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The wider determinants of health

Relationships between housing and its surroundings and health, wellbeing and equity

**Summary of systematic evidence
mapping**

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We would welcome feedback on this report and would be interested to hear how it has been used. To provide feedback, or request further information, please contact us:

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1 What this document tells us

This document summarises evidence from high-level evidence sources that have looked at the relationship between housing, its surroundings and health, wellbeing and equity. We used systematic evidence mapping to search for and sort evidence from systematic reviews. The material in this summary is limited to reviews that we consider have been produced using a robust methodology¹.

We mapped a broad body of evidence. We sorted this based on whether the evidence suggests the intervention may work (green) or may not work (coloured red). Many systematic reviews reported insufficient evidence (one or no relevant studies) or inconclusive evidence (coloured orange). We considered that the evidence was inconclusive in reviews where some studies found a positive effect but others did not, so there was no clear majority of studies in either direction.

This summary may be used to familiarise yourself with high-level research in this area. It points to interventions that may or may not be useful.

2 This document does not tell us

It does not provide all the answers. Because we did not do a systematic review we have not considered the quality of the evidence (the appropriateness of the study design or how well it was conducted).

The mapping covers the breadth of evidence on the question *Which relationships between housing and its surroundings and health, wellbeing and equity have been reviewed systematically?* rather than the depth of evidence on a focused question. To inform decisions about action you need to know what works for whom and in what circumstances. This document only summarises what works. Consult the evidence map and the full evidence reviews to inform decisions. Bear in mind that the interventions may not be relevant to your setting or population.

3 Gaps in the evidence

We identified a number of important gaps in the evidence. We only found a small number of systematic reviews that looked at outcomes relevant to equity. Other evidence gaps we identified are summarised in the table below.

¹ Systematic reviews and meta-analyses providing analysis, interpretation of primary research studies that have been produced by a recognised expert body, using a method that is transparent and adheres to systematic review principles with critical appraisal using a recognised tool.

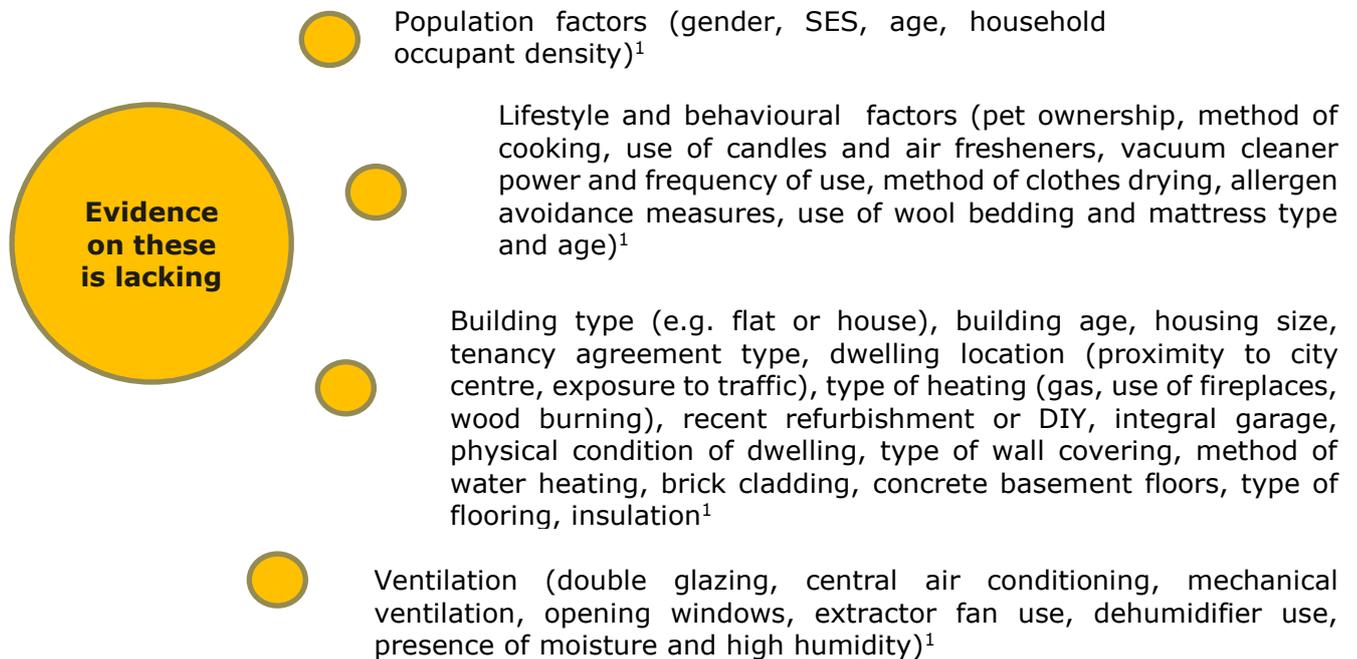
Physical infrastructure	Psychosocial impact
Health and wellbeing impact/relationship with local infrastructure and amenities	Health and wellbeing impact of relationships with neighbours, adverse housing events (e.g. flood, fire), type of tenure and cost of housing. Indirect impacts of housing e.g. education

The detailed [evidence map](#) and [technical report](#) are available here.

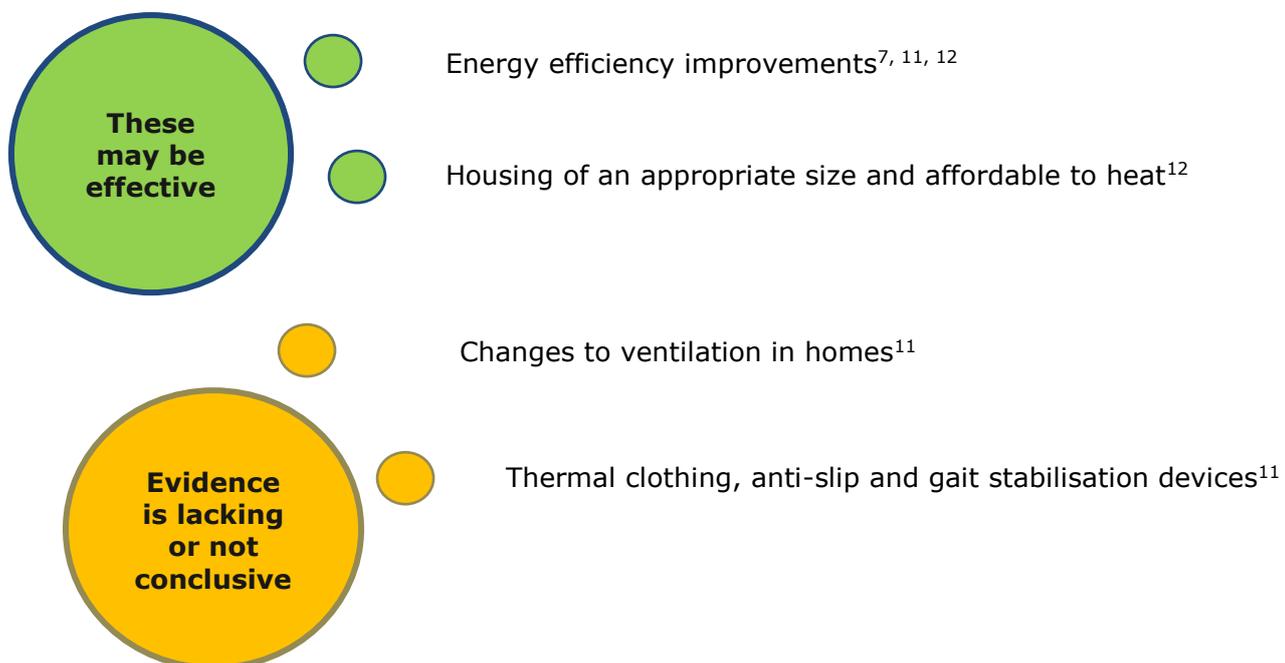
4 What we found

4.1 The physical environment

What factors are associated with exposure to poor indoor air quality?²



Which interventions prevent exposure to cold homes?²



² The numbers in superscript refer to the reference list in the technical report

Which interventions prevent exposure to poor indoor air quality?²

These may be effective

Home based, multi-trigger, multicomponent interventions with an environmental focus for children and adolescents with asthma⁵

Acaricides and extensive bedroom-based environmental control programmes for allergic rhinitis⁹

Repairing mould-damaged houses for asthma-related symptoms and respiratory infections in adults¹⁰

Low emission wood burning stoves, air filtration devices, HEPA air purifiers for particulate matter²

Heat pump, wood pellet burner or flued gas heating or mechanical heat recovery to reduce exposure to NO₂ and CO₂²

Interventions to prevent or reduce mould²

HEPA filter and vacuum cleaner for pet dander²

Multicomponent occupant behaviour change interventions with up to nine components to prevent aeroallergen and second-hand smoke exposure³

Ventilation strategies⁴

Home based environmental interventions for adults with asthma⁵

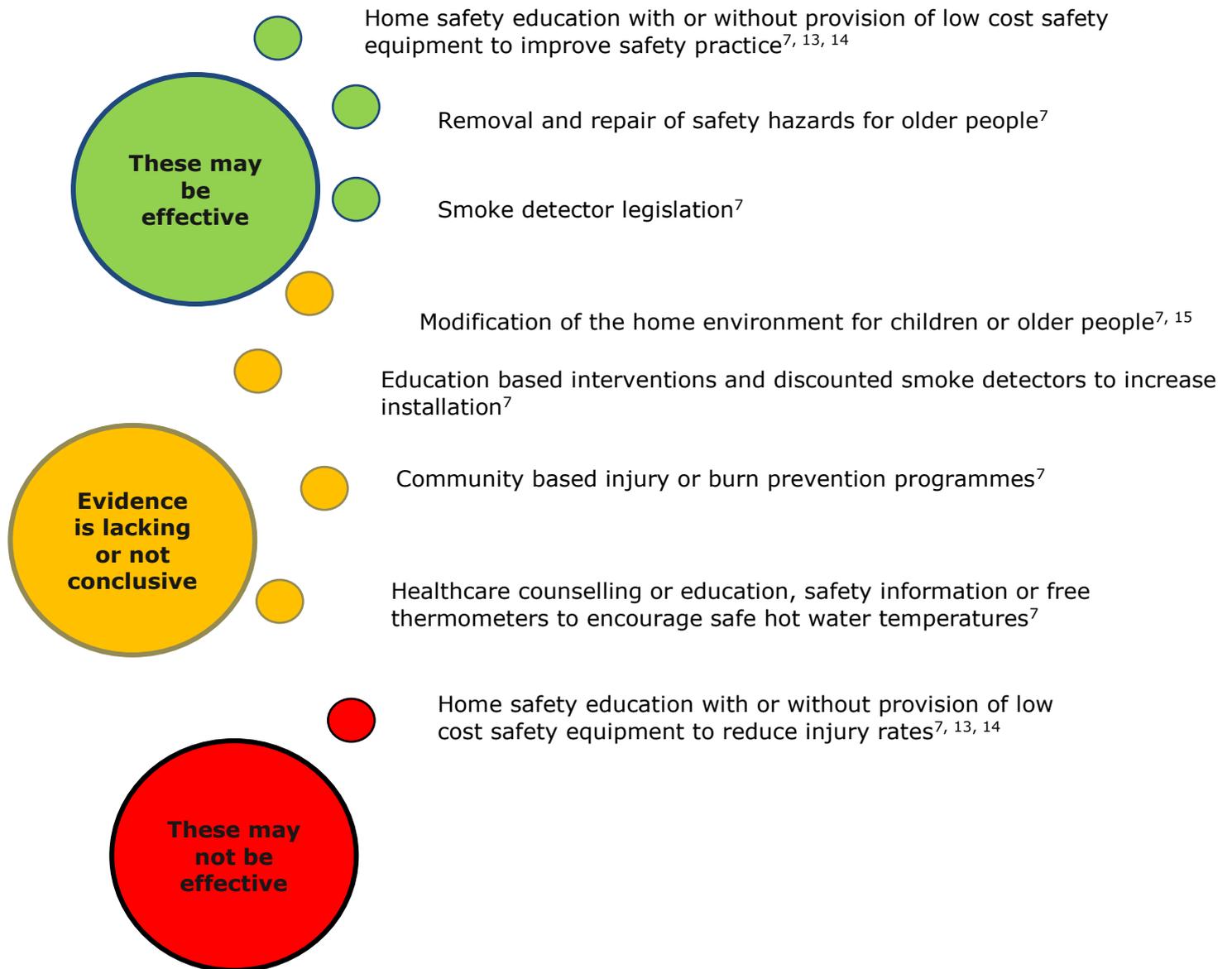
Chemical and physical or combined methods of house dust mite control for eczema^{2, 8}

Remediation of buildings damaged by mould or damp for respiratory tract problems in children¹⁰

These may not be effective

Chemical and physical or combined methods of house dust mite control for asthma^{2, 6, 7}

Which interventions reduce unintentional injuries?²



Which interventions to the exterior environment improve health, wellbeing and equity?²

These may be effective

Installation of lockable alley gates to reduce burglaries¹⁶

Evidence is lacking or not conclusive

Estate renewal (areas based interventions including an element of physical regeneration)¹⁷

These may not be effective

The evidence suggests that estate renewal may not be effective in improving employment, wages or deprivations in local economies¹⁷

4.2 The psychosocial environment

Which interventions improve health, wellbeing and equity in communities?²

Evidence is lacking or not conclusive

Changes to neighbourhood design¹⁹

These may not be effective

Community coalition driven interventions to improve the local environment¹⁸

4.3 Vulnerable groups

Housing interventions for vulnerable groups²

