HEALTH & INNOVATION
PROGRAMME

SOCIAL EVALUATION REPORT

EXECUTIVE SUMMARY
IMPACT REPORT 2017 - 18

NEA
Action for Warm Homes

Prepared by National Energy Action

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Action for Warm Homes

1. Critical oversight see Annex 4

EXECUTIVE SUMMARY

Evaluation is a valuable tool. It aids understanding, provides insight into the effectiveness of programmes and interventions, and enhances and informs decision-making.

Furthermore, robust evaluation also provides greater transparency and accountability. To this end NEA, with the support and guidance of critical oversight partner Newcastle University, designed and delivered a social evaluation of the Health and Innovation Programme (HIP). HIP was a £26.2 million programme to bring affordable warmth to fuel poor and vulnerable households in England, Scotland and Wales. The programme launched in April 2015 and has delivered energy efficiency advice and measures to over 9000 households[2].

The programme was divided into three funds: The Technical Innovation Fund (TIF), the Warm and Healthy Homes Fund (WHHF), and the Warm Zones Fund (WZF). Projects financed under all three funds included the delivery of 'large' measures, such as substantial heating and/or insulation projects; furthermore, TIF- and WHHF-funded projects also included 'small' low cost energy efficiency interventions, such as heating system repairs and heating controls.

The evaluation involved research with over 700 beneficiary households, as well as NEA's HIP delivery partners, and was designed to assess the overall impact of the programme. The analysis focused specifically on outcomes at the household level (recipients of measures) and outcomes at an operational and delivery level (delivery partners). Full details of the evaluation strategy and methods are provided in Section 3.

Evaluation objectives:

1. To assess how well HIP targeted those in or at risk of fuel poverty, or who are vulnerable to ill health associated with cold homes

2. To assess new models of partnership working, particularly within the health sector, or through more innovative forms of partner eligibility with health-focused organisations

3. To review how effectively the HIP model addressed challenges associated with current fuel poverty service provision

4. To examine the extent to which HIP could improve the ability of households to achieve affordable warmth and improve their health, wellbeing and financial situation.

Key insights from the evaluation are presented below. Underpinned by the evidence presented in the main report a number of recommendations for policy and practice are offered to help inform both the design and delivery of future fuel poverty alleviation programmes.

2. Preliminary to end of March 2018, final data will be published in summer 2018.

Targeting those in or at risk of fuel poverty or ill health caused by cold homes

Fuel poverty occurs when low household income, high energy costs and poor energy efficiency combine, and the human cost to health and social inequality can be devastating.

The nature of fuel poverty shaped and informed the design of HIP; it was in essence a programme that put the fuel poor at its heart. It was therefore essential that the programme was able to reach the most vulnerable households at greatest risk of fuel poverty. While the programme and this evaluation did not seek to quantify the precise impact the scheme had on removing households from fuel poverty, the evaluation profiled and examined beneficiary households to assess the effectiveness of targeting. The profile of beneficiary households is examined in Section 3.

Beneficiaries were a heterogeneous group that diverged both by fund and by measure type (large or small). On the whole, the profile of HIP households closely reflected the general profile of fuel poverty and some of the most vulnerable groups (low income, older and those with cold-related ill health). Many of these households were living on the edge, facing a triple challenge characterised by an inefficient home and heating system, unaffordable energy bills and a low household income. Ill health and/or disability meant many needed, but were often unable, to keep their home warm. For too many the cost was simply not affordable.

HIP households were typically:

Low-income households: A majority (over three quarters) had a household income below £16,011 and were likely to be living in relative income poverty. Among WHHF households most households had an annual household income of less than £12,000.

Older households: HIP beneficiaries were usually over 65, and particularly so among those supported by WHHF; however, TIF and WZF households had a slightly younger age profile.

Households with a limiting or long-term health condition and/or disability: 59% of households had at least one cold-related pre-existing health condition, illness or disability.

Owner-occupiers: Most households across large and small measures were owner occupiers, but this was much more common among WHHF and WZF, whereas social tenure was more common among TIF households.

Improving energy efficiency and contributing to fuel poverty targets

As well as successfully reaching some of the most vulnerable households in terms of health and income, HIP measures were also very well targeted at households residing in homes with poor levels of energy efficiency. Indeed, more than two fifths of households occupied homes with an EPC Band of F or G, while 90% lived in homes with an EPC rating of Band D or below.

Post-intervention, the proportion of dwellings in Band C or above increased fourfold, from 9.9% to 40.6%, while the number of households living in the most inefficient homes (EPC Band F or G) was reduced substantially to just 2% from 39.2%. The vast majority of households (96.3%) had an increase in SAP points, and 68.5% of households assessed moved up one or more EPC Band.

Overall, the HIP programme lifted 1,805 assessed dwellings from B and D or lower to B and C or above; thus achieving the level set out in the statutory fuel poverty target for England and the aspirational target for the UK.

Test innovation in partnership working and eligibility (measures and household) to address challenges associated with current fuel poverty provision

HIP has supported many households that would have potentially fallen between the gaps of current mandated scheme provision.

The unique design of HIP involved flexible eligibility to target those most vulnerable, but importantly expanded on the types and extent of measures that are available under schemes such as the Energy Company Obligation (ECO).

This meant it could offer more optimal types and/or combinations of measures to improve the energy efficiency of homes to an extent that would enable affordable warmth. Specifically, this combined heating-based measures and insulation-based measures. Combining measures in this way was found to be significantly related to the extent to which thermal comfort was improved among large measures households.

- **94.1% of large measures households said that their thermal comfort had improved either a little or a lot compared to 84.2% that had not received both types of large measures.**

Evident in the design of HIP was its ability to successfully combine 'softer' interventions (e.g. advice) with capital measures (e.g. energy efficiency measures, such as heating systems) to bridge the gap when energy efficiency measures alone were not sufficient. The approach also involved procuring match and gap funding which meant households were not required to make a financial contribution. The success of HIP in doing so is particularly notable given the constraints imposed on the programme being prohibited from accessing ECO funds, or funds from other Ofgem-administered programmes.

Successful partnerships between NEA and its delivery partners meant that eligibility could be flexible and inclusive, as was the case for WHHF and WZF. This meant that broader vulnerabilities could be accommodated, and personalised case management meant that those that fell outside scheme criteria could be individually assessed for support. The partnership approach adopted across HIP funds also meant that obstacles and challenges could be quickly identified and addressed.

HIP's holistic, responsive and flexible approach has meant that over 90% of large measures households and over 80% of small measures households were satisfied overall with their HIP experience.

Enhance beneficiaries' ability to achieve affordable warmth and improve their health, wellbeing and financial situation

On the whole HIP brought about considerable improvements in how households manage their home heating, including aspects such as control over heating systems and ease of use, but also thermal comfort and energy bill affordability.

Indeed, thermal comfort has been improved for the vast majority of both large and small measures households. Furthermore, the incidence of 'subjective fuel poverty' (i.e. the self-reported inability to keep your home comfortably warm in winter), was more than three times less likely among large measures households, and almost half as likely among small measures households. Improved comfort and the ability to keep the home warm during winter reflects the impact of the energy efficiency measures installed, which in half of large measures households was directly attributed to more affordable energy bills.

Indeed, two thirds of large measures households and a third of small measures households reported that their energy bills were more affordable.

Not only did this improve comfort, but for some households their budgets became more manageable and worry about meeting the costs of household bills was reduced. While the extent of improvement was typically lower among small measures households than for large measures households, it is hugely encouraging that the small measures provided brought about such significant benefits for households.

While diseases, health conditions and disabilities should not be conflated, nor should the presence of some conditions or disabilities be automatically considered an indication of poor health, the presence of either a health condition, disease, or disability can be an indicator of energy vulnerability.

Among HIP beneficiaries pre-existing health conditions and disabilities, including those known to be associated with cold homes, were commonplace.

Furthermore, a large proportion of large measures households reported that their physical and mental health had been affected by living in a home they were unable to keep comfortably warm. As would be expected given the targeting and eligibility criteria adopted by WHHF, these households were not only more likely to have a pre-existing health condition or disability, but were also more likely to have more than one, and to report that living in a cold home affected both their physical and mental health.

Affordable warmth

- 85.7% of large measures households and 68% of small measures households had improved thermal comfort
- Large measures households were more than three times less likely to say that they could not keep their home comfortably warm in winter – down from 72.8% to 20.1%
- Small measures households were almost half as likely to say they could not keep their home warm in winter after receiving support from HIP – down from 70.6% to 39.8%
- 75% of large measures households and 47.7% of small measures households said they had more control over their home heating systems
- Energy bills were more affordable for two thirds of large measures households and half associated this with the HIP measures received
- A third of small measures households said their energy bills were more affordable after intervention.

For more detail on the affordable warmth impacts of HIP refer to Section 4 of the main report.

Overall HIP was successful at targeting households vulnerable to the damaging effects of the cold due to cold-related ill health. However, some cold-related conditions, including dementia, mental illness (other than anxiety or depression) and stroke had lower representation among HIP households than some others, including respiratory conditions, anxiety or depression and circulatory conditions (e.g. heart condition or heart disease). It is likely that this is related to the national prevalence of these conditions.

As with affordable warmth, both large and small measures-based interventions are shown to be associated with improvements to the physical health, mental health and mental wellbeing (i.e. general feelings of wellbeing and not clinical or diagnosed conditions) of households. However, large measures-based interventions are shown to be more effective at addressing pre-existing conditions. Nevertheless, over half of large measures and almost half of small measures households associated changes in their pre-existing health conditions to receipt of their HIP intervention. In particular, it was found that the greater the improvements to thermal comfort the greater the improvements to self-reported health.

The social evaluation of HIP examined differences between groups, and despite different eligibility criteria and targeting across funds to capture a spectrum of fuel poverty risk, several post-intervention outcomes, including thermal comfort, affordable warmth (subjective fuel poverty) and mental wellbeing appeared broadly similar. While the initial gap to bridge may have been wider for some, interventions appear to have had a 'levelling' effect. That is, households with different starting points in terms of ability to achieve affordable warmth or mental wellbeing had broadly similar post-intervention outcomes, and the gap between them was much reduced.

This can be demonstrated using the mental wellbeing score, where the higher the score the greater the wellbeing. Pre-intervention, the scores were 14.19 for WZF households, 12.63 for WHHF households and 14.09 for TIF households. Post-intervention, these scores were 16.18, 16.29 and 16.72 respectively.

Health and wellbeing

- General health was improved for 36.2% of large measures households and 31.5% of small measures households
- General mental health was improved for 35.3% of large measures households and 26.4% of small measures households
- 43.7% of large measures households and 24.3% of small measures households said that post-intervention there had been an improvement in a pre-existing health condition and/or disability (or in the ability to cope with the condition or disability)
- 51.4% of large measures households and 46.7% of small measures households with pre-existing health conditions said they thought the change was associated with their HIP intervention.

RECOMMENDATION 1:

Households should not be viewed as passive scheme recipients without individual agency. These households are often actively coping and managing their daily lives to meet their most basic needs through strict budgeting and a thrifty or frugal way of being. This means that scheme delivery needs to flex with their lives and not vice versa. Without heeding this approach, normalised practices of survival will take precedence irrespective of the value of the assistance being provided. These considerations should be adequately accounted for in future scheme design to ensure those who often consider themselves outside the realms of conventional help can be assisted.

HIP was also able to demonstrate the success of ensuring schemes that are targeted at the fuel poor have flexible and reactive eligibility criteria, so that they account for and reflect the diversity of energy vulnerability; are free to access; exclude the need for top-ups through innovative partnership working and funding combinations (e.g. gap funding where scheme funds cannot fund in full the suite of measures required); provide warranties for products installed; and services to remedy any errors, at no cost to the household. While there may be challenges associated with translating these elements of HIP's delivery into a national or local context, if applied, these factors would also overcome common barriers to the take-up of energy efficiency schemes among low-income and vulnerable households.

RECOMMENDATION 2:

Overall, HIP was very well targeted at those at risk of fuel poverty (low household income and poor energy efficiency) and those at risk of cold-related ill health, thus representing some of the most vulnerable and hard-to-reach members of society. HIP also demonstrated how energy efficiency and fuel poverty alleviation interventions can be delivered effectively to vulnerable households in different tenures. There was however a clear tenure bias with very few private rented tenants supported. Future programmes like HIP should therefore consider how more diverse tenure profiles can be supported to help ensure that the benefits of such programmes are brought to a wider range of vulnerable households. This will require the development of new approaches to engage private landlords and homeowners with more innovative products (all of which needs to be installed properly, explained to households, run efficiently/maintained/serviced and decommissioned safely). TIF projects either relied on the contractor, social landlord or NEA's own project co-ordinators to perform these functions. Engaging private landlords, providing co-funding and/or ensuring private households feel more confident performing some of these key roles represents a substantial challenge.

RECOMMENDATION 3:

The role of evaluation in contributing insights to inform scheme design, operational delivery and enhance evidence-based policy is critical to ensuring transparency and accountability. This is particularly important where schemes are funded via public money or via energy bills. Evaluation can also reveal previously unknown gaps in knowledge and understanding. In this evaluation the concept of 'levelling' as it relates to a fuel poverty risk gradient is one such gap that should be further researched and examined. This will ascertain the extent to which the concept can be usefully applied as a gauge of fuel poverty outcomes associated with intervention programmes.

RECOMMENDATION 4:

Future programmes should seek to ensure that revenue funding as well as capital funding is made available to support the delivery of complementary services. These services should not be seen as secondary to capital measures but an essential part of the package. Adequate energy advice enhances households' ability to use and control their heating patterns and their comfort. This requires resourcing, but has clear benefits if appropriately incorporated into energy efficiency programmes.

RECOMMENDATION 5:

While recognising limitations created by funding and available resources, aftercare services should be offered as standard by all programmes that target interventions to low-income and vulnerable households. This should include a 'who to contact when things go wrong' directory with direct contact details for post-intervention resolutions. Where these contacts become out-of-date, scheme providers, contractors and/or installers should actively contact households to provide updated information. Further proactive aftercare services should be considered for the most vulnerable households whereby households receive one or several post-intervention follow-up calls/visits (or are referred to wider support services).

These follow-up services are recommended on the basis that support for ongoing effective use of measures and/or behaviour change can make the biggest difference to people's lives. Commissioners could seek to secure these aims within contractual clauses in grant-funding agreements with delivery partners.

RECOMMENDATION 6:

As noted in recommendation 4, both the survey analysis and qualitative insights underlined the importance of delivering good quality, timely and multifaceted advice that is provided alongside fuel poverty and energy efficiency capital measures programmes.

This is vital and we recommend advice packages should include as a minimum two basic types of energy advice: 1) advice that relates directly to an intervention or technology (including existing technologies e.g. heating controls); and 2) advice that relates to more general energy use in the home, energy efficient practices, market engagement and wider financial and debt advice.

Projects funded by HIP were required to provide this advice and in specific projects, such as those funded by TIF, follow-up advice was provided in recognition of the nature of some of the new or more innovative technologies being trialled.

RECOMMENDATION 7:

Fuel poverty and energy programmes that offer advice services should consider the provision of advice at multiple points.

As a minimum, advice should be offered at two points: installation (e.g. by the installers), and immediately before and/or after the installation by trained and skilled energy advisors.

This aligns with recommendations from the National Institute for Health and Care Excellence (NICE) for multiple points of advice to support vulnerable people living in cold homes[3] and their recommendations on behaviour change[4].

The experience of HIP, through both NEA staff and delivery partners, leads this recommendation to recognise the limitations of some stakeholders (e.g. installers) to deliver in-home energy advice that is not specifically related to their area of proficiency or where they do not hold the appropriate qualification or competencies.

3. NICE (2015) Excess winter deaths and illness and the health risks associated with cold homes. NICE guideline [NG6]
4. NICE (2007) Behaviour change: general approaches. Public Health Guideline [PH6]

RECOMMENDATION 8:

HIP has confirmed the value of incorporating income maximisation and energy bill support with energy efficiency interventions. Under the WZF the value of this type of non-energy advice was firmly underlined. Here, over £6 million per annum in confirmed additional welfare benefits was achieved.

This equates to over £2,000 per annum per household advised, which can make a life-changing difference to a household in fuel poverty. Failing to incorporate income maximisation into energy advice means that the affordability of energy can remain a key issue for many low-income households, and the economic impact of 'freeing up' spending for other essential goods and services in poorer households or poorer communities will not be as evident.

RECOMMENDATION 9:

While small measures interventions brought about positive impacts for beneficiary households and had a positive effect on those suffering chronic or long-term illnesses, more substantial interventions are required.

This approach must be led by a package of cost-effective energy-saving measures alongside an acknowledgment of the needs of vulnerable recipients and the desire to minimise disruption. It is recognised that the potential of this recommendation is limited by the overall funds available to future schemes either locally or nationally. However, the greatest improvements to comfort and affordable warmth were made where multiple measures that combine heating and insulation were provided.

This can be further enhanced when complemented by heating controls, draught-proofing, funded low-cost remedial works and energy advice.

RECOMMENDATION 10:

Schemes that seek to target interventions on the grounds of health, and in particular cold-related ill health, should consider how households with some under-represented conditions could be more proactively targeted for support or explicitly built into qualifying criteria.

This is particularly the case for conditions such as dementia, mental illness (other than anxiety or depression) and stroke.

This will require the development of further engagement and partnerships with non-energy-related, health-specific specialists. It is encouraging that independently of HIP, this form of partnership work is advancing, but further engagement from health-based charities and service providers will need to continually be cultivated.

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