# Housing improvements: What do we know about their effects on health and socioeconomic status?

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SUMMARY

# Background

There is a well established link between housing quality and health and wellbeing. Investing in housing improvements is, therefore, a potential route to health improvement and a way of tackling the complex interplay between poverty and poor health. However, despite the strong links between housing and health, it has proved difficult to separate the effects of poor housing from the effects of other socioeconomic factors that influence health, such as poverty.

If housing improvements programmes are to be developed with the aim of improving health, it is important to review all the evidence from intervention studies and further explore if and how such programmes can make improvements to health status and determinants of health. This review specifically examined the changes in health and socio-economic determinants of health following housing improvement.

### What was done?

International evidence on housing interventions aimed at improving the physical fabric of housing and which assessed changes in health outcomes was reviewed. The interventions included warmth and energy efficiency measures, for example insulation and central heating; refurbishment and rehousing (with or without relocation or neighbourhood regeneration); rehousing from slum housing to newly built housing with modern facilities (pre 1965); and provision of basic housing facilities (including studies from low & middle income countries). The review included quantitative and qualitative data, and studies with or without a comparison group were also included. The review covers the 20th Century and up until July 2012.

## What was found?

Fourteen studies identified in the review involved rehousing or retrofitting, whilst the largest group of studies involved warmth and energy efficiency interventions (19 studies). The main studies were conducted in the UK and New Zealand. The synthesised outcomes of these studies suggest that warmth and energy efficiency interventions can lead to improvements in general health, respiratory health and also mental health. The greatest health benefits were reported among those with existing chronic respiratory diseases.

Warmth improvements were also reported to be associated with reduced absence from work or school, as well as increasing the amount of useable space in the home. Increased usable space was reported to improve relationships within the home, as well as provide increased privacy and increased opportunities for studying and entertaining in the home. Improvements to health when interventions targeted areas rather than individual household needs were less clear. There were also significant gaps in the evidence base regarding the impacts of housing improvements on reducing health inequalities.

## What does the review tell us?

Housing investment which improves thermal comfort in the home can lead to health improvements, especially when improvements are targeted at those with inadequate heating and those with chronic respiratory disease. These improvements may also lead to reduced absences from work or school. In addition, housing improvements which improve the affordability of heating the home can also increase the amount of usable space for occupants, and this may promote better relationships within the household, as well as provide greater privacy. Changes in health in low income groups compared to higher income groups were not reported, and this review was not able to examine the potential for housing improvements to impact on health inequalities.

# What does the review recommend?

The best available evidence suggests that housing that promotes good health needs to be of an appropriate size to meet household needs, and affordable enough to allow residents to maintain a comfortable indoor temperature. To fully realise the potential for health improvement following housing improvement this review underlines the need to target households in the greatest need. Scientifically, the review recommends that future housing improvement interventions continue to be evaluated rigorously for health impacts. More evidence from well conducted qualitative and quantitative studies are needed to calculate effect size estimates for health outcomes, and also shed light on how the health impacts of housing improvement can be maximised.

The extreme diversity of interventions and contexts included in this review, together with the growing body of evidence on warmth improvements suggests that future evidence syntheses on this topic should be split to allow separate analysis of warmth improvements and interventions relevant to low and middle income country contexts.

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