

# National Housing Conference, Darwin 2019

## Rebuilding public housing in Aotearoa/New Zealand

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[www.healthyhousing.org.nz](http://www.healthyhousing.org.nz)

[www.sustainablecities.org.nz](http://www.sustainablecities.org.nz)

[www.resilienturbancities.org.nz](http://www.resilienturbancities.org.nz)

# Outline

- 2018 *Stocktake of Housing* for incoming Labour Coalition Government
- Evidence base from He Kāinga Oranga
- 2019 Housing NZ progress
- Conclusion

# A Stocktake of New Zealand's Housing

— FEBRUARY 2018 —

Alan Johnson  
Philippa Howden-Chapman  
Shamubeel Eaqub

## 2018

- Homeownership 60 year low
- Half of adults owned houses
- 1 in 3 households renting
- Growth in housing < migration
- Private sector withdrew from building affordable housing
- 5-year house price inflation 30%, 2x income rise
- Rents rose 2x incomes
- Auckland housing shortfall 45,000
- New state housing tenants all high priority category
- Growing waiting lists
- Emergency housing grants
- 1 in 100 homelessness in 2016



# Increasing inequalities

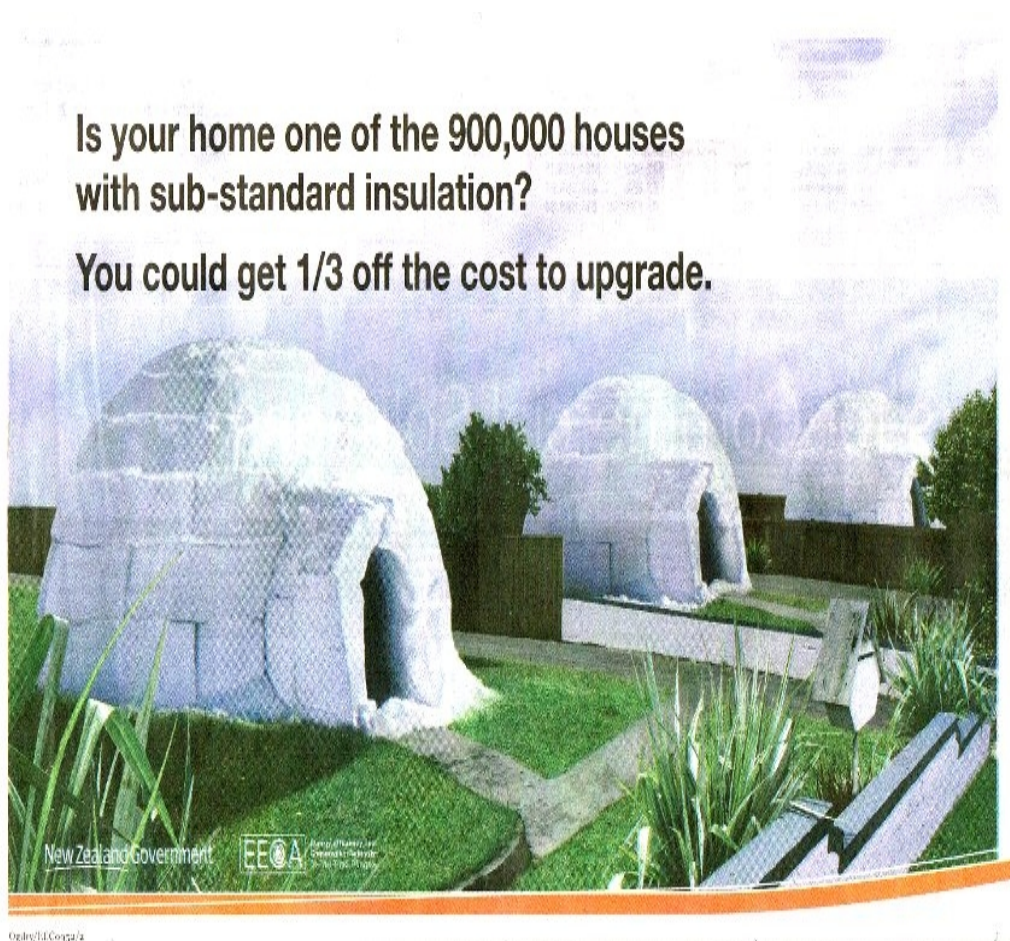
- Māori (28%) and Pacific (19%) home-ownership declined relatively rapidly compared to European (57%)
- Private rentals older, poorer quality & less stable than owner-occupied
- Growing number of older people who do not own houses





- HRC funded programme on social, economic and environmental determinants of health since 2000
- Primary Prevention
  - Housing, **Insulation** & Health Study
  - Housing **Heating** and Health Study
  - Housing, **Injury Prevention** Intervention Study HIPI/MIPI
  - Housing Outcome and **Mould** Evaluation HOME
  - **NEST** study
- Secondary prevention
  - Warm Houses for **Elderly** New Zealanders WHEZ
  - **Well Homes** study SHELTER
- Policy quasi-experiment
  - Rental Housing (**WOF**)

# Warm Up NZ: Heat Smart Programme



- 46,555 houses
- Benefit/cost ratio for adults, 3.9:1; for children, 6:1
- Benefit/cost ratio for people over 65, 6:1

Grimes, A., Preval, N., Young, C., Arnold, R., Denne, T., Howden-Chapman, P., Telfar-Barnard, L. 2016. "Does Retrofitted Insulation Reduce Household Energy Use? Theory and Practice", *The Energy Journal*, 37(4), <http://dx.doi.org/10.5547/01956574.37.4.agri>.

<https://press.anu.edu.au/publications/journals/agenda/agenda-journal-policy-analysis-and-reform-volume-26-number-1-2019>



Half  
a million  
Kiwis  
snug as  
a bug in  
a rug

What about you?

Thanks to everyone who helped us reach our target of insulating 188,500 New Zealand homes through the Government's Warm Up New Zealand Heat Smart Insulation programme.

The programme has been extended and grants are still available. Visit [www.energywise.govt.nz](http://www.energywise.govt.nz) for a list of providers in your area.

It took just a little more than three years, and it was a real team effort by the industry including supporting banks and councils who made it easier for people to afford insulation, and third party funders who gave over \$80m. Most of all it's 'well done' to the Kiwi homeowners who made the decision to invest in a warmer, healthier, more comfortable home.

# Retrofitting insulation creates healthier homes

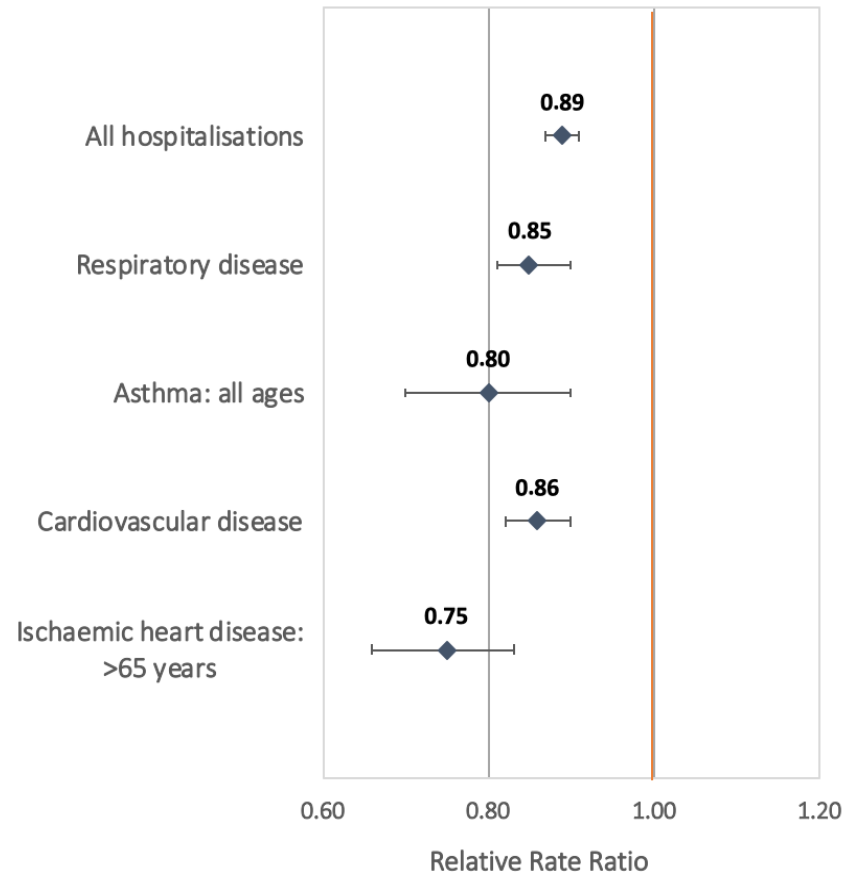
## Updated data linkage study

Intervention & delayed intervention (control)

204,405 houses retrofitted through EECA Warm-up New Zealand (2009-2014)

994,317 residents followed for 3 years baseline, 3 years post intervention

- Reduction in intervention group vs control group hospitalisations
- Reductions greater for cold-related hospitalisations
- Pacific peoples' & elderly gained most benefit



### Next steps:

To look at the impact of insulating houses on:

- Pharmaceutical use
- Excess winter mortality
- Healthcare costs

Caro Fyfe, PhD candidate

# Health of Occupants of Mouldy Environments (HOME)



Indoor mould exacerbates asthma symptoms & associated with the onset of wheezing?

- Case control study 450 children (12 – 84 mths)
- 150 cases :1<sup>st</sup> treatment prescribed for wheezing in previous 12 months, 300 matched (gender, age, area) controls.
- Homes assessed for mould by parents, researcher & building assessor

**YES! ORs:**

Visible mould in child's bedroom

- Researcher 1.73 (1.14 – 2.63)
- Parent 1.80 (1.44 – 2.25)

Visible mould present house

- Parent 4.89 (2.15 – 11.09)
- Building assessor 1.57 (1.03 – 2.38)





# NEST study

Dr Caroline Shorter

Can we reduce wheezing and allergy in infants by improving housing and bedding?

- 461 pregnant women enrolled in the wider Wellington region.
- Provided with a heater for the child's bedroom (if needed)
- \$200 power voucher to help heat baby's bedroom in their first winter.
- Warm dry new bedding - a baby sleepsack (wool, feather or cotton composite) until they are 2 years old.
- Insulation floor and ceiling of the home where possible
- Allergy test, GP record outcome search and parental reports of wheezing at 2 years of age.



**H E K A I N G A O R A N G A**

# Preventing fall injuries by home modification



3 RCTs: HIPI study (850 households), MHIPI study (250 Māori households), SOS study (1,500 houses).

Modifications HIPI & MHIPI  
general modifications to prevent falls (handrails; step edging; grab rails; carpets; outside surfaces)  
SOS just repairs to access steps



Keall MD, Piers N, Howden-Chapman P, et al. Home modifications to reduce injuries from falls in the Home Injury Prevention Intervention (HIPI) study: a cluster-randomised controlled trial. *The Lancet* 2015; 385: 231–38.

Keall MD, Howden-Chapman P, Baker MG, Venugopal K, Cunningham M, Cunningham C, Guria J, Draper R, Skelton P (2013) Formulating a programme of repairs to structural home injury hazards in New Zealand. *Accident Analysis & Prevention* 57:pp. 124-30.

Keall M, Howden-Chapman P, Piers N, Cunningham C, Baker M (2018) Lessons Learned from Implementing a Programme of Home Modifications to Prevent Falls amongst the General Population, *Safety* 4:pp. 26.

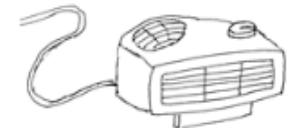
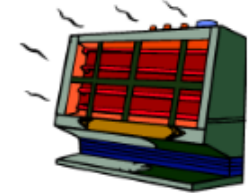
# Warm Homes for Elder New Zealanders

\$500 electricity voucher given one study winter to 600 households with older person with COPD

- >Households with the voucher used more electricity than those not getting it, but not to the full value of the voucher.
- > A bigger difference in low prior-use households



**How much heat can you buy for \$500?**



Te Whare Wānanga o Ōtago





**WELL HOMES**  
**MY HOME IS MY MARAE**  
 Is your whare warm & dry?  
*Kōrero mai*

☎ 0800 675 675  
 ✉ [wellhomes@huttvalleydhb.org.nz](mailto:wellhomes@huttvalleydhb.org.nz)  
 📘 Well Homes Wellington




MOULD CLEANING KITS



INSULATION



HEATING



BEDS & BEDDING



VENTILATION



OTHER - I.E. HEALTH OR SOCIAL REFERRALS



CARPET



MINOR REPAIRS

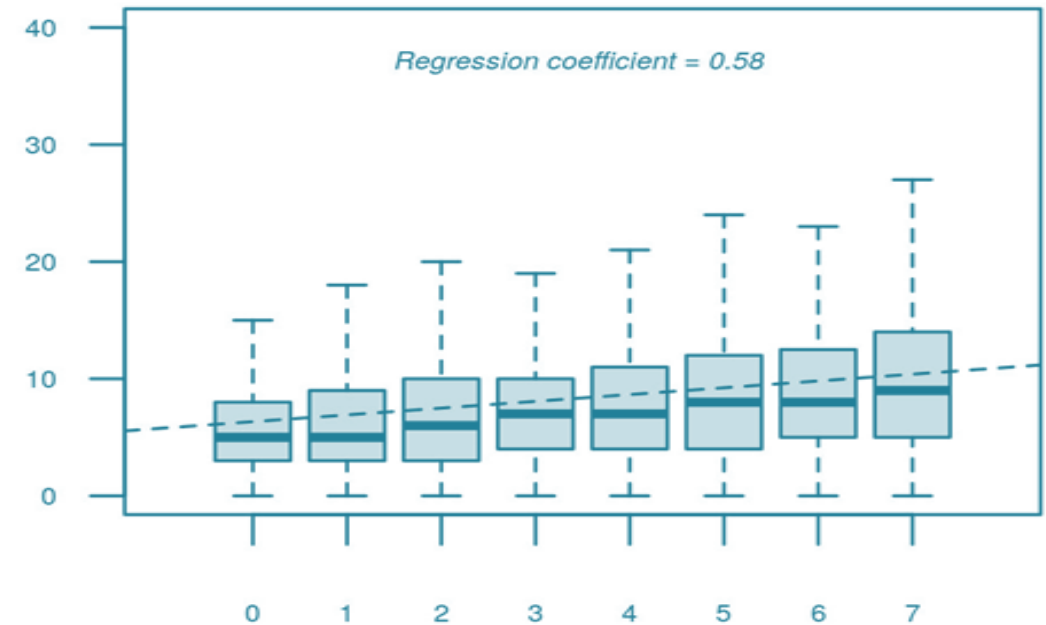


CURTAINS

**A/P Nevil Pierce**

# Residential mobility and socioemotional and behavioural difficulties in a preschool population cohort of New Zealand children

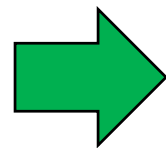
Kim Nathan,<sup>1</sup> Oliver Robertson,<sup>1</sup> Polly Atatoa Carr,<sup>2</sup> Philippa Howden-Chapman,<sup>1</sup> Nevil Piersé<sup>1</sup>



- Study used IDI address and Before School Check data for a cohort of >300,000 children.
- At 4 years two-thirds (69%) of children had moved one or more times and 12% had moved four or more times.
- Mobility was related to increased socioemotional and behavioural difficulties at age four,  $B = 0.58$ ,  $p < .001$  ( $B = 0.16$  adjusted).



RENTAL HOUSING  
**WOF**



**Residential Tenancies (Healthy  
Homes Standards) Regulations 2019**



Insulation  
Ventilation  
Heating  
Draught-stopping  
Drainage

Basic amenities  
Safety hazards

# Healthy Housing Standards



## Heating

A large proportion of rental homes have no heating in living rooms and bedrooms, or the heating is inadequate, inefficient, or unhealthy, and below recommended indoor temperatures.



## Insulation

Rental homes may not have a sufficient level of insulation in the ceiling and under the floor, and the insulation may not be in a reasonable condition.



## Ventilation

Many rental homes do not have enough ventilation, particularly in moisture-prone areas such as the kitchen or bathroom, so mould may form.



## Moisture entry and drainage

Many rental homes are not sufficiently protected from moisture rising from under the floor or through leaks in drains.



## Draught stopping

Many rental homes, particularly older ones, are draughty, making them cold, and more difficult and costly to heat.

## Healthy Homes Standards

Proposed healthy homes standards for heating, insulation, ventilation, moisture ingress, drainage and draught stopping

DISCUSSION DOCUMENT

September 2018






International Journal of  
*Environmental Research  
and Public Health*



Article

## Setting Housing Standards to Improve Global Health

Philippa Howden-Chapman <sup>1,\*</sup>, Nathalie Roebbel <sup>2</sup> and Elinor Chisholm <sup>1</sup> 

<sup>1</sup> He Kainga Oranga, Housing and Health Programme, University of Otago, Wellington 6242, New Zealand; elinor.chisholm@otago.ac.nz

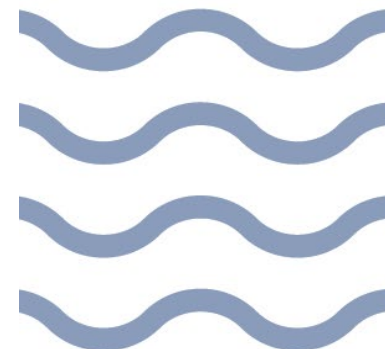
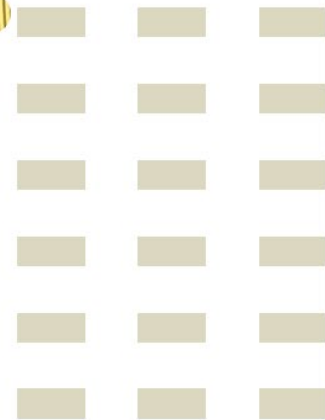
<sup>2</sup> WHO, Department of Public Health, Environmental and Social Determinants of Health, 1202 Geneva, Switzerland; roebbeln@who.int

\* Correspondence: philippa.howden-chapman@otago.ac.nz; Tel.: +64-27-220-1620

## WHO Housing & Health



WHO  
HOUSING  
AND HEALTH  
GUIDELINES





# Wellbeing and SDGs

- National govt view - social housing = slum housing & should be sold
- Labour-led govt reaffirmed right to housing & role of state in supply
- Increasing new public housing - sets standards for private sector & remediating existing homes
- Adopted world-first well-being budget framework
- Robust system approach to co-benefits
- Climate change addressed as part of well-being

# Housing NZ

- Crown Agency with \$28.6 billion assets
- Houses 4% of NZ 's 4.8 m population 187,000 people, 65,300 properties
- Major building projects as part of long-term investment planning
- Raised \$1.3 billion in sustainability bonds
- 2018-2019 1,472 new state homes (41% increase since 2017/183)
- Broad outcomes and social procurement
- Working closely with local councils



Te Māra Apartments, Wellington

# Housing NZ strategies

- New building standard (Homestar 6) above Code & Healthy Housing Guarantee Act; recognises WHO guidelines
- Emphasis on warm, dry, safe & stable housing
- Innovate, Partner, Build: relational contracts with preferred builders - emphasis on safety, apprenticeships & living wage
- Alliance contracts with civil engineers
- Commitment to urban regeneration, social inclusion
- Increased accessibility & customer focussed



Te Maru o Tawa Tawa, Wellington

# Conclusion

- Current government puts high priority on increasing number, proportion & quality of public housing
- Importance of bipartisan support for government role in maintaining & building public housing
- Research evidence base for increasing quality standards & importance of stability strengthens public support
- Emphasis under new *Kāinga Ora Homes & Communities* organisation for developing increasing capacity to work with and for Māori

