

We should cap the health budget and spend more money on housing and food

YES

When the results of our study of housing, insulation and health were published in the *British Medical Journal*,¹ the US editor Douglas Kamerow stated, in one of the accompanying editorials, ‘You don’t have to work very long taking care of poor people before you realise that the contents of our medical bag of tricks are often insufficient to improve their health status. One key contributor to ill health is the environment around the patient—do people smoke? Can the family afford healthy food? Is the home safe and warm?’²

Kamerow accepted that retrofitting insulation clearly improved the health of the occupants and concluded his editorial, ‘It is admittedly a bit far from our usual fare, but the links to health are clear. Not exactly “helping doctors make better decisions”, as the logo says at the top of your screen? Maybe not, unless we include in those decisions whom we should vote for and what our elected officials should do with our tax dollars to improve health.’

In a time of financial austerity, when we are being told there is no more new money to be spent,

there is indeed a serious question as to whether we should be spending more on hospital care, so that the sick can get there ‘faster and sooner’, or investing more money in upgrading our poor housing stock. Our insulation study and the later study of housing, heating and health,³ which showed that installing effective, non-polluting heating in housing improved the symptoms of children with asthma, have demonstrated conclusively that upgrading housing is an effective way to improve people’s health by improving the place they spend the most time in—their homes.⁴

The cost-benefit analysis of these studies showed that the benefits substantially outweighed the costs.⁵ When the intervention was rolled out nationally as part of the ‘Warm-Up New Zealand: Heat Smart’ programme, our evaluation of the first 46 000 households showed the benefits had doubled; not only did those who had their houses insulated have lower hospitalisation costs, but those over 65 years who had been previously hospitalised for respiratory or coronary conditions—the two conditions most susceptible to damp, indoor temperatures—had significantly lower mortality in the subsequent year than those who went home to uninsulated houses.

To enable landlords, tenants and housing authorities to identify those features of housing that are hazardous to occupants’ health, we have devel-

Philippa Howden-Chapman

Professor of Public Health, Director of He Kainga Oranga/Housing and Health Research Programme, University of Otago, Wellington, New Zealand
philippa.howden-chapman@otago.ac.nz

Howden-Chapman P. We should cap the health budget and spend more money on housing and food—the ‘yes’ case. *J Prim Health Care*. 2012;4(4):337–339.

While evidence can help inform best practice, it needs to be placed in context. There may be no evidence available or applicable for a specific patient with his or her own set of conditions, capabilities, beliefs, expectations and social circumstances. There are areas of uncertainty, ethics and aspects of care for which there is no one right answer. General practice is an art as well as a science. Quality of care also lies with the nature of the clinical relationship, with communication and with truly informed decision-making. The **BACK TO BACK** section stimulates debate, with two professionals presenting their opposing views regarding a clinical, ethical or political issue.



Philippa Howden-Chapman



Harvey White

BACK TO BACK this issue:

oped a Healthy Home Index, which could be used as a housing Warrant of Fitness.⁶ The consistent pattern emerging is that largely unregulated, private rental properties, where half our children in poverty live,⁷ are more likely to be cold, damp, and mouldy. Repeated studies in New Zealand continue to show that children admitted to hospital with potentially avoidable infectious diseases disproportionately live in these houses to the detriment of their health.⁸

And it's not only the poor quality of housing that is the problem. The rising price of residential electricity and the light-handed regulation that tolerates households on low incomes using pre-payment meters and paying more for their electricity also has serious health consequences—for the young and old in particular.⁹ Frank and colleagues indicated the stark implications of the rising cost of energy in their article 'Heat or Eat'.¹⁰ This United States study showed that after adjustment for differences in background risk, children living in low-income renter households receiving the Federal Low Income Home Energy Assistance Program were less likely to be undernourished or overweight and had lower odds of acute hospitalisation from an emergency department visit compared with children in comparable households not receiving the Low Income Home Energy Assistance Program.

While I would argue strongly that, given a constrained budget, investing in retrofitted insulation and social and affordable housing infrastructure is a better investment than investing in hospitals, there is also strong evidence that, when those working in primary care work together with housing workers, there can be spectacular gains. Tenants in social housing have a third of the average income of other New Zealanders and are allocated state houses usually because they also have accompanying health or social problems. But, until Housing New Zealand Corporation's (HNZC's) recent decision to withdraw from social management, the Healthy Housing Programme that they ran with Auckland District Health Boards (DHBs) was a spectacular and outstanding international success story.

The HNZC Healthy Housing Programme (HHP) had an initial pilot in 2001, with the

main programme starting in South Auckland in 2003 and later extending to Northland and Wellington before effectively being discontinued. This programme aimed to reduce household crowding and improve housing ventilation and heating. Initial evaluation of the HHP found a significant reduction in acute hospitalisations for younger participants (a 23% reduction for those aged 5–34 years).¹¹ A more extensive evaluation used a control population. This evaluation found that for children (<20 years of age), participation in the HHP was associated with a statistically significant fall in the total number of acute and arranged hospitalisations of 27% (95% CI -43% to -6%) in the year following completion of the HHP interventions. The effect of the HHP appeared more marked for the most intensive intervention, crowding reduction, which was associated with the largest reduction of 61% (95% CI -79% to -26%) in acute and arranged admissions.¹²

The lack of continuing investment in this very successful programme is particularly misguided considering the appalling ethnic inequalities evident in infectious diseases in New Zealand.¹³ These differences appear to be largely driven by poverty leading directly to household crowding, driven by the need to reduce individuals' rents.¹³ The report of the Children's Commissioner's Expert Advisory Group on Solutions to Child Poverty has reminded us yet again that overcrowding increases the spread of infectious diseases, particularly respiratory infections such as childhood pneumonia, rheumatic fever, and meningococcal disease and calls for housing, including increased social housing, to be seen as a key part of our national infrastructure.

The time has come for a bold policy experiment. Let's see if improving housing, so that less energy is needed to heat it and more money is available for food, is more cost-effective than money spent on the health services. Let's take the opportunity of our joint efforts to rapidly reduce rheumatic fever to choose a DHB where additional money is put into housing and crowding reduction, not hospitals and echocardiograms, and let's measure the consequences. I know where I'd put my money.

References

1. Howden-Chapman P, Matheson A, Viggers H, Crane J, Cunningham M, Blakely T, et al. Retrofitting houses with insulation to reduce health inequalities: results of a clustered, randomised trial in a community setting. *Br Med J*. 2007;334:460–464.
2. Kamerow D. Is a warm house a medical intervention? *Br Med J*. 2007;334. doi: 10.1136/bmj.39141.499873.3A
3. Howden-Chapman P, Pierse N, Nicholls S, Gillespie-Bennett J, Viggers H, Cunningham M, et al. Effects of improved home heating on asthma in community dwelling children: randomised community study. *Br Med J*. 2008;337:852–855.
4. Baker M, Keall M, Lyn Au E, Howden-Chapman P. Home is where the heart is—most of the time. *NZ Med J*. 2007;120:1264.
5. Chapman R, Howden-Chapman P, Viggers H, O'Dea D, Kennedy M. Retrofitting housing with insulation: a cost-benefit analysis of a randomised community trial. *J Epi Comm Health*. 2009;63:271–277.
6. Keall M, Baker MG, Howden-Chapman P, Cunningham M, Ormandy D. Assessing housing quality and its impact on health, safety and sustainability. *J Epi Comm Health*. 2010;64(9):765–771.
7. Perry B. Household incomes in New Zealand: trends in indicators of inequality and hardship 1982 to 2011. Wellington: Ministry of Social Development; 2012.
8. Grant CC, Emery D, Milne T, Coster G, Forrest CB, Wall CR, et al. Risk factors for community-acquired pneumonia in pre-school-aged children. *J Paed Child Health*. 2012;48(5):402–412.
9. Howden-Chapman P, Viggers H, Chapman R, O'Sullivan K, Telfar Barnard L, Lloyd B. Tackling cold housing and fuel poverty in New Zealand: a review of policies, research, and health impacts. *Energy Policy*. 2012.
10. Frank DA, Neault NB, Skalicky A, Cook JT, Wilson JD, Levenson S, et al. Heat or eat: the Low Income Home Energy Assistance Program and nutritional and health risks among children less than three years of age. *Pediatrics*. 2006;118(5):e1293–e1302.
11. Jackson G, Thornley S, Woolston J, Papa D, Bernacchi A, Moore T. Reduced acute hospitalisation with the healthy housing programme. *J Epi Comm Health*. 2011; 10.1136/jech.2009.107441.
12. Baker M, Zhang J, Keall M, Howden-Chapman P. Health impacts of the healthy housing programme on housing New Zealand tenants: 2004–2007. Wellington: He Kainga Oranga/Housing and Health Research Programme, University of Otago; 2011.
13. Baker M, Goodyear R, Telfar Barnard L, Howden-Chapman P. The distribution of household crowding in New Zealand: based on 1991 to 2006 census data. Wellington: He Kainga Oranga/Housing and Health Research Programme; 2011.

We should cap the health budget and spend more money on housing and food

NO

Introduction

Expenditure on health is growing with the ageing of the population and improving technology. Increasing health expenditure in New Zealand has resulted in shorter surgical waiting lists, increased vaccination rates and increased smoking quit rates. There is a tension between the public health approach to provide the most social benefit with the resources available and providing treatments to patients with disease. About 50% of the increase in survival that has been seen over recent decades has been due to medical treatments and 50% due to prevention.¹ In this debate I will argue for spending more on both prevention and medical treatments.

Expenditure on health as an investment rather than as a cost

A number of studies have looked at health care as an investment rather than just as a cost. It is estimated that each additional dollar spent on overall health care services in the US from 1980 to 2000 produced health gains valued at \$1.55 to \$1.94.² It was concluded that the value of improved health in 2000 compared with 1980 significantly outweighed the additional health care expenditures. New generation drugs with expenditure of \$18 were estimated to reduce other health care costs by \$71.09 in 2001.^{2,3} Besides improvements in health there may be gains in worker productivity. Increases in life expectancy from 1970 to 1990 were estimated to generate \$2.8 trillion annually to the US economy.^{2,4}

Harvey White DSc
Professor, Green Lane
Cardiovascular Service,
Auckland City Hospital,
PB 92024, Victoria St
West, Auckland 1142,
New Zealand
HarveyW@adhb.govt.nz

White H. We should cap the health budget and spend more money on housing and food—the 'no' case. *J Prim Health Care*. 2012;4(4):339–341.