

# Health Impact Evaluation of Warm Front

In 2001 an in-depth evaluation of the impact of Warm Front<sup>1</sup> was commissioned by the Department for Environment Food and Rural Affairs (Defra) with support from the Department of Health (DH) and the Department of Trade and Industry (DTI). Due in 2005, the results of the study should help us to understand how energy efficient homes can improve the health of their residents.

## 1. Background

Links between poor quality housing, fuel poverty and health are widely recognised. There is evidence that cold damp houses are associated with premature mortality, physical and mental illness and impaired quality of life.<sup>2</sup>

However, there are few robust studies showing positive links between better housing and better health<sup>3</sup>, and fewer still address the extent to which energy efficiency improvements promote better health. This makes it difficult for many in the health sector to fully engage with the issue. Yet 2.25 million households in the UK cannot afford to heat their homes to a satisfactory temperature. These 'fuel poor' households, especially those with elderly or very young members, are at risk from the negative health effects of cold homes.

In November 2001 the UK Government published its Fuel Poverty Strategy, which sets a target for eradicating fuel poverty among vulnerable households by 2010.<sup>4</sup> It is important that the energy efficiency initiatives within this Strategy are effective at assisting these vulnerable households. There is also a need to ensure that rigorous scientific evidence is available to the health sector on the detrimental effects of fuel poverty on health; and on the benefits of energy efficiency measures offered under Warm Front and other schemes. These benefits are likely to include improvements to health, and a consequent reduction in the use of health care services.

## 2. The Evaluation Study

Now, the Government has committed over £1M to investigate this issue.<sup>5</sup> For the first time, a large-scale, long-term and controlled study is assessing the impact of energy efficiency measures on health. The three distinct objectives are as follows:

- to evaluate the impact of key Warm Front interventions on householders' quality of life, mental and physical health, and risk of cold-related death
- to identify the potential of energy efficiency measures in general to improve householders' health and quality of life
- to assess the impact of key Warm Front interventions on the utilisation of health care services

The study is co-ordinated by Sheffield-Hallam University, leading a partnership with the London School of Hygiene and Tropical Medicine, and University College London (Bartlett School). Overseeing the study is the Energy Saving Trust, on behalf of a Steering Group chaired by John Chesshire, that includes DEFRA, DH, DTI, and a wide range of experts.

<sup>1</sup> Warm Front is a major Government grant programme, funded by Defra, for the installation of a range of energy efficiency measures and the provision of advice in the private sector

<sup>2</sup> Henwood, M (1997) Fuel Poverty, Energy Efficiency and Health, a report to the EAGA Charitable Trust

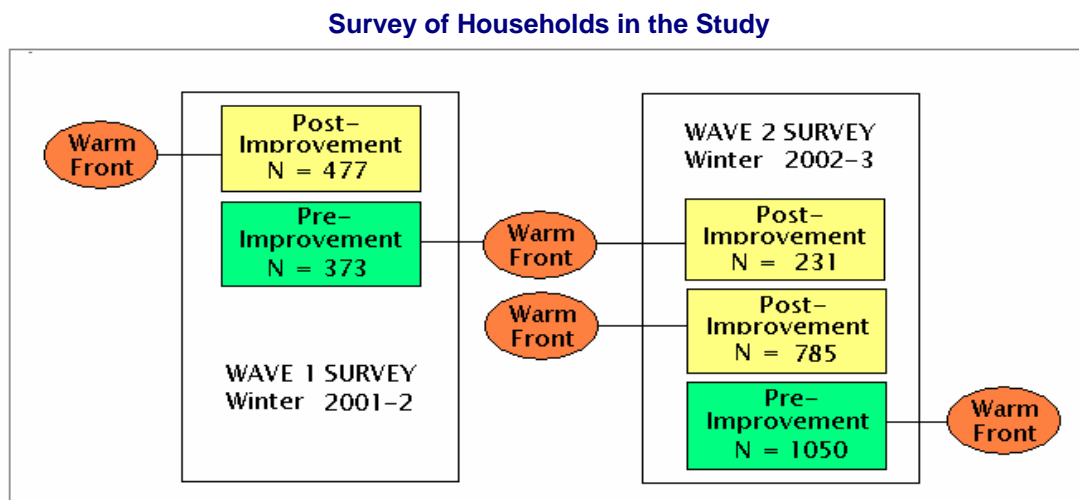
<sup>3</sup> Thomson H, Pettigrew M and Morrison D (2002) Housing Improvement and Health Gain: Summary and Systematic Review. Occasional Paper 5. MRC Social and Public Sciences Group. Glasgow.

<sup>4</sup> DEFRA/DTI (November 2001) The UK Fuel Poverty Strategy

<sup>5</sup> The bulk of funding is provided by DEFRA, with supplementary funding from the Welsh Assembly Government.

### 3. Methodology

The study analyses survey evidence from over three thousand households, undertaken over the two winters of 2001/2 and 2002/3. It entails both a cross-sectional and a longitudinal assessment of Warm Front recipients, as summarised in figure 1 below. Properties and households already in receipt of Warm Front measures (post-improvement) are compared with (pre-improvement) properties and households which were scheduled to receive these measures.



In this way, it is possible not only to compare the state of householders' health with that of another group at any one time (cross-sectional analysis), but also to assess any changes in householders' health over time (longitudinal analysis). This method of comparing different pre- and post- intervention groups overcame the potential ethical problem of withholding Warm Front measures from a "control group."

Households were recruited from five conurbations around England: Southampton, Birmingham, Manchester, Newcastle and Liverpool. This ensured that there were sufficient numbers in each area with its particular climatic and other characteristics, and also simplified the logistics of surveying.

The assessment is designed to measure improvements in energy efficiency and to detect changes in property condition (including damp and mould), heating systems and use, fuel consumption, temperature and humidity as measured by electronic data loggers in living room and bedroom, householders' thermal comfort and general well-being, specific ailments such as heart disease and respiratory problems, and use of health care services.

### 4. Schedule

The study commenced in November 2001, following a pilot. The fieldwork was undertaken in the winters of 2001 and 2002. Analysis of the data will become available through professional journals during the course of 2005/6.

### 5. Contact details

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