

**Cynulliad Cenedlaethol Cymru | National Assembly for Wales**  
**Y Pwyllgor Newid Hinsawdd, Amgylchedd a Materion Gwledig**  
**Climate Change, Environment and Rural Affairs Committee**  
**Ymchwiliad i Dlodi Tanwydd | Inquiry into Fuel Poverty**  
**FP 24**

**Ymateb gan : Iechyd Cyhoeddus Cymru**  
**Evidence from : Public Health Wales**

**Public Health Wales welcomes the opportunity to respond to this inquiry and its following themes:**

1. The scale and impacts of fuel poverty in Wales;
2. Why the Welsh Government failed to meet its statutory target of eradicating fuel poverty in Wales by 2018;
3. How Welsh Government action to date has helped to combat fuel poverty, in particular, the impact of the Warm Homes Programme (including Nest and Arbed) and the Welsh Housing Quality Standard;
4. How the Welsh Government's successor to the fuel poverty strategy (due for consultation in Autumn 2019) should differ from its 2010 strategy;
5. What steps the Welsh Government should take to ensure that new-build homes, as well as existing homes, are highly energy efficient to prevent them causing fuel poverty in the future.

**1. The scale and impacts of fuel poverty in Wales**

- 1.1. In 2018, 155,000 households in Wales (12% of households) were estimated to be in fuel poverty, of which 130,000 are vulnerable i.e. households containing someone who is elderly, a child, disabled or living with a long-term illness. A decrease from 29% in 2012 is welcomed and could be due to many reasons, including potentially increased household incomes and reduced household energy requirements due to energy efficiency improvements outweighing increases in fuel prices. However, it should be considered that fuel poor households may under-heat their

homes, so bills may not reflect true-levels of fuel poverty therefore underestimating the problem.

- 1.2. In Wales Fuel Poverty is calculated as spending over 10% of your net income on fuel costs, severe fuel poverty is spending more than 20%. Generally, it can be regarded as “the condition of being unable to afford to keep one’s home adequately heated”. It is therefore a measure of income, energy costs and energy efficiency. There is a well-established link between cold homes and ill-health, and fuel poverty contributes to social and health inequalities, with acknowledgement of a social gradient in fuel poverty, where households on lower incomes are more likely to be in fuel poverty than those on higher incomes.
- 1.3. Low indoor temperatures are likely to be a combined result of energy inefficiency of the dwelling (poor thermal insulation and/or inefficient or inappropriate provision for heating), the social or economic status of the household and the cost of energy. Households living in older properties (pre-1919 dwellings) and those living in the private rented sector are more likely to be fuel poor with around 20% of these households living in fuel poverty.
- 1.4. Fuel poverty and living in cold homes can contribute to adverse physical and mental health. Poor respiratory health, asthma, common mental disorders and increased risk of falls have been associated with living in damp, cold housing; as well as impacts on cardiovascular disease. The health and life chances of low-income households are affected by living in energy inefficient housing at various levels. Fuel poverty may negatively affect health and mental wellbeing *directly* through low indoor temperatures, and more *indirectly* through social problems such as social isolation, restricted use of living space, financial trade-offs (leading to the ‘heat or eat’ dilemma), and financial stress from a constrained budget and competing expenses, with the potential for debt problems i.e. leading to social isolation, stress and worry about heating bills and debt, affecting children as well as adults.
- 1.5. Inadequately heating a home, combined with poor build quality, can lead to homes with damp or mould and can cause a 30–50% increase in

respiratory problems, with children being particularly affected. Asthma and respiratory infections can result in work and school days lost, affecting both the household's and the national economy and educational attainment.

1.6. 'Safe' indoor temperatures for a healthy, adult is 18–24°C and 20°C for certain vulnerable groups. Temperatures under 16°C can lead to increased respiratory and cardiovascular risks, as can temperature variations.

Vulnerable sub-groups include older people, the young, the unemployed, and those with pre-existing illness, due to proportion of time spent indoors and risk of relative excess winter mortality. Cold homes can impact length of recovery time from illness, particularly those recently discharged from hospital.

1.7. In the winter of 2016/2017, there were 1800 excess winter deaths (EWD) in Wales. The World Health Organization has estimated that at least 30% of winter deaths are due to people living in cold homes, which suggests 540 of these deaths in Wales may be due to cold homes, and so preventable deaths. It is estimated that approximately 10% of excess winter deaths can be attributed directly to fuel poverty and people living in the least energy efficient quarter of homes are a fifth more likely to die during winter than householders in the warmest properties. Health specific evidence can be seen in the following [evidence review and economic analysis of EWD](#) and [Cochrane review](#)

1.8. Public Health Wales has also undertaken research on 'Improving winter health and well-being and reducing winter pressures in Wales – a preventative approach'. This includes evidence on interventions to reduce winter and cold related mortality and the links with fuel poverty.

1.9. Fuel poverty is a long-standing health issue: the impact of cold housing on health and the stresses brought on by living in fuel poverty have been recognised for many years. Cold housing and fuel poverty is avoidable and can be successfully tackled through effective policies and interventions.

## 2. Why the Welsh Government failed to meet its statutory target of eradicating fuel poverty in Wales by 2018

- 2.1. Total eradication of fuel poverty is an ambitious target, and fuel poverty is related not only to issues with heating and cost, but also household income with energy prices also playing a role. Currently the focus is on heating homes, but not on household income. There is evidence that welfare reforms have been regressive – see <https://gov.wales/impact-welfare-reform-households-wales> *“Overall, these changes are regressive, with the largest impacts being felt by people on the lowest incomes. Households with children are estimated to experience much larger losses than households without children. This is especially the case for lone parents in Wales who lose around £3,720 a year on average, and also large families. Those families with three or more children in Wales lose around £4,110 a year on average. Relative child poverty in Wales is estimated to increase substantially, with the reforms pushing an extra 50,000 children into poverty by the time they are fully implemented.”*
- 2.2. Measures to address housing stock require substantial resource and effort. A recent [public health report](#) states that it is likely that better living conditions contribute to improvements in health outcomes in the longer term, and that a better understanding of the impacts on recipients of energy efficiency schemes, could improve targeting of future fuel poverty policies.
- 2.3. Fuel poverty has reduced in Wales, but part of the challenge in eradicating fuel poverty is the age of the housing stock in Wales (hard to heat/hard to treat) and heating types (off mains gas network/free coal for ex-miners) which is described in more detail below. There is also the challenge of a lack of mains gas exacerbated by the geography of Wales, and rurality as part of this geography. Another issue is that fuel poverty, the way it is calculated is a function of cost and income, and events like austerity/benefits changes will have impacted this, and climate change (colder events during winter) increasing demand.
- 2.4. The UK has one of the oldest existing housing stocks in the EU, with many houses built in Victorian times. Wales, in particular, has a large proportion of solid-walled properties dating back to its past as a thriving

industrial economy of coal and slate mining. These small solid-walled houses make up 32% of total dwellings in Wales, with a higher number in rural areas (37%) compared to urban areas (29%). In addition, an estimated 20% (264,500) of dwellings in Wales are not connected to the gas network, with a higher proportion of these in rural areas and are therefore reliant on more expensive fuel types, such as heating oil, liquefied petroleum gas or electricity.

### **3. How Welsh Government action to date has helped to combat fuel poverty, in particular, the impact of the Warm Homes Programme (including Nest and Arbed) and the Welsh Housing Quality Standard**

- 3.1. Interventions to address fuel poverty include improving thermal efficiency of housing stock through Welsh Government investment of the Warm Homes programme.
- 3.2. The Welsh Government all-Wales fuel poverty scheme called **Warm Homes Nest** provides measures to improve the energy efficiency of homes occupied by vulnerable and low income households. Evaluation of the scheme found that energy efficiency measures provided a health protective effect, decreasing the number of GP visits for respiratory conditions in the intervention group by 3.9%, compared to a 9.8% increase for the control group. In tandem with Nest, which targeted individuals at-risk of fuel poverty, there is the Welsh Government's Warm Homes programme called **Arbed**, targeting areas containing low-income households. An evaluation used multiple methods including data linkages to assess the impact of the intervention on health service use, community-based study to investigate the short term health and psychosocial impacts of the intervention, and indoor temperature and humidity monitoring. While the intervention raised indoor temperatures, reduced energy use, and improved subjective well-being and a number of psychosocial outcomes, the study found no evidence of changes in physical health or reduction in health service usage.
- 3.3. Energy efficiency programmes that are area based, such as Arbed do not appear to be as successful as demand-led schemes such as NEST, although Arbed was successful in improving a comfortable living

temperature, easier to run and achieved bigger targets. Part of this issue could have been that not all homes in the area needed work and would have minimal intervention, in others the homes were not in poverty and could heat to a comfortable level, and for those in private rental there were issues as landlords needed to accept the intervention so this could have been a big barrier. Another general issue could be the sheer number of energy efficiency schemes in particular areas which can lead to confusion and reduced uptake.

3.4. The Welsh Housing Quality Standard (WHQS) aims to ensure that all dwellings are of good quality and suitable for the needs of existing and future residents, this is an aim that is fully supported.

3.5. It is also worth noting in terms of reach of the above schemes, there are 155,000 households estimated to be in fuel poverty in Wales, and do the current programmes in place have sufficient reach to eradicate fuel poverty.

#### **4. How the Welsh Government's successor to the fuel poverty strategy (due for consultation in Autumn 2019) should differ from its 2010 strategy**

4.1. Continue to develop, implement and evaluate evidenced based policies. The risk of fuel poverty is projected to decline over time as winters warm, however it is likely to still be the largest weather-related driver of mortality in the 2050s without additional action. It is therefore important that evidenced based policies continue to be developed, implemented and evaluated to address fuel poverty without increasing the risk of overheating.

4.2. Ensure robust data is collated and reported. There has in the past been a lack of data on fuel poverty statistics, and large EU funded schemes have often had a lack of robust monitoring and evaluation, therefore it is important that future schemes to address fuel poverty are thoroughly evaluated and reviewed before any roll out occurs. With the growing importance of climate change, it is also important that future schemes do not create issues themselves, for example:

- That a thermally efficient home allows occupants to manage heat as well as cold;

- That a thermally efficient home allows for sufficient ventilation and does not adversely impact on respiratory health;
- That other harmful pollutants including carbon monoxide as well as odours can be avoided;
- Schemes are able to improve internal air quality management;
- That radon potential is considered before, during and after any interventions.

Consider the implications of future climate change e.g. the [UK Climate Change Risk Assessment 2017](#) alongside future fuel poverty strategy development.

4.3. Continue to evaluate. Increased targeting of fuel poverty schemes looking at a more needs-based approach, as opposed to area-based, has been favoured as a way forward to help target the most vulnerable and reduce fuel poverty in Wales. Rurality is also an issue that should be considered when implementing such schemes. In considering the latest data, recent figures show that 50% of those living in fuel poverty were single person households without children, 21% of households living in properties with uninsulated solid walls were fuel poor, and 39% of people living in properties that do not have central heating were fuel poor. When implementing energy efficiency improvements and targeting interventions this data should be considered to help maximise availability and uptake of local and national schemes.

4.4. The method of payment is also an area for consideration as payment method is associated with increased risk of fuel poverty, with households using a pre-payment meter twice as likely to be unable to afford heat their home adequately. A quarter of all households using pre-payment meters are fuel poor. This could be an area for consideration in future schemes alongside the effectiveness of winter fuel payment and warm home discount schemes.

4.5. There are opportunities to reduce the risk of cold related health impacts via fuel poverty / thermal efficiency schemes. Such schemes should be reviewed and considered for potential expansion across Wales. For example, the Healthy Homes Healthy People Scheme in North Wales is a

scheme which provides a holistic approach to fuel poverty and improving health and well-being and reducing inequalities. The scheme is currently funded by Wales and West Utilities, and aims to remove residents from fuel poverty, improve health and well-being and reduce avoidable health inequity. There are also impacts on social isolation and general overall quality of life. The scheme involves the local authority, Care and Repair and North Wales Energy Advice Centre, Police and Fire service. Households in fuel poverty are identified and provided with advice and support. Furthermore, patients can be referred for support from GPs. The cost of the scheme from November 2017 to May 2018 was £40,000, and it generated estimated savings to householders of £111,000 through reduced utility bills and assistance with housing costs. More information is available at:

<https://www.warmwales.org.uk/healthy-homes-healthy-people/>

**5. What steps the Welsh Government should take to ensure that new-build homes, as well as existing homes, are highly energy efficient to prevent them causing fuel poverty in the future.**

- 5.1. Retrofitting and improving the design standards of new build homes, need to consider implications for climate change and for fuel poverty. Views of those who work in housing build and design, and the academic field are best sort to respond to this question.
- 5.2. Cardiff University has built innovative and award winning prototypes for energy efficient housing e.g. The Solcer house.  
<https://www.cardiff.ac.uk/research/explore/find-a-project/view/solcer-house>
- 5.3. In terms of effectiveness, researchers need to understand residents-behaviour before putting in 'green tech' / zero carbon homes as these would only work if the residents adhered to the advice given.
- 5.4. As mentioned in section 4, when improving energy efficiency in any home, particularly new-builds, consideration needs to be given to ensuring there is sufficient ventilation and cooling functions to prevent over heating in future years and potential exacerbation of respiratory ill-health.

5.5. Planning/building laws need to require homebuilders to adopt better standards. Dual function to reduce housing emissions and contribute to climate change, consideration of fluctuating temperatures. Building to a higher standard is better than retrofitting later on.