

Health: The Design, Planning and Politics of How and Where We Live

- **Paper / Proposal Title:**

Upgrading French Energy Inefficient Housing is Investing in Health

- **Format:**

Presentation (in-person)

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- **Abstract (300 words):**

Housing should provide a safe and healthy environment. This includes enabling households to maintain safe indoor temperatures. Where a dwelling is energy inefficient, those on low income may not be able to avoid exposure to low indoor temperatures during the colder seasons. Such exposure places a cost on society as it can cause or exacerbate a range of health conditions, and, in extreme situations, result in death.

The health costs attributable to bad housing, including those associated with energy inefficient dwellings, have been estimated in England using a approach based on the Housing Health and Safety Rating System (HHSRS). The HHSRS is a health-based risk assessment methodology, linking housing hazards, such as low indoor temperatures, to

health outcomes. This enables a cost to the health sector to be calculated as a result of exposure.

The objectives of this project were to –

- (a) adapt this English methodology to estimate the potential health costs of energy inefficient housing in France; and
- (b) investigate the cost benefits of tackling this problem.

First, the English and French energy performance indicators were matched so as to determine the number of energy inefficient dwellings in France. The Likelihood of exposure to low temperatures in such dwellings and the resulting harm enabled the potential cost to the French health sector to be estimated. Further analyses took account of income. The health costs were then compared with the cost of works to upgrade the dwellings to an acceptable energy performance level.

The findings show positive cost benefits for upgrading energy inefficient housing occupied by households with incomes in deciles 1, 2 and 3, with the greatest cost benefit for those at or below the poverty line. The study also shows that the HHSRS methodology is transferable to another country that does not use the HHSRS.

• **Author(s) Biography (200 words each):**

Dr Véronique Ezratty is a medical doctor, and an Environmental Health Risk Assessor at the Medical Studies Department (SEM) of EDF, France. In the department, Dr Ezratty is responsible for topics including Indoor Air Quality, Healthy Buildings, Energy Precariousness, Climate Change, and Endocrine Disruptors. Dr Ezratty has worked with the World Health Organization on energy and health as part of the WHO LARES project, and has worked on thermal comfort in dwellings, including exposure to high and low temperatures.

Prof. David Ormandy has a background in public and environmental health. Now attached to Warwick Medical School, he joined Warwick Law School in 1995, where he was responsible for projects to develop the Housing Health and Safety Rating System (now adopted by the US Department for Housing and Urban Development). He has worked with the New Zealand Government, the US Department for Housing and Urban Development, He has been an advisor to the World Health Organization since 2002, involved with the development of the WHO LARES project and is currently a member of the WHO Working Group on Health Housing Guidelines. He is a member of the Scientific Committee of the US National Center for Healthy Housing.