

Part O

Overheating

Sally Semple

24th February 2026

- **Background**
 - Legislation
 - Routes to Compliance
 - Literature
 - Climate Change
- **Reporting**
 - Impact of Part O on new build (interim results)
 - Interaction with Building Standards (E, F, K, L, Q)
 - **Research projects**

2010 No. 2214

BUILDING AND BUILDINGS, ENGLAND AND WALES

The Building Regulations 2010

The Building Regulations etc. (Amendment) (England) Regulations 2021

SCHEDULE 1

PART O OVERHEATING

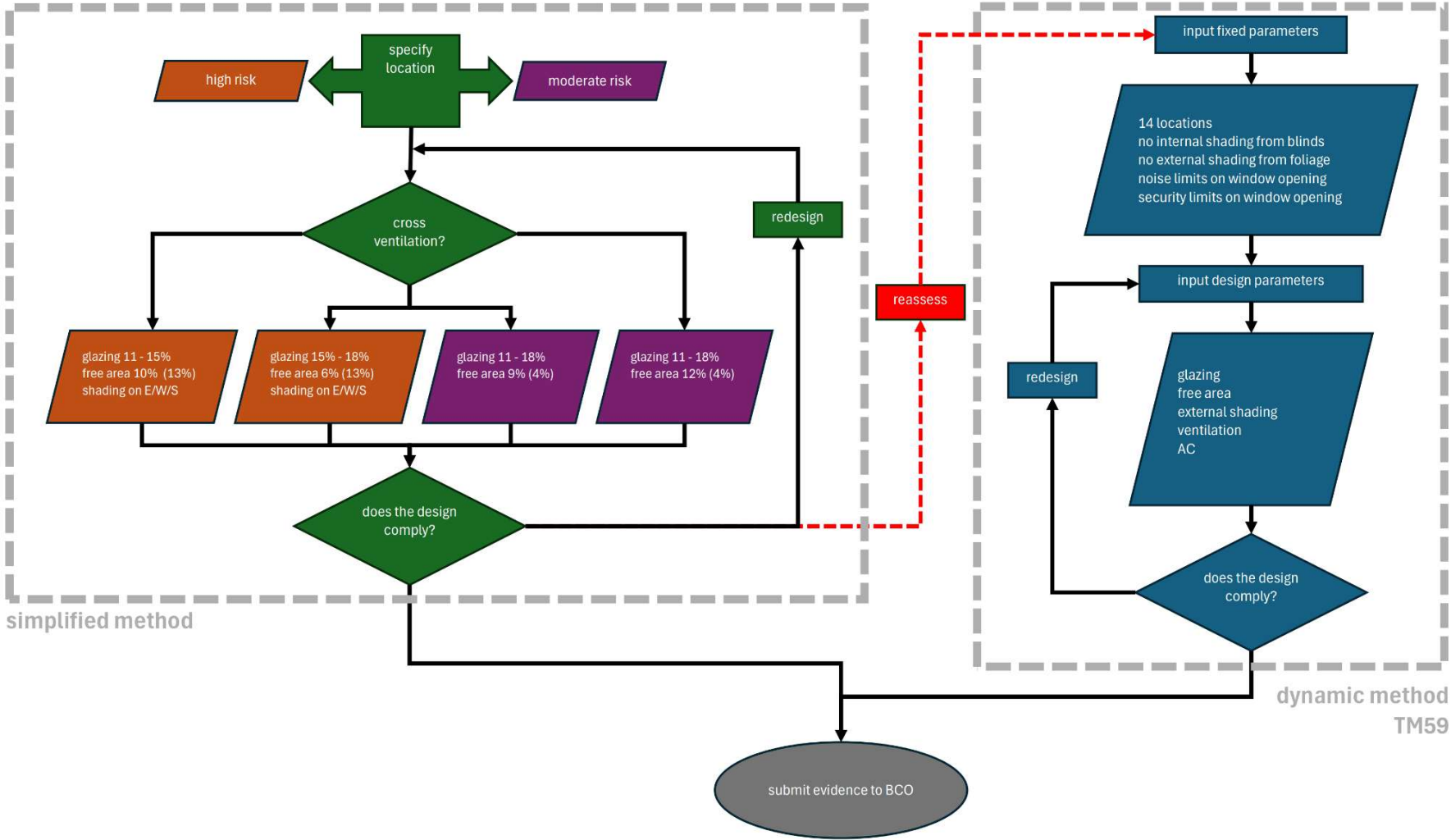
Overheating mitigation

(1) Reasonable provision must be made to —

- (a) limit unwanted solar gains in summer;
- (b) provide an adequate means to remove heat from the indoor environment.

(2) In meeting the obligations in subparagraph (1) —

- (a) account must be taken of the safety of any occupant, and their reasonable enjoyment of the building; and
- (b) mechanical cooling may only be used where insufficient heat is capable of being removed from the indoor environment without it.



Background Literature Selection

[Health Effects of Climate Change \(HECC\) report - GOV.UK](#)

[Heat summary - Health Effects of Climate Change \(HECC\) full report - GOV.UK](#)

[Heat mortality monitoring report: 2022 - GOV.UK](#)

[Updating BS8233 \(noise\)](#)

[The influence of dwelling characteristics on overheating](#)

Quantifiable impact on mortality and morbidity

- 2,895 excess deaths in summer 2022 (1,311 in 2024)
- 1.65 Relative risk of stroke after exposure to overnight overheating
- Noise Standards (BS8233) sleeping (bedroom) 30 dB [ADO 40dB]

- [Health Effects of Climate Change \(HECC\) report - GOV.UK](#)
- [Addressing overheating risk in existing UK homes ARUP report](#)
- [UK Climate Predictions](#)
- [BMJ interpretation of CCC 2025 report](#)

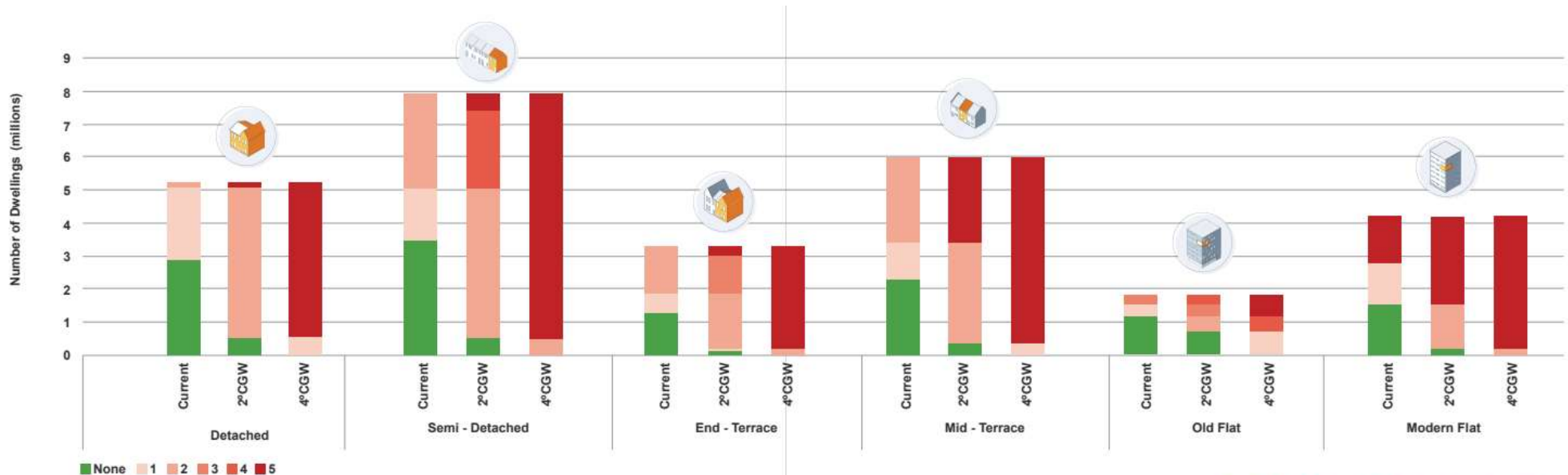


Figure 56: Distribution of mitigation packages by archetype

heat related mortality could “rise several times over” to exceed 10 000 deaths a year by 2050
BMJ

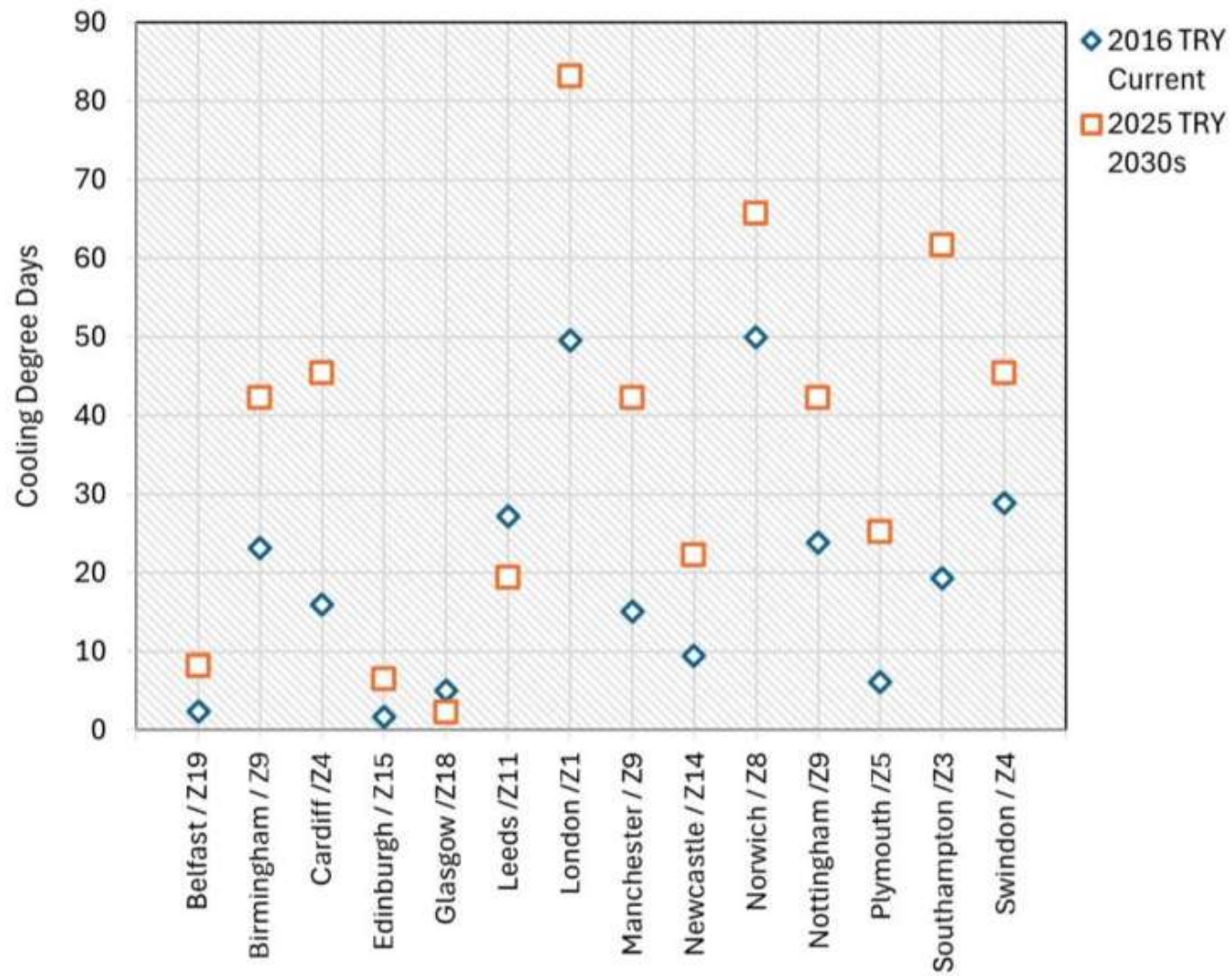


Figure 4. Cooling Degree Days with a base temperature of 21°C

New flats by location, Cooling, Mechanical Ventilation or neither, January 2021 to September 2025
100% Stacked bar chart showing number of new flat EPCs.

■ Air Conditioning
 ■ Balanced Mechanical Ventilation System (no air con)
 ■ Mechanical Extract Ventilation (no air con)
 ■ None of these



Exploratory analysis of Energy Performance Certificate Register data – not for wider circulation - comments and feedback to EPBStats@communities.gov.uk

Interaction across Approved Documentation

Part E (Sound)

- Impact of openable windows on acoustic performance
- Ventilation openings may need acoustic treatment

Part F (Ventilation)

- Removal of excess heat
- Purge ventilation
- Impact of cross-ventilation

Part K (Protection from falls)

- Safety of openings used for ventilation

Part L (Energy Efficiency)

- Glazing affects solar gain, heat loss and daylighting
- Balance between air-tightness and ventilation

Part Q (Security)

- Openable areas must remain secure

Active and Recent Research Projects

BSR

- Overheating Quantitative Data Review – underway
- Further research on FHH Simplified Method suggestions
- RR1219: A study of the effectiveness of guarding to prevent falls through window openings

Wider cross government

- MoJ – overheating in prisons
- DSHC – overheating in healthcare settings
- DesNZ – existing buildings & retrofit

External organisations

- HEARTH: national hub on net zero, health and extreme heat
- Decarbonising cooling in UK homes - Policy brief – University of Exeter
- An overheating criterion for bedrooms in temperate climates: Derivation and application - Loughborough University
- The NIHR Health Protection Research Unit in Climate Change and Health Security.
- The CHILI Hub | Study Air Quality in Energy Efficient Schools [inhabit hub](#)