Housing as a Public Health Investment: Time for a Reconsideration

In many developed countries, the time when housing was viewed by governments and citizens as an investment in, and protector of, public health seems past. Health experts and academics continue to explain the links between housing and health (1, 2), but these arguments do not penetrate the public or policy consciousness. Rather, housing is seen as the 'wobbly pillar' of the welfare state subject to a residual role and minimal intervention (3), or a private asset where investment is justified by financial return (4). Where the state acts to improve conditions like home energy efficiency, the outcomes are evaluated predominantly in financial terms, such as impacts upon fuel poverty and the economy (5, 6), rather than in health terms. A new study of a national home insulation programme (7) could help change this perspective.

The New Zealand study used a quasi-experimental research design to examine the impacts of ceiling and floor insulation measures upon hospitalisation episodes for dwelling occupants of all ages. The study overcomes many weaknesses of past studies in this area, identified by a Cochrane Review (8). It was large scale with over a hundred thousand dwellings and nearly half a million people receiving interventions, and of medium-term duration with baseline and follow-up periods of three years. It used data-linkage as recommended for non-health interventions, but rarely used in housing (9) and focused on acute hospitalisations for conditions considered to be linked to housing conditions (10). The analysis compared hospitalisation rates before and after the insulation works, and between the intervention group and a waiting list control. The key findings were that hospitalisation rates increased by 11% less in the intervention group compared with the control, with larger differences for respiratory conditions (-15%), asthma (-20%) and, in the over 65s, ischaemic heart disease (-25%). One of the few comparable studies, conducted recently in Wales, reported larger effects from wall insulations (not studied in NZ) with reductions in hospital admissions of -25% in all ages and -20% in the over 60s (11).

These findings have implications for policy debates about health services, climate change and housing. Health services and hospitals are under pressure in the UK and elsewhere: an analysis over thirteen years up to 2016 showed that hospital admissions in England were growing at three times the assumed rate, outstripping real-terms funding increases after 2010 (12). At the same time, hospital bed numbers have been dropping for three decades, with the UK having fewer acute beds per population compared to similar countries, and occupancy rates have been above safe levels in recent years (13). A comparison of the UK with nine other OECD countries concluded that 'most health service outcomes were below average' and pointed to difficulties of 'structural capacity' and 'sustainability of care' (14). In this context, housing interventions that can lower hospital admissions, particularly for respiratory conditions, could contribute to the worldwide challenge of increasing health service capacity in the face of future covid-like pandemics (15). Housing investment may partly pay for itself too. For example, the

mean cost of substantially improving the energy efficiency of social housing, at c.£21,000 (16) compares to the average cost of a single A&E visit of up to £400 and £590 for a short hospital stay (17).

Alongside health service capacity, climate change is the other major challenge facing governments where housing investment can assist. Currently, housing is one of ten areas of action under the UK Government's 'Green Industrial Revolution' to reach carbon neutrality by 2050 (18). However, many are unconvinced by the Government's plans and commitment. Environmental campaign groups argue that the national targets for domestic energy efficiency are not ambitious enough. Housing observers claim the government's decarbonisation fund will only cover a small proportion of the costs in the social housing sector and that many landlords have no targets (16). The Royal Institute Chartered Surveyors (RICS) considers 'the pace of retrofitting is lagging' and that housing energy efficiency should be made a national infrastructure priority to scale up the efforts, including sustained funding, fiscal incentives to owners and stronger regulation (19). If housing is going to compete with energy, agriculture and transport as a major area of transformation to tackle climate change, then more research such as the New Zealand study is required. If realist evaluation using linked data and mixed methods (20) was integrated into home energy efficiency programmes, along with a value for money study, this could restore the view of housing as an investment worthy of sustained public expenditure for health and climate reasons.

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