HEALTH & INNOVATION
PROGRAMME

WARM & HEALTHY HOMES FUND

FINAL REPORT 2015 - 18

ENERGY ACTION SCOTLAND

NEA
Action for Warm Homes

Foreword

The most important thing we do is help people who are at risk because they live in cold and damp homes.

It's the most important, not just because of the immediate relief to fuel poor households, but because it provides essential insight into what works, how people can get the most benefit from support or measures and what needs to be done better.

On average, over 9,700 vulnerable people across the UK die needlessly throughout the winter months due to cold homes. Many thousands more suffer chronic ill-health. What the projects delivered through the Warm and Healthy Homes Fund achieved for individual households is hugely important, but what it shows about how we could make programmes and partnerships more effective, could be many times more valuable.

I am delighted that NEA is able to share such invaluable insight through this report. It is a great resource and an even greater challenge.

NEA is grateful to Ofgem, the oversight panel, our projects funders and delivery partners.

Adam Scorer
Chief Executive

"I'm so grateful for the help I received; the house is much warmer now and I no longer have to wear five layers and a woolly hat to keep comfortable. I'm disabled which means I'm in the house for most of the day making it difficult for me to stay warm."
Householder assisted by the Warm and Healthy Homes Fund

"I'm delighted to have the opportunity to thank you and your colleagues at South Yorkshire Energy Centre for the help and support you have given my patients at Heeley Green Surgery around their energy needs. The boiler scheme has transformed people's lives. One of my patients living with long term ill health had had no heating for years and no hot water for months despite being in work. Many people cannot afford the basics that the majority of us take for granted - whether in low paid work or on benefits. Home owners who develop health problems or are out of work are amongst this group. You have been untiring in your efforts to support people's basic right to warmth, and to inform health professionals of the dangers associated with cold homes." **GP, Heeley Green Surgery (referral partner)**

"The health-based eligibility criteria enabled the delivery of measures to a wide ranging number of clients who were delighted to be able to receive assistance from a scheme that recognised their individual needs."
Representative from Tighean Innse Gall, one of our Warm and Healthy Homes Fund partners

"NEA was instrumental in making our Warm Homes, Healthy Homes Service such a success. They provided high quality awareness raising and training, bespoke e-learning, resources, and a comprehensive health needs assessment that informed the targeting of the project during the year. However it is the less tangible things that made such a difference – this includes their expertise and advice, access to national grants and policy information, and support with communications and media as they are the national leaders in the field."
Rob Howard, Consultant in Public Health, Leicestershire County Council

Introduction

In the last four years NEA has received significant funding following a number of agreements between Ofgem and energy companies to make redress for non-compliance of licence conditions/obligations. This has enabled NEA to design, develop and deliver many exciting and innovative work programmes that have directly benefited thousands of households through energy efficiency measures and millions indirectly, through community engagement and awareness raising programmes working in communities. In many instances it has allowed us to lever other funds, build capacity, and to improve and share understanding of solutions to fuel poverty and opportunities to better target assistance.

NEA's £26.2 million Health and Innovation Programme, delivered from April 2015 was the first and largest programme funded in agreement with Ofgem through redress payments and the biggest GB wide programme implemented by a charity which puts fuel poverty alleviation at its heart.

Contents

Executive summary

NEA is the national charity seeking to end fuel poverty.

We work across England, Wales and Northern Ireland and with our sister charity Energy Action Scotland, to ensure that everyone can afford to live in a warm, dry home. In partnership with central and local government, fuel utilities, housing providers, consumer groups and voluntary organisations, we undertake a range of activities to address the causes and treat the symptoms of fuel poverty. Our work encompasses all aspects of fuel poverty, but in particular emphasises the importance of greater investment in domestic energy efficiency.

The **Warm and Healthy Homes Fund (WHHF)** was part of a wider £26.2 million **Health and Innovation Programme (HIP)** launched in April 2015 with the aim of bringing affordable warmth to over 6,500 fuel poor and vulnerable households in England, Scotland and Wales. The HIP programme comprised three distinct funds:

- A **Warm Zones Fund**, which has enabled the installation of heating and insulation measures, managed and delivered by NEA's not-for-profit subsidiary Warm Zones CIC, and operated in England, Scotland and Wales.

- A **Technical Innovation Fund**, to investigate the impact on fuel poverty of a range of innovative technologies in households in England and Wales, using measures that would not traditionally be within the scope of current mandated schemes.

- A **Warm and Healthy Homes Fund**, which built on guidance and new quality standards issued by the National Institute for Health and Care Excellence (NICE) for addressing excess winter deaths and the health risks associated with cold homes. NEA partnered with local delivery partners to effectively target support to those in most need. This Fund featured three elements:

  The **Partnerships programme**, which awarded **eleven** health and housing partnerships across England and Wales with grants to provide households most at risk of fuel poverty and cold-related illness with heating and/or insulation measures.

  The **Small Measures programme** which awarded **eight** home improvement agencies across England and Wales with a charitable grant fund to install a range of low cost energy efficiency interventions.

  NEA's sister charity **Energy Action Scotland (EAS)** was awarded a grant to manage a programme of high value and lower cost interventions across **three** fuel poor areas in Scotland: the Western Isles, the Orkney Islands and Glasgow.

As well as administering the WHHF programme, NEA developed and delivered training and community engagement sessions, held events to bring our lead partners together for shared learning and good practice, and conducted a social evaluation to capture the impacts of the Fund.

This report outlines the delivery, achievements and impacts of the Warm and Healthy Homes Fund to the end of June 2018[1].

As much as £1.36 billion is being spent by the NHS each year[2] as a result of people living in cold, inefficient homes. NEA has sought to invest funds to reduce this impact and demonstrate how investing in domestic energy efficiency could fundamentally improve an individual's health and seek to reduce the impact of cold-related health conditions on our National Health Service.

The current scale of cold homes is needlessly costing health services and tax payers billions of pounds. Instead of treating the symptoms of cold homes we should address the causes, and NEA's Warm and Healthy Homes Fund was established to support that notion.

There are over 12 million homes across the UK that are less efficient than a modern home built today[3]; around 4 million contain those households on the lowest incomes.

Delivery of the Warm & Healthy Homes Fund has been a flagship programme of work for NEA over the past three years and continues to provide the charity and our partners with a wealth of delivery experience and learnings. It is important to share our recommendations from the programme so that other stakeholders can consider our learnings when designing or implementing their own fuel poverty and health projects.

We have identified a number of key observations and recommendations for delivery partners and policy makers

which are detailed in full later in the Impact Report. In summary they focus on the following areas:

Ensuring efficient partner delivery

1. Use the Public Health England Quality Outcomes Framework indicators for tracking progress

2. Service mapping prior to introducing referral services can help avoid duplication of effort

3. Schemes that seek to target interventions on the grounds of health should consider how households with underrepresented conditions could be proactively targeted for support

4. Capital funds should finance the installation of both high value and/or lower cost energy efficiency interventions; this will enable the householder and property to receive the most appropriate measures

5. As set up times can be protracted, funding pots should ideally run for more than a year

6. Consider household size when setting income thresholds to determine suitable eligibility for assistance

7. Establishing a framework with a variety of potential (local and national) contractors helps to increase capacity, value for money and mitigates delays

8. Account for additional costs in rural areas when setting any grant maxima

9. Regularly review how to simplify the reporting process

10. Evidence from the WHHF has demonstrated that access to gap and/or match funding creates a more robust and effective delivery model

Improving the client journey

1. Recognising additional time and resource are required to support vulnerable householders

2. Providing a combination of measures and good quality, timely and multifaceted advice will ensure maximum benefit for householders

3. Having a nominated contact point for householders ensures continuity and improves communications

4. Clarify timeframes and manage expectations throughout

Observations and recommendations to policy makers

1. Providing recurrent funds is more cost effective, improves the client journey and would facilitate preventative assistance

2. Presently, engagement with the health and social care sector remains inconsistent. There needs to be a concerted effort to co-ordinate engagement and investment in affordable warmth schemes

3. Central government investment is essential, particularly to support gas boiler repairs or replacements. There is scope for energy efficiency to be treated as a public health prevention priority, and rolled out more widely across the population, and particularly to those on the lowest of incomes irrespective of additional vulnerabilities

4. The new powers created by the Digital Economy Act must be utilised to dramatically improve targeting, tailoring advice and help establish new referral routes[4]

5. The NICE NG6 recommendations should be transposed systematically in England and suitable equivalents introduced across the devolved nations; this will encourage a national approach which can amplify the outcomes of the WHHF

6. The most vulnerable clients often cannot afford to contribute towards the cost of energy efficiency measures, ideally schemes should not require a client contribution

7. WHHF has shown that utilising health-based eligibility criteria ensures that grant funding can be targeted to the most vulnerable

8. The ability to implement ‘at risk’ or crisis assistance to households which fall short on stringent eligibility criteria would be welcomed

9. Adequate resources must be effectively factored into the planning of capital measure programmes

10. There is long-standing recognition that living in a cold home exacerbates existing health conditions, coupled with significant qualitative evidence from local schemes of the impact affordable warmth activity can have on arresting or stabilising health conditions. This evidence is however fragmented and there is no on-going central repository of this insight

The cold homes crisis – the case for action

Whilst UK-wide statistics for fuel poverty are no longer produced[5] by the UK Government, the last year that they were published in 2015 highlighted that there are over 3.5 million vulnerable households who are unable to heat and power their homes adequately across the UK; an increase of 500,000 compared to the previous year[6]. In addition, even under the relative Low Income High Costs (LIHC) indicator in England, there are 2.5 million households living in fuel poverty. NEA estimates that based on the 10% definition around 4 million UK households currently live in fuel poverty.

Evidence continues to show the increased risk of heart attacks and strokes via rising blood pressure for these households, as well as causing or worsening respiratory illnesses such as Chronic Obstructive Pulmonary Disease (COPD) and asthma. There is also strong existing evidence that cold homes can worsen arthritic, rheumatic conditions and increase propensity to falls. Sadly these households are also most susceptible to premature death. Using the World Health Organization (WHO)'s estimate that 30% of winter deaths are caused by cold housing[7], we estimate that over 9,700 frail and vulnerable people across the UK are dying needlessly on average throughout the winter months due to cold homes; 80 people per day. Alongside this, approximately 3,200 excess winter deaths are linked directly to people experiencing fuel poverty. Fewer people die each year from drug misuse or skin cancer[8] than those who die as a consequence of fuel poverty. This should not be acceptable in the fifth largest economy in the world. Worry about high fuel bills and fuel debt also continues to significantly damage mental health, which is affecting an increasing number of households[9].

A baby born today and living in cold housing is also almost three times more likely to suffer from coughing, wheezing and respiratory illness. Existing evidence also highlights that infants from families in receipt of the winter fuel subsidy were 30% more likely to be admitted to hospital or primary care clinics in their first 3 years of life and were 20% more likely to be underweight than families who do not receive the subsidy[10]. As the child develops, this in turn impacts on long-term educational attainment, either through increased school absence through illness or because they are unable to find a quiet, warm place to study in the home[11]. In adolescence, one in four teenagers living in cold housing are at risk of multiple mental health problems[12]. Struggling to stay warm at home and experiencing fuel debt have also been independently linked with the experience of Common Mental Disorders (CMDs)[13].

The physical effects of cold indoor temperatures can increase the risk of heart attacks and strokes via rising blood pressure, as well as causing or worsening respiratory illnesses. Furthermore, those suffering from COPD are four times more likely to be admitted to hospital with respiratory problems over the winter[14]. Meanwhile, increased fibrinogen levels in the blood experienced during colder temperatures increase the risk of clotting, and it is likely that this is linked to the 9-15% rise in coronary heart disease which we experience during cold weather[15].

Data released in March 2018 by the Office for National Statistics, Department for Health and Social Care and Public Health England, shows that the latest winter cold snap caused a dramatic increase in premature deaths. The spike in deaths was 12% above the five-year average for a normal winter. The rolling five-year average of excess winter deaths in Great Britain is 27,438 for England, 1,873 for Wales and 2,386 in Scotland. The WHO estimates that 30% of such deaths are caused by cold housing[16] and recommends that indoor temperatures be kept at 21°C in living rooms and 18°C in bedrooms for at least 9 hours a day, in order to prevent cold-related ill health[17].

Why treat people and send them back to the conditions that made them sick in the first place[18]

Energy efficiency improvements have been shown to have a tangible impact on health, thermal comfort and providing affordable warmth.

Evaluation of the Warm Front[19] scheme found that 70% of households that increased their indoor temperatures to WHO levels following the receipt of heating measures did not show an increase in mortality risk with colder outdoor temperatures, whereas the mortality risk for those households who did not increase indoor temperatures actually increased by 2.2% with every 1°C fall in outdoor temperatures[20]. Similarly, evaluation of the Nest scheme in Wales found that GP interventions for households in receipt of energy efficiency measures dropped by 4% for respiratory illness and 6.5% for asthma[21].

Evaluation of the Central Heating Programme in Scotland found that not only were residents saving money on their bills and heating their homes to a comfortable temperature but, of those that had reported respiratory, circulatory or rheumatic health conditions prior to the intervention, 40%

said the condition had improved following the installation of central heating in their homes[22].

In another detailed study in the South West of England, home energy improvements were associated with an 80% decrease in the rate of sickness absence from school for children with asthma and recurrent respiratory infections[23].

Despite this progress almost one in five households with a child under 16 live in fuel poverty and the risk increases for lone parent households; one in four of whom is fuel poor[24].

It is estimated that treating the health and social care impacts of cold homes and poor housing is costing the NHS between £1.4 and £2.5 billion every year, yet evidence suggests that £1.4 billion could be saved in first year treatment costs alone, should all properties with poor energy efficiency be improved.

Addressing cold homes as a social determinant of health

Within the health and social care sector, there is a clear policy directive at a national level for tackling cold homes and fuel poverty as social determinants of health. The WHHF was established to further those aims, and to support the evidence demonstrating the impact a warm home can have on a person's health.

The NHS Five Year Forward View argues that preventative public health measures need to be scaled up and incorporated into clinical treatment models. This perspective looks to improve health by increasing the focus on prevention. Within this context, Sustainability and Transformation Plans (STPs) require the NHS to join with local partners to deliver preventative, place-based services that can achieve health and wellbeing outcomes at a population level.

Contributing to this are the indicators set out in the Public Health Outcomes Framework (PHOF) for England (2013)[25]. Indicators identified within the PHOF should be addressed in order to achieve two high-level public health outcomes: 'increasing quality of life' and 'addressing health inequalities'. Significantly, both excess winter deaths and fuel poverty are listed within the PHOF as outcome indicators.

Similarly, Public Health England's Cold Weather Plan[26] sets out that both indicators should be incorporated into year-round commissioning.

Policy directives in this area were further strengthened in 2015 by the publication of the NG6 guidance on excess winter deaths and the health risks associated with cold homes by the National Institute for Health and Care Excellence[27] (NICE). Importantly, NICE outlines a set of 12 recommendations for tackling cold-related ill health. Further detail on how WHHF partners have responded to and implemented the guidelines is featured later in this report.

The NICE guidance on tackling excess winter deaths and the health risks associated with cold homes has not been adopted in Scotland and Wales. However, guidance for Directors of Public Health in Scotland (2016), published by the Scottish Public Health Network, does set out public health actions for tackling fuel poverty[28]. In Wales, the eligibility for the NEST scheme was extended in April 2018 to include low-income households with at least one member suffering from a respiratory or circulatory health condition. There is also the potential for the cold homes agenda to be carried forward through the Well-Being of Future Generations (Wales) Act (2015).

THE COLD HOME CRISIS

CAN WE AFFORD TO WAIT?

WE ESTIMATE THAT OVER THE NEXT 15 YEARS...

COST TO NHS
£22 BILLION

Health: £22bn spent on the NHS (England & Wales) treating cold related admissions.

EXTRA DEATHS
125,000 EXPECTED

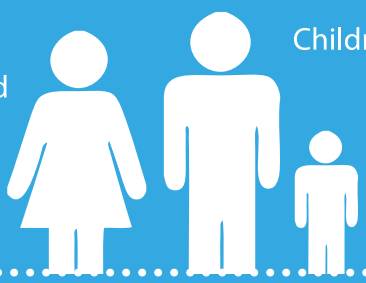
EWM: 125,000 premature deaths in the UK as a result of living in cold homes.

FUEL DEBT
£950 MILLION

Fuel debt: £950m of public indebtedness will not be spent in local economies.

40% of vulnerable households are faced with the stark choice of heating or eating, and 20% of parents regularly go without food so that children can eat **(Cooper et al. 2014).**

The risk of experiencing severe ill health or disability during childhood and early adulthood is increased by 25% if an individual lives in poor housing **(Harker, 2006).**



Children living in inadequately heated households are more than twice as likely to suffer from conditions such as asthma and bronchitis as those living in appropriate temperatures **(Friends of the Earth and Marmot, 2011).**

50 PERCENT

Individuals living in homes with bedroom temperatures of 15°C are 50% more likely to suffer from mental health problems than those living with temperatures of 21°C **(Friends of the Earth and Marmot, 2011).**

GP consultations for respiratory tract infections can increase by up to 19% for every one degree drop in temperature below 5°C **(Friends of the Earth and Marmot, 2011).**

Cold homes are currently a bigger killer across the UK than road accidents, alcohol or drug abuse **(ACE, 2015)**

NEA

Action for Warm Homes

About the Warm and Healthy Homes Fund

NEA's Warm and Healthy Homes Fund (WHHF) built on the NG6 guidance and quality standards (QS117) issued by NICE for addressing excess winter deaths and the health risks associated with cold homes. WHHF also aimed to address some of the priorities identified in the Fuel Poverty Strategy for England, and to help meet commitments to tackle fuel poverty in Scotland and Wales.

WHHF consisted of three strands:

- The **Partnerships programme** awarded eleven health and housing partnerships across England and Wales with grants to assist households most at risk of fuel poverty and cold-related illness, which could be used to provide high value heating and/or insulation measures.

- The **Small Measures programme** awarded eight Home Improvement Agencies (HIAs) across England and Wales with a grant fund. Up to 10% of the grants could be used by partners for overheads in recognition that they had no statutory duties to participate in fuel poverty programmes[29]. £500 per property could be used to install a range of low cost energy efficiency interventions including: heating controls; boiler repairs; draught-proofing; loft insulation; small products such as LED light bulbs and ECO kettles; and washing machines.

- NEA's sister charity **Energy Action Scotland** was awarded a grant to manage a programme of high value and low cost interventions across three areas in Scotland with high levels of fuel poverty.

NEA managed a competitive bidding process aimed at health and housing partnerships and HIAs in the summer of 2015. A rigorous selection and due diligence process, overseen by an independent Oversight Group, ensured that charitable grants were awarded to partners who had demonstrated in their proposal that they could administer and deliver a successful project to benefit fuel poor households. NEA wishes to thank the following members of the Oversight Group for their support and expert guidance:

Hugh Goulbourne, Global Action Plan

Graeme Francis, Age Cymru

Dr Tim Ballard, Royal College of General Practitioners

Rob Howard, Consultant in Public Health, Leicestershire County Council

NEA designed health-based eligibility criteria based on the NICE guidance to ensure that WHHF assistance was targeted to low-income households in, or at risk of fuel poverty, with either a long-term health condition or a diagnosed disability, exacerbated by living in a cold home. It was expected that householders would receive a measure(s) that was fully funded by the grant. Where additional expenditure was required, partners utilised their gap funding to ensure the full cost was covered and the beneficiaries did not have to make a financial contribution. This enabled the programme to reach the poorest households and minimised any potential barriers to take-up.

WHHF recognised the value and expertise of key health and housing partners that could be drawn upon to target and reach the most vulnerable households, and to harness the efficiencies and benefits of local delivery.

Summary of achievements

Over 2015-18, the Warm and Healthy Homes programme provided energy efficiency interventions to **2,663 households** across Great Britain, exceeding our target by **28%**.

22 lead partners received a WHHF grant for **25 projects** to identify households most in need and facilitate the installation of capital measures.

A total of **5,996 capital measures** have been installed through the WHHF programme including new heating systems, insulation and low cost items/ works such as heating controls, repairs and draught-proofing. The impact of the large energy efficiency measures was demonstrable in that 91% of households experienced increased SAP.

WHHF grant recipients successfully levered in an additional **£2.4m** match and gap funding to the programme, enabling a further **1,189 households** to receive an intervention, representing 55p for every £1 spent by the grant.

91%

INCREASED COMFORT

From large interventions provided through the Partnerships programme, a vast majority (**91%**) now have increased thermal comfort and more than two thirds (**68.3%**) said the perceived cost of their energy bills improved. **42%** reported an improvement in their physical health and **41%** in their mental health. **55%** thought that their health condition or disability had improved since receiving their measures and **15%** had reduced their number of GP visits.

The majority of households (**72%**) who received Small Measures through the WHHF have subsequently reported an increase in thermal comfort and **45%** thought that their existing health condition/disability had improved.

NEA provided **1,254 households** with advice and support through community events and roadshows under the WHHF.

1,227 frontline workers were also provided with NEA training so they are now better able to understand the links between fuel poverty and health and the assistance available to vulnerable households, which is estimated to reach an additional **412,272** clients per annum.

Through the media, the WHHF programme has reached at least **456,316 people**

100%

100% of partners involved in the Partnerships programme thought that their WHHF grant helped to alleviate fuel poverty in their locality

Where we worked - our lead partners across GB

WHHF activity took place nationally and aimed to target areas with high levels of fuel poverty.

The following map illustrates where our partners operated and the associated level of fuel poverty in each region/nation.

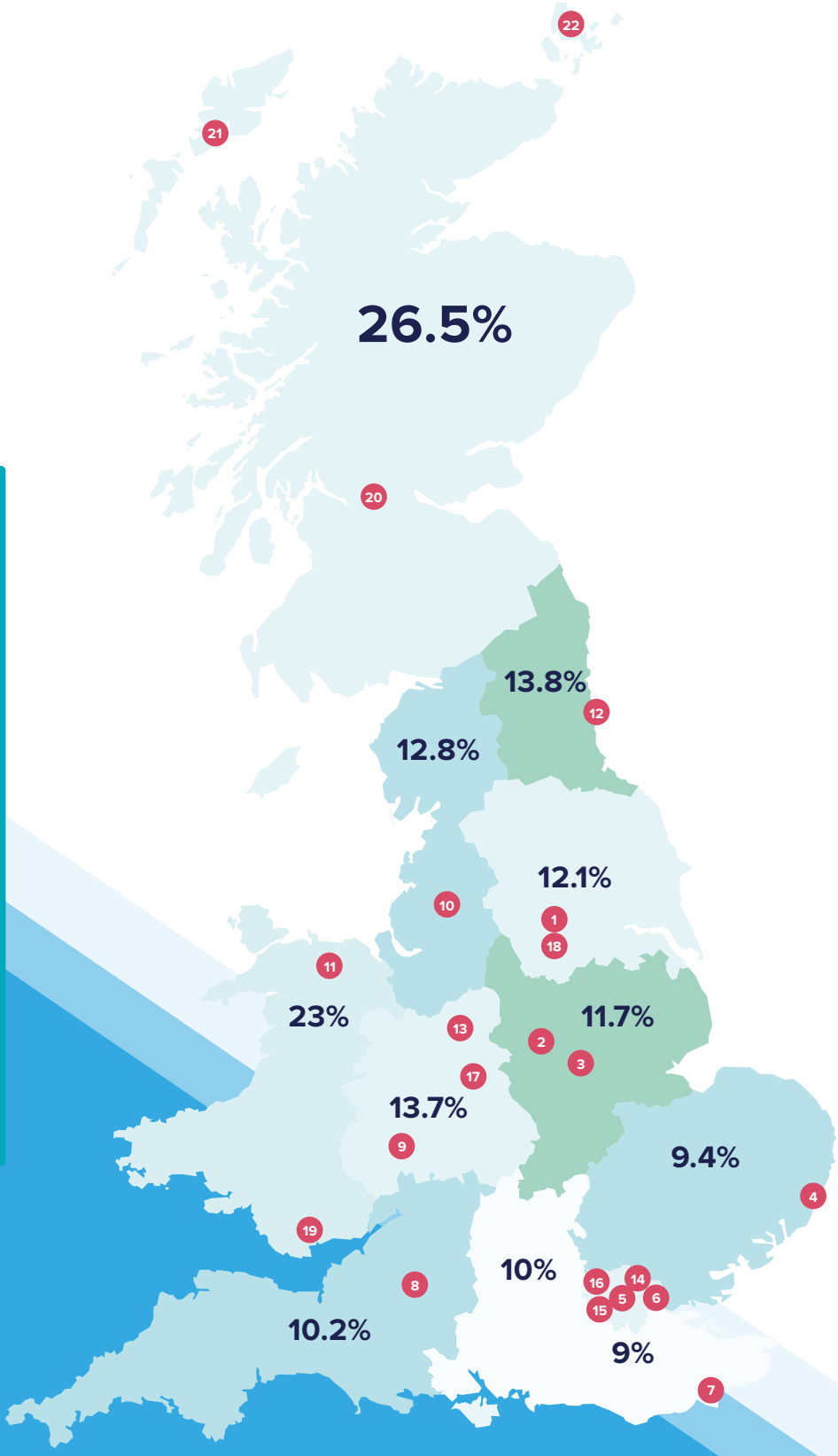
WHHF Projects

% Proportion of Fuel Poor households

Fuel poverty in England (2016)
Source: BEIS (2018)

Fuel poverty in Scotland (2016)
Source: Energy Action Scotland (2017)

Fuel poverty in Wales (2016)
Source: Welsh Government (2017)

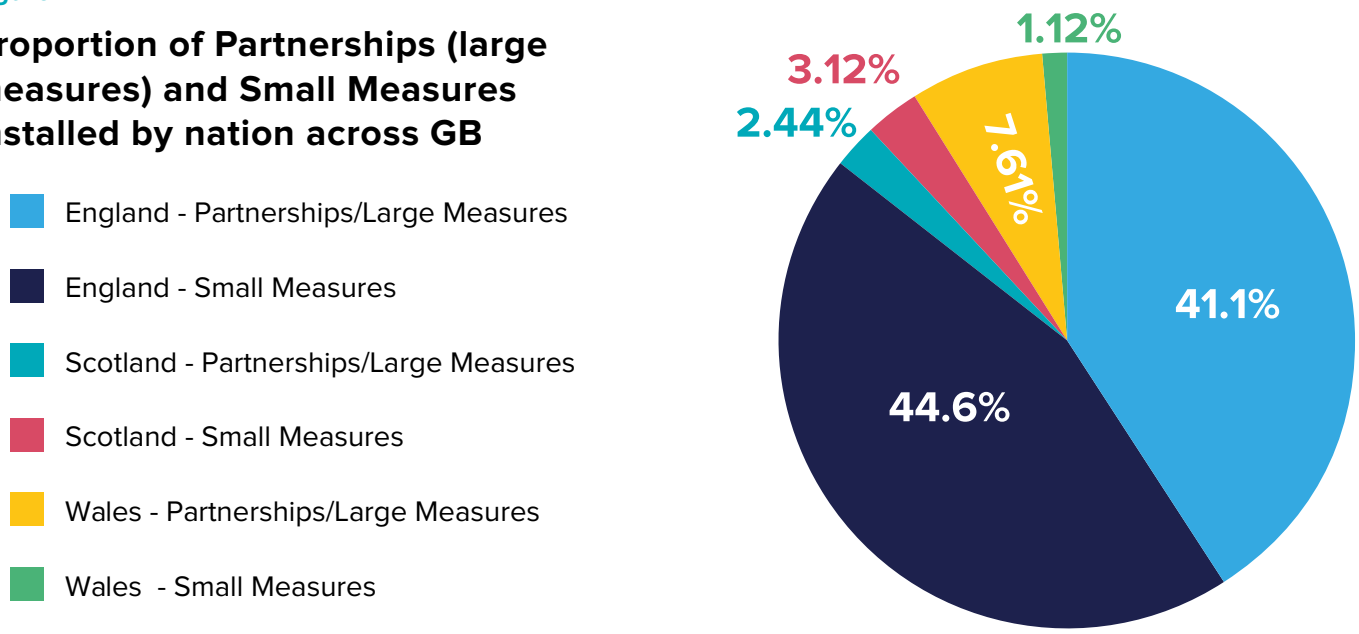


Our lead partners

1. Sheffield City Council
2. Derbyshire County Council (covering Derbyshire and Nottinghamshire)
3. Leicestershire County Council
4. Suffolk Coastal District Council
5. London Consortium (London Borough of Barnet, London Borough of Haringey, London Borough of Enfield and Westminster City Council)
6. London Borough of Newham
7. East Sussex County Council
8. Bath and North East Somerset Council
9. Worcestershire County Council (covering Worcestershire, Warwickshire and Solihull)
10. St Helens Council
11. Flintshire County Council (covering Flintshire and Cardiff)
12. Middlesbrough Staying Put Agency
13. Revival Home Improvement Agency, Staffordshire Housing Group
14. Home Energy Efficiency Training (HEET)
15. Ealing Home Improvement Agency
16. Barnet Care & Repair
17. Dudley Home Improvement Service
18. South Yorkshire Energy Advice Centre
19. Care & Repair Cymru
20. Glasgow City Council
21. Tighaen Innse Gall
22. THAW Orkney

Figure 1

Proportion of Partnerships (large measures) and Small Measures installed by nation across GB



Detailed descriptions of each project are available on the NEA website:
www.nea.org.uk/hip/warm-healthy-homes-fund

Household Eligibility Criteria

The Warm & Healthy Homes Fund used health-based eligibility criteria to ensure assistance was targeted to households in greatest need:

A - Cross-tenure

B - 'At risk of' or 'living in' fuel poverty and in need of energy efficiency measures

C - Health and Wellbeing Status - the individual must meet ONE of the following:

- Living with a diagnosed long-term condition, e.g. a cardiovascular condition; respiratory condition; neurological condition; diabetes; cancer; those with a mental health condition
- Living with a diagnosed disability
- Have responsibility for one or more children 0-16 years living with them
- Be pregnant
- Is over 65 years of age

D - Income or Benefit Status – individuals must also:

- Have a gross household income less than or equal to £16,190 per annum **OR** be in receipt of one of the following benefits:
- Pension Credit
- Income Support or income-based Jobseeker's Allowance
- Income-related Employment and Support Allowance
- Universal Credit

90% of WHHF partners reported that the health-based eligibility criteria had worked 'extremely well' or 'fairly well' in practice

"The individuals in our project, due to their illness, are more likely to be in their homes longer during the day and therefore are using more energy so their fuel bills will be higher. Their illness also creates additional need for using their white goods, such as washing machines, etc., so their heating systems and appliances will be under more pressure to sustain this change in circumstances. By installing measures such as new boilers, heating systems and white goods, we aimed to alleviate the burden of these households being in fuel poverty as well as easing stress and anxiety to an already vulnerable group of individuals."

"I think going forward we will use [WHHF] eligibility criteria for our heating scheme. You know that the people you're assisting are those that are most in need and it's an eye-opener how many people have got conditions."

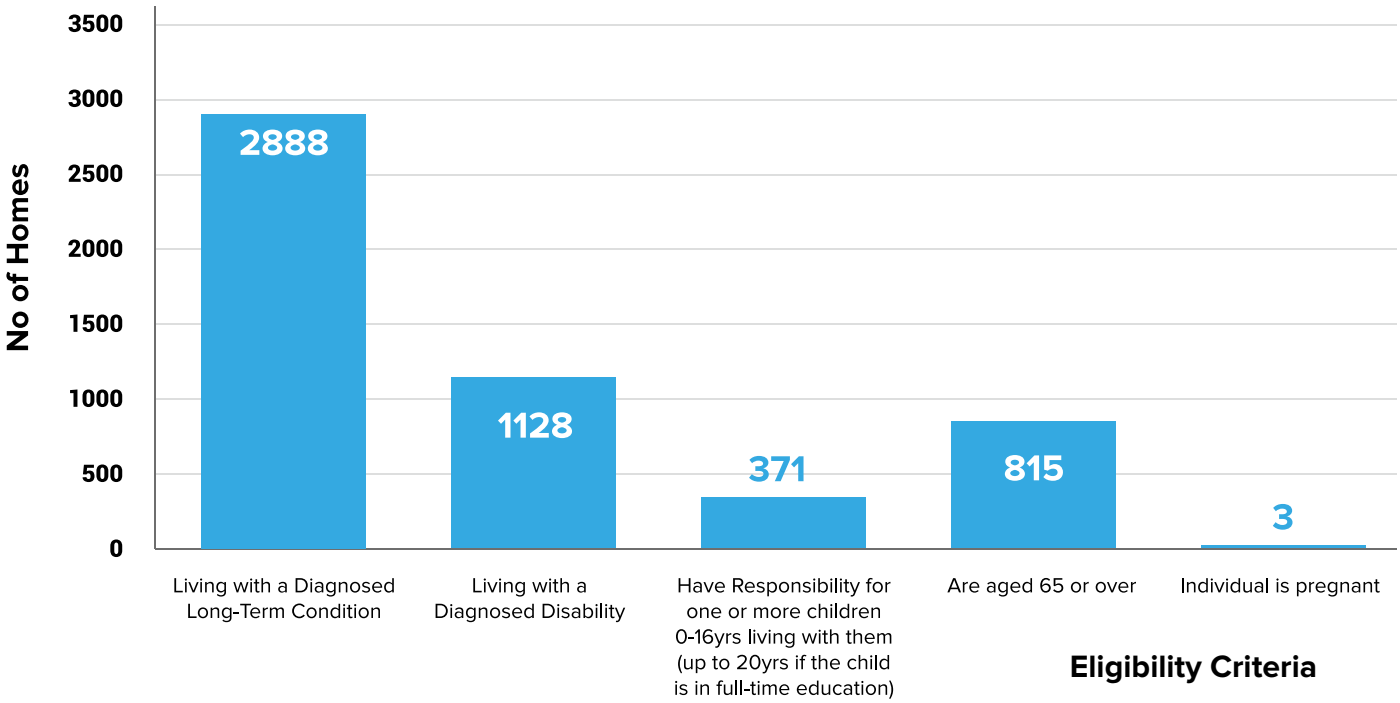
"The health criteria element provided a wide scope to assist vulnerable residents on a low income. In combination with the low-income criteria, the health criteria allowed many residents struggling with heating issues to access support where they may have otherwise been turned down e.g. ECO funding which usually requires the receipt of a certain benefit."

"The criteria worked really well, this was shown in the feedback from eligible residents who were delighted with the specific equipment which really helped with their needs. An example of this was the power-downs which not only reduced energy for the householder but worked to prevent overbalancing when switching TVs off. Simple energy saving lightbulbs encouraged residents to leave lights on longer so they weren't moving around in the dark also reducing the risk of falls."

Eligibility criteria for measures installed

As can be seen from the chart below, the WHHF programme aimed to support householders most at risk of fuel poverty and a cold-related illness. The eligibility criteria were therefore specifically designed to target householders suffering with a disability or long-term health condition detrimentally affected by the cold, such as Chronic Obstructive Pulmonary Disease or Multiple Sclerosis. In alignment with the NICE guidance, householders aged 65 and over, as well as infants and children, were included in the criteria, given their increased risk of developing health problems related to living in a cold home. Furthermore, the WHHF criteria targeted households on a low-income or in receipt of a qualifying benefit.

Figure 2 **Eligibility Criteria for the Partnerships & Small Measures programme (GB)**

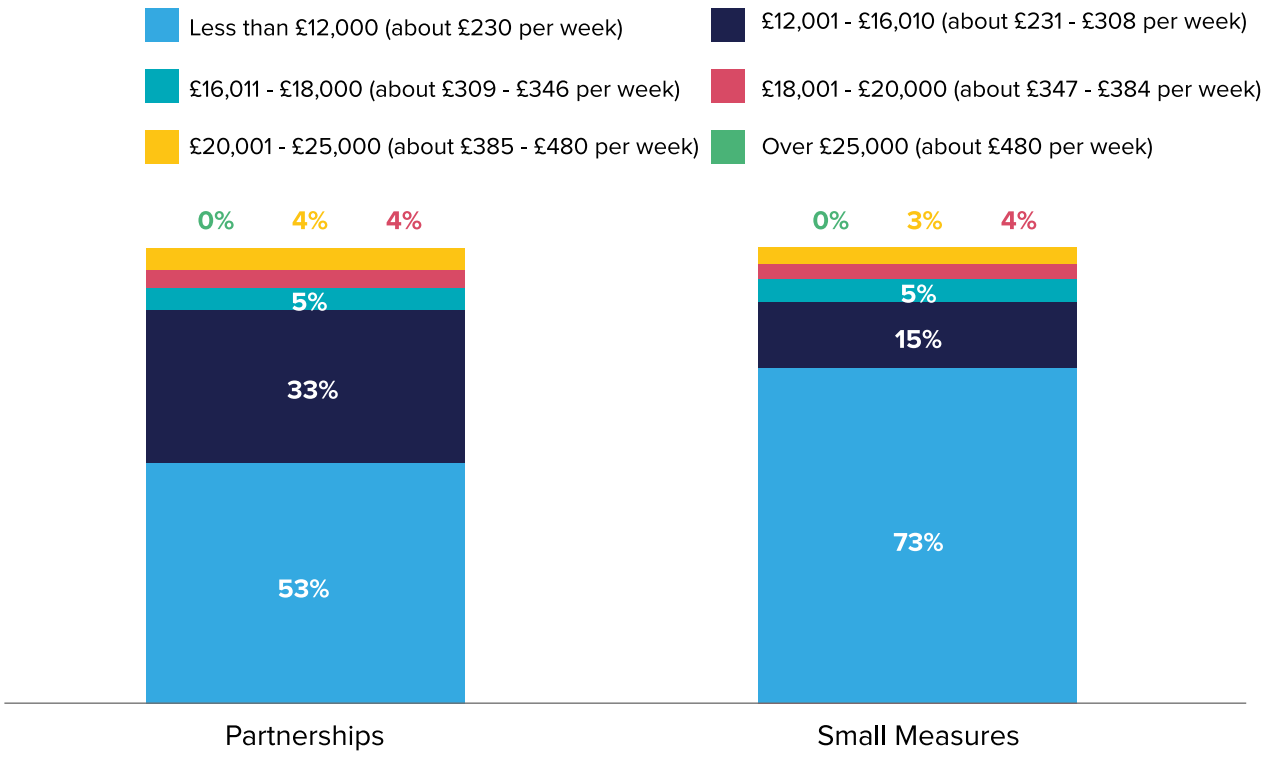


Most WHHF households had an annual income of less than £12,000

Average net household income, before housing costs, in the UK is approximately £25,688 (£494 per week) and around 16% of households are currently considered to be living in relative income poverty with a household income below 60% median households income (£296 per week or £15,392 per year)[30].

Among those assisted via the Partnerships programme, **over half (53%)** of the households surveyed had an income below £12,000, while a further third (33%) had incomes between £12,001 and £16,010. Almost **three quarters (73%)** of small measures households had an annual household income less than £12,000.

Figure 3 **Income Band**



"I'm 87 years old and disabled. I have a small income and only minimal savings. Costs of caring for myself is large so I manage with blankets and hot water bottles when I am on my own and can turn the boiler off"

"The ever increasing energy bills are hard to manage as I only have state pension as income. The state pension does not increase sufficiently to meet rising costs. The heating allowance [Warm Home Discount and/or Winter Fuel Payment] that I receive each year has helped to ensure my bills are paid".

These stark figures confirm that the WHHF was able to target and benefit some of the most vulnerable and low-income households across Great Britain, improving their ability to afford and heat their homes.

Referral Routes

The WHHF programme set out to build and develop links with the health and social care sector as well as other partners. To help ascertain which referral pathways yielded the most success, partners were asked to monitor where their referrals had been received from (see Figure 4, page 16):

The majority of referrals (29.6%) under the Partnerships programme were as a result of self-referral or word of mouth, followed by referrals from a Local Authority service, which supports the importance of targeted promotion and utilisation of local and trusted links within communities.

Figure 4

Partnerships programme – Referral Routes

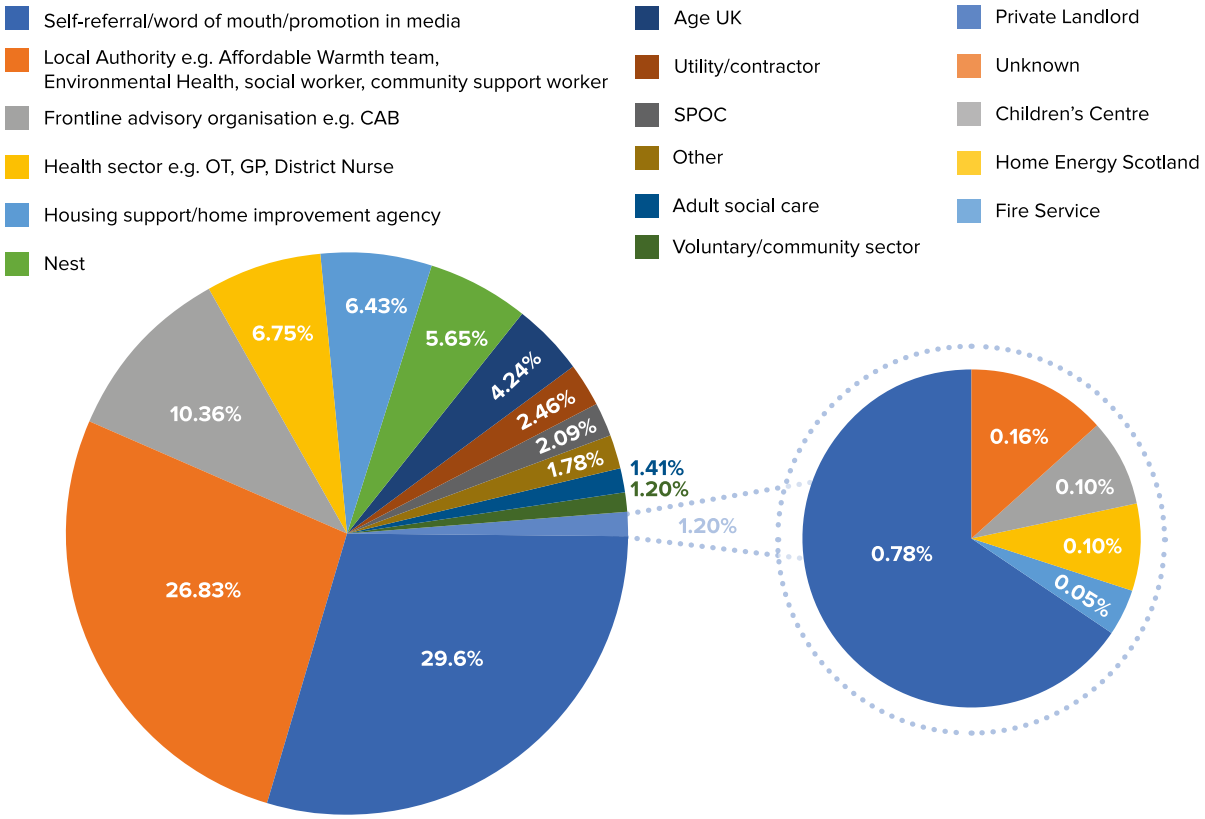
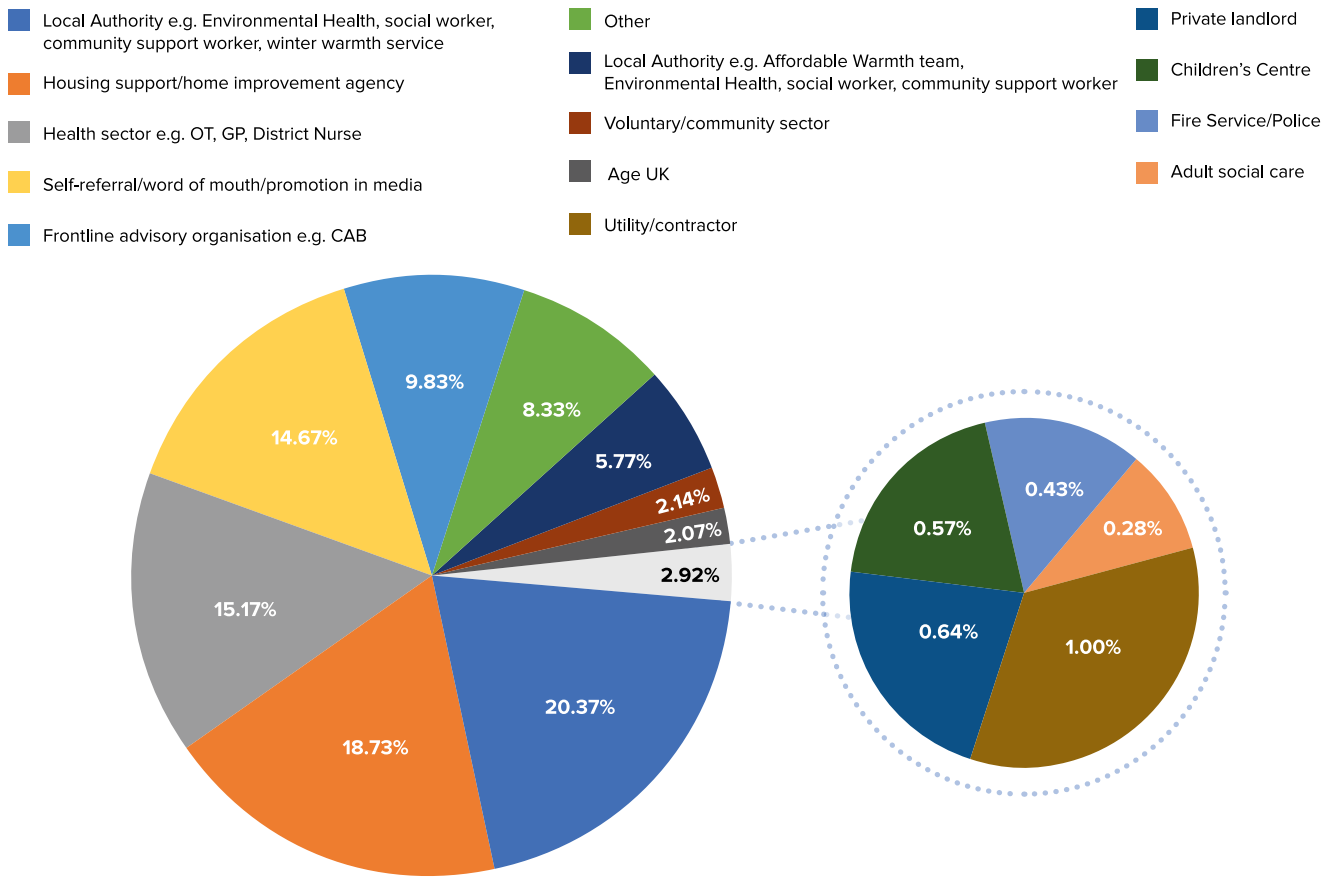


Figure 5

Small measures programme – Referral Routes



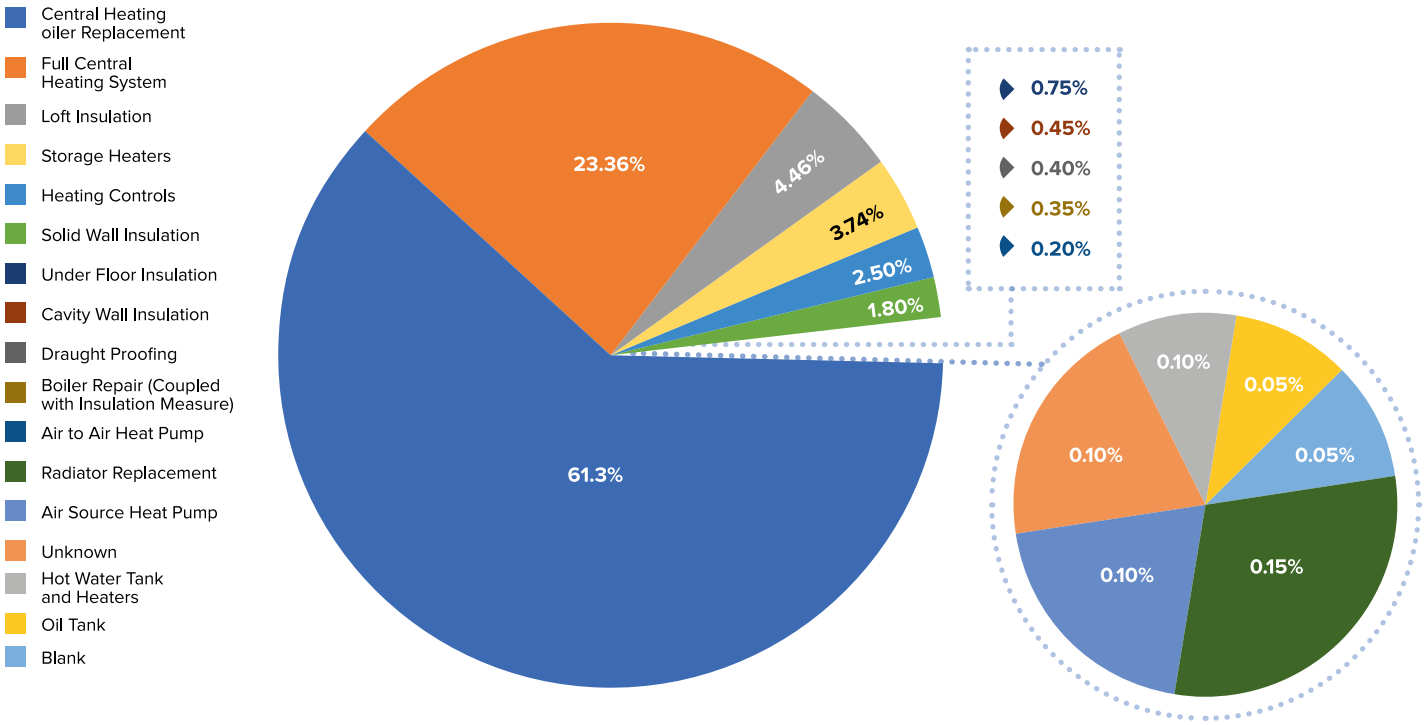
Under the Small Measures programme, partners received most of their referrals (20.37%) from a local authority source including Environmental Health, Support Workers or a Winter Warmth Service.

Types of measures installed

The following high value heating and insulation measures were available to eligible households:

Figure 6

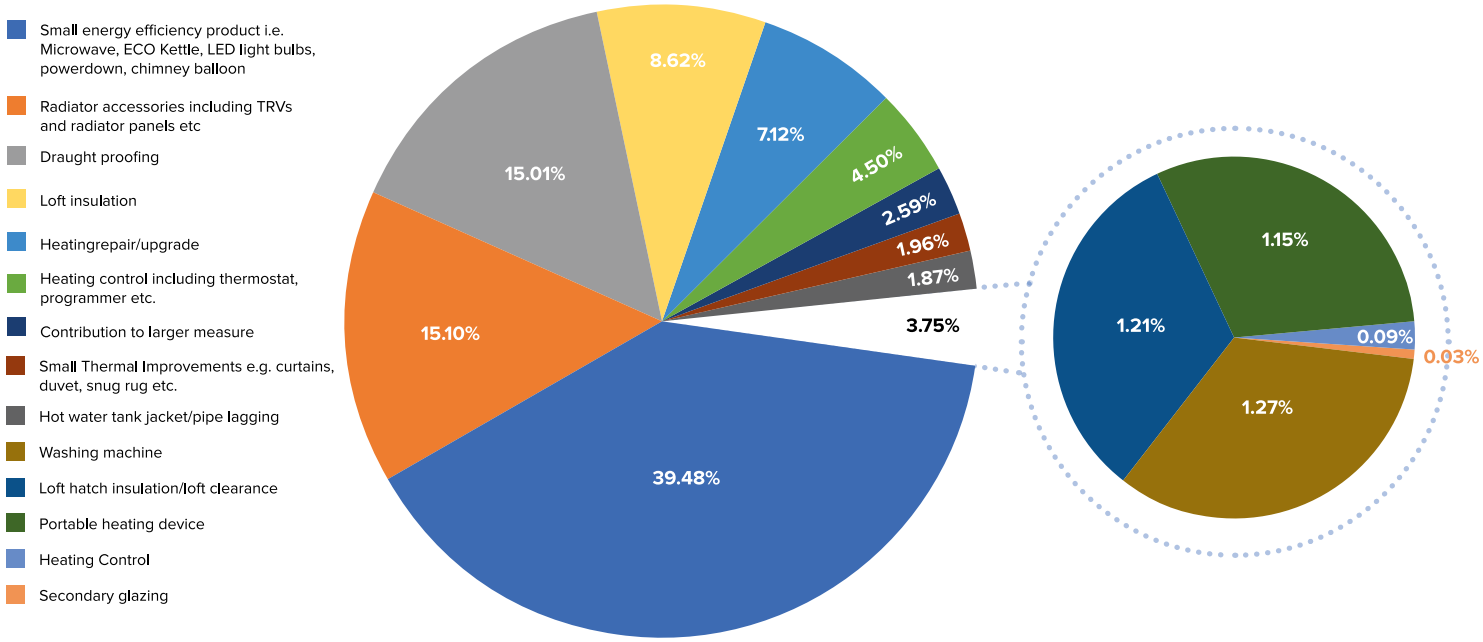
Partnerships – Breakdown of type of measures installed



The following range of low cost energy efficiency measures were available to eligible households – NEA deliberately kept the list of permissible measures fairly broad to facilitate the installation of a package of smaller items/products wherever possible. For example, a household may have received LED light bulbs, draught-proofing as well as a heating repair.

Figure 7

Small measures – breakdown of types of measures installed



The social impact of our activity

NEA sought to evaluate the impact of interventions, both capital and advice measures, on the householders who benefited from the Warm & Healthy Homes Fund. This section provides an analysis of responses to a postal survey issued to households that had received at least one measure under the WHHF in England and Wales.

The nature and design of this evaluation (retrospective and not a before and after trial), the type of data collected (self-reported categorical data) and lack of a control group to establish the counterfactual means that establishing causation, for example, that reported improvements in wellbeing can be attributed to the intervention, was not possible. To help establish whether there was a link between outcomes and intervention (particularly where a correlation is established), qualitative interviews[31] were deployed to explore with beneficiaries the extent to which they perceived whether a change in their circumstances had arisen as a result of their WHHF intervention.

Fieldwork took place in three waves between March and June 2017 and a follow up evaluation with a sub-sample in March 2018[32], to help demonstrate if the WHHF was able to provide tangible improvements to health and wellbeing for households over the long-term. **NEA's full Social Impact Evaluation Report is published on the NEA website**.

The results below are subject to a margin of error of +/- 5.4% for the Partnerships programme (large measures) and +/- 7.9% for the Small Measures programme.
Results presented here are based on 254 households that had received a measure under the Partnerships strand (large measures) and 132 households that had received at least one Small Measure. Across 2015-18, the total number of beneficiaries across the WHHF programme is 2,663.

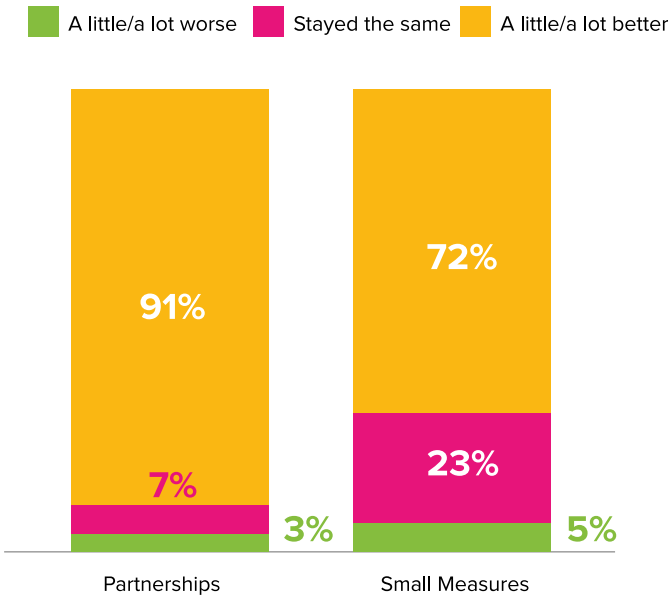
The majority of households noted considerable improvements in their thermal comfort

WHHF can be seen to have brought about considerable improvements in how households experience their home heating and thermal comfort. **91% of households who received a large measure through the Partnerships programme said that their thermal comfort had improved a little/lot**.

Positively, this result remained relatively consistent when householders were re-surveyed as part of the follow up survey in 2018, with **89.2%** of those surveyed saying their thermal comfort had improved, confirming that comfortable temperatures were being achieved and maintained post intervention.

Figure 8

Impact on Thermal Comfort



Overall, small measures have also made a considerable improvement to the comfort of households and their ability to achieve affordable warmth. Whilst the improvement in thermal comfort is typically lower than for households receiving large measures, it is encouraging that the small measures provided under WHHF (i.e. radiators, improved heating controls and draught-proofing) were still able to produce significant benefits for households. **Results show that 72% of WHHF small measure households reported an improvement in their thermal comfort.**

Qualitative insights revealed that many households chose to utilise their heating to a greater degree because their heating systems were now far more effective:

"[The storage heaters] kept a couple of rooms warm, but not the upstairs and things like that. Couldn't keep the entire house warm. It's now comfortable through winter, but a key factor as well is having hot water, which I didn't have before. Hot water is nice. Very important. As important [as keeping the house warmer] actually."

"Everything is perfect with the new system; my old one was inadequate and caused lots of aggravation."

"[The new heating system] it's a breeze to use, I can't knock it – it's simpler and much easier to control; I have a freestanding thermostat because I asked them not to fix it to the wall. I don't even have to get out of my chair now."

''Before [measures] it felt like I had to keep the heating on 24/7, and it only ever took a little bit of chill off, my new one is much better.''

Case Study: Glasgow City Council

Miss B had energy debts of £1,100 for both her gas and electricity. She had been paying £100 per month but this had been increased to £200 per month. She couldn't afford this and cancelled her Direct Debit with the intention of speaking to her supplier, but she was taken ill and taken into hospital so hadn't managed to do anything about it. Miss B had a tumour at the top of her spine.

Her supplier had contacted Miss B and they had set up a monthly payment of £138 due to start in December. She is a home owner and employed but is currently on sick leave. She is receiving full pay just now but is going down to half pay, and is a single mum with a child in school.

Through contacting the Macmillan Cancer Support team, she was subsequently referred on to the Warm & Healthy Homes project and received a home visit from G-Heat.

At the point of visit, the G-Heat advisor noted that Miss B's boiler was over 25 years old, she did not have any radiators and Miss B was using an oil-filled heater to keep her warm. The G-Heat energy advisor completed an ICJ Checklist (Improving the Cancer Journey – a pioneering public health partnership) and referred her for a new heating system funded through Energy Action Scotland's Warm & Healthy Homes Fund.

Due to the intervention, Miss B received a new heating system and has a specially-agreed payment plan set up for two years with her supplier. Her gas and electricity payments are down from £200 per month to £61.00 per month for two years. The debt accrued of £1,100 will be cleared at the end of the two years.

Miss B stated that a weight had been lifted off her shoulders and she can now concentrate on getting through her treatment. She advised it has had a hugely positive effect on her and her family.

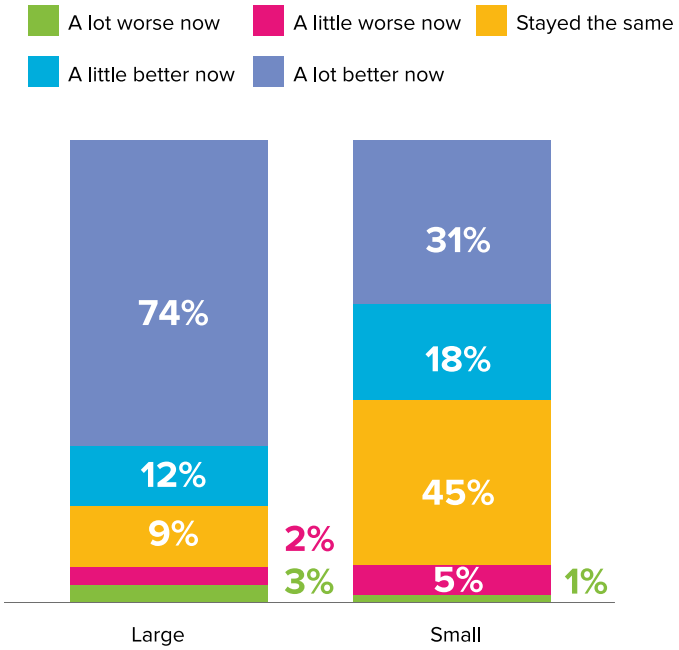
Miss B:
"Thank you – I don't know how I would have done if you didn't get involved. I'm so grateful."

Householders reported improved levels of control

It is commonly accepted that being able to effectively control a heating system, through use of timers, room thermostats and thermostatic radiator valves (TRV) etc. is essential for the optimal use of home heating systems. Through effective control, households can reduce their energy bills without compromising their comfort levels or wellbeing (the Energy Saving Trust currently estimates that this could save households £75 annually). **For recipients of both large and small measures, the amount of control householders felt they had over their heating systems improved significantly post intervention, 86% and 49% respectively.**

Figure 9

The amount of control you have over your heating system



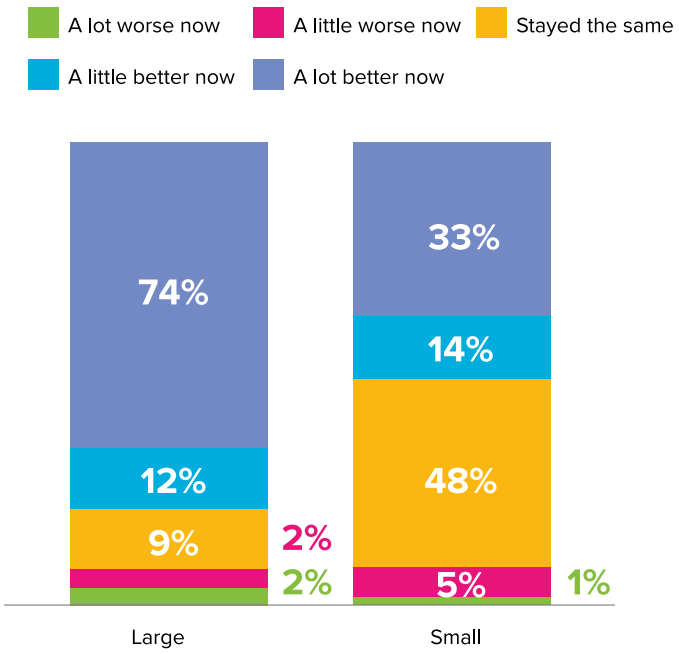
When asked about the level of control during the 2018 follow up survey, **92% of Partnerships respondents (large measures) reported still being satisfied** (4% increase compared to 2017). This hugely positive result confirms that users continued to adapt to their new heating system, becoming more experienced and practiced in the control of their systems over time.

Increased ease of use

Among large measures recipients, households were significantly more likely to have reported an improvement in how easy their heating system was to use following intervention. **86% reported an improvement** in this aspect of their home heating. **For small measure recipients, 47% said this was the case for them.**

Figure 10

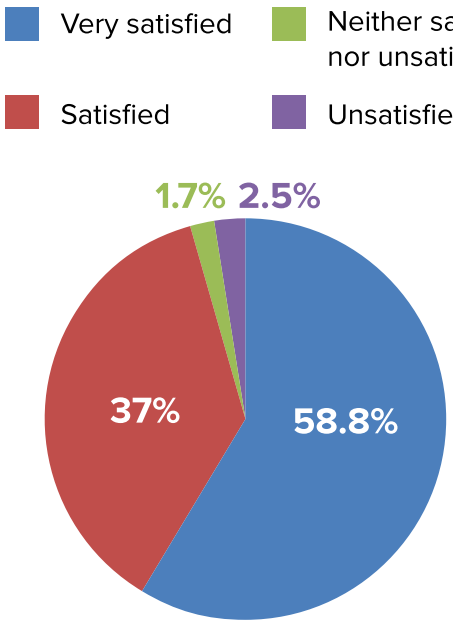
How easy your heating system is to use



When re-surveyed in 2018, satisfaction levels on how easy their heating system was to use had increased by 9% to **95.8%** for households with large measures.

Figure 11

How satisfied are you with how easy your heating system is to use (2018 Survey) n=119



Improved energy affordability

For the **majority of large measures households (68.3%)** and **33.5% of small measures households** there was an improvement in the affordability of energy bills post intervention.

Qualitative examples of energy bill reductions included:

''When I think about it, I've got to be saving £700 to £800 a year."

"My energy bills have come down. I'm not wasting an hour or so to get the system up and running [as was the case previously]''.

However, it is worth noting that some households reported no change in how affordable their energy bills were post-intervention. Open-ended responses reveal that in these cases the potential energy bill savings that could have resulted from the interventions were negated or limited due to three factors: energy price rises, which while their bill went up they remained affordable; other deficiencies in home insulation, in particular draughty and ill-fitting windows; and taking savings in comfort.

It is unknown to what extent post-intervention changes in energy bills among Small Measure respondents are associated with the measures received or external factors such as changes to the unit cost of energy or changes in personal circumstances.

However, the impact of measures on energy affordability is articulated by respondents in their qualitative testimony. WHHF small measures respondent, Gary, felt that he had more money to spend on other things, in this case, medication for family members. Gary described how after receiving his WHHF measures he felt that he could afford to spend a little more on essentials: *"it just takes us along now. The three of us, my son, my wife and me, we spend a lot extra, you know, for different things; medication and one thing and another."*

Achieving affordable warmth

Households were asked if they could normally keep their house comfortably warm in winter or when it is cold outside. This question helped to illustrate whether a household might be in **subjective fuel poverty**.

Figure 12

The cost of energy bills

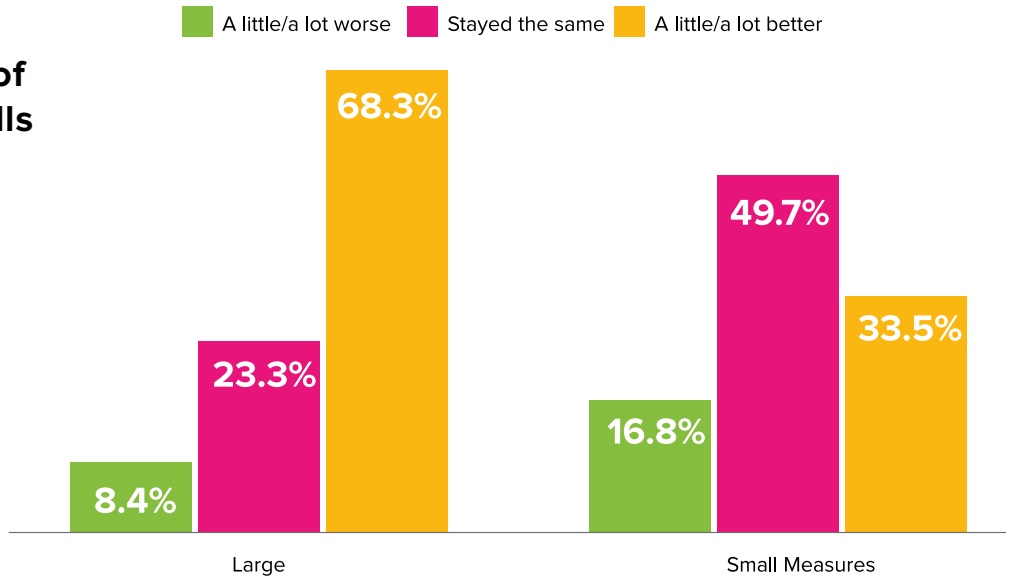
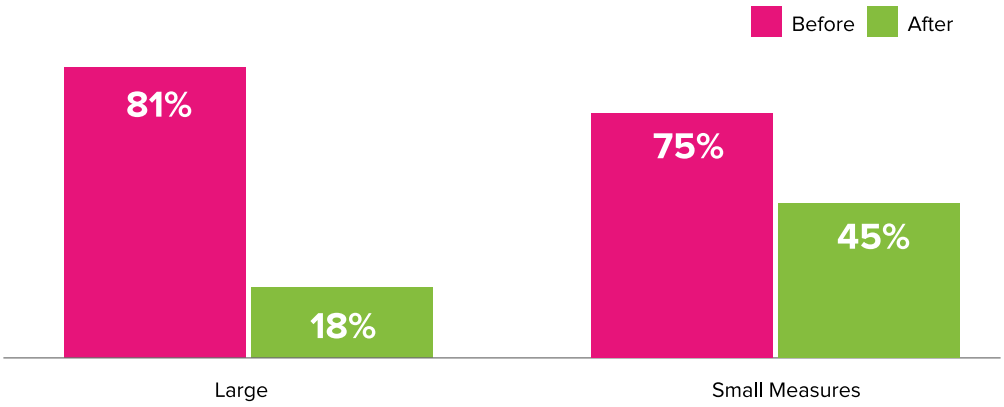


Figure 13

Unable to keep home comfortably warm during winter/when cold (subjective fuel poverty)



Case Study: Sheffield City Council and South Yorkshire Energy Centre

Mr and Mrs V live in Sheffield with their two adult children. They have been struggling to keep their home warm for 20 years as their boiler was very old and inefficient, only providing them with hot water and no central heating.

When they went to the local surgery, a community support worker identified the lack of heating in their home. The couple were eligible for help as Mrs V suffers from a mental health condition and Mr V has a heart condition after having a heart attack five years ago resulting in permanent medication.

Their home was assessed and found to be very cold and damp. The pilot light on the boiler stopped working indefinitely. In addition the family had been without hot water for four months and their two youngest children had grown up without ever having an efficient heating system in their home. Using electric oil-filled radiators meant the home was difficult to heat and often the family stayed in the same room to keep warm.

All of this led to high heating costs which the family couldn't afford to maintain. They weren't heating their home adequately due to fears of running into debt, leading in turn to ill health and a home with damp, mould and mildew.

Using funding from the Warm & Healthy Homes Fund, a new boiler and an eight-radiator heating system with thermostatic radiator valves was installed. As a result of the installation Mr V reported the entire family's health and general feeling of wellbeing has improved. He feels much better and his wife's entire outlook has changed for the better. Her health has improved in many ways and she is much happier.

Mr V also feels the whole family is benefiting from being able to use their entire home and are not 'trapped' in one heated room. Their two youngest children aged 19 and 24 are able to have some privacy living at home; spending time in their rooms in the evening and watching television before going to bed.

The SAP rating of the home has gone up from a low Band D to an upper Band C. The family received advice on how to use their new heating system and check their energy tariff. This should help the family use energy more efficiently in the home in addition to reducing their energy costs.

Mrs V said: "***We've been without working central heating for twenty years and I still wonder how we managed to cope each winter. At one point we had four children under the age of seven who needed feeding and clothing and with the boiler broken it felt like there was no way out! It started with the heating breaking down, we couldn't afford to replace it but we were happy we still had hot water - when that broke we lost all hope!***"

"Our children's friends used to sit in the house with their hats and scarves and you could see their breath. I used to dread the winter coming. Having the central heating installed has made a huge difference to all of our lives. My husband still has a smile on his face when he pours the hot water. Now we think – how on earth did we cope with this? My mental health has improved considerably now that we don't have to worry about staying warm. I'm so grateful for the help we received, it has been life changing."

81% of large measure households said there were unable to keep their home comfortable warm in winter pre intervention, **this dropped by 78% following intervention to just 18%**.

For most (46%) the reason for their lack of affordable warmth pre-intervention was cost – that is, they could not afford to keep their heating on for as along or as high as needed.

Post-intervention among those that were still unable to keep their home comfortably warm (18%), cost remained the dominant reason (70%), but poor thermal efficiency was reduced by **72%**.

"I am now able to go out with peace of mind that I will not have a problem with my heating when I get back. I am also more comfortable in my home which makes me feel more relaxed and less stressed plus my heating bills have dropped significantly which is a big relief."

Reduction in rationing practices post intervention

Rationing can be a coping mechanism for households who struggle with low budgets and high expenditure. The implications of frequent and long-term energy rationing can be severe for households, especially those managing one or more cold-related health conditions. For example, rationing of energy especially on a frequent basis could mean that household temperatures are unlikely to be maintained at recommended levels (between 18°C and 21°C for at least 9 hours a day[33]), leaving occupants vulnerable to a range of further health implications.

Cutting back on heating at least some of the time to save money on energy bills was commonplace (80%) among large measures households before intervention. Post-intervention, this practice was engaged in less often, with 73% engaging in the practice at least some of the time. The most frequent practice (all or most of the time) was reduced from 36% to 24%.

Figure 14

Reason for being unable to keep home comfortably warm (subjective fuel poverty)

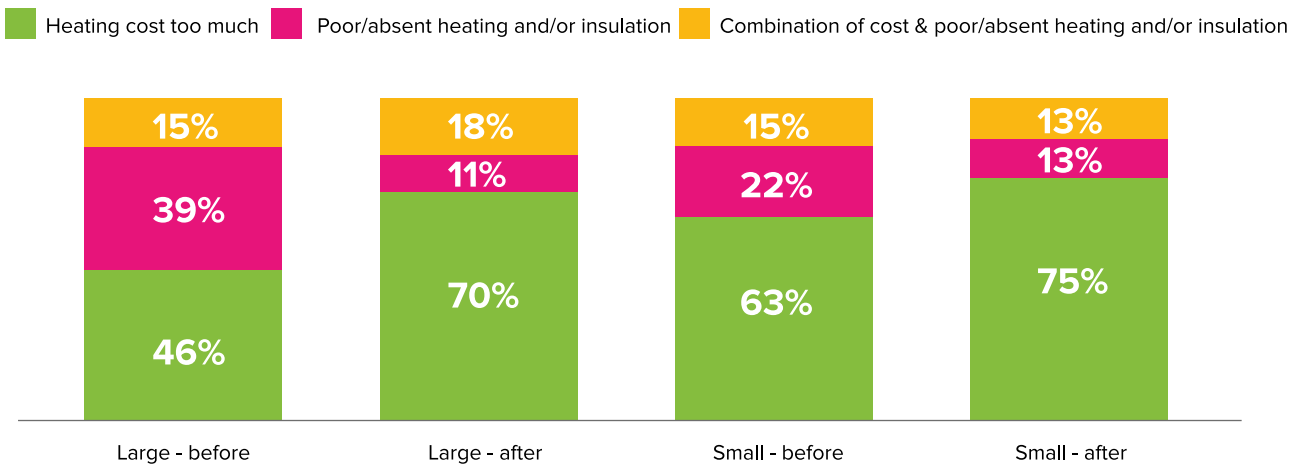
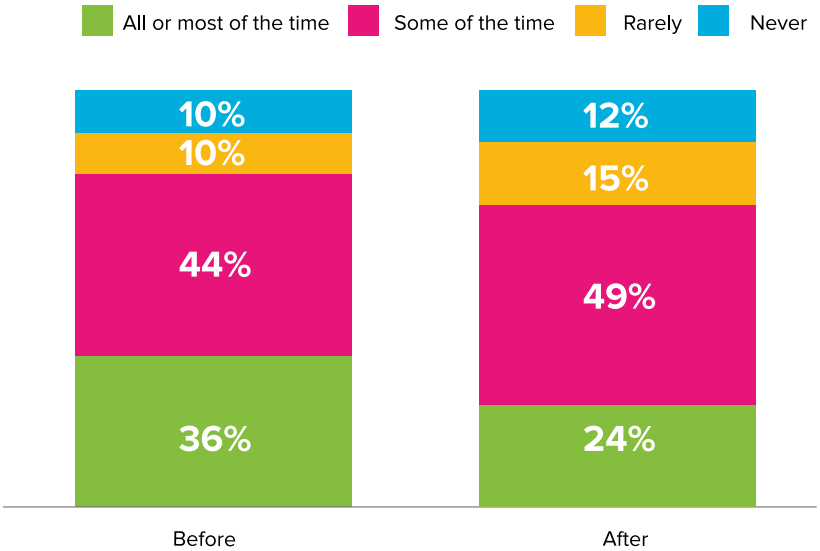


Figure 15

In winter/when it's cold, heating is on lower/less often than would be liked so energy bills are not too high



The benefits of energy advice and support

The value of good quality and timely advice delivered at the same time as energy efficiency interventions has been widely acknowledged as essential by fuel poverty campaigners[34] and researchers[35], as well as by the energy regulator Ofgem[36], and more recently by Government with the Bonfield Review[37] which addresses energy efficiency consumer advice and protection, standards and frameworks for enforcement.

Advice not only helps to ensure that beneficiary households can effectively use their new technology and control, in theory, their energy use, it can also help to ensure that beneficial behaviours are adopted and any energy-related problems or challenges can be addressed.

In recognition of the importance of energy advice, each grant funded project within the WHHF programme was required to deliver energy-related advice – in relation to the specific intervention being made and support for households to be more energy efficient at home and aware of available assistance such as the Priority Services Register.

Case Study: Cardiff City Council

Mr N, 71, had a broken boiler. He suffers with COPD, emphysema and had recently been hospitalised with pneumonia. He was referred for assistance via the FRESH Project and contact through his GP.

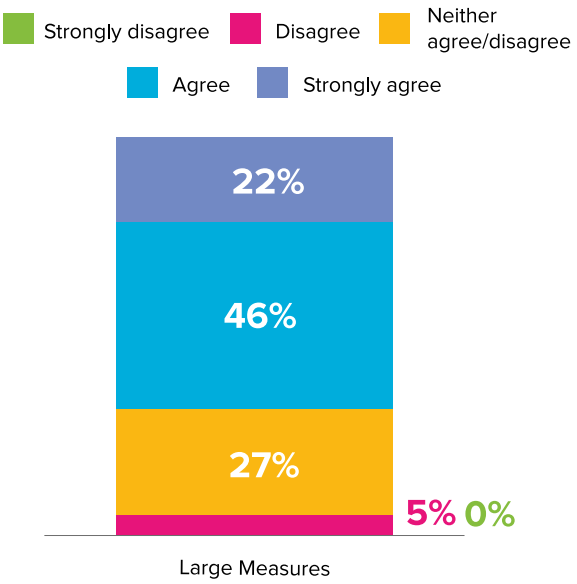
A grant from the Warm & Healthy Homes Fund replaced the boiler which was in an outhouse and brought it inside the main house. A ground floor radiator that was not working efficiently was also replaced and another radiator was fitted in the living room.

Mr N was helped to apply for Attendance Allowance which he was awarded at the higher rate, increasing his income by £82.30 a week. In addition, another £1,584 was raised from other charitable funds to provide support to replace four windows in the property that were coming to the end of their useful life and diminishing the effect the new boiler was having in heating the house. Mr N also made an annual saving of £140 on his fuel bill.

93.9% of households supported by the Partnerships programme recalled receiving advice, with the following energy practices within those most likely to have been improved as a result:

Figure 16

Practice: Know more/confident about saving energy at home while keeping warm



Almost two thirds (64.3%) of large measure households felt more confident in keeping warm whilst saving energy at home after intervention. This increased overtime, with over three-quarters of households (77.9%) feeling confident at the follow-up stage. This suggests that, over the long-term, households were able to find a more comfortable balance between keeping warm and saving money.

Health and wellbeing

The consequences for health and wellbeing of living in cold and damp homes, and the stress associated with this (and unaffordable energy bills) are well documented. While research to date has struggled to establish a conclusive and direct causal pathway between cold homes, fuel poverty and morbidity and mortality, it can be argued that this is partly due to methodological challenges associated with detecting relationships in data from limited populations and disentangling inter-related variables, such as poverty and poor housing[38]. Nevertheless, a relationship between cold homes and ill health and health inequalities is strongly and repeatedly documented in the literature, and has been officially recognised by public bodies such as NICE[39] and Public Health England (PHE)[40].

Cold and damp homes have been shown repeatedly to be associated with ill health and specific health conditions, including respiratory diseases among adults and children; circulatory and cardiovascular diseases, including increased risk of heart attack and stroke; and mental ill health with increased risk of stress, depression and anxiety among adults and children, with adolescents living in cold homes having a 28% risk of experiencing multiple mental ill health symptoms compared to just 4% of those in sufficiently warm homes[41].

The provision of affordable warmth to households can act to greatly reduce mental ill health and stress via a variety of routes. These include feeling warmer and more comfortable at home, worrying less about fuel bills and the cost of heating, having more control over a heating system, and feeling less socially isolated and enabling a change in familial dynamics through increased use of space within the home. While several studies, including this one, have relied on self-reported improvements to health in adults due to viable research design and lack of easily accessible health data, this at the very least demonstrates an improvement in quality of life and perceived wellbeing.

Improvement in health conditions post intervention

Of the households surveyed, they were more likely to have a **number of pre-existing health conditions**, with a **third (33%) of large measure households** stating that they had **four or more specified long-term conditions**. Similarly, **27% of small measures households** reported that among household members there were **four or more health conditions present**.

The most prevalent health conditions specified by both large and small measures households included musculoskeletal conditions, physical impairment, and respiratory conditions.

Case Study: Dudley Home Improvement Service

Mr D was referred to Dudley Home Improvement Service by the Dudley cardiology hospital discharge nurse. He had recently suffered a heart attack and had respiratory and anxiety problems.

Following his discharge, a warm homes officer from Dudley Home Improvement Service visited him to provide energy advice and check Mr D knew how to use his heating controls to provide heat when required.

Mr D was on a prepayment meter and following a price comparison check, it was arranged for a credit meter to be fitted saving him over £400 per year.

To help make his home warmer and more affordable to heat, Dudley Home Improvement Service used NEA's Warm & Healthy Homes grant to provide radiator reflector panels, LED lightbulbs, fit draught-proofing to his back door and arrange for top-up loft insulation to be installed. Through gap funding, Mr D also received a blanket and bed socks.

Mr D says ***"You can tell the difference when you walk in the house, it already feels warmer."***

Figure 17

Number of health conditions present - banded

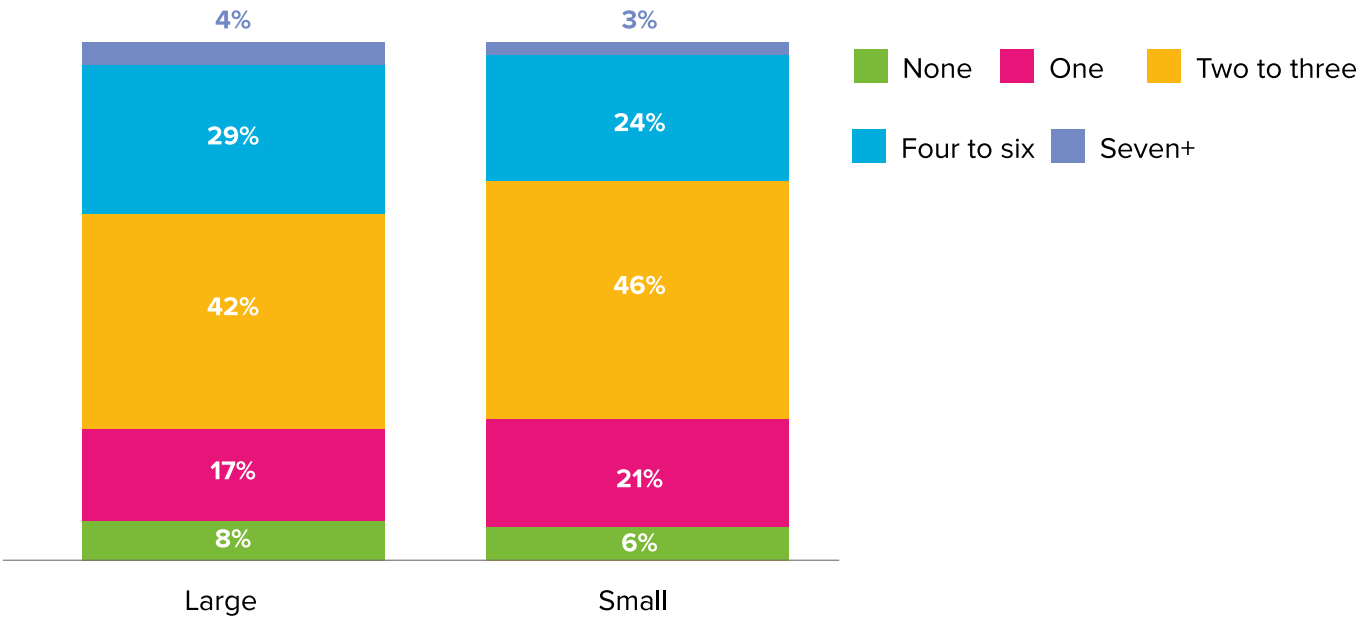
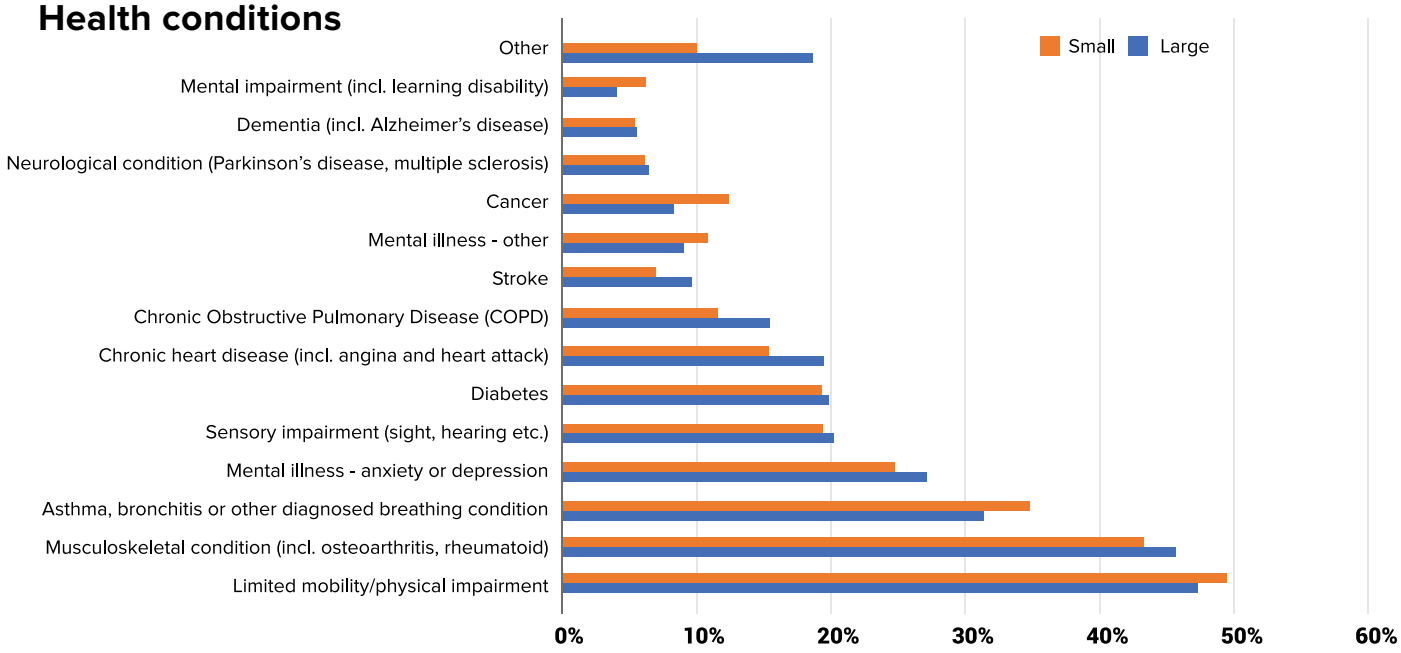


Figure 18

Health conditions



Whilst these results indicate that the WHHF programme was able to reach people with an increased risk of cold-related ill health or those with a disability, it did appear that there was some bias as to which conditions were represented. The sample appeared to include a greater number of musculoskeletal conditions and limited mobility/ physical impairments.

However, this bias could be explained by the slightly older age profile of recipient households and the higher prevalence of these conditions among the older population generally. It is worth noting that dementia, mental illness (other than anxiety or depression) and stroke, as cold-related health conditions, had lower representation among WHHF surveyed households.

While this is likely related to the national prevalence of these conditions, future targeting of fuel poverty alleviation schemes with a specific health focus, could perhaps look to pro-actively engage households with these specific conditions.

Prior to intervention, the majority of WHHF large measures households thought that their general physical health (72.5%) and mental health (55.7%) had been affected by living in a home they were unable to keep comfortably warm.

Post intervention, these **households went on to report a positive improvement in both their general physical health (42%) and their mental health (41%).**

Similarly, for **small measures households, 42% reported that their general physical health was a little/lot better post intervention**, and **37% noted an improvement in their mental health since intervention**.

Figure 19

Changes to physical health

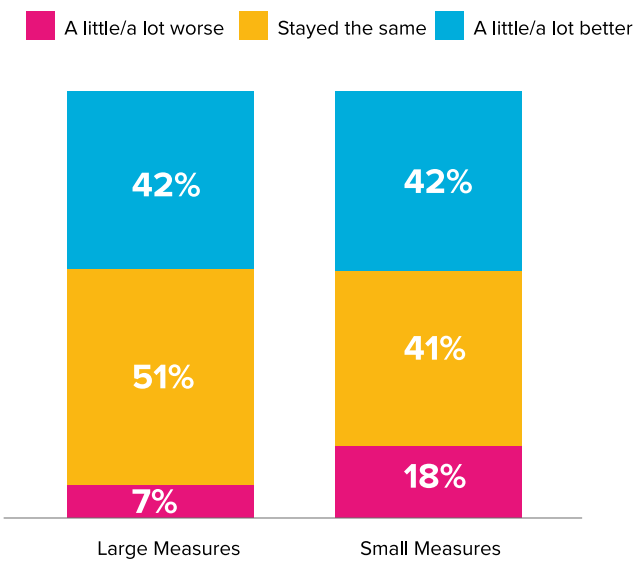
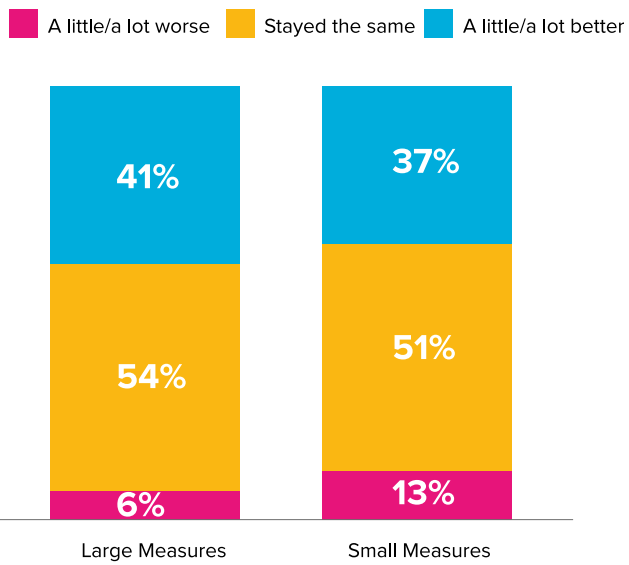


Figure 20

Changes to mental health



"We all became ill with respiratory infections at Christmas, which was unavoidable. It has really improved the whole family's health and wellbeing to be warm and have hot water"

"My husband gets really cold and they give us a [radiator] device to throw heat out and he feels a lot warmer and likes it."

"I have asthma. I have been ill from time-to-time because the house was cold - now I feel warm much better."

Householders in receipt of small measures were asked specifically whether they had noted any improvements to condensation or dampness in their property. Given the known health effects of dampness and mould, such as triggering or worsening of respiratory conditions, it was encouraging that **39.8%** of households agreed that their home had less damp or condensation post intervention.

Qualitative insights help us to understand why the connection may have been made between the small measures interventions and change to health. For example in some cases, pre-existing conditions were notably worse in very cold weather but following intervention these were relieved or an ability to cope with an existing illness or disability was improved. Also notable is the impact on stress and mental health, and relief brought about by advice services delivered alongside energy efficiency measures.

"Arthritis and bronchitis are on-going. Arthritis will worsen overtime. Keeping warm is helpful to both conditions"

"My heart condition, hypertension, diabetes are still a problem but I do get less stressed due to being much warmer and I'm more relaxed, less worried and feel warm. Physical pain, hip problem is still there but I'm feeling less depressed and not cold"

"My son with long term depression and social [anxiety] is much more content now there is heat in the house. My other son who is studying finds comfort when warm and can study better"

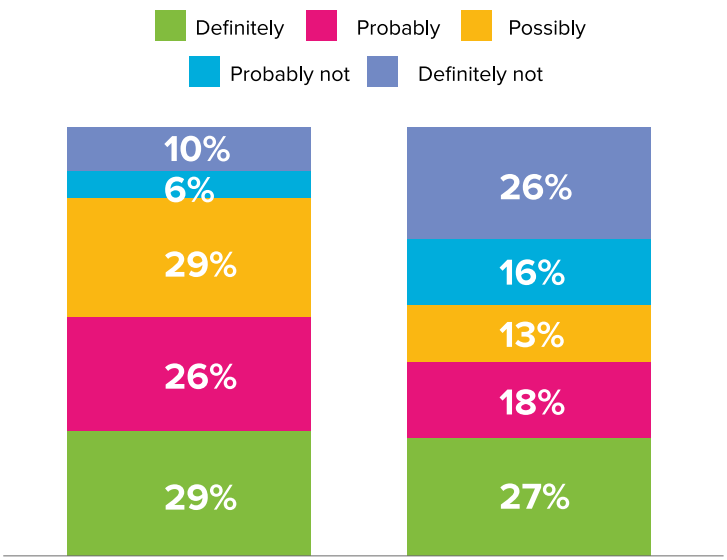
Over half (55%) of large measures and almost half (45%) of small measures households associated changes in their pre-existing health conditions to the receipt of measures through the WHHF programme.

"I have not been falling asleep all the time because of smell and poor ventilation when using the gas appliances. These were not efficient or controllable as they took time to warm a room. Some did not work or kept going out. There were cold spots and this affected my son's asthma in an adverse way. The new heating, timer and thermostatic valves have improved temperature control, are accessible and the heating warms up almost instantly. It has made a massive difference to our health and wellbeing."

"Life has become so much more comfortable for me since I became lucky enough to benefit from my very first central heating system and boiler. My previous boiler was very old and I was always worried it would fail. I had a breast cancer op in 2015 (double mastectomy) and the central heating has taken away the worry of perhaps no hot water and the house being thoroughly warm helps the arthritis in my hand as well. It's wonderful."

Figure 21

Health changes because of measures



Case Study: Derbyshire County Council

Rebecca describes herself as having been 'in a real state' when she was first referred for assistance. She had recently been bereaved and was in significant pain as a direct result of the impact of the cold on the symptoms of her Cerebral Palsy. She describes how she felt 'chilled to the bone'. Moving in these circumstances was very painful yet Rebecca explains that "the less you walk, the worse it gets". Rebecca relies on being able to move in order to maintain her mobility and her cold home was causing her health to worsen rapidly, particularly during the winter. She says "if you allow yourself to become bone cold it has long lasting effects. I'd be shivering all night because I couldn't get warm". She was advised by her GP to make sure her home was warm.

After having the new boiler fitted and being able to experience a warm home Rebecca said "I don't honestly think you realise how important heat is to your health and what a difference it can make. I've lived with Cerebral Palsy all my life but never made the association between the cold and pain. I honestly hadn't realised". She also hadn't realised how much worse the cold was for her than for others. She says "when you've lived with it all your life, you assume everyone else feels the same. I have realised I feel the cold more because of the Cerebral Palsy".

Besides the improvements in physical health, Rebecca says her mental health is also better as a result. She says "when you're cold everything gets on top of you. You can't relax even at home. You can't invite people round. There's no incentive to tidy up because you're in pain. There's nothing worse than coming home to an untidy, cold house. Now, because it's warm, you can ask somebody to come in and help. I love coming home to a warm house".

Longer-term changes to health

In 2018, households in receipt of a large measure were asked to reflect on whether they had experienced any changes in health conditions (both physical and mental) since March 2017 (i.e. 12 months after intervention).

Over a third of respondents (36.7%) noted that they had seen some improvement in their health condition.

A further 41.6% said there had been no change to their conditions. Just over one-fifth (21.8%) felt that their health had worsened in the year since March 2017. Analysis of the relationship between thermal comfort and changes to health conditions illustrated that **households experiencing an improvement in thermal comfort were more likely to have experienced a positive change to health conditions**.

Indeed, the proportion of **households who felt that physical health** was either very good/good **improved between pre-intervention and the 2018 follow-up (an increase of 7.2%)**. Similarly, the number of households who felt that their **mental health** was generally very good/good **increased between pre-intervention and the 2018 follow-up (an increase of 17.4%)**.

A similar relationship was observed when comparing changes in health with households ability to heat their home when its winter or when it is cold outside (subjective fuel poverty). The majority of households observing an improvement in their health condition identified as being able to effectively heat their home.

Finally, households were asked if they felt any improvement to their health conditions was linked to the intervention received. **Overall, 60.5% felt that changes in health were probably or possibly linked to WHHF interventions.**

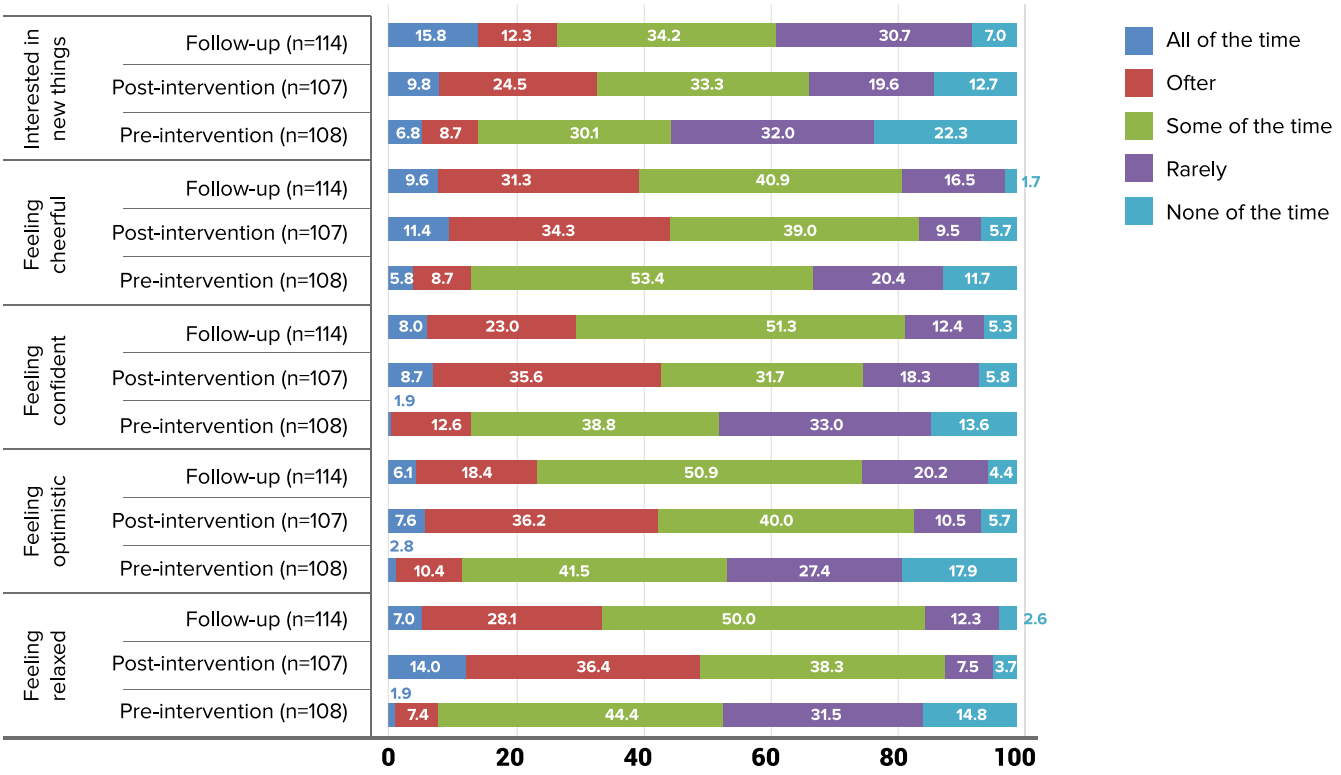
Longer term benefits to wellbeing

Improvements to wellbeing have also been reported, particularly amongst householders receiving large measures. During the follow-up survey, households were more likely to observe an improvement to their mental health than their physical health.

When asked to rate their mental and physical health both before intervention and 'at present' (2018), an additional 17.4% of households said their mental health was very good/good. In contrast, only an additional 7.2% said this of their physical health.

Figure 22

Mental wellbeing



Overall, the results above indicate that respondent households were less likely to report experiencing these feelings none of the time in 2018 than they were in 2017.

"I do not know how this grant was instigated but I'm glad it was. At the time I wasn't bothered as I had a very low mental state. Then along came this person who put a positive slant on things and proved that good things can happen. So although my physical health is still not good it would have been much worse. My mental health is much better. A big thank you to the scheme."

"It is easier to relax as the house is warmer and more comfortable".

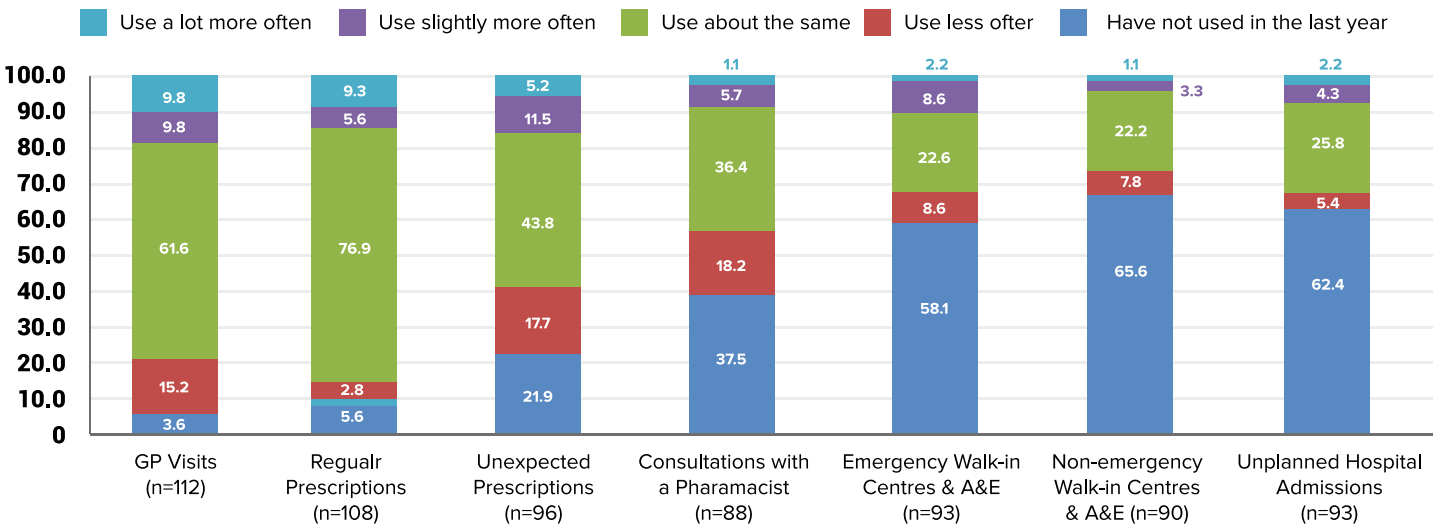
The impact on health service use

As part of NEA's 2018 follow-up survey, householders who received large measures were asked whether they had observed any reductions in their health service use in comparison to the previous twelve months. The Chart below (Figure 22) shows the changes that occurred.

Encouragingly, **15.2% of respondents reduced their number of GP visits** compared to before. However, similar proportions of households also increased their use of the same service over this period which could be explained by potential worsening of existing health conditions given the extreme vulnerabilities of some householders, or other wider societal barriers.

Figure 23

Changes to health service use over the last 12 months



Access to prescriptions for unexpected illnesses remained about the same between March 2017 and March 2018 as they had been previously for 43.8% of respondents. 21.9% had not used the service in the last year.

Just over a fifth of households had used unexpected prescriptions less often than before (17.7%), suggesting that these households had fewer instances of sudden illnesses which required medication/prescriptions.

Although causation is difficult to ascertain, these results suggest that many households with cold-related conditions have been able to use health services less often or about the same amount as they had previously. Thus, for some households with cold-related conditions, their **conditions may have improved or at the very least stabilised** rather than deteriorating further, which given the long-term and often progressive nature of health conditions present this could be considered as a positive outcome.

Further to this, the relationship between changes in health service use and whether households regarded changes in their health condition to be related to their heating/ insulation intervention was explored during follow-up.

This reflected that households who had used services the same amount as before or had observed a decrease in their use appeared **more likely** to have attributed changes to their health conditions with their heating/ insulation measure. For three of seven services this relationship was statistically significant:

- The relationship between changes in GP visits and health changes related to interventions
- Changes to the use of regular prescriptions
- Changes to emergency walk-in and/or A&E services.

Although correlations between changes to service use and changes to health being attributed to interventions were only weak for the above variables, it does suggest, albeit to a somewhat limited extent, that **households who were able to observe a reduction in service use were likely to attribute this health change to receiving support through the Warm & Healthy Homes Fund**.

Furthermore, this supports the case that larger scale, sustainable and potentially centrally funded energy efficiency programmes which tackle fuel poverty and health could help to reduce societal inequalities (including for health), increase quality of life, tackle cold-related ill health, reduce excess winter deaths and help the NHS to move towards preventative services. All of these are key policy directives set out by the NHS Five Year Forward Plan, the Public Health Outcomes Framework and National Institute for Health Care and Excellence (NICE) guidance.

For further analysis about the changes to health service use see *A follow-up evaluation of the Warm and Healthy Homes Fund,* available from the NEA website.

A mini case study is provided at Appendix A evidencing the health and wellbeing impacts of the Small Measures programme.

NEA's social evaluation has successfully shown that both the Partnerships and Small Measures programmes have improved the self-reported physical and mental health of households that received interventions.

As would be expected, the nature of many health conditions present within respondent households means that improvements and eradication cannot be expected for the majority of beneficiaries. However, as demonstrated, capital energy efficiency interventions can still help respondents to manage and stabilise their conditions which might otherwise have worsened without support.

Training and community engagement - increasing capacity to tackle fuel poverty

To complement the capital interventions provided through WHHF and extend the legacy of the scheme, NEA and EAS have delivered an extensive community engagement and training programme.

It has been widely recognised by all partners that upskilling local networks helps facilitate referrals, but that resource and capacity often makes this more challenging to achieve. The complementary programme of training and awareness sessions responded to that need, and directly supported WHHF partners with securing wider engagement to upskill local organisations, and maximise on potential referrals. This was twinned with resident engagement, to provide outreach advice provision.

Residents

A total of **1,254** households received direct energy advice and support from NEA, equipping them to check their energy consumption and bills; compare tariffs and switch supplier; apply for assistance including the Warm Home Discount and Priority Services Register; identify lowcost solutions and behavioural changes which can save energy; and understand the detrimental health impacts of living in a cold, damp home.

During an advice session at Sheffield Carers Centre, NEA's Project Development Coordinator Liz Lamming, provided advice to Jenny, a lady who cares for her disabled husband.

Jenny was with two different fuel providers, on standard tariffs and paying quarterly. After speaking with Liz, she left the session with the confidence to contact her supplier for further information. A couple of weeks later, Jenny told Liz she had made savings of around £334 by changing supplier and applying for the Warm Home Discount. She was extremely pleased with the saving and monthly payments have made budgeting on her low income easier.

"Being able to support Jenny and advise her on the best ways to save energy and reduce her bills will really make a long-term lasting impact as well as enabling her to take control of her energy use"
Liz Lamming, NEA

Frontline Advisors/Practitioners

A total of **1,227** frontline practitioners including Support Workers; Community Nurses; Environmental Health Officers; Caseworkers; and Falls Prevention Nurses received the following training from NEA and EAS:

- Fuel Poverty and Health CPD-accredited training course
- City & Guilds Level 3 Award in Energy Awareness (6281-01)
- City & Guilds Level 2 Award in Fuel Debt (6281-16)
- Fuel Poverty and Health awareness raising session

This training aimed to establish a cohort of up-skilled staff who can confidently advise their fuel poor clients on where to access help and refer them to the various forms of assistance available.

Health practitioners and other trusted intermediaries are in a unique position being routinely in contact with vulnerable people on a one-to-one basis or visiting their home. Nevertheless, they are not always familiar with the complex policies and range of assistance available for fuel poor households. NEA's ability to provide this type of training has been welcomed by WHHF partners and helped to integrate fuel poverty objectives into their existing services.

Based on NEA's experience, we estimate that each frontline advisor will use this knowledge to support an average of seven clients each per week, meaning that another **412,272** householders will potentially benefit annually from this new-found expertise and energy advice.

Evaluation of the training aspect of the Health and Innovation Programme in England and Wales demonstrates these sessions have provided a marked improvement in participants' knowledge and awareness of fuel poverty (its causes, consequences and solutions), the relationship between cold homes and health (physical and mental) and respondents' ability to identify vulnerable households most at risk of fuel poverty.

Of residents who received advice and support via NEA, knowledge and awareness was greatly improved, particularly of the following schemes and assistance: the Warm Home Discount rebate (76% increase in knowledge), Priority Service Register (70%), Cold Weather Payment (66%) and Winter Fuel Payment (70%)[42].

"Excellent delivery, useful information for work in people's homes"

"Tutor was knowledgeable, relaxed and friendly with excellent communication skills. Really enjoyed the course, would definitely recommend this course to colleagues!"

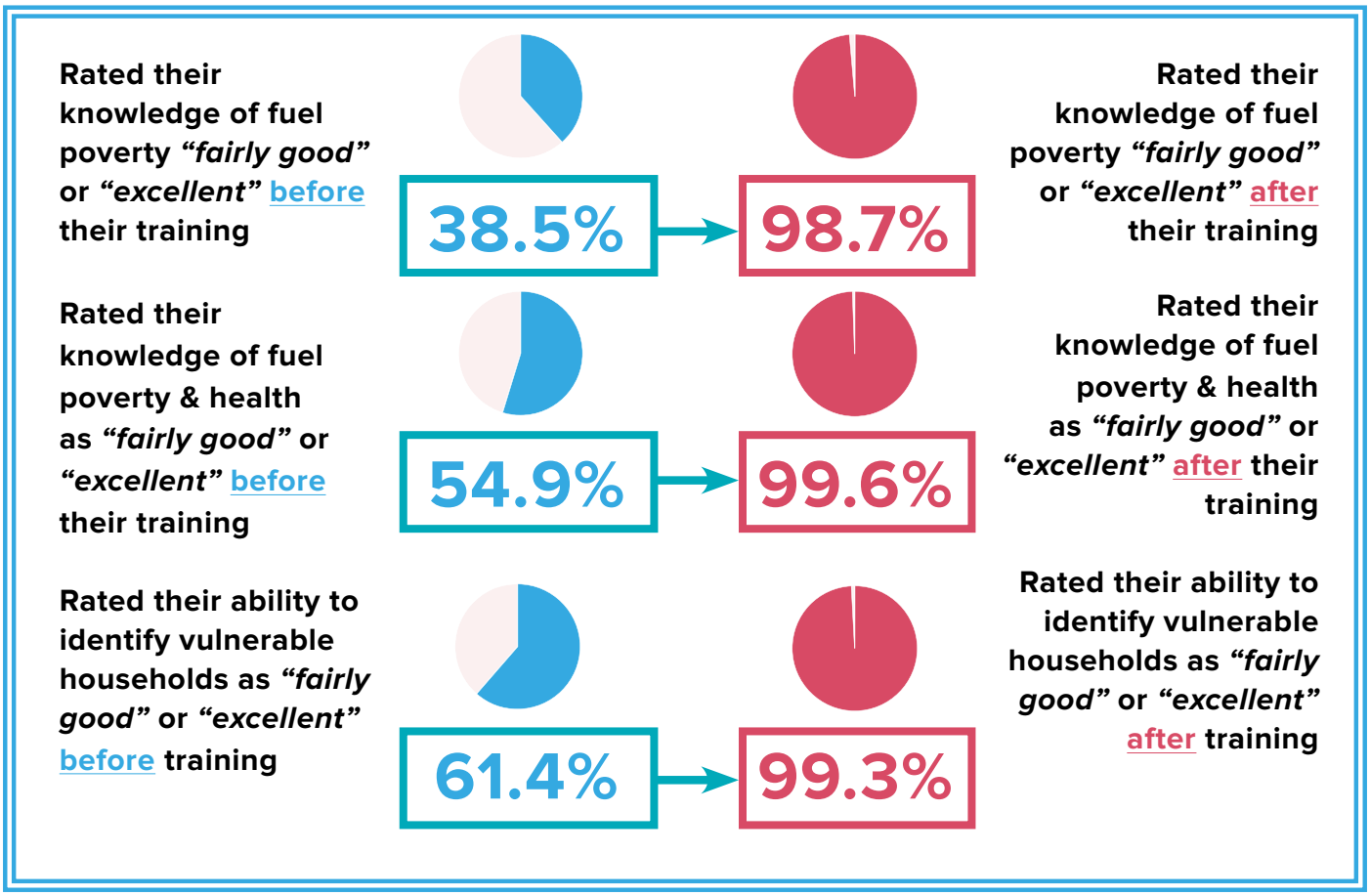
"Course was well presented, learnt a great deal about the subject"

"Informative and relevant. Presenter was excellent, knowledge was amazing"

"WHHF funded the NEA Level 3 Award for a CAB debt adviser, Age UK support worker and our preferred installer. The training enabled them to provide expert advice and guidance at source rather than refer all cases to the Winter Warmth Team"

Figure 24

Knowledge and awareness of fuel poverty amongst frontline advisors

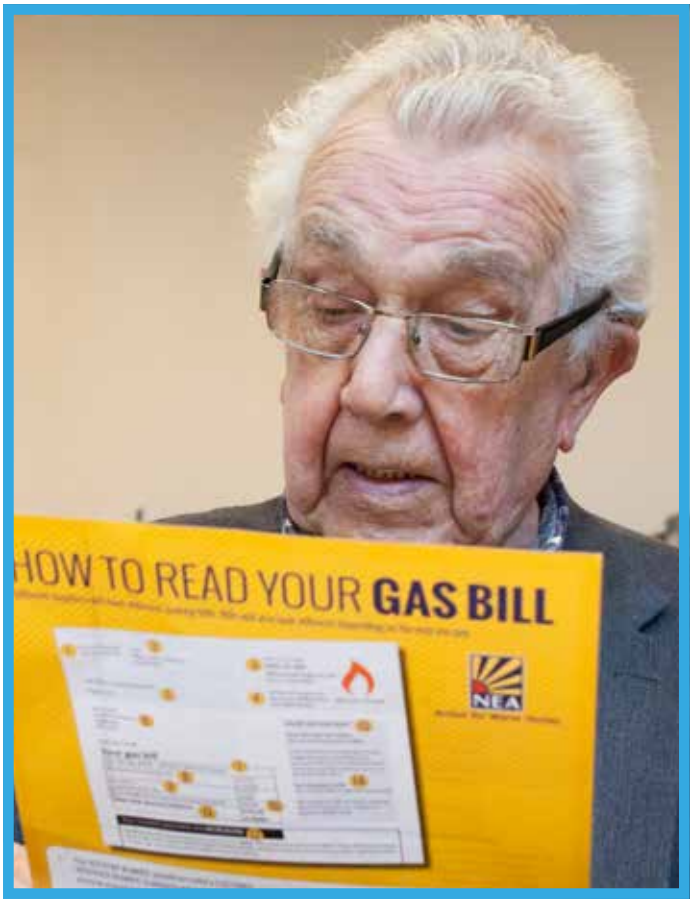


Feedback has also shown that frontline advisors' knowledge of each of the following fuel poverty and/or energy efficiency-related programmes and topics was improved considerably (improvement rated as 4 or above out of 5):

- Home Heating Cost Reduction Obligation of Energy Company Obligation 77%
- Priority Services Register 76%
- Warm Home Discount Scheme 74%
- Cold Weather Payment 64%
- Winter Fuel Payment 61.9%
- Had a better understanding of how heat is lost in the home 91%
- Knew more/could recommend a range of low cost measures to save energy 90%

Further feedback related to the training delivered by Energy Action Scotland demonstrates that on a scale of 1-10, with 1 being low and 10 being high, the average level of knowledge prior to fuel poverty training was 5.8. Post training, the average score increased to 9.0, representing a 55% uplift[43].

The most significant increase was in terms of knowledge and understanding of energy efficiency grants and other support, which increased by 4.4 (94%).



Feedback from a Fuel Poverty and Health training course in Leicestershire:

"I gained such a lot from [the trainer] Colin yesterday; yes of course some things we already know about, but there was quite a lot that I did not know, and was able to ask questions, share our concerns and get an answer. I felt the presentation was excellent and the handouts that Colin gave us will now give me confidence to pass on useful information and contacts from this handbook. I also do an open forum for residents as part of a group, and if anyone has difficulties or concerns I now have the knowledge [to share]." **Marilyn Stocks from Agewise and Blaby District Council**

"I found the training really useful; it's opened my eyes to the health implications of a cold home and helped me to recognise the signs of fuel poverty. I am now able to discuss these issues with service users that I visit and signpost them to the correct sources of help available." **Lateefat Junaid, Community Support Worker, Leicestershire County Council**

"All the team received training from NEA through WHHF. Without this I don't think we'd have got half as many referrals. The training improved awareness of fuel poverty issues and the impacts on health, and I think this helped people feel more confident to refer service users in. The training has definitely increased referrals." **WHHF lead partner**

SAP movement

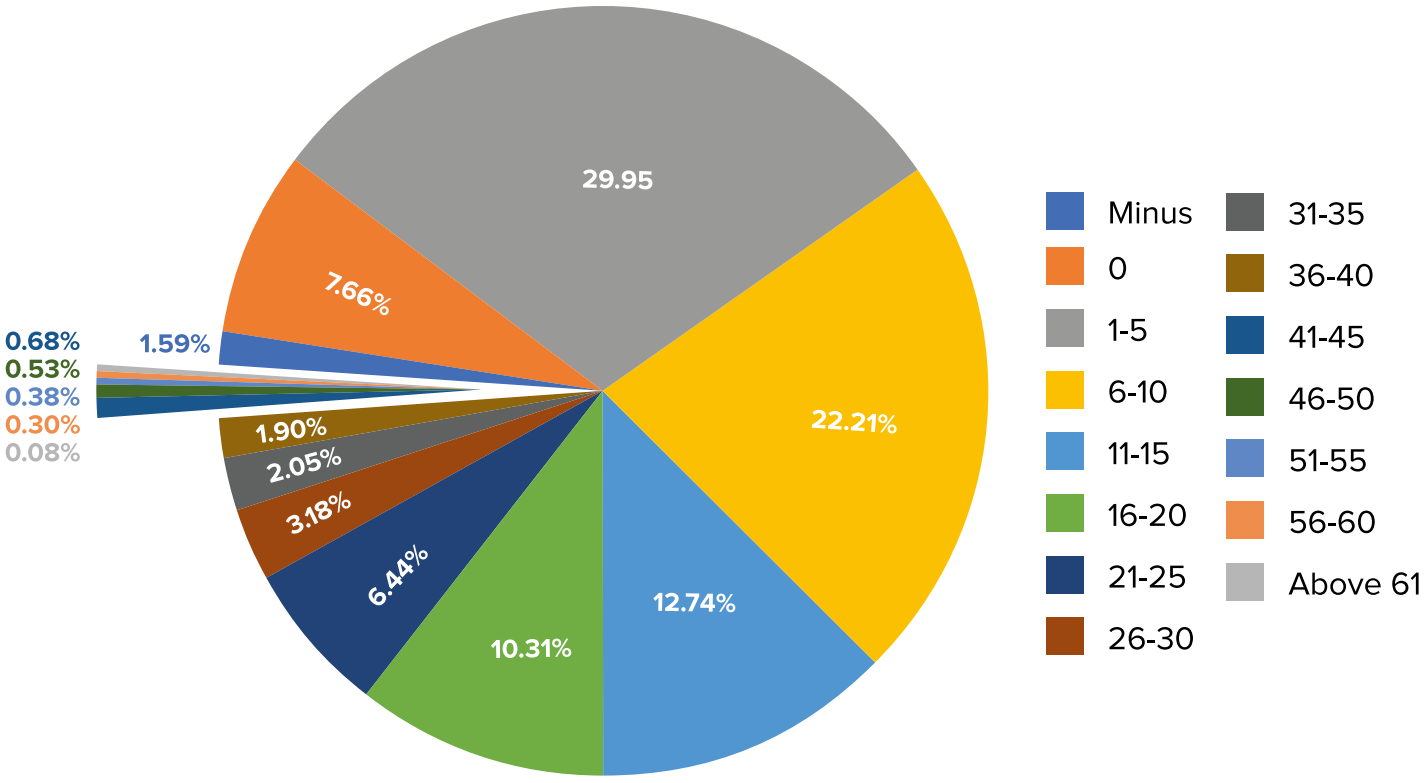
The Standard Assessment Procedure (SAP) is the methodology used by the Government to assess and compare the energy and environmental performance of dwellings on a scale of 1-100; the higher the number the lower the running costs[44].

WHHF partners were required to conduct SAP assessments on large measures funded under the Partnerships strand only to help demonstrate the impact of capital improvements[45]. In total, 92% SAP assessments were reported. Whilst efforts were made to accurately capture this data for every property in receipt of a large measure, it was not possible for all properties. In some instances, measures would not have resulted in a change in SAP and therefore no assessment was carried out; and in some cases the householder had subsequently moved into a care setting or sadly passed away so access to the property for a post EPC could not be granted.

The impact of energy efficiency measures was demonstrable in that **91% of households experienced increased SAP,** of which just under a quarter had improved between 16 and 40 points. Around **20% of households increased a full EPC Band** as a result of the intervention received, and **6% of households improved their rating by two Bands** or more.

Figure 25

SAP improvement



Warm and Healthy Homes Fund partner evaluation

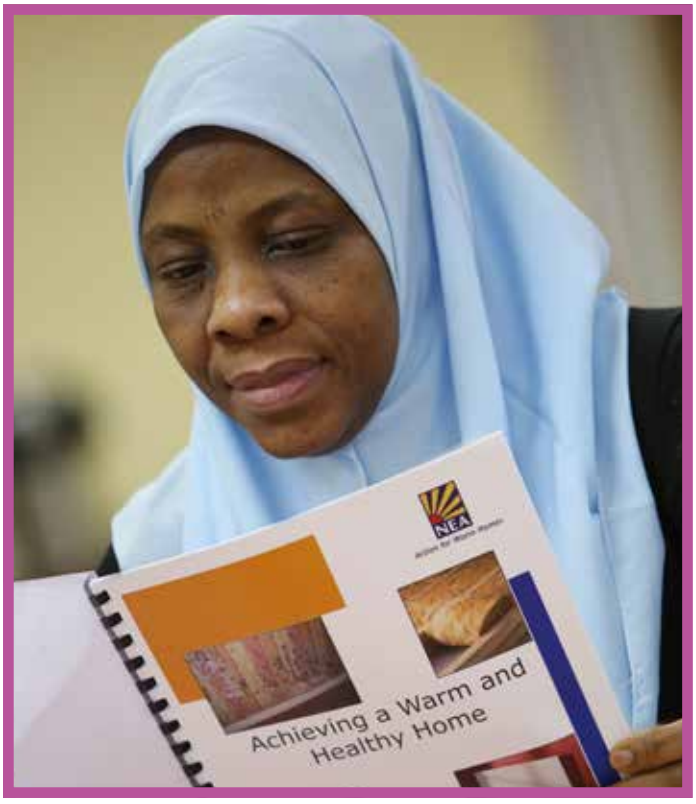
The WHHF programme aimed to support health and housing partnerships to better address the needs of households at risk of cold-related illness, building upon good practice outlined in the NICE NG6 guidance on excess winter deaths and morbidity and the health risks associated with cold homes.

NEA undertook an evaluation exercise in 2017 and 2018 with partners involved in delivering both the Partnerships (Local Authorities) and Small Measures programme (Home Improvement Agencies), which was designed to improve and shape future delivery by identifying good practice and learnings from the WHHF. The evaluation sought to provide insight into how the delivery of the programme could be enhanced, strengthened or adjusted. Partners were asked to comment on a range of areas including: implementing the NICE guidance; partnerships; eligibility; targeting; and programme challenges. Their responses are summarised in this section.

Implementing the NICE NG6 guidance

How far were partners addressing the NICE guidance?

The WHHF was designed to align with the **12 recommendations** set out in the 2015 NG6 NICE Guidance (tackling excess winter deaths and illness and the health risks associated with cold homes):

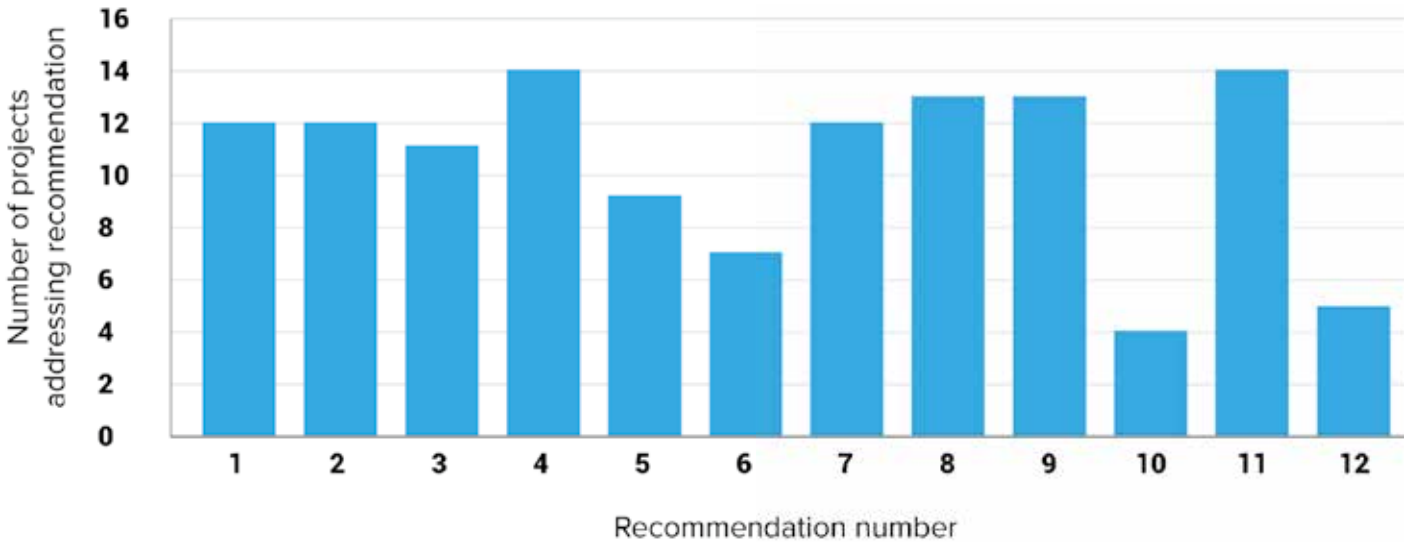


1. **Develop a strategy**
2. **Ensure there is a single-point-of-contact health and housing referral service for people living in cold homes**
3. **Provide tailored solutions via the single-point-of-contact health and housing referral service for people living in cold homes**
4. **Identify people at risk of ill health from living in a cold home**
5. **Make every contact count by assessing the heating needs of people who use primary health and home care services**
6. **Non-health and social care workers who visit people at home should assess their heating needs**
7. **Discharge vulnerable people from health or social care settings to a warm home**
8. **Train health and social care practitioners to help people whose homes may be too cold**
9. **Train housing professionals and faith and voluntary sector workers to help people whose homes may be too cold for their health and wellbeing**
10. **Train heating engineers, meter installers and those providing building insulation to help vulnerable people at home**
11. **Raise awareness among practitioners and the public about how to keep warm at home**
12. **Ensure buildings meet ventilation and other building and trading standards**

WHHF projects aligned with or met individual NG6 recommendations to varying degrees, as can be seen below:

Figure 26

Project alignment with NICE recommendations (Partnerships – Local Authorities)



The recommendations **most likely** to be addressed by the Partnerships projects were:

- Recommendation 4: identify people at risk from ill health from living in a cold home (14 respondents[46], 100%)
- Recommendations 8 and 9: train health and social care practitioners and housing professionals and faith and voluntary sector workers to help people whose homes may be too cold (13 respondents respectively, 93%)
- Recommendation 11: raise awareness among practitioners and the public about how to stay warm at home (14 respondents, 100%)

The recommendations **least likely** to be addressed by the Partnerships projects were:

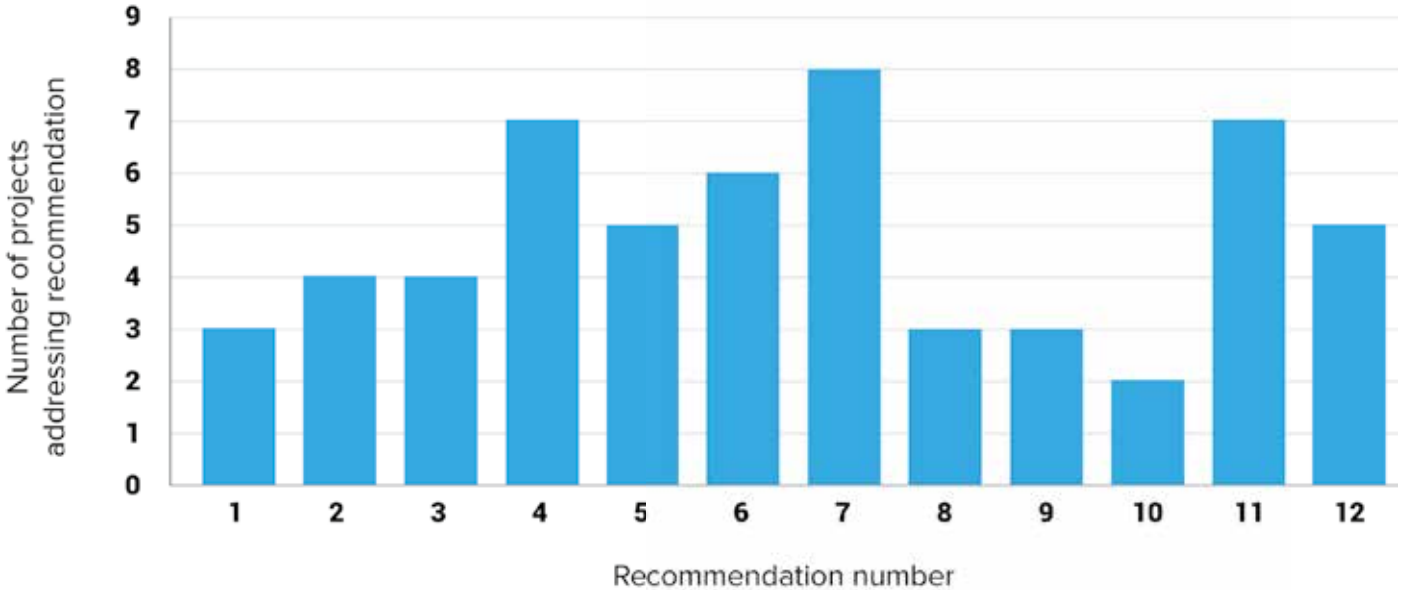
- Recommendation 6: non-health and social care workers who visit people at home should assess their heating needs (7 respondents, 50%)
- Recommendation 10: train heating engineers, meter installers and those providing building insulation to help vulnerable people at home (4 respondents, 29%)
- Recommendation 12: ensure buildings meet ventilation and other building and trading standards (5 respondents, 36%)

Encouragingly, the majority of projects were addressing:

- Recommendation 1: develop a strategy (12 respondents, 86%)
- Recommendation 2: ensure there is a single-point-of-contact health and housing referral service for people living in cold homes (12 respondents, 86%)
- Recommendation 7: discharge vulnerable people from health or social care settings to a warm home (12 respondents, 86%)

Figure 27

Project alignment with NICE recommendations (Small Measures Measures – Home Improvement Agencies)



Recommendations **most likely** to be addressed by the Small Measures partners were:

- Recommendation 7: discharge vulnerable people from health or social care settings to a warm home (8 respondents, 100%)
- Recommendation 11: raise awareness among practitioners and public about how to stay warm at home (7 respondents, 87.5%)
- Recommendation 4: identify people at risk of ill health from living in a cold home (7 respondents, 87.5%)

Recommendations **least likely** to be addressed by the Small Measures partners were:

- Recommendation 1: develop a strategy (3 respondents, 37.5%)
- Recommendations 8 and 9: train health and social care practitioners and housing professionals and faith and voluntary sector workers to help people whose homes may be too cold (3 respondents, 37.% respectively)
- Recommendation 10: train heating engineers, meter installers and those providing building insulation to help vulnerable people at home (2 respondents, 25%)

Whilst it is very positive to see the recommendations being adopted across WHHF projects, there is still a concern that the guidance is not being implemented in a broad sense. All Local Authorities involved in delivering the WHHF Partnerships programme indicated that they had found at least one of the recommendations challenging to implement.

Challenges to addressing the NICE recommendations

Engaging health professionals

Respondents identified particular challenges in addressing certain NICE recommendations. For example, Local Authorities working under the Partnerships programme found it particularly difficult to secure ongoing engagement and referrals from frontline workers and professionals in the health and social care sector: *"despite expressing enthusiasm for the programme's objectives, staff from other sectors rarely have the time, resources, expertise, interest or remit to undertake assessments of clients' heating needs or to help address them."*

This suggests that, whilst affordable warmth schemes like those involved in the WHHF are developing and designing services to be in line with the NICE recommendations, there may be obstacles within the health and social care sector itself (such as increasing time pressures on staff) which mean there is little time or inclination to refer into those health-based affordable warmth services that are available.

Working within a single-point-of-contact referral service

Some partners experienced difficulties in working within a single-point-of-contact referral service, especially with regards to clients being frustrated at having to build a new relationship with a new person for each organisation they were referred to. One partner observed that key to their successful implementation is being able to take *"a holistic view of the person"* as well as having strategic partnerships in place with knowledgeable staff.

Here, the strength of local partnerships and the extent to which an awareness of those partnerships and referral mechanisms was reflected at all levels of staff within referring organisations became key to the successful delivery of a single-point-of-contact-referral service.

Discharge-based schemes

Survey responses suggested particular challenges in managing discharge-based schemes. One such challenge was around the time pressures associated with identifying a patient at point of discharge, and being unable to complete the necessary eligibility checks before they returned home. One partner explained that *"it's about convincing hospital discharge nurses who sit by patients' beds that there is a question they need to be asking as part of the assessment before they release somebody."*

Respondents argued that having greater data-sharing arrangements with government departments such as the DWP or locally with the Job Centre or Benefit Office could help to address this.

Being proactive at point of discharge, however, was not always easy. One partner who had worked with a hospital discharge team noted that *"hospital discharge is under such pressure that it was difficult for them to do as much planning as they would like to. We felt like they were reacting to events and are rarely able to plan in advance."*

Another partner suggested that it may be more useful to focus on hospital admission teams for generating referrals, rather than discharge teams. This would give time both for assessments and for the installation of measures before a patient is discharged.

Training installers

Finally, the NICE recommendation with which most partners experienced difficulties was in training heating engineers and installers to assess the needs of vulnerable clients. On a programme where recipients were all experiencing vulnerability in a varied sense, partners found that placing such a burden on installers fell outside of their job description and *"that type of approach would very quickly have been beyond even the most willing and well-trained installer."*

Feedback from WHHF partners therefore suggests that certain teams or sectors identified within the NICE guidance may not be the most appropriate or feasible partners with whom to work during the delivery of health-based affordable warmth schemes, due to the existing requirements or pressures placed upon those teams (this relates both to heating engineers, installers and hospital discharge teams).

How far did the WHHF enable implementation of the NICE guidance?

A number of partners were already looking to address the NICE guidelines before applying for funding from the WHHF. In some cases, the recommendations had already been incorporated into strategic planning requirements, whilst others were already delivering schemes that addressed some of the recommendations (both intentionally and unintentionally). However, feedback from partners suggests that participating in the WHHF did

enable them to address certain recommendations through trial and error and lessons learned during delivery.

Partnerships and referrals

In total, the 22 projects that responded to NEA's evaluation survey had engaged with over 166 different partners. On average, each project lead engaged with 7 additional partners. The maximum number of partners engaged by one project was 18, and the minimum was 1. Partnership respondents had engaged with over 107 partners, whilst Small Measures respondents had engaged with 59. In addition to contractors and handyperson services who installed measures in households, partners provided support in a variety of forms, ranging from match funding to generating referrals or working to identify, advise and engage households.

Partnerships spanned local authorities (LAs), Home Improvement Agencies (HIAs), the Health and Social Care Sector, and the Voluntary Sector. Health partners ranged from local NHS trusts, hospital discharge teams and GP practices to Occupational Therapists (OTs) and pharmacies.

Within local authorities, Environmental Health, Housing, Public Health, Adult Social Care, Social Services and Welfare Rights teams were identified as key partners.

Where referrals to the WHHF were received **directly** from the health and social care sector it is interesting to note the source and difference between programmes:

Figure 28

Partnership Interventions No. of Homes per Health Sector Referral Route

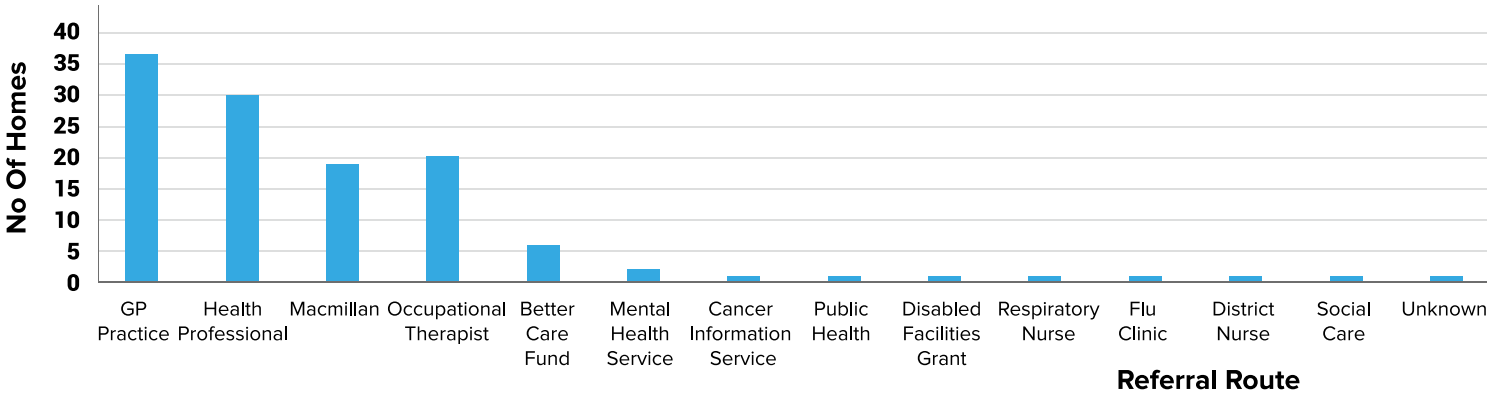
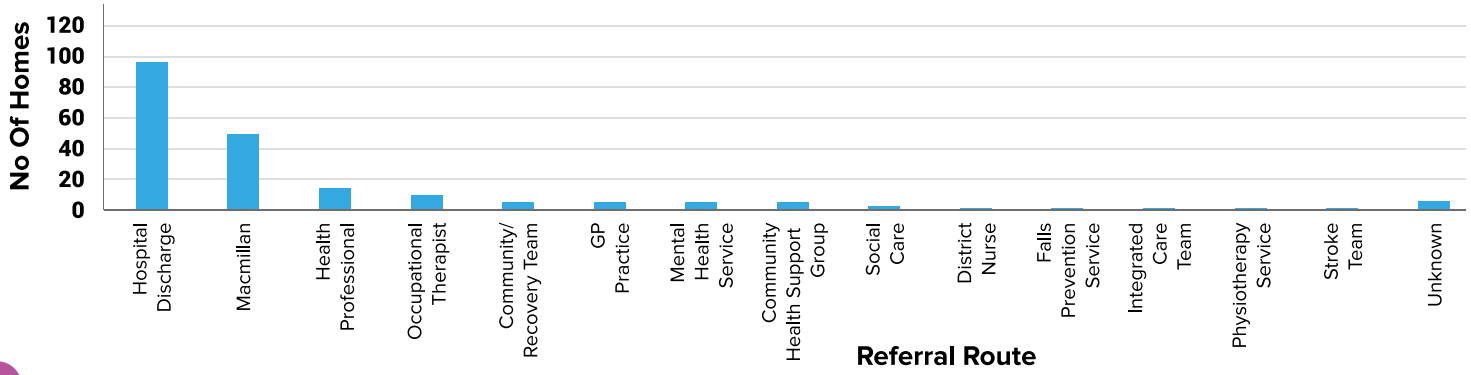


Figure 29

Small Measure Interventions No. of Homes per Health Sector Referral Route



Under the Partnerships programme (Local Authority led), referrals from the health and social care sector were highest from a GP Practice, whilst for Small Measure partners (HIAs), referrals from hospital discharge teams/ staff were most successful. However, these results are not overly representative as they relate to a small percentage overall in comparison with the broad range of referral pathways seen across WHHF.

Third sector organisations such as local Citizens Advice Bureaux, Age UK, Shelter, British Red Cross, Care & Repair and local food banks were also regularly identified as being key to generating referrals into a project. Others worked with third sector organisations linked with specific health conditions in order to generate referrals, such as those focusing on respiratory, cardiovascular or mental health. Fire & Rescue Services had also been engaged as referral partners in some schemes.

When asked whether funding from the WHHF had enabled partners to identify or better develop referrals from health and social care practitioners and/or partners, **100%** of projects in the Partnerships programme felt that this was the case and **87%** of Small Measures partners agreed.

"Having the funding there and being able to react to someone's needs has demonstrated to health and social care practitioners that assistance is available, that it can be delivered in an efficient and timely fashion, and this creates positive reinforcement to generate more referrals. It is a snowball effect."

Eligibility and Targeting

Respondents were asked how well they felt the health-based eligibility criteria used by the WHHF had worked in practice. **100%** of partners within the Partnerships programme felt that the criteria had worked 'fairly well' or 'extremely well'.

"Our referral routes from the Cardiology Ward and Disabled Facilities Grant applications meant we targeted specific health conditions and households with disabilities. However the opportunity to data share with the Council's housing stock meant we also targeted this group."

"We wanted to target owner-occupiers because landlords are responsible for maintaining the heating systems of their properties being rented out and we would seek to enforce this through our enforcement arm. Social housing tenants have access to other help and there is again a landlord responsibility so we felt owner-occupiers was a gap that needed to be filled."

"As a result of the WHHF, the Council will be adopting the criteria from this scheme, with regards to vulnerability/health issues, for our own Council-funded scheme. We believe this gives us greater flexibility to help those most in need. It is very easy to justify giving assistance when you can clearly demonstrate that the client has a health need and is on a low income and that's what the WHHF criteria give us. The absence of a requirement to be on a qualifying benefit has enabled us to capture people who have been too proud to claim benefits (even though they might be entitled to them) but are on a very low income and in need of help."

The ability to provide 'at risk' support

The WHHF eligibility criteria made provision for need to be assessed on an 'at risk' or 'emergency' basis. This was designed to capture householders who met the health-based criteria, yet were not in receipt of a qualifying benefit or failed to meet the low-income threshold (gross household income less than or equal to £16,190 per annum). The ability for WHHF partners to request support on a case-by-case basis, based on the householder's level of need, ensured that vulnerable individuals did not slip through the net for assistance.

When asked if partners thought there would be any benefit to including similar flexibility for eligibility in mainstream energy efficiency programmes, enabling high priority cases to be assessed on a case-by-case basis rather than adhering to strict eligibility criteria, **90%** of partners thought this would be **'highly beneficial'**. This level of support demonstrates that a flexible approach would be welcomed, and should be built into future affordable warmth programmes.

Incorporating a wide scope into the WHHF's health-based eligibility criteria meant some partners had been able to identify and help a wider range of vulnerable households than they would otherwise normally have been able to assist.

"The process enabled swift agreement of the provision of measures for vulnerable households that were just above the threshold income limit. This meant that those at imminent risk of cold-related ill health due to a lack of a working central heating system could be quickly supported."

"The ability to make a judgment of critical need despite some eligibility factors not being met would be an advantage in addressing situations where possible harm to health has been determined if intervention were not to proceed."

"We have this flexibility in our local Affordable Warmth Crisis Fund and that discretionary element is one of the keys to its success."
"Where clients are unable to come home from hospital or are at risk of readmission, an emergency intervention mechanism would be really helpful."

Referral Partner Case Study: Lynn, Care Co-ordinator, Community Support Team

Lynn works across several GP surgeries in Derbyshire and carries out home visits to vulnerable patients. Lynn makes referrals to the Derbyshire Healthy Homes Programme (WHHF partner) when she feels that a patient's health is being compromised by living in a cold, damp home. This actively prevents hospital admissions by preventing the crises which lead to admission before they happen.

Lynn describes her involvement with the programme to be a very positive experience. She says everyone she referred was dealt with promptly and professionally. She describes one case where a broken boiler was preventing a terminally ill patient from being discharged from hospital. An intervention from the programme allowed this lady to spend her last days at home rather than in hospital and also freed up a hospital bed for someone else who needed it.

Lynn definitely sees the benefit of the programme to the patients she has referred, particularly older, less mobile people, those using expensive or unsafe forms of heating and those who receive a coal allowance but can no longer manage the physical aspect of using coal. The provision of affordable central heating and hot water significantly improves the living conditions of the householders assisted and makes their lives much easier and safer.

Lynn found the process of referring patients to the programme very straight forward and comments that, while patients were sometimes wary about disclosing their financial information to determine eligibility, she found that their confidence increased when dealing with health professionals on a one-to-one basis

Despite the positive response and ability to provide support to householders on a case-by-case basis, WHHF partners still reported instances of people not being able to receive assistance, in the main due to household income being above the emergency threshold.

Reaching householders most in need

Identifying hard-to-reach households by their very nature means there is no one size fits all solution and the WHHF programme clearly demonstrated this.

WHHF project partners demonstrated that engagement needs to be multi-faceted to engage with the hardest to reach. Some of the most successful approaches have included:

- Promoting a single-point-of-contact referral mechanism e.g. a phone number or website which both frontline staff and householders can access. This creates a seamless user journey enabling ongoing engagement and helps to mitigate against raised expectations and resource limitations faced by partner organisations who may not have the capacity to participate in onerous referral processes.

- Encouraging self-referrals by promoting assistance in the local press or flyers/newsletters issued by the local authority. This usually has greater traction for more established programmes where the project is recognisable, however newly formed projects are likely to require more proactive engagement methods.

"HEET works almost exclusively through referrals and have found that this is the best way to engage with those in most need. Having an advice stall at events, or even within the hospitals, can generate referrals but tends to attract those with lower level needs. HEET never carries out cold calling or other types of 'blind' advertising as this only seems to generate inappropriate referrals"

- Cross-sector working should form the basis of any engagement programme and was unanimously reported as the main contributor to referrals. It is imperative that any future replication of this scheme looks to integrate into existing referral pathways, or provides resource to facilitate the creation of new referral pathways by promotion to key trusted intermediaries. Partners highlighted the most effective routes to be:

  Housing sector colleagues

  Health practitioners

  Outreach advice agencies

- Attending events organised by community organisations working to support particular segments of the community or specific categories of health condition worked effectively for reaching those in most need, for example Breathe Easy support groups for people with respiratory conditions.

"The paediatric asthma team is a good example of a team that reaches families that need our help, but who would probably not think to approach us independently because they might not make the link between their child's asthma and the housing conditions. Paediatric asthma nurses often make visits to their patients in their home so they are well placed to make the link."

- To facilitate referrals from wider organisations, a series of promotional sessions and localised training was provided by NEA alongside work that some partners conducted themselves (resource permitting). It was important to enable partners and their referral parties with the knowledge and skills to identify fuel poverty risk, and feel confident in moving beyond the presenting problem and recognising an affordable warmth issue.

- Outreach advice provision and identification was widely regarded as a good route to reach householders. The best vehicle for delivering outreach being via existing events, piggy-backing on other activities, or utilising spaces which already have a captive footfall such as:

  Local libraries
  Community forums
  Food banks
  Support groups
  During existing planned work
  Tenant forums
  Patient Participation Groups
  Advice agency partnerships, Citizens Advice Bureaux, Shelter, Age UK etc.

- Finally, integrating energy advice with other advice, so the householder resolves their presenting problem but also understands the additional value/benefit from considering energy efficiency advice, or taking up a measure. It was noted by several respondents that often the capability to do this hinges on the individuals delivering the advice provision, i.e. their competencies and aptitude.

"It is important to have a strong network of referral organisations within the health sector and the voluntary and community sector. We established very good referral and working relationships with advice services, food banks and with Shelter and Age UK. These resulted in referrals for the small measures scheme but also enabled us to cross-refer clients to these organisations for support outside of our remit but within theirs, providing a holistic approach to support."

"Using a dedicated person with a strong personality to promote the service to frontline professionals by attending team meetings and doing a short ten-minute awareness presentation"

"One approach that worked well when trying to engage with hospital discharge patients was to explain that the programme was to try and prevent the large number of readmissions that occur and the health risks of living in a cold home. Discussing health risks at a time when they're feeling quite vulnerable made them more receptive to advice."

"Repairs and Adaptations: Informing eligible households whilst doing other works to their properties under Disabled Facilities Grant works carried out by the RAS team. Working closely with this team meant that any cases that needed help were easily accessed to assist"

"It worked well to integrate this into an existing service, so that we were already visiting the person and providing other support and measures."

Other more unique methods of engagement were utilised and one included an integral referral pathway established with GP surgeries:

"Working with the Intergrated Access St Helens (IASH) team has been integral to our success with engaging households. Because they are so well-connected with health services, and because of the Proactive Care Liaison role within IASH, we were able to work very closely with them which has increased our reach for this programme substantially. It is through working with IASH that we were able to get access to the GPs we worked with. We offered to provide assistance through working with GPs in two ways:

Firstly, where GPs were able to give us access to their patient lists, we were able to send out a mailshot and follow up with door-knocking. This was the most successful way of engaging households. As a result of the door-knocking, we were also able to refer people to other services if required (e.g. benefits checks, handyperson services, switching advice, insulation). This improved the assistance that we were able to offer overall.

Secondly where the GP was unable to give us an address list, we funded the mailshot for them to do, where we asked people to respond to the letter. We provided the template letter for them to send out and the letter was Council-branded. This worked less well, we didn't have nearly as many referrals through this method, but we did still receive a handful."

Engaging the health sector and developing referral pathways

NEA has found engagement with the health sector challenging in the past and one of the central ambitions of the WHHF programme was to develop and foster new ways of working with practitioners across the health and social care sector to ensure fuel poor households at risk of cold-related illnesses are referred to assistance and could benefit from a home which is warmer, leading to improved health and wellbeing.

Encouragingly in 2017, 18 out of 22 project partners felt that the funding they had received from WHHF had enabled them to identify and better develop referrals and partnerships with health and social care practitioners and other partners. Partners spoke a lot about providing a single route to support and the importance of "pester power" – being persistent, consistent with messaging and linking in with stakeholders' targets/priorities. Observations reflected that key 'wilful' individuals and local relationships could often be the driving force behind engagement rather than a sector commitment.

Feedback obtained from Local Authority partners involved in delivering WHHF in 2017-18 explored in more detail some of the wider barriers in engaging with the health sector which included:

- Despite broad recognition and evidence supporting the fact that living in a cold home will exacerbate many health conditions, fuel poverty practitioners have found that the health sector often expect further conclusive evidence establishing the direct links between spending on cold homes and savings to the NHS using quantitative evidence from individual cases. This presents a significant challenge given partners' lack of access to patient data, the difficulty in resourcing longitudinal studies and the fact that the cold is unlikely to be the only issue affecting the patient's health.

- Successful referral generation from the health sector relied on continuous awareness raising of the availability of affordable warmth services across multiple teams and departments.

- The increasingly challenging financial situation facing the health sector making it harder to build a case for continued investment in affordable warmth.

- Most WHHF partners in 2017-18 noted that the stop-start nature of funding streams hindered the process for health workers to get into a regular pattern of making referrals.

- Funders are often more interested in investing in capital measures than in supporting the development of referral networks. Keeping referral networks engaged takes time and resource which can be harder to secure revenue funding for.

- Data sharing regulations can complicate the referral process for health professionals wishing to refer patients to non-NHS organisations. Concerns were expressed by one partner that General Data Protection Regulation (GDPR) would make it harder to identify the fuel poor and also that the requirements of GDPR conflict with advice from NICE on data-sharing to help identify those in need. It was felt it would be useful to have a GDPR compliant 'patient best interest' guideline.

- Whilst health professionals are focussed on the patient, it is sometimes difficult to ask them to consider wider factors which may influence health. Funding to support the link between health and housing would go some way to addressing this issue.

- Ensuring health professionals are aware of fuel poverty, its impact on health and how to identify those affected is an ongoing challenge which awareness sessions can be successful in addressing.

Despite these barriers to building referral networks with health and the practicalities of linking cold homes and health, WHHF partners had implemented a range of solutions and approaches:

- Given the difficulty of making a direct link between spending on cold homes and savings to the NHS, one partner found success in using the generic assertion that a cold damp home is more likely than not to affect a person's health if they are already suffering from a cold-sensitive long-term health condition, and consequently cost the health service more. Qualitative data and case studies can also be used to demonstrate the positive impact of installing new heating systems for vulnerable patients. By working closely with the CCG, one Local Authority was able to demonstrate how difficult it is to isolate and accurately measure the impact of a warm home on an individual's health; the CCG has since acknowledged this and accepted the qualitative results that the partner was able to provide.

- A partner reported that delivering their WHHF project had drawn the attention of their District Councils to the need for investment in the homes of the most disadvantaged fuel poor residents. This had subsequently triggered the release of Better Care Fund monies by District Councils for affordable warmth works.

- Another WHHF partner highlighted the need to work at both strategic and operational levels within the health sector in order to affect change. They had found success in continuously working to raise awareness amongst practitioners who had contact with vulnerable householders, whilst at the same time evaluating the impact of affordable warmth services to make the case for continued investment and promoting the benefits of local investment.

- The development and maintenance of referral networks needs to be resourced. Health workers really value the feedback provided by services to which they refer patients. This gives them reassurance that things are happening as a result of their referral and is key to keeping them engaged.

- One partner had ensured that the high profile of their service was maintained by reporting results to the Health & Wellbeing Board and through an annual report.

"It seems (as usual) that there are a few individuals who become convinced passionate and engaged who generate the bulk of referrals from health and social care. Although it can be frustrating that this isn't easier to mainstream across the system, nonetheless these individuals generate appropriate and significant numbers and perhaps utilising these as champions may be a fruitful approach in future."

"We have also found that providing feedback is essential to keeping health workers engaged. We always tell referrers when we are visiting and what the outcome of our visit has been. We have found that referrers really appreciate this information and it encourages them to make repeat referrals."

"[The] project has helped to reinforce existing health partnerships and enabled us to reach and form new ones. For example, we have had Hospital Occupational Therapists and Clinicians referring to the scheme for the first time."

"The relationships between the social workers and OTs has improved, the benefits of which are huge as we are better able to support one another and the clients coming through the council, therefore offering a greater range of support and service."

"We developed a new method for identifying potential vulnerable clients who may need our support through a referral form checklist which was distributed among healthcare professionals for them to use when going into a home. This would help them to identify whether the person they were caring for was living in a cold home/in fuel poverty circumstances and required our assistance."

"Without the WHHF I suspect that the funding for Warm Homes work would have been significantly cut or even deleted for this year. The success of the WHHF led to significant political interest and media and comms good news stories raising awareness of both the importance of the issue and the wider impacts on the health system as a whole."

Resources, promotion and sharing of good practice amongst partners

To support the delivery of WHHF, NEA produced a Top Tips leaflet providing advice for householders on how they can stay warm and healthy at home and a thermocard, with guidance on how to stay well during colder weather.

To support our project partners, NEA created e-referral flyers which were then issued to key referral partners, briefing them about the WHHF grant and each partner's referral process.

The programme was showcased at NEA's regional Fuel Poverty Forums and the 2017 national Conference where 300 delegates had the opportunity to learn more about successful referral and delivery approaches.

The Warm & Healthy Homes Fund was also profiled at Public Health England's Cold Weather Plan seminar in 2017 and as a result, a partnership between NEA and PHE is being taken forward in 2018.

Information about WHHF has featured in NEA's charity magazine *NEA Focus*, giving other stakeholders the opportunity to understand more about the programme. Significant media reach has been achieved, with articles appearing in regional and local press reaching around 456,316 people.

Worcestershire County Council's Boilers on Prescription project was named Vulnerable Customer Support category winner at the Energy Efficiency & Healthy Homes Regional Awards in May 2017. The project was jointly funded by the WHHF and Worcestershire Public Health. Dr Frances Howie, Director of Public Health praised the successful project saying: ***"This programme has changed the lives of those living with health problems and who were unable to afford to replace broken or inefficient heating systems. Not only does it reduce the risk of negative health consequences of living in a cold home but also lowers energy bills."***

WHHF partner Bath and North East Somerset Council profiled a case study from their project in the Director of Public Health's Report (2016).

East Sussex County Council (part of the East Sussex Energy Partnership) produced an e-poster on their project for the Public Health England Annual Conference 2016, reaching over 1,500 health professionals and also

provided regular updates to the East Sussex Financial Inclusion Steering Group, a partnership group attended by a range of organisations and chaired by the Chief Executive of the Council.

Leicestershire's County Council's project was highlighted as a case study for a Local Government Association publication, Commissioning for Better Health Outcomes in 2016.

A collection of detailed case studies from the Warm & Healthy Homes Fund is available on the NEA website.

Sharing best practice

Giving our project partners the opportunity to come together for shared learning and networking was a valuable tool in ensuring successful delivery of the WHHF programme. NEA organised two networking and best practice events for our project partners; one during the delivery period in June 2016, and a follow-up event to share delivery successes and learnings in June 2017. Both events were welcomed by partners which provided them with the ability to:

- Network and establish new contacts
- Discuss delivery challenges and share solutions: ***"Learnt some good information from other partners"***
- Highlight examples of best practice in identifying eligible households and generating referrals from health professionals
- 94% of attendees at the June 2016 event felt they had picked up new ideas that could be implemented within their own projects including ***"leaving leaflets at pharmacies and flyers to professionals, briefing of case workers and targeted mail-outs"***
- Celebrate the success of their projects and the WHHF programme.

Delivery challenges, lessons learned and the future

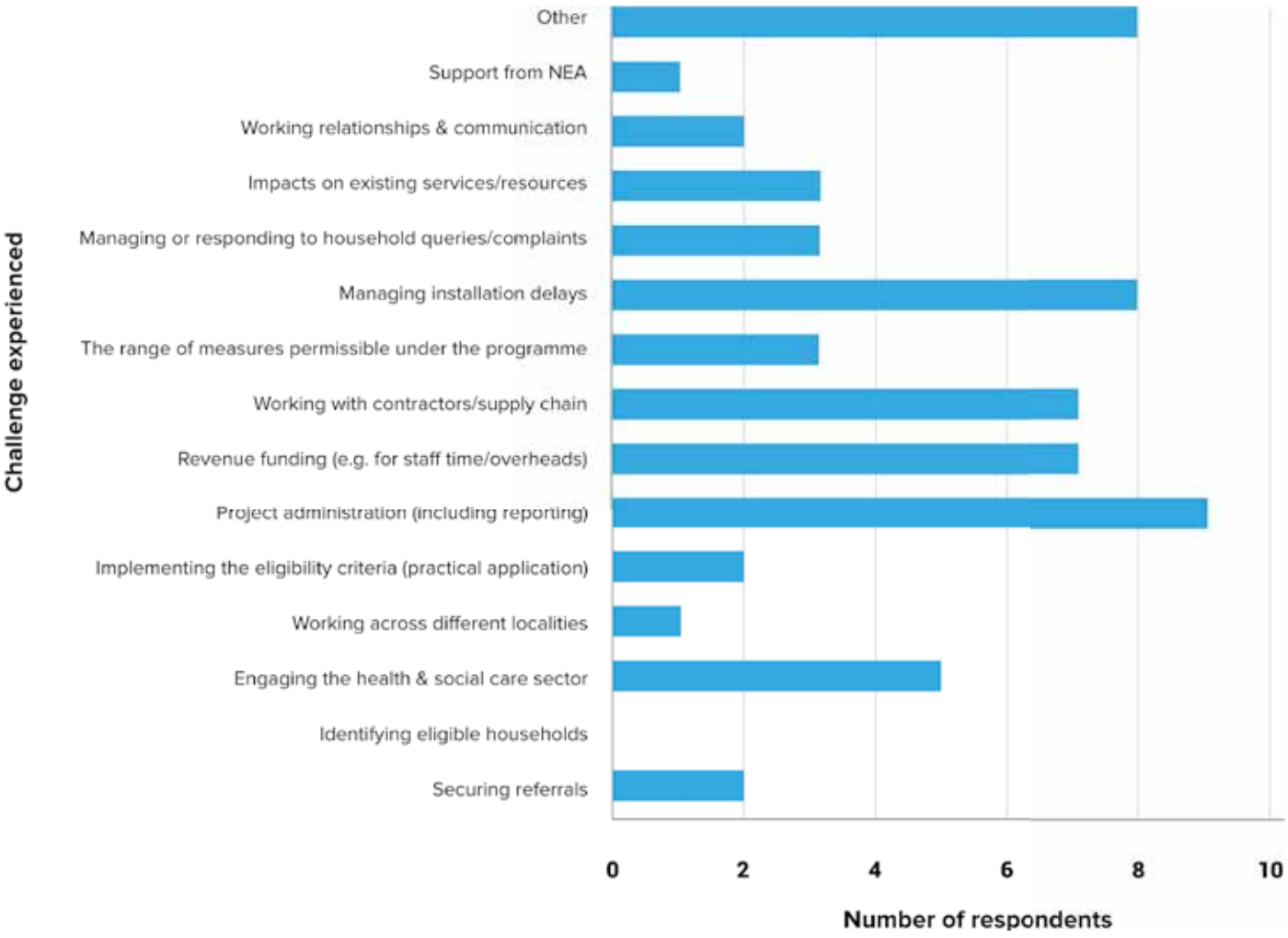
The Warm & Healthy Homes Fund was a large-scale programme, involving 22 lead delivery partners across Great Britain, each tasked with identifying an agreed number of eligible households to benefit from capital interventions, all within a set time period. It is therefore inevitable that some challenges would be experienced during WHHF delivery.

Some of these challenges were echoed across the projects, and as such it is important that these lessons are shared and we learn from them.

In addition to the challenges noted in relation to implementing the NICE guidance, WHHF partners experienced a number of challenges during delivery, as can be seen in charts below.

Figure 30

Challenges experienced during delivery (Partnerships) (n13)



The chart above shows that the challenge most frequently experienced by respondents in the Partnerships programme related to project administration (9 respondents, 69%). After this, the next most common challenges related to managing installation delays and 'other' challenges (8 respondents respectively, 61.5%). Here, 'other' challenges referred to the timescale for delivery, the maximum grant amount that could be awarded per property, and the time taken to manage internal processes for approval. Also highlighted was the fact that revenue costs were not grant funded alongside the capital measures.

Project administration

Some partners felt that the level of reporting and information required for compliance purposes was too

time-consuming. It is difficult to establish a suitable balance between an appropriate level of reporting which does not detract partners from frontline delivery of schemes. Support needs to be available, from both the funder and partner, in ensuring that reporting is routinely monitored and assessed for its level of appropriateness.

The need for revenue funding to accompany the delivery of a capital measures programme is also an important point and would help to support the amount of staff time required to develop and cultivate referral relationships and manage successful household engagement.

During the course of delivery, partners identified properties which could benefit from both high value and/or low cost energy efficiency interventions. Having the ability to specify either high value or lower cost capital measures based on the requirements of the property and householder would ensure that the most suitable intervention is provided.

Working with contractors/supply chain

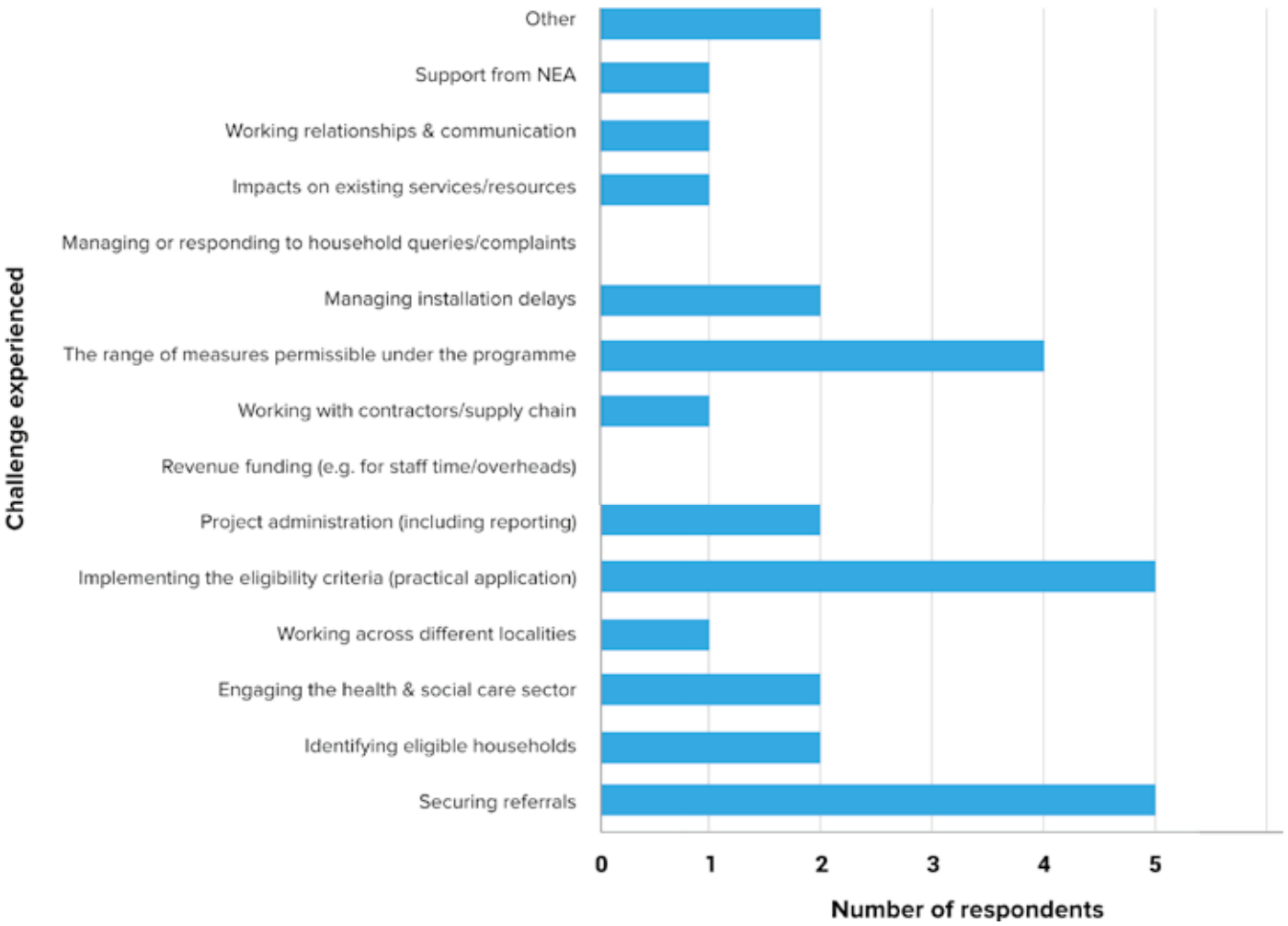
Capacity and changes in contractor led some WHHF partners to encounter delays and uncertainty over when households would receive measures. Establishing a framework with a variety of contractors (both local and national) will help to mitigate against delayed installations. Existing processes were cited as a challenge, particularly when responding to clients in crisis or where a rapid response was required due to critical health needs.

"We have developed strong relationships with installers who know they will be paid and so are reliable. When funding runs out or there are gaps in funding streams, this damages the relationship with installers"
WHHF partner

Also ensuring the householder has a dedicated point of contact throughout the process will improve the customer journey and flow of communication should issues arise.

Figure 31

Challenges encountered during delivery (Small Measures) (n8)



For those in the Small Measures programme, the challenges most frequently experienced by respondents were around securing referrals (5 respondents, 62.5%) and implementing the eligibility criteria (5 respondents, 62.5%).

Securing referrals

Take-up of referrals from frontline staff and health professionals can depend on individuals and their level of 'buy in'. Due to conflicting priorities and capacity issues, maintaining referral pathways can become time and resource-intensive.

Furthermore, the level of engagement and access to data-sharing with the health sector can vary significantly making referral networks difficult to replicate. Providing regular feedback, case studies and highlighting tangible outcomes to referral partners reinforces a positive cycle of making and receiving referrals.

Emphasising how capital interventions can improve outcomes for the health sector is also key in building and maintaining engagement.

Implementing the eligibility criteria

Some partners found obtaining the necessary proof of eligibility, particularly around household income, to be challenging and some householders were reluctant to share this information with advisors. Incorporating the collection of evidence during the initial referral stage and ensuring households understand why this information is requested is key to building a strong, ongoing relationship between the partner and householder throughout the referral to install process.

It was originally envisaged that the majority of referrals for the Small Measures programme would be secured via a hospital discharge planning service. In practice, partners found that patients were less engaged at the point of discharge and that referrals were best placed to be sourced from a range of health and third sector organisations.

The quality of referrals can often be mixed and in some cases households were not eligible for assistance despite being referred for a measure.

A wide and diverse network of referral partners who are regularly and well briefed on eligibility criteria and the type of assistance available is crucial for securing high quality referrals.

The future

Feedback from partners has indicated that good practice and lessons identified through WHHF participation are being actively incorporated into future delivery - in some instances expanding the range of households that could be helped, the nature of referral mechanisms being used, and assessments of which kinds of partner were most suited to deliver different aspects of a project.

Some partners used their experience from WHHF to help build their case for evidence when responding to Consultations or funding opportunities. For example, Derbyshire County Council was able to utilise evidence from WHHF funded installs to inform and support their response to the Department of Business, Energy & Industrial Strategy's consultation on minimum energy efficiency standards in the Private Rented Sector in 2018.

It was also clear that WHHF partners had taken into consideration how they would sustain and build on their referral partnerships with the health sector and actions to further embed fuel poverty and health schemes going forward. Planned activities included:

- Maintaining regular contact with key health professionals who visit peoples' homes in order to sustain referrals from the health sector.

- It was commonly felt amongst partners that work at a local level, through local energy partnerships, including the provision of training, would be helpful in maintaining referral partnerships with the health sector.

- Another partner expected to maintain a referral partnership by working with health partners to complete an evaluation of a heating and insulation project which was commissioned by Public Health.

- Making better use of ECO in conjunction with local ECO flexible eligibility criteria arrangements was also cited as an important mechanism for sustaining health sector referral partnerships. One partner had worked with other Local Authorities to influence their joint ECO Local Authority Flexible Eligibility Statement of Intent so that the flexible and health based eligibility of the WHHF programme are built into local delivery of schemes.

- One partner has successfully tendered to deliver a contract for a Local Authority which is based on the NEA WHHF model. This contract is to be match funded by the local CCG and Public Health.

- Another partner had successfully secured funding from Affordable Warmth Solutions' Warm Homes Fund for three years and is bidding for further funding to expand the work that they currently deliver. They are particularly keen to secure funding for repairs as they see this as a gap in current national funding provision.

Overall, it is evident that participating in the WHHF Partnerships and Small measures programmes enabled partners to: demonstrate good practice and impact; evidence successful delivery within the context of a major funding programme; and to promote their schemes to a wider audience.

Key observations and recommendations

Delivery of the Warm & Healthy Homes Fund has been a flagship programme of work for NEA over the past three years and provided the charity and our partners with a wealth of delivery experience and learnings.

It is important to share our recommendations from the programme so that other stakeholders can consider our learnings when designing or implementing their own fuel poverty and health projects.

Observations and recommendations for delivery partners

Ensuring efficient partner delivery

1. Local government, local health bodies and agencies must draw on the Public Health England Quality Outcomes Framework indicators for tracking progress to reduce excess winter deaths, fuel poverty and cold-related morbidity that have been developed by Public Health England. These indicators should also be available at a local government and constituency level within each GB nation and updated annually. Once this information is available it too should be used to track the effectiveness of local interventions.

2. Service mapping prior to introducing a new single-point-of-contact (SPOC) health and housing referral service can help avoid duplication of effort in some localities which could either confuse clients or be less resource-efficient.

3. Schemes that seek to target interventions on the grounds of health, and in particular cold-related ill health should consider how households with some underrepresented conditions, such as dementia, mental illness (other than anxiety or depression) and stroke, could be more proactively targeted for support.

4. Where capital funds are available, they should be used to finance the installation of high value and/or lower cost energy efficiency interventions; this will enable the householder and property to receive the most appropriate measures for their circumstances.

5. Given the time taken to agree contracts, procure contractors and 'set up' projects, future funding pots should ideally run for more than a year to enable partners more time to focus on delivery and assisting clients.

6. Consider household size when setting income thresholds to determine suitable eligibility for assistance.

7. Establishing a framework with a variety of potential (local and national) contractors helps to increase capacity, value for money and mitigates delays – this can be crucial, particularly when an intervention needs to be provided swiftly in response to a crisis situation.

8. Account for additional costs in rural areas when setting any grant maxima.

9. Regularly review how to simplify the reporting process so that where possible, the key outputs and outcomes are captured but delivery is streamlined and not overly onerous given limited resource provision.

10. Evidence from the WHHF has demonstrated that access to gap and/or match funding creates a more robust and effective delivery model. It allows for sustainability, whole home support, and reduces barriers to take-up. To be most effective, delivery partners should have a broad awareness of the local and national funding landscape and co-ordinate accordingly.

Observations and recommendations for delivery partners

Improving the client journey

1. Recognising additional time and resource are required to support vulnerable householders through the referral and installation process – due to complex and often multiple vulnerabilities. Addressing their enhanced needs requires dedicated time and one-to-one support. This capacity should be built into a project from the outset.

2. Providing a combination of measures and good quality, timely and multifaceted advice will ensure maximum benefit for householders. WHHF has confirmed NEA's view that fuel poverty programmes should, where possible and given resource restraints, seek to combine and install multiple measures as part of a single intervention. It has demonstrated the value of closing the affordable warmth gap through the incorporation of income maximisation and energy bill support where energy efficiency interventions alone fail to do so and the cost of energy remains the principle barrier. Advice packages should include as a minimum two basic types of energy advice: A) advice that relates directly to an intervention or technology and B) advice that relates to more general energy use in the home, energy efficient practices, market engagement and wider financial and debt advice.

3. Having a nominated contact point for householders ensures continuity and improves communications between delivery partners and the contractor. This also helps to manage expectations and the flow of information. This point of contact should have suitable skills to engage and support a variety of vulnerabilities.

4. Clarifying to households the timeframes by which any support will be received and the next steps (or how and when they will be notified if the interventions are not progressed) is critical to manage expectations. Not managing these interactions professionally can also negatively impact the willingness of health professionals to engage in fuel poverty health schemes.

Observations and recommendations to policy makers

1. Providing recurrent funds is more cost effective, improves the client journey (and therefore encourages the most vulnerable households to engage) and would facilitate preventative assistance. Any new funding streams from national or local government should address gaps in national policy making and it should be known from the outset if they will be recurrent. This will enable local partners to identify what the sources of national funding should be used for and help them sustain and build on partnerships within the health sector.

2. Presently, engagement with the health and social care sector remains inconsistent. There needs to be a concerted effort to co-ordinate engagement and investment in affordable warmth schemes. There should be an annual registration of Single Point of Contact referral services (SPOCs) to be set up by respective government departments, a related agency such as the UK Public Health Register (UKPHR) or with suitable funding, a third party.

3. National charities, industry and local government can help fund and galvanise key actions to end fuel poverty, reduce the costs of morbidity and the strain on health and social care providers. However, central government investment is also essential. There is scope for energy efficiency to be treated as a public health prevention priority, and rolled out more widely across the population, and particularly to those on the lowest of incomes irrespective of additional vulnerabilities. Additional support for gas boiler repairs or replacements would help support the most vulnerable to cold-related ill health this winter.

4. The new powers created by the Digital Economy Act must allow local authorities, GP practices, Health and Wellbeing Boards (HWBs) and Clinical Commissioning Groups (CCGs) or their equivalents across the UK nations to directly access information about the support energy suppliers can provide to eligible households in their area or assist other national fuel poverty schemes. If these existing powers are utilised this would dramatically improve targeting, tailoring advice and help establish new mapping tools and referral routes[47].

5. The NICE NG6 recommendations should be transposed systematically in England and suitable equivalents introduced across the devolved nations. This will encourage a national approach which can amplify the outcomes of the WHHF. Central Government or relevant agencies must also take responsibility for ensuring these positive outcomes and frameworks are implemented and monitored regularly and ensure our examples of good practice on how each recommendation can work are shared across the UK.

6. The most vulnerable clients often cannot afford to contribute towards the cost of energy efficiency measures. This is particularly true in off-grid areas where the cost of energy efficiency improvements are higher as are the relevant delivery costs of servicing remote localities. Government-funded schemes should not require a client contribution and WHHF has shown this outcome is also possible where partners lever in additional gap funding to cover any shortfall. This recommendation is especially pertinent in England as Scotland and Wales have their own energy efficiency and fuel poverty schemes funded by their national governments in addition to the Energy Company Obligation (ECO). The latter often requires some clients to pay a contribution to enable works.

7. WHHF has shown that utilising health-based eligibility criteria ensures that grant funding can be targeted to the most vulnerable; 90% of project partners reported that the health-based eligibility criteria had worked 'extremely well' or 'fairly well' in practice. NEA believes that including a health-based criterion should be standardised for fuel poverty programmes, in particular within ECO and the Fuel Poverty Network Extension Scheme (FPNES).

8. As well as the recommendation above, the ability to implement 'at risk' or crisis assistance to households which fall short of stringent eligibility criteria, or with no qualifying benefits, would be welcomed. The WHHF programme has demonstrated that having a provision to assess people based on 'need' and flexibility ensures that help is targeted to the most vulnerable.

9. Resource required for administration, development and delivery of measures-based programmes can be significant to ensure effective targeting of support and substantive evidence to demonstrate impact. Both capital and revenue funding should be available to support the delivery of complementary services (advice and income maximisation), which should not be seen as secondary to capital measures but an essential part of the package. This blend of funding must be effectively factored into the planning of measures-based programmes to ensure they are both deliverable and lead to tangible outcomes.

10. There is long-standing recognition that living in a cold home exacerbates existing health conditions, coupled with significant qualitative evidence from local schemes of the impact affordable warmth activity can have on arresting or stabilising health conditions. This evidence is however fragmented and there is no on-going central repository of this insight. This could be addressed by bringing together an on-going cross-departmental working group alongside local practitioners. This group could focus on gathering previous evaluations, outcome mapping, help to develop appropriate methodologies for longitudinal studies and/or resolving tensions between improved access to patient data and other research ethics pertinent to health and housing. More generally the new working group would aid the link up of services between health and affordable warmth programmes.

For further insights please refer to NEA's UK Fuel Poverty Monitor 2016-17 which focusses specifically on the link between fuel poverty and health, available at:

www.nea.org.uk/resources/publications-and-resources/.

An updated version of the Fuel Poverty Monitor will be available in 2018.

Other useful information and resources on addressing fuel poverty and health can be found here:

www.fuelpovertyresource.org.uk

In 2018, Citizens Advice and Cornwall Council produced two toolkits:

For Local Authorities, health and third sector partners to work together to reduce fuel poverty in their localities:

www.citizensadvice.org.uk/Global/CitizensAdvice/Local%20authority%20cold%20homes%20toolkit.pdf

To support the health sector to make cold homes referrals for people vulnerable to cold:

www.citizensadvice.org.uk/Global/CitizensAdvice/Health%20professionals%20cold%20homes%20toolkit.pdf

Conclusions

Overall, the Warm and Healthy Homes Fund was very well targeted and provided support to some of the most vulnerable members of our society. As demonstrated through the programme's social evaluation, the measures installed are highly likely to have contributed towards achieving affordable warmth and improvements in householder's health and wellbeing.

Many of WHHF's beneficiaries can be described as having been living on the edge, facing a daily challenge characterised by an inefficient home 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. WHHF successfully targeted and reached some of these households, who, without this support would not have been able to access or pay for the required repairs and/or replacements themselves.

WHHF has brought about considerable and positive impacts for the households it supported, many of whom could have potentially fallen between the gaps of current mandated scheme provision. Such provision, specifically ECO, are frequently criticised for failing to help those most in need, either because of schemes' inability to provide the combination and type of measures required; restrictive eligibility criteria; or the need for some households to make a financial contribution to their intervention.

The design of WHHF meant households were not required to make a financial contribution; eligibility was flexible and personalised case management meant that those that fell outside the set criteria could be individually assessed for support. In addition, close partnership working and relationship management meant obstacles and challenges could be quickly identified and addressed.

Looking Forward

One of NEA's key advocacy priorities includes enhancing preventative health action. We aim to continue developing our practical and strategic links with the health and social care sector, as well as maintaining the partnerships established during delivery of the Warm & Healthy Homes Fund into the future.

NEA's Health Working Group will be used as a forum to share insights and help develop our services, with the purpose of influencing the fuel poverty and health agenda.

NEA would like to thank all partners, installers and referral agencies, who have participated in the Warm and Healthy Homes Fund, without whom we would not have improved the lives of more than 416,189 people.

We would also like to extend our thanks to our independent Oversight Group who assisted in the selection of our WHHF partners, ensuring a robust, independent and impartial assessment process and to Energy Action Scotland who oversaw the three partnerships in Scotland.

Further information and sources

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46. In some questionnaire responses, more than one individual from the same lead partner submitted a response to the Partnerships Questionnaire.
47. This would enable local public sector organisations, without the involvement of an energy supplier, to match existing information already held on health conditions with the support a household is entitled to which would mean local authorities and GPs etc have greater certainty that those referred will go onto receive support. This data matching process would also support local affordable warmth programmes to secure funding from HWBs, CCGs and others (either on an individual or aggregated basis).

Appendix A

Health and wellbeing mini case study

The following short case study is based on a single interview with a WHHF Small Measures beneficiary household. Specifically, the beneficiaries are an elderly couple who have lived together for over 50 years. In recent years however, the husband had experienced increasingly poor health, with limited mobility/physical impairment, neurological conditions, musculoskeletal conditions and paraneoplastic syndrome; a rare disorder, associated with various cancers. It is not clear if the wife had any health issues, as much of the conversation centred on the husband's poor health; she had been his full-time carer for the past few years. All quotes in this case study were provided by the wife, as the husband was not well enough to take part in an interview.

Through the WHHF Small Measures scheme, the couple had received:

- A repair to their central heating system, or an improvement to help it work more efficiently
- New heating controls
- Insulation for their loft
- Draught-proofing
- Small energy efficiency appliances (including an eco-kettle, microwave, energy efficient light-bulbs and smart switches which gave them better control over appliances such as their television, which could now be fully switched off (including off stand-by) with a single device.
- A 'Radfan' device for their radiators.

Encouragingly, the combined measures installed during the scheme appear to have improved the couple's ability to keep their home warm during the winter, as the interviewee noted:

"We had to have the heating on all day, and sometimes he'd [husband] get cold, so we'd have to put something around his knees, but the Radfan sends the warm air right round the room, so it is better for him. You know, once we switch that on he doesn't feel the cold".

Not only has thermal comfort increased, but the new energy measures have also enabled the couple to make modest savings on their energy bills: ***"[Our] last statement on [our] gas bill went down, only about £2 per month, but it's a saving".*** In turn, feelings of stress and anxiety relating to energy bills have reduced: ***"I don't worry so much about the bills now, I mean the new lights, the kettle, the microwave etc. have helped; I feel good about the stuff they gave me [partner agency]"***.

Prior to receiving the new home energy measures, the couple had often cut back on their heating use in order to avoid high energy bills, and this had negatively impacted the husband's ability to keep warm in particular, as noted: ***"Before my husband's hand and feet were very cold, he had to have a blanket around his knees and he'd put his hands inside sometimes, but he doesn't need to do that now..."***. In addition to feeling warmer, the interviewee explained that her husband's mental health and overall mood had improved since receiving the new home energy measures, she stated: ***"My husband is really grateful, he has longer conversations now, and will fill forms in, he wouldn't do that before."***

Finally, the interviewee expressed high levels of satisfaction with the customer journey from inception through to completion, as she concluded: ***"I was absolutely flabbergasted when they brought all the measures, I thought it would be a brochure and some sweets, but yeah... they [workmen] were friendly and polite... we were really pleased with the whole deal..."***.

Action for Warm Homes

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