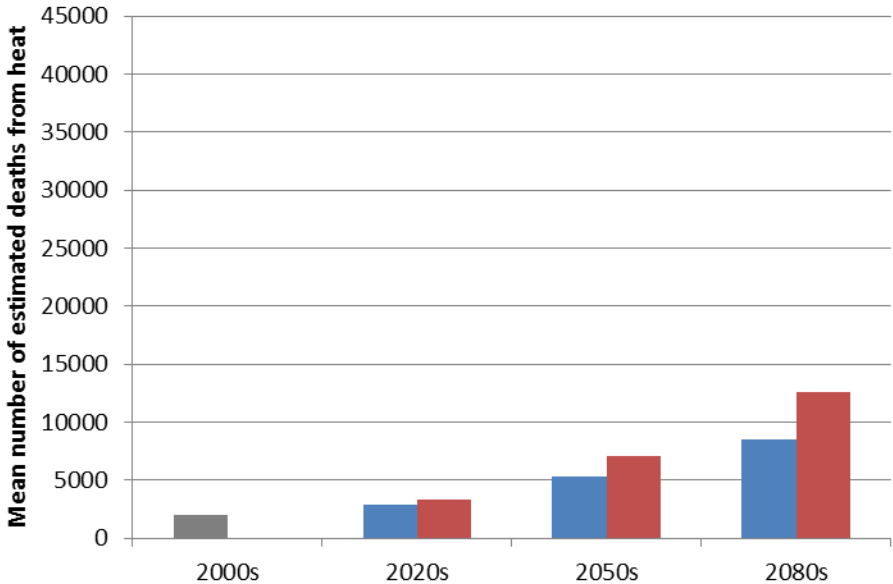
## Public health- overheating analysis

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ZCH overheating group presentation

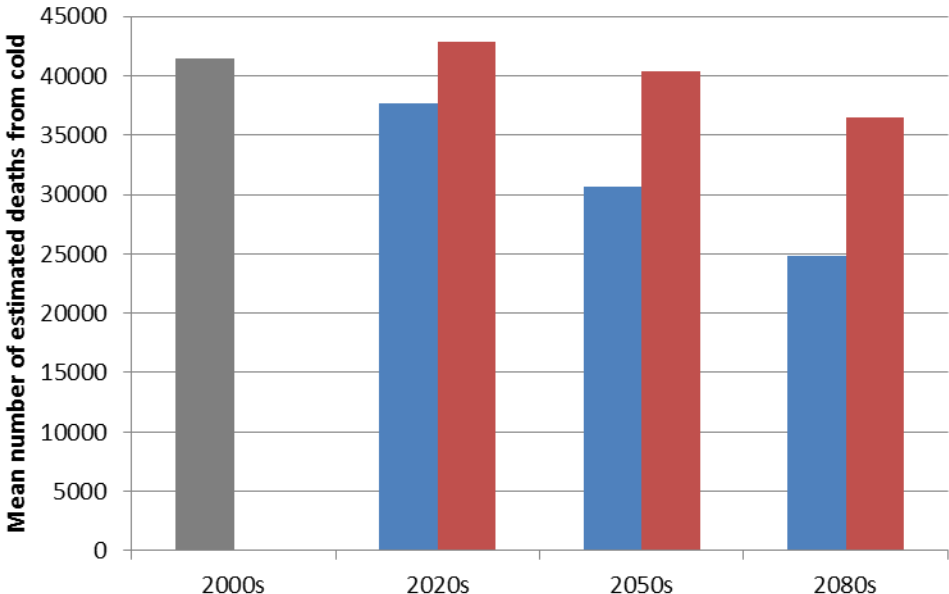
**Cold-related deaths will remain high even with climate change. Heat-related mortality projected to increase as mean temperatures increase, but this assumes no acclimatisation**



**Projections of heat-related mortality with climate change, England and Wales**



**Projections of cold-related mortality with climate change, England and Wales**

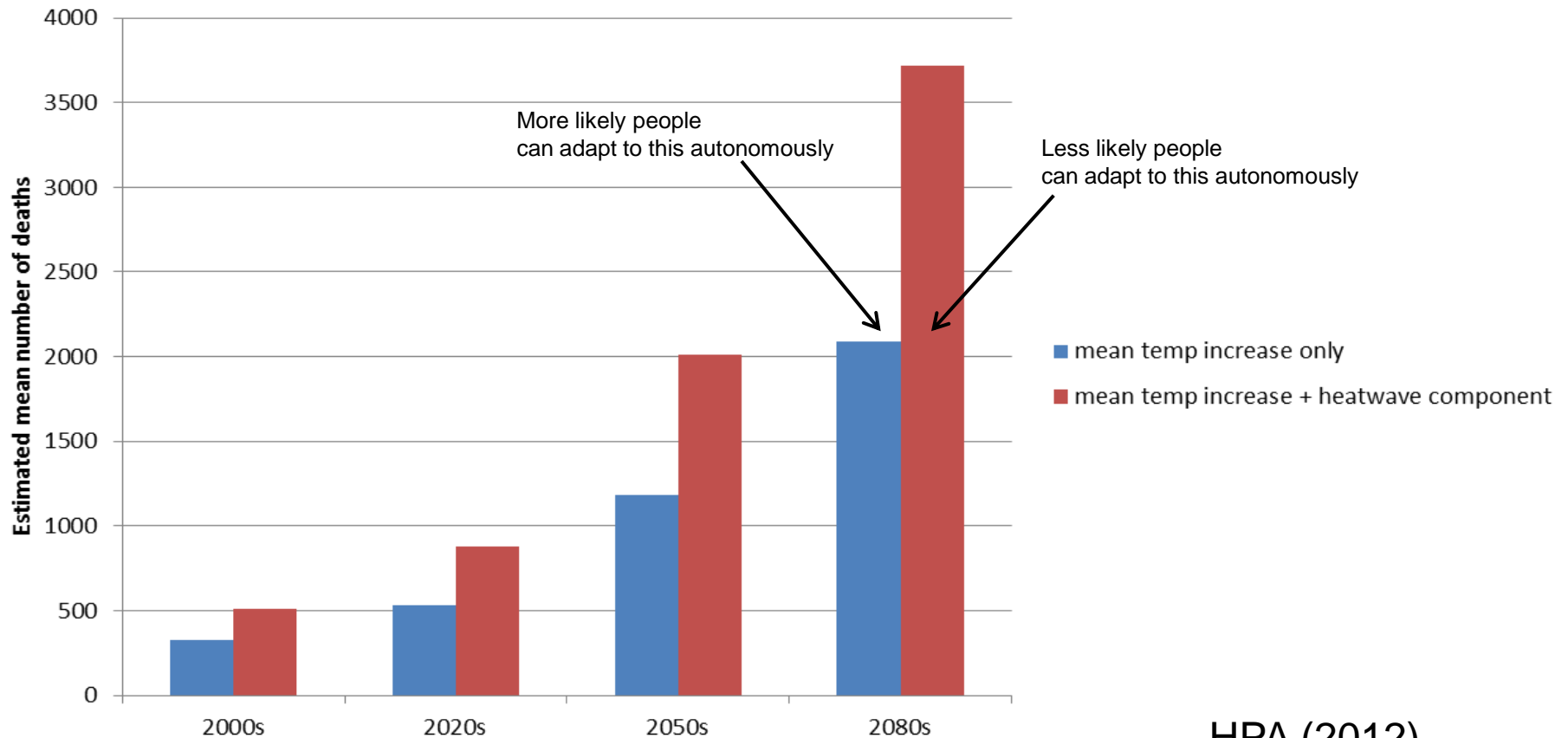


**Blue bars-** projections with climate change only  
**Red bars-** projections with climate change and population growth

Hajat et al. 2014

Modelling the effects of heatwaves and variability is only just beginning for the UK but suggests the impact could be large and acclimatisation less likely than for changes to mean temperature

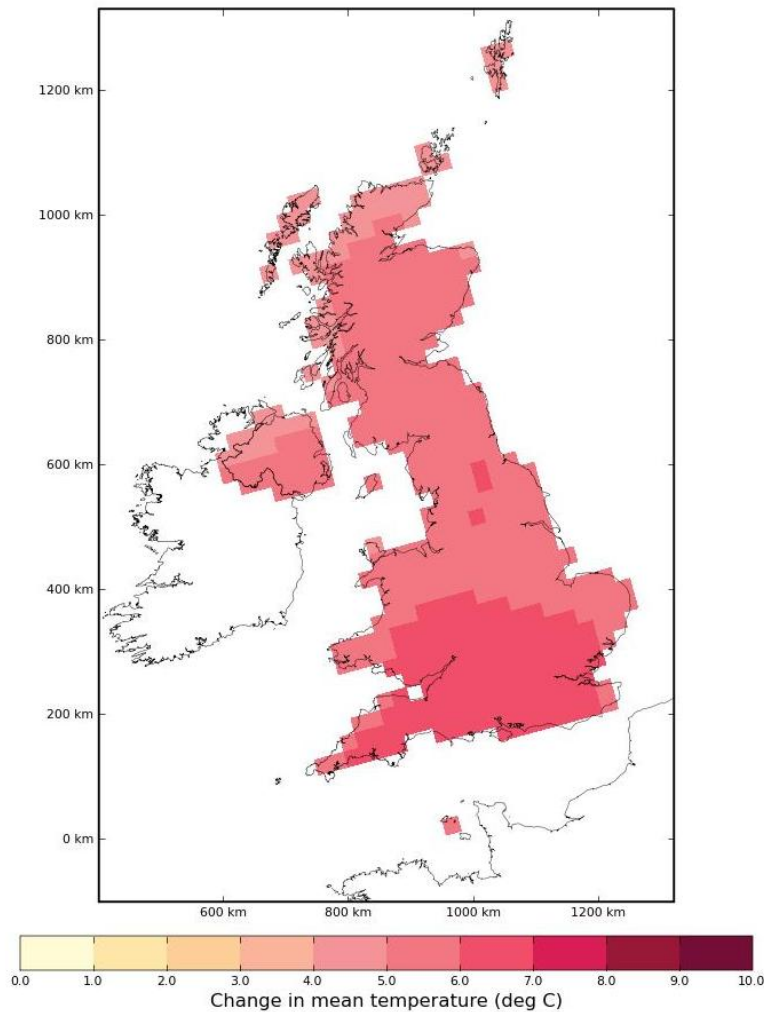
### Projections of heat-related mortality for London with climate change (including heatwave component)



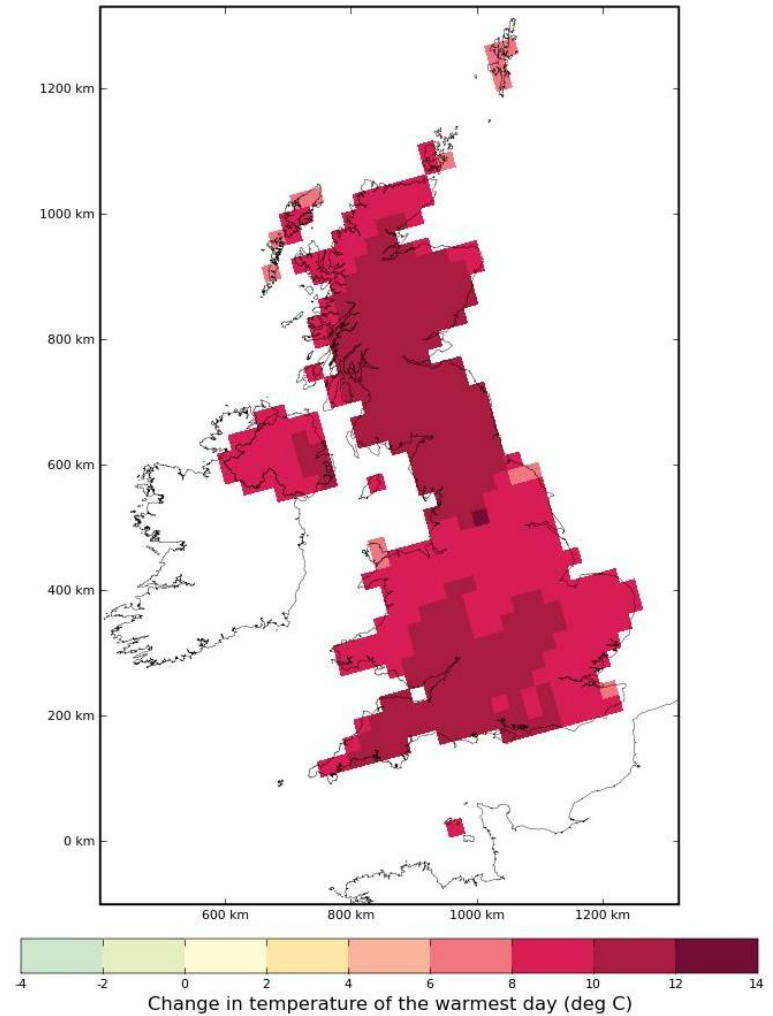
HPA (2012)

# The hottest day of the year is likely to become more extreme in future

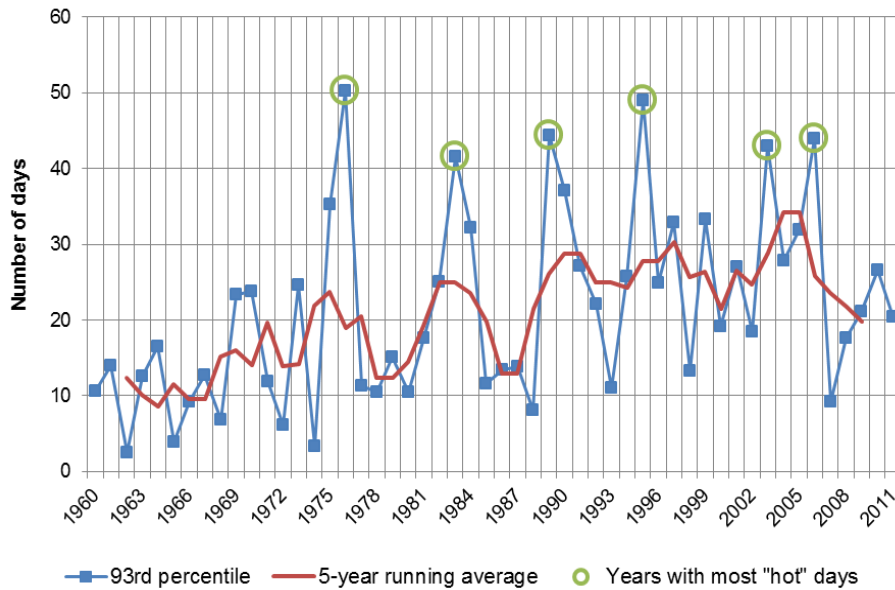
## Increase in summer mean temperature, 2080s



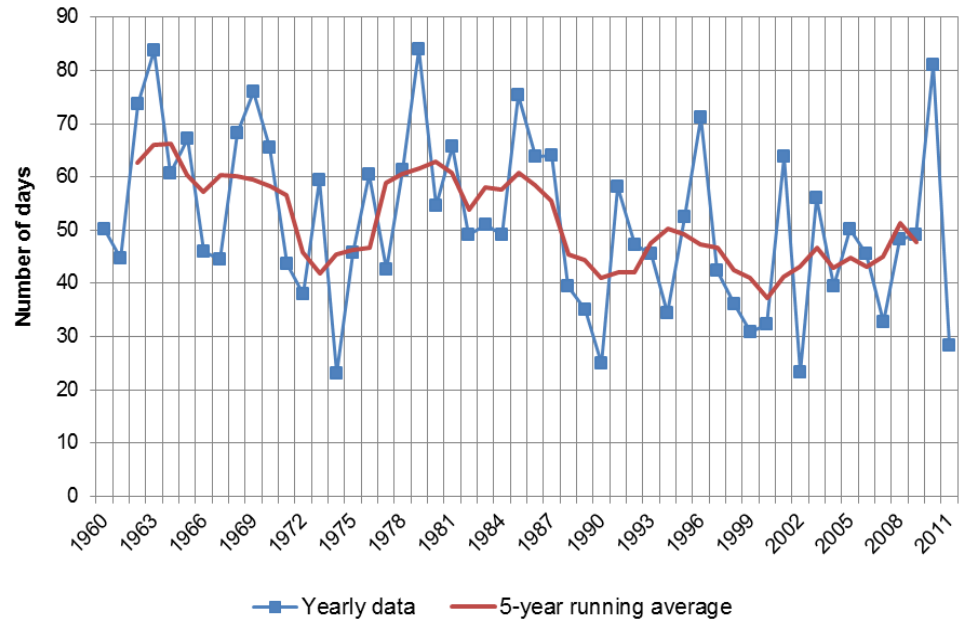
## Increase in warmest day of summer, 2080s



# Number of hot days per year is increasing, number of cold days is declining



Trends in the number of days per year the daily maximum temperature exceeds the 93rd percentile of the 1993-2006 two-day average maximum temperature for England

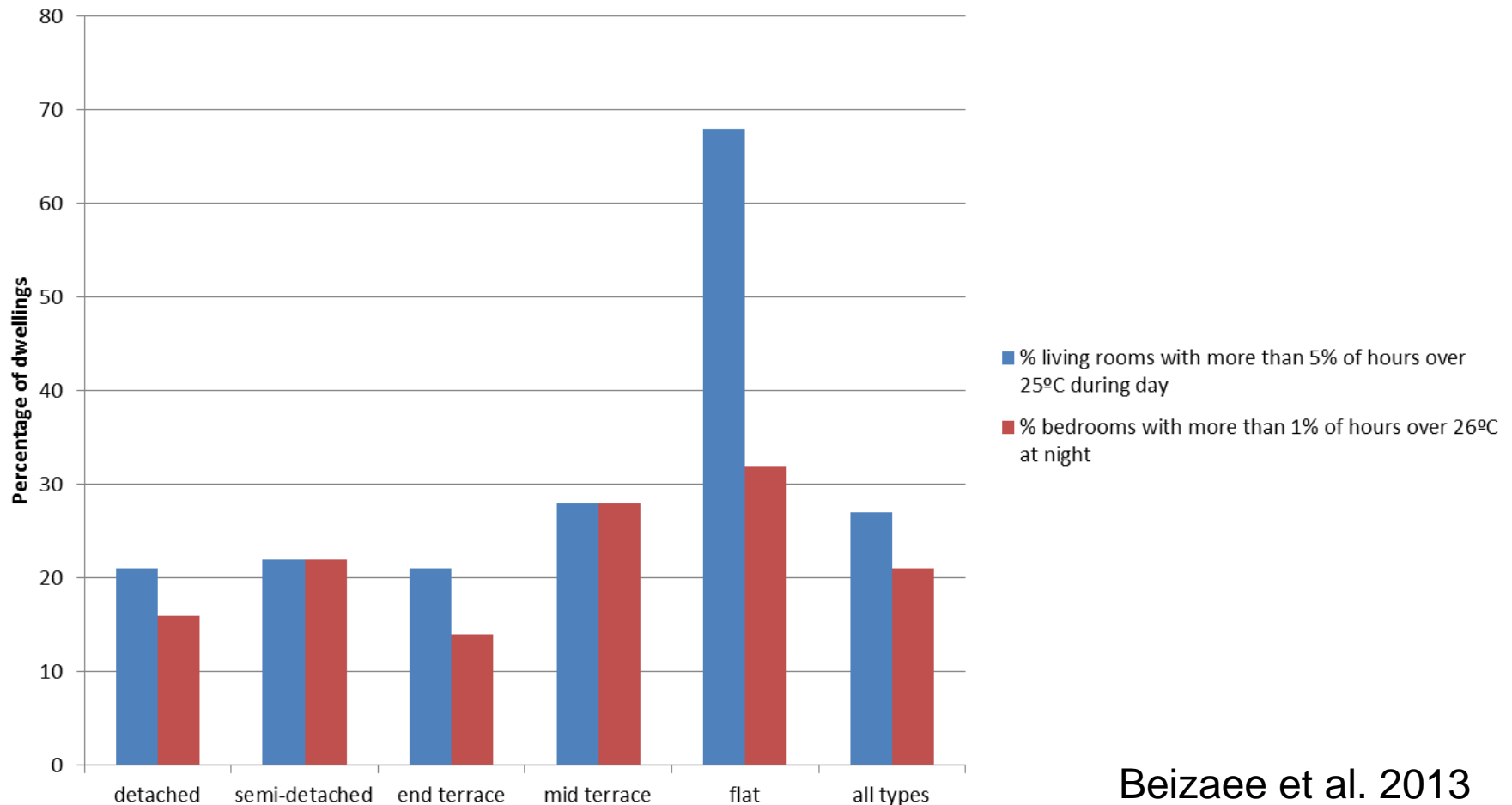


Trends in the number of days per year the daily minimum temperature is below the 10th percentile of the 1993-2006 two-day average minimum temperature for England

HR Wallingford (2014)

**Around 20% of 207 homes surveyed exceeded overheating thresholds in summer 2007 (a cool summer). Flats performed worst.**

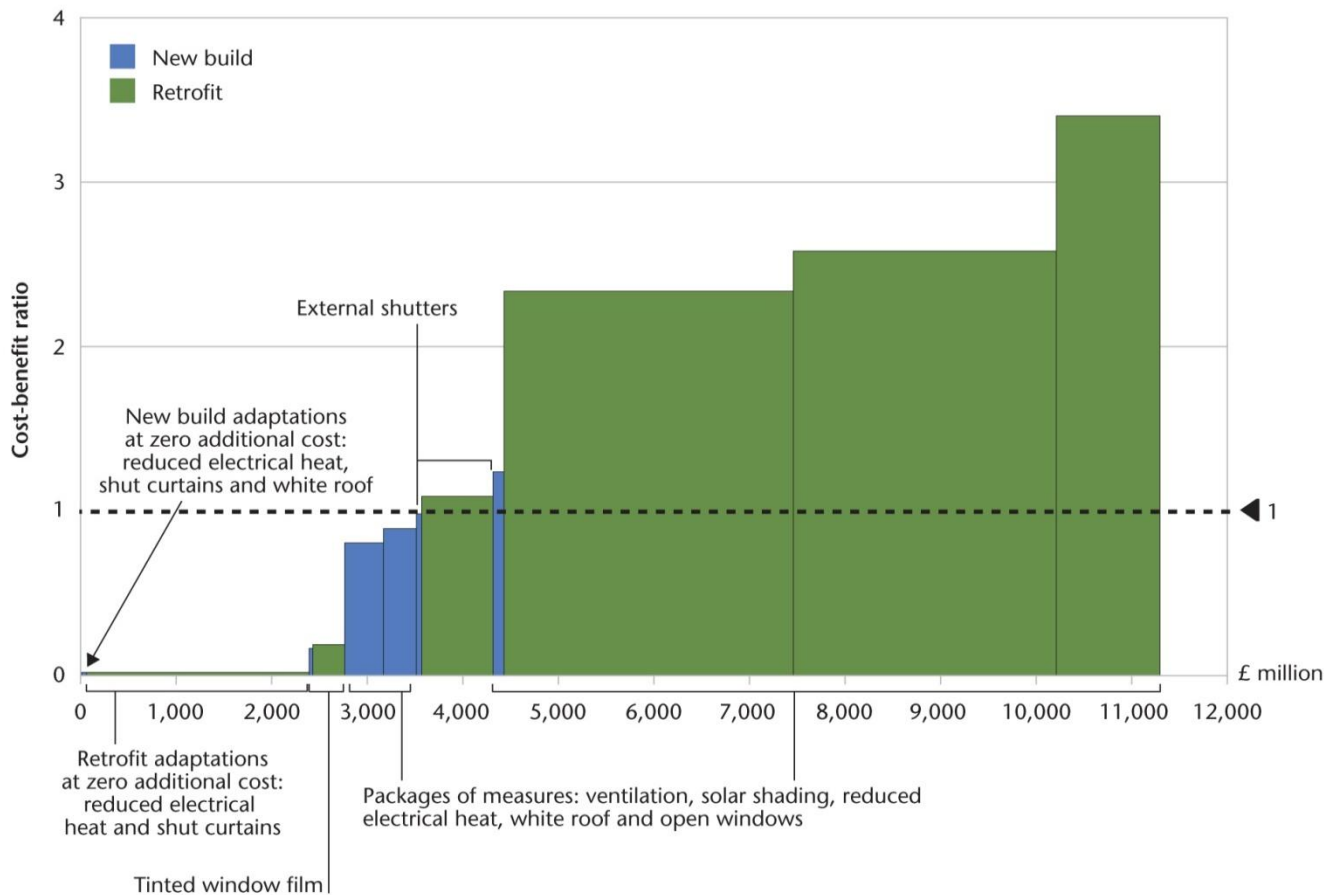
**Survey of homes in England that exceeded overheating thresholds in summer 2007 (n=207)**



Beizaee et al. 2013

External passive cooling and reducing internal heat gains likely to be the most cost-effective measure for homes, but no information available on level of uptake. Previous analysis suggests uptake is low.

**Figure 5.5:** Passive cooling measures for the South East of England – societal cost curve showing technical potential 2011 to 2026, cost of avoided air-conditioning (£ million)



Information on uptake of cooling measures in existing homes is not available at all, unlike information on water saving and flood resilience measures.

ASC, 2011

Source: Davis Langdon (AECOM) (2011) commissioned by the Adaptation Sub-Committee.