

# The impact of substandard housing on early child development in high-income countries:

## A Systematic Review

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**32.3%** of children in England are not school ready by the end of the reception year – in the poorest households this increases to **48.5%**

**Children have a right to a safe and suitable living environment** (article 27 of the UN Conventions on the Rights of the Child).

however... **>1 in 10 children in England live in poor quality housing.**

### This review:

**We searched 5 databases** (Medline, Emcare, Web of Science, Scopus, PsycInfo) and Grey Literature in **June-July 2024**.

English language only, no date limits

**Records screened:**  
**6,258**

**Full texts screened:**  
**189**

Screening of articles which cite the initially included studies

**Articles included:**  
**22**

**Extra articles identified:**  
**2**

**Total articles included:**  
**24** (reporting 25 studies)

### All studies had high/very high risk of bias

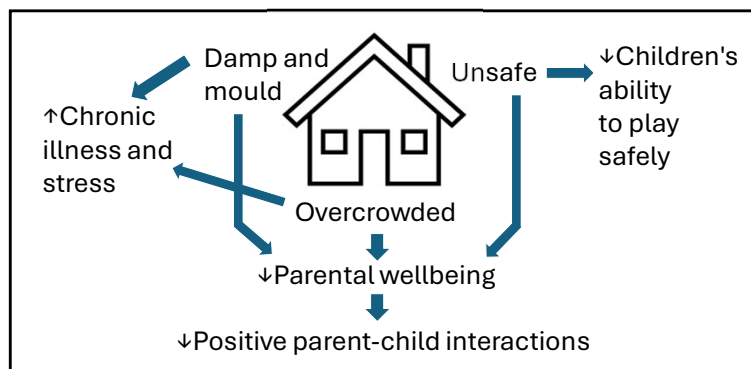
Judged via Risk of Bias in Non-Randomised Studies of exposures (ROBINS-E) tool

**60%** high risk of bias due to confounding

**88%** high risk of bias due to post-exposure interventions

**28%** high risk of bias due to missing data

### How might housing impact early child development?

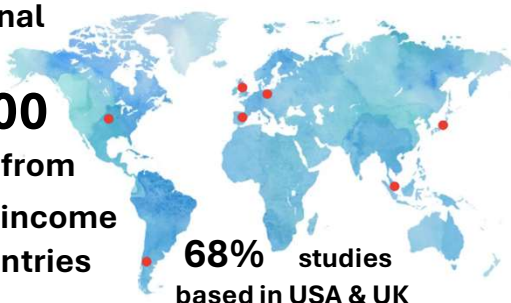


### Results:

**Observational data on**

**>229,000**

**children from 7 high-income countries**



**68%** studies based in USA & UK

### Implications:

#### This review adds:

further evidence that housing impacts child health and development

#### For Policymakers:

- Poor quality homes are likely to be causing economic losses due to impaired early development, school readiness and educational attainment.

#### For Healthcare Professionals:

- Sensitively include housing issues as part of conversations with families

#### For Researchers:

- Further studies should occur outside the UK and USA, standardise the use of developmental assessments, and create a rigorous evidence base which can be used to advocate for children.

**Damp, mould and condensation:** cognition, language, social, emotion

Moderate certainty negative correlation

**Unclean fuels:** cognition and motor

**Hygiene and/or safety issues:** overall delays

**Overcrowding:** cognition, language, behaviour

**NO<sub>2</sub>:** cognition

**PM<sub>2.5</sub>:** cognition

**PM<sub>2.5-10</sub>:** cognition, language

**Xylene:** gross motor

Low certainty negative correlation

**Availability of resources:** language

**Noise:** overall development

Very low certainty negative correlation

+ weak positive correlation: **PM<sub>2.5</sub>**, **formaldehyde:** motor



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