

# EVALUATING THE GOVERNMENT'S “WARM UP NEW ZEALAND: HEAT SMART” PROGRAMME

The Warm Up New Zealand: Heat Smart programme was one of the largest universal insulation schemes implemented in the world, making Motu's thorough evaluation of it a significant piece of research. The report has been referenced internationally, including in a report prepared for the European Commission, and the lead researchers regularly present on the topic.

## THE BACKGROUND

In late 2009, the then Ministry of Economic Development (now Ministry of Business, Innovation and Employment or MBIE) called for proposals to evaluate the government's 'Warm Up New Zealand: Heat Smart' programme (WUNZ: HS). The programme, which had launched just months before, subsidised insulation and clean heating devices for houses built pre-2000. At a cost of over \$300 million, and with the potential for energy saving and public health benefits, a thorough evaluation of the scheme was critical to test if the expense was justified and to inform decisions as to its continuation. Motu won the tender with a consortium of researchers from Motu, University of Otago, and economics consultancy Covec.

## THE PROJECT

The methodology was complex, and collecting the required data was a costly process. The Motu team, led by senior fellow Arthur Grimes, successfully enlisted the cooperation of major energy companies who provided their records on a confidential basis. They matched those records with data from the Energy Efficiency and Conservation Authority (EECA) and information on house characteristics from Quotable Value Limited (QV). The University of Otago group (headed by Professor Philippa Howden-Chapman, whose earlier studies



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*The Ministry was very pleased with the 'Warm Up New Zealand: Heat Smart' evaluation and the way it helped support and guide policy. The level of analysis undertaken, linking data from a variety of sources, was greater than is the norm for programme evaluation exercises*

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on home insulation and health had led to the introduction of WUNZ:HS) was simultaneously leading a groundbreaking study that matched the EECA and QV data with hospitalisation records, pharmaceutical use, and mortality statistics.

## THE RESULTS

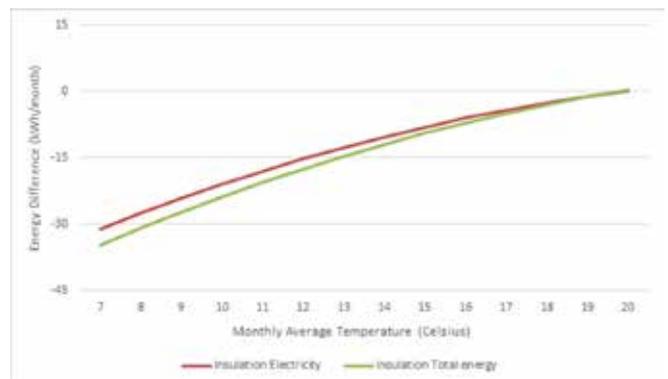
The WUNZ: HS programme was expected to have two main effects: net energy savings, and a reduction in hospitalisation and pharmaceutical costs. While the cost of warming a newly insulated house was reduced, the study found that electricity and gas use fell by only about one percent, indicating that most participants chose to maintain their previous energy expenses, but get more warmth for their buck. On the health side, the insulation had far more impact: the group discovered a significant reduction in mortality, especially in those aged over 65 who had a pre-existing respiratory or circulatory condition. This particular result, which was largely unforeseen, is a testament to the importance of conducting the evaluation.

Motu's research also found that the benefits of the scheme were more pronounced for lower-income households, and that the insulation component was more effective than the heating component. In late 2013, Warm Up New Zealand: Heat Smart was succeeded by Warm Up New Zealand: Healthy Homes, which narrowed its focus to providing insulation solely to low-income homes. Mike Underhill,

CEO of EECA, notes that the subsequent scheme is clearly 'a response to the benefits so clearly laid out in (Motu's) report.'

Gareth Wilson, then the relevant policy manager at MBIE, agrees: 'Motu's findings were extensively used to extend the programme and to focus it on households with occupants at risk of cold-related health issues.' The revised programme is more efficient in its use of public money than the initial, universal scheme. That the scheme was continued during a period of widespread funding cuts is testament to the specific, concrete recommendations provided by the consortium, and the robustness of the methodology used.

## Monthly Energy Savings from Insulation according to External Temperature



*Note: Savings shown are for Electricity and for Total Energy (i.e. electricity plus reticulated gas).*

