



## **The Nest Study – Final Report 30 June 2018**

Professor Philippa Howden-Chapman  
on behalf of NEST Research Team University of Otago, Wellington,  
Tu Kotahi Māori Asthma Trust and Naku Enei Tamariki  
[www.healthyhousing.org.nz](http://www.healthyhousing.org.nz)

### **Study Aim**

The Nest Study aims to examine the respiratory health benefits of improving the domestic environment in the newborn's first two years of life by:

#### Improving insulation

- An insulation check is provided to participants who do not have insulation in both their ceiling and floor
- Funding assistance is provided to low income families for insulation

#### Improving home heating

- A \$200 power credit is provided to heat babies room during their first winter
- Heaters are given to families who do not have one and cannot access one

#### Providing bedding

- Participants receive a sleep sack for their baby to use; participants are randomised to receive a duck down, polyester, or merino wool sleep sack.

### **Study Update**

The first family was enrolled in this study in February 2016. We now have 464 families enrolled and have completed recruitment. The oldest babies in the study have started turning two years old and we have been contacting their parents to collect the primary outcome data. As part of this, we invite families to an allergy clinic to have a skin prick test carried out on their two year old to determine atopy. We have upskilled nurses from Tu Kotahi to carry out the atopy testing. Plans are underway to collect the children's GP respiratory records for each consenting participant.

#### Insulation

At enrolment, we collected information about ceiling and floor insulation. If households did not have insulation in both their ceiling and floor, we arranged for the Sustainability Trust to assess their insulation levels. If insulation was required, the landlords of families in the study who were renting their accommodation and whose main tenant was a community services card holder were eligible for the Government's Warm Up New Zealand (WUNZ) subsidy, however higher

income households (either renters or home owners) did not get any subsidy. A change in criteria for government insulation subsidies in June 2016 prompted us to approach EECA for assistance in funding the cost of insulation for low-income homes that did not meet the government’s new criteria. With funding from EECA and Hutt Mana Charitable Trust the Nest Study was able to subsidise landlords for the cost of insulating homes for low-income renters without community services cards and low-income homeowners.

The Nest Study offered landlords a 50% subsidy on the cost of insulation up to \$1,500 and funded the full cost of insulation for low-income homeowners.

In total we referred 59 low-income homeowners to the Sustainability Trust and 49 homeowners have benefitted from having 100% of the cost of their insulation funded by the Nest Study. The rest were found to not require insulation.

We also referred 28 low-income renters without community services cards to the Sustainability Trust. Table 1 below summarises the status of these families. Only four landlords accepted the Nest Study subsidy for insulation.

**Table 1. Low income renters without community services cards**

Adequate levels of insulation	7
Insulation installed by Sustainability Trust	4
Unable to insulate due to physical layout of house	5
Landlord did not accept quote by Sustainability Trust	5
Tenant unwilling to provide landlord details	1
Unable to contact landlord	5
Tenant may be purchasing own house	1

Electricity credits

Electricity payments of \$200 were made to all families to help them heat their babies’ bedroom during their babies’ first winter. We advised families that the World Health Organisation recommends that babies’ bedrooms are heated to between 18°C – 21°C.

Heaters

For those families that were unable to financially source a heater for their baby’s bedroom (community service card holders or deemed to be in high need), the Nest Study supplied a thermostatically controlled micathermic heater. A total of 120 heaters were distributed to families.

Appreciation

We thank the Hutt Mana Charitable Trust for enabling us to complete phases one and two of this research study. Without its financial support we would not have been able to offer house insulation to all the low-income families in this study. We have another 20 months of data collection before all our outcome measures are received, at which point we will carry out our statistical analysis and be able to quantify the benefits of the study interventions.