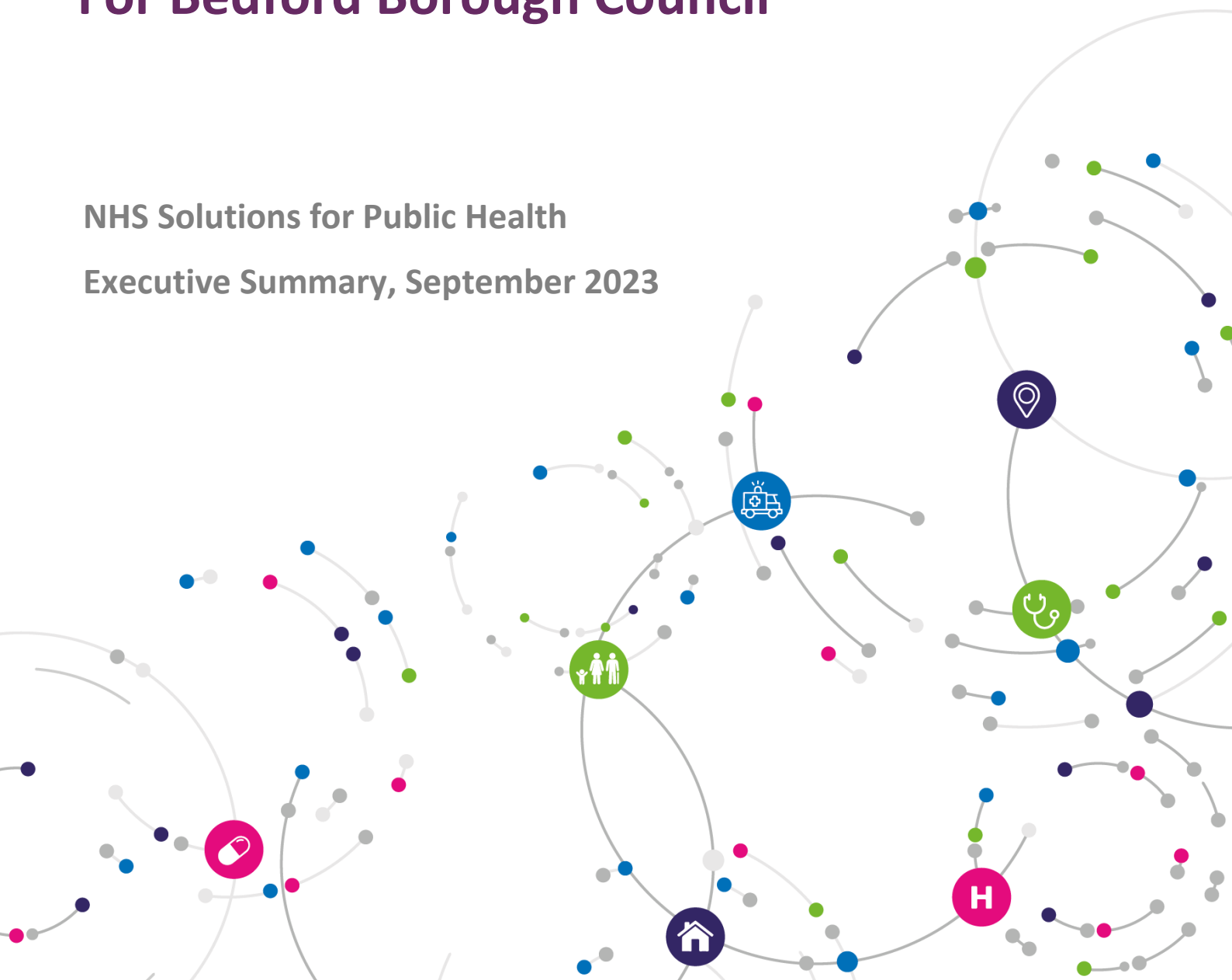


Warm Homes Bedford Borough Evaluation Report

For Bedford Borough Council

NHS Solutions for Public Health
Executive Summary, September 2023



Acknowledgements

We would like to acknowledge the support given by representatives of Bedford Borough Council and the National Energy Foundation in providing information and data used throughout this report.

Executive Summary

Background

In 2022, Bedfordshire, Luton and Milton Keynes Integrated Care System (BLMK ICS) provided each local place partnership with a grant of £500,000 to establish a population health management approach to improve health and reduce health inequalities. The Bedford Borough place partnership chose tackling fuel poverty as their priority area, targeting residents living in areas of high deprivation and fuel poverty or fuel stress who had chronic health conditions which could be exacerbated by living in a cold and/or damp home. An additional intended benefit was to reduce carbon emissions, to help Bedford Borough Council (BBC) meet its targets towards addressing climate change.

Residents who were eligible for this Warm Homes programme were offered improvements which could make their homes warmer and/or less damp, typically up to a value of £5,000, with some larger grants approved on an exceptional basis. The main improvements offered were the installation of replacement gas boilers, loft insulation and/or cavity wall insulation. The National Energy Foundation (NEF) was commissioned to deliver the programme. Project management was provided by council staff. The Warm Homes programme operated between December 2022 and July 2023.

NEF were also already delivering the Better Housing, Better Health (BHBH) scheme across much of the East of England, including the Bedford Borough area, funded by the Energy Saving Trust. This scheme included interventions such as signposting to a variety of support agencies as well as warm and well assessments which provide a single point of contact for free, impartial expert advice to help improve the energy efficiency of homes and save the household money. This telephone assessment can include accessing pre-existing grants or support services, access to the priority service register, emergency fuel vouchers, debt advice and small measures such as draft excluders. Participants of the Warm Homes programme were also eligible for the BHBH scheme.

Evaluation Scope

This impact evaluation aimed to establish whether the Warm Homes programme met its stated objectives. The key evaluation questions were whether the offer:

1. Was fully taken up
2. Warmed participant's homes
3. Improved their health and wellbeing
4. Reduced household carbon emissions
5. Was cost-effective

Methodology

This mixed-methods evaluation drew on the following sources:

- Data on households invited to participate and programme costs provided by BBC
- An anonymised extract of data and qualitative comments collected from participating households from the NEF Customer Relationship Management (CRM) system
- Health service usage data, showing fully anonymised numbers of GP appointments, outpatient attendances and inpatient admissions for participants, before and after the programme
- Contextual information on weather conditions and other national and local energy support schemes running concurrently to the Warm Homes programme
- Discussions with stakeholders including BBC leads with responsibility for aspects of the programme development and delivery, a GP who led on activities related to identifying local residents with relevant health conditions and inviting them to participate in the programme and two NEF case managers involved in the operational delivery of the programme.

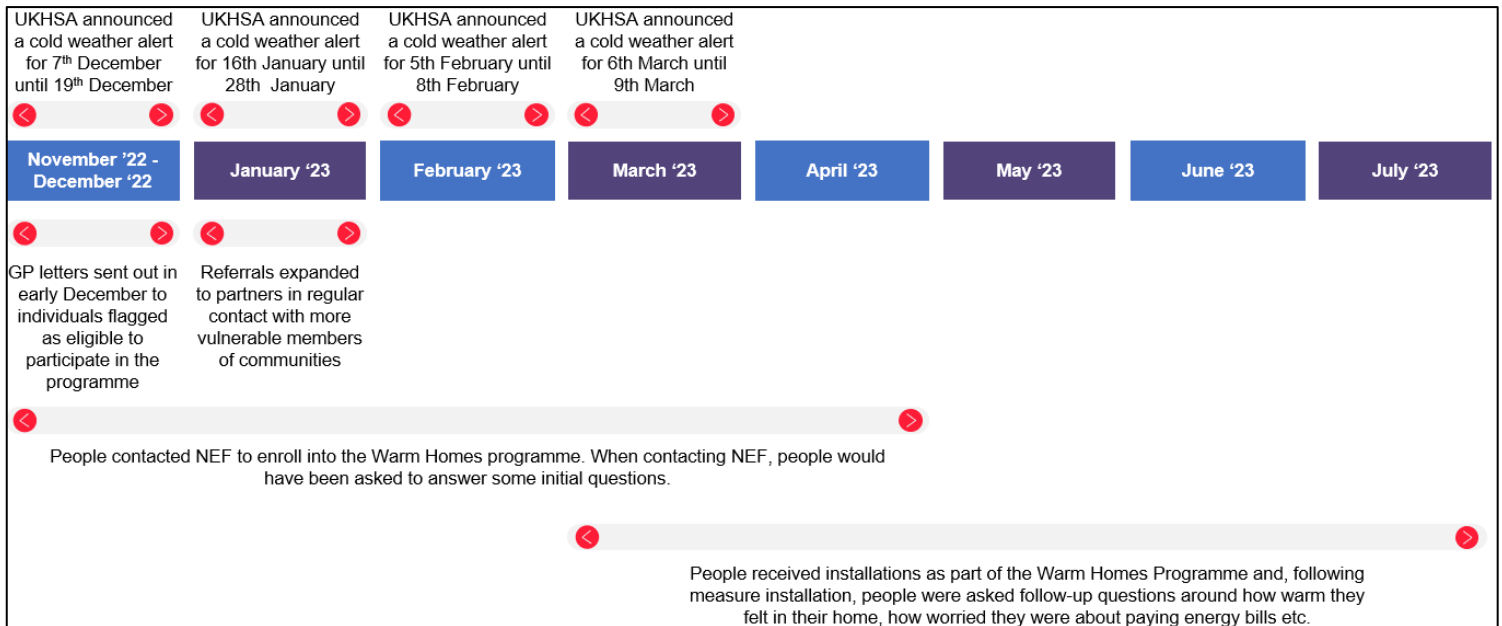
Information governance regulations were adhered to throughout for all quantitative and qualitative research activities.

The wider context during delivery of the programme

The Warm Homes programme was implemented against a backdrop of concerns about rapidly rising fuel costs, the cost of living generally and a particularly cold winter. This demonstrates the challenging conditions that many people faced, especially those with bronchial and pulmonary conditions whose symptoms may have been exacerbated by the cold. Several national and local initiatives were available to support households with increasing fuel costs over this period.

An overview of the timeframe in which the Warm Homes programme was delivered is provided below with programme activity, data collection periods and contextual weather information indicated.

Figure 1: Timeline showing programme activity, data collection periods and contextual weather information that occurred during the Warm Homes programme



Most initial calls to Warm Home programme participants were made during the winter period. People who received installations were asked follow-up questions during the late spring/early summer period. It is important to note these timings when interpreting the results presented below.

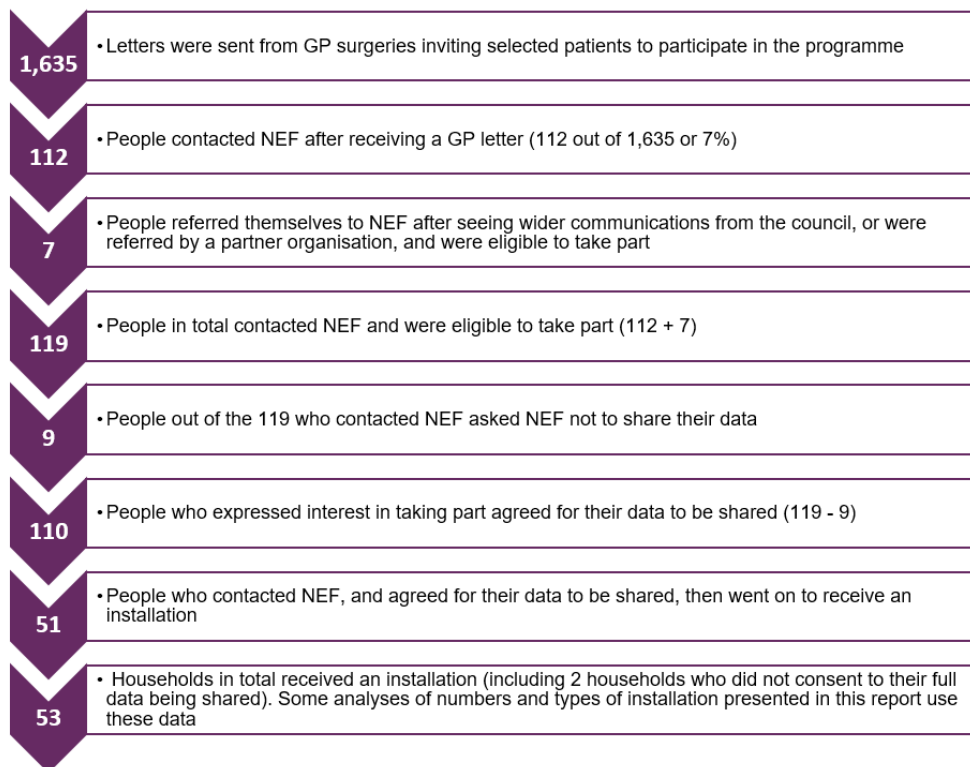
Key Findings

The summary of the findings is structured around the key evaluation questions.

Was the offer fully taken up?

The diagram below summarises the number of households involved at the various stages of the programme.

Figure 2: Numbers of people participating in the Warm Homes programme



Possible reasons for not taking up the invitation to participate were identified by BBC prior to the programme and were also reflected in feedback reported by the NEF case managers. These included a concern that the programme might be a scam, already having the installation measure offered or feeling that their health condition was not serious enough. Most of the people who did contact NEF about the programme were over the age of 50 and female. Most lived in an owner occupied property with semi-detached and mid-terrace the most common property types. In terms of their situation prior to contacting NEF:

- Most had visited a GP in the last six months due to a cardiac or respiratory illness
- Less than 20% reported feeling warm at home
- 75% felt that their home negatively impacted their health
- More than half felt moderately or very worried about paying for energy bills

Examples of specific impacts described included:

“Mould affecting husband’s chronic asthma”

“He cannot afford to heat his home more than one hour a day. The cold is subsequently increasing the level of pain he is experiencing and is making it harder for him to sleep, something he typically struggles with due to pain or discomfort”

In total, 53 households received an installation through the Warm Homes programme. The installation of new central heating boilers was the most common

intervention, followed by loft insulation. Most households received ancillary installations to these, for example boiler replacement was often paired with magnetic filter and scale reducer and heating controls. Interventions offered through the BHBH scheme were also received by 83 of the 110 households, with Warm Homes Discount advice, advice on switching energy provider and support to sign up to a Priority Support Register the most common interventions received. It should also be noted that the total number of people who contacted NEF either as a result of receiving a GP letter or after seeing the wider promotions of the Warm Homes programme was higher at some 200 plus households. However, some households either chose not to take up the offer or, in the case of those who heard about the programme through its wider promotion, were not eligible to take part. All these households were offered support through the BHBH scheme, such as a warm and well assessment, which they may not otherwise have been aware of or received.

Did the intervention warm participant's homes?

A total of 47 people answered the questions about how warm they felt in their home, and concern about paying for energy bills both before and after receiving an installation through the Warm Homes programme.

After receiving an installation, most people (81%) reported a positive change in their rating with regards to the warmth of their home. For example, the proportion of people who felt warm or very warm rose from 26% to 70%. In addition, most people (70%) felt moderately or very worried about paying their energy bills before they had a measure installed and 45% showed a positive change afterwards.

The NEF case managers stated that a lot of people were unsure how much of a difference the installations received would make because of the time of the year. Qualitative comments suggested that some participants did believe that the measures received had made a difference to the warmth of their home.

“My home gets warm quicker and says warm!”

“Service has benefited all family- now have hot water”

Others felt that it was too soon to tell.

“Hard to know - will be able to tell in winter months unsure if it has made a difference as of yet”

“Too soon to tell. Now warmer weather and won't be able to tell until winter”

The case managers did feel that people who were asked the question about fuel bills earlier on in the year still had some worries but that later on it was less of a pressing concern to people.

Did the intervention improve participant's health and wellbeing?

Analyses of the use of health services by those who received support from the Warm Homes programme compared with a control group were planned. The intention was

to assess whether the programme had resulted in participants having fewer GP visits, A&E attendances and/or inpatient admissions related to the condition(s) for which they were invited to participate following delivery of any installations, and whether any reductions which might be found were statistically significant. Health usage data were available for 51 patients. Whilst summaries of the available health usage data are presented in the evaluation report, reliable analyses of health usage data were not possible at this time. Bedford Borough Council may wish to repeat these analyses at a later date, when participants have benefited from installations delivered over a full winter period.

A total of 46 people answered the questions about whether they believed their home has a negative impact on their health, before and after receiving an installation. Most people (54%) believed that their home has less of a negative impact after receiving an installation, and 26% were unsure or felt that it was too early to tell. Qualitative comments provided some examples of ways in which recipients believed the impact on health had been reduced.

“Better with control which helps with daughter’s health”

“Better than it was. My son (who has chronic lung disease) is warmer”

Others were looking forward to future benefits:

“Was getting mould in hall area, so hoping radiator will stop that from happening”

Were household carbon emissions reduced?

One of the stated aims of the Warm Homes programme was to support BBC’s work in tackling climate change, by making a reduction in household carbon emissions. NEF estimated the lifetime carbon savings arising from installations provided to 51 households, using fuel type and the measures installed based on a standardised house (three bed semi-detached).

The mean carbon saving for households who received a Warm Homes programme installation was 13,979kg. Typical savings ranged from 3,621kg to 21,193kg. This excludes two outliers; one where the installation received was not associated with a carbon saving and one household who had extensive improvements made that were associated with a saving of 86,252kg. The total estimated lifetime carbon savings for the 51 households was 684,959kg.

Was the project cost-effective?

The total costs reported by BBC against the original grant of £500,000 was £358,857. Of this, approximately £200,000 related to the cost of installations and approximately £100,000 to the administration of the programme by NEF. Dividing the administration costs by the total number of households who contacted NEF and were eligible to take part (119) gives a nominal administrative cost of £862 per household. Dividing the installation costs by the number of households known to have received

installations (53) gives a nominal installation cost of £3,710 per household. This equates to an overall average cost per household of £2,514.

The National Energy Efficiency Data-Framework (NEED) has provided median estimated gas savings for the first year after installation for several energy efficiency measures. For example, the median gas saving associated with a new condensing boiler is 500 kilowatts per hour (kWh). For loft insulation this is 300kWh and for cavity wall insulation 1,200kWh. These data can also be used to estimate potential energy savings for different types of property.

The Warm Homes programme included a number of additional installation options and recipients also received further support and advice via the BHBH scheme which could lead to improving the warmth of their homes and reducing the cost of their fuel bills. Potential savings associated with these additional measures is difficult to quantify. The estimates of energy savings provided are therefore likely to underestimate the potential savings from the Warm Homes programme as a whole.

Any reductions in health usage through fewer GP appointments, A&E attendances or inpatient admissions would also be associated with cost savings. Should BBC choose to update these data at a later date, specific tariff costs could potentially be included to give more precise cost savings.

Discussion and conclusions

Views expressed by participants in the Warm Homes programme were broadly positive, with many stating that they felt warmer in their homes, less worried about paying energy costs and that their home had a less negative impact on their health after receiving an installation. Qualitative comments provided about the impacts of the cold in particular on their health and the steps they previously needed to take to keep warm gave some stark examples demonstrating the scope for benefits provided by the programme.

There are potential wider benefits to the Warm Homes programme that are not possible to quantify from the data that has been available to inform the evaluation at this time. Installations provided as part of the Warm Homes programme may contribute to a lowering of fuel bills, however, they would also improve fuel efficiency so that households may experience warmer homes for fuel used, with these benefits continuing in future years. Perception of warmth and willingness to have the heating on to maintain the home at a comfortable temperature can therefore be seen as equally important to direct cost savings.

The potential of programmes such as the Warm Homes programme to contribute to issues beyond individual health and comfort is clear. Those on lower household incomes are more likely to be at risk of fuel poverty, which can contribute to social and health inequalities. This specific targeting of those with relevant health conditions could be argued to have a greater proportional impact on reducing health inequalities. In addition, one of the origins of the programme was the Council's

carbon reduction efforts. Housing is responsible for 20% of UK carbon emissions and fuel poverty can also negatively impact climate change through inefficient heating and insulation, and the use of carbon-intensive fuels. Addressing fuel poverty can therefore contribute to reducing carbon emissions.

Full benefits of the programme will become more apparent from spring next year, 2024, when installations will have been in place for a full winter period. It is suggested that weather data continues to be collated, and health usage data is extracted in spring of 2024 and the two compared. Complying with information governance regulations, BBC may also wish to contact a sample of participants to gain their views of their experience. Should BBC wish to continue this or a similar programme in the future, carrying out a pilot to test the content and media channels for communications with potential participants is recommended.

