



**AFFILIATED  
INSULATION  
INDUSTRY  
COALITION**

# Thermal Performance for a Healthy Home

## THERMAL PERFORMANCE MATTERS

**Australians spend 90% of their time indoors,**<sup>i</sup> yet our homes are among some of the least energy efficient globally.<sup>ii</sup> Millions of Australia's homes were built before mandatory minimum energy performance standards were introduced, and often suffer from poor thermal performance.

Improving home efficiency **enhances both physical and mental health** for residents.

## THERMAL PERFORMANCE AND HEALTH ARE CONNECTED

Research confirms that the thermal performance of a home directly influences the health of its occupants. Specific benefits of good thermal performance include:

- **Physical health improvements:**
  - ✓ Reduced cardiovascular strain due to stable indoor temperatures.
  - ✓ Lower risk of respiratory issues caused by damp or cold environments.
  - ✓ Fewer hospitalisations and medical visits for weather related illnesses.
- **Mental health benefits:**
  - ✓ Reduced anxiety and stress from high energy bills or thermal discomfort.
  - ✓ Enhanced cognitive health through a stable and comfortable living environment.
- **Social well-being:**
  - ✓ Improved quality of life and social connections by reducing the pressures of energy poverty and discomfort at home.

## WHAT THE RESEARCH SAYS

**Australia:** The Victorian Healthy Homes Program assessed the impact of energy efficiency and thermal comfort upgrades for vulnerable households. Upgrades included insulation, draught sealing, space heating, and window coverings, averaging a cost of \$3,500 per home. For every \$1 saved on energy bills, over \$10 was saved in healthcare costs, with almost \$900 in healthcare savings per person during winter.<sup>iii</sup>

**New Zealand:** An insulation program for vulnerable homes in New Zealand delivered NZD \$7 in benefits for every dollar spent, reducing hospitalisations, medical visits, and missed work or school days.<sup>iv</sup> The Healthy Homes Initiative achieved similar success, ensuring children lived in warm, dry, healthy homes with access to thermal upgrades. Over five years, every dollar spent by Health NZ returned NZD \$5.07 in health savings, a 507% return on investment.<sup>v</sup>

**United Kingdom:** A study of insulation retrofits in social housing in the United Kingdom found that tenants reported improved social and emotional benefits, including feeling more comfortable at home, improved mental health, social interaction, and family relations.<sup>vi</sup>

**Japan:** A recent study found that living in warm, insulated homes improves cardiovascular and cognitive health by stabilising indoor temperatures, reducing strain on the heart, and promoting mental wellbeing.<sup>vii</sup>

## AUSTRALIA'S MOST VULNERABLE CAN BENEFIT MOST

Thermal performance upgrades promote healthy living for all, but research shows they are especially valuable for vulnerable households, which are disproportionately affected by poor housing conditions and energy inefficiency. These households often face energy poverty, forcing difficult choices between heating and other essentials, which worsens health problems and financial stress.

Upgrades like insulation, draught sealing, and efficient heating improve indoor comfort, reduce exposure to cold, damp, and mould, and lower energy bills, providing financial relief. By addressing these disparities, thermal upgrades create healthier, more stable living environments, breaking the cycle of poverty and improving wellbeing.

## A HEALTHIER FUTURE STARTS WITH THERMAL PERFORMANCE IN THE HOME

Insulation is a critical component to thermal comfort and better health outcomes in homes. By addressing poor thermal performance, households can improve health, reduce energy use, and lower their bills.

Improving thermal performance can:

- ✓ Reduce strain on healthcare systems.
- ✓ Enhance quality of life, especially for vulnerable people.
- ✓ Build household resilience to current and future temperature extremes.

**Insulation isn't just an energy efficiency upgrade—it's a public health investment.**

---

<sup>i</sup> DCCEEW, [Indoor Air](#).

<sup>ii</sup> American Council for an Energy-Efficient Economy (ACEEE), [International Energy Efficiency Scorecard](#), 2022.

<sup>iii</sup> Sustainability Victoria, [The Victorian Healthy Homes Program Research findings](#), 2022.

<sup>iv</sup> Grimes et al., [Cost Benefit Analysis of the Warm Up New Zealand: Heat Smart Programme Ministry of Economic Development](#), 2012.

<sup>v</sup> Pierse et al., [Healthy Homes Initiative: five year outcomes evaluation](#), 2024.

<sup>vi</sup> Gilbertson et al. 2006, 'Home is where the hearth is: Grant recipients' views of England's Home Energy Efficiency Scheme (Warm Front)', [Social Science & Medicine vol. 4 issue 4](#), pp. 946-956.

<sup>vii</sup> Umishio et al., [Effect of living in well-insulated warm houses on hypertension and cardiovascular diseases based on a nationwide epidemiological survey in Japan: a modelling and cost-effectiveness analysis](#), *BMJ Public Health* 2024;2:e001143.