

The Housing, Insulation and Health Study

This ongoing study is being carried out by the Wellington School of Medicine of the University of Otago

The study: A total of 1400 households and more than 5000 people took part to test whether putting insulation into uninsulated houses had any impact on the occupants' health or the energy they used. The research was carried out by the Housing and Health Research Programme at the Wellington School of Medicine. The School of Medicine worked in partnership with seven locally-based organisations at Otara, eastern Bay of Plenty, Nuhaka and Mahia, Taranaki, Porirua, Hokitika and Christchurch.

How the Study was done: Households were selected in 2001 and baseline interviews were carried out after the winter of 2001. Community interviewers interviewed everyone in the households to record their health, well being and power usage. The researchers then randomly assigned half the houses in each community to be insulated. Community retrofit teams insulated those 700 homes over the summer and then, after the winter of 2002, everyone was interviewed again. All the household information was collected and analysed. At the end of the study the remaining 700 houses were insulated.

Preliminary results:

- Overall there has been a small but significant drop in energy usage when houses are insulated
- Overall, once the houses were insulated they were drier and slightly warmer
- People in the insulated houses reported that their houses were significantly warmer
- There was a significant improvement in the self reported health of adults and children living in the houses that were insulated, compared to those whose houses were not yet insulated
- Adults and children in the insulated houses reported visiting the GP less. The decrease in the number of visits was significant for the adults
- Adults and children in the insulated houses reported that they were admitted to hospital less often for respiratory conditions
- Adults, who were in the work force and in insulated houses, were significantly less likely to report sick days off work, and children in these houses were less likely to have had days off school
- Samples of normal household dust were collected in three of the communities and examined for allergens and mould. All houses had mould, but the amount and species varied a lot. Insulating the houses did not seem to change the amount of mould, but householders in the insulated houses reported less visible mould.

Data from GPs and hospitals is still being analysed and results described as significant are statistically significant, the School of Medicine says.

The study and analysis is ongoing. Virtually all of the families involved in the study were from low income groups. Insulation was supplied by a range of suppliers.

Notes: This material is compiled from material of the Wellington School of Medicine.