



Department  
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# Affordable warmth & health impact evaluation toolkit

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## Links to additional documents in this toolkit

[Resource planning for your evaluation](#)

[What should a TOR \(Terms of Reference\) include?](#)

[Stakeholder assessment](#)

[Understanding health and social care commissioning](#)

[Logic models and theory of change](#)

[Diagrams illustrating links between warm homes and health](#)

[Retrospective Questionnaire Example](#)

[Validated health questionnaires](#)

[Fuel Poverty and Health Booster Fund Questionnaires](#)

[Qualitative research example interview guide](#)

[Evaluation - data collection and analysis methods](#)

[Examples of data sharing frameworks for referrals](#)

[Ethical considerations in evaluation](#)

[Example Evaluation Report Structure](#)

[The low income high cost definition of fuel poverty](#)

Glossary

# Introduction

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## ***What is this toolkit for?***

The aim of this toolkit is to make evaluation of the health and wellbeing impacts of affordable warmth schemes easier and more effective. Affordable warmth schemes come in many different forms, and to provide flexibility the toolkit does not specify a single, one-size-fits-all process. Instead, we give information, advice, and a set of tools.

## ***Who is the toolkit for?***

The toolkit is for local organisations who manage affordable warmth schemes, and their partners. Schemes do not currently need to have a formal relationship with the health sector to be able to benefit from this toolkit. Within local authorities it would be useful for the Director of Public Health and the Director of Housing, and the people they manage.

## ***Why evaluate?***

This toolkit focuses on using impact evaluation in order to see if there is a link between an affordable warmth scheme's interventions and health and wellbeing improvements in the recipients of interventions.

This is important for:

- Accountability, for showing that your scheme is contributing to health outcomes.
- Learning, as a basis for understanding how your scheme can contribute more effectively to health outcomes.
- Scheme continuation, by being able to show an association between the scheme and health improvements when bidding for funding.
- Contributing towards fulfilling local authorities' Public Health responsibilities, by understanding the health outcomes of an affordable warmth scheme.
- Providing evidence that the scheme contributes towards the aims of the Joint Strategic Needs Assessment and Public Health Framework.
- Building up a relationship with the health sector.

## ***How should the toolkit be used?***

The toolkit is divided into short sections. Each section has links to more detailed information and a number of other resources.

# What this toolkit does

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This toolkit provides guidance on how to plan and undertake an impact evaluation to understand the effects of an affordable warmth scheme for health and wellbeing.

Impact evaluation looks at whether a programme has made a difference - in terms of achieving the desired outcomes. A health and wellbeing impact evaluation asks specifically about what difference the programme has made to the health and wellbeing of intended beneficiaries.

The toolkit is designed to help you establish an association between interventions and health outcomes, but it will not take you to a level where you can establish that the intervention *caused* the health outcome. For this reason, you should be careful with the language you use in reporting so that you do not over claim effects of the interventions.

This toolkit provides advice on:

- [Deciding whether or not to conduct a health and wellbeing impact evaluation](#)
- [Planning and designing your evaluation](#)
- [Involving the health sector with your evaluation](#)
- [Making choices about type of evaluation design](#)
- [Choosing the research tools best suited to your evaluation](#)
- [What data will you need to collect for a health and wellbeing impact evaluation](#)
- [Using ready-made health questionnaires](#)
- [Analysing your data](#)
- [Other forms of evaluation to consider](#)
- [Thinking about ethics, consent and data management](#)
- [Reporting with impact](#)
- [Signposting to other resources which may be helpful](#)

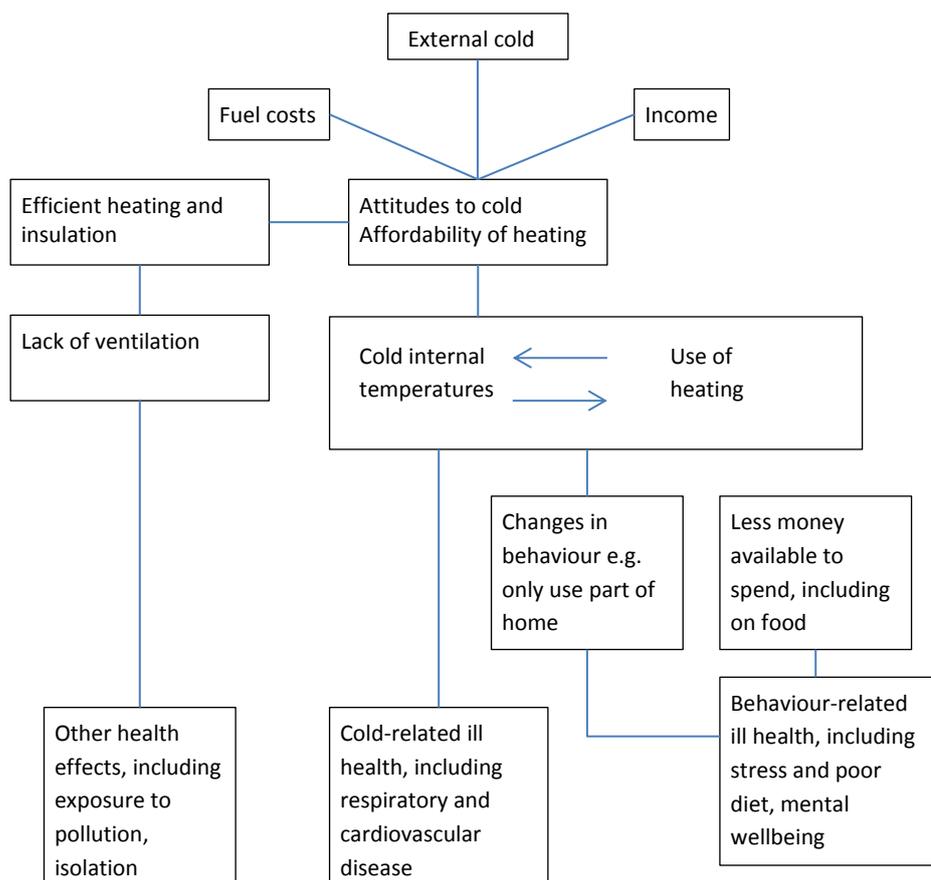
# Fuel poverty and health

Fuel poverty and cold homes have direct and indirect adverse health effects which are well recognised in research and policy (see e.g. [Cold Weather Plan for England: Making the Case](#)). The [government's fuel poverty strategy](#) seeks to cut bills and increase comfort and well-being in the coldest low income homes and to achieve the new statutory fuel poverty target. This vision is one shared by the whole of Government, including local government, by the health services, energy suppliers, charities and community groups.

Whether someone will experience a cold home is impacted by the efficiency of their heating system, how well insulated their home is, whether the person can afford to heat their home and the person's vulnerability to the effects of cold. Low incomes, high fuel costs and a lack of energy efficiency drive fuel poverty.

NICE guideline [Excess winter deaths and illness and the health risks associated with cold homes \[NG6\]](#) sets out the evidence on the impacts of cold homes for health. It identifies certain groups of people living in cold homes as more vulnerable to the associated health problems, including people with existing health conditions, older people (over 65), young children (under 5), pregnant women, people who move in and out of homelessness, people with addictions and recent immigrants and asylum seekers. The guidelines provide an important set of recommendations for health, social care and other practitioners who deal with vulnerable people who may have health problems caused, or exacerbated, by living in a cold home. Figure 1 is adapted from the NICE guidelines.

Figure 1: Factors linking cold homes to excess winter deaths and illness



Locally delivered schemes to tackle the problems of fuel poverty and cold homes, including for vulnerable households, are important in enabling households to achieve health and wellbeing benefits. Table 1 presents a range of types of affordable warmth/fuel poverty interventions intended to lead to improved health and other benefits for households. An actual scheme may comprise a blend of several types of interventions.

*Table 1: Typical affordable warmth /fuel poverty schemes*

Types of interventions	What is typically offered?
<b>Year-round telephone advice services delivered by third sector bodies, housing associations, local authorities.</b>	Various forms of energy advice e.g. re tariff discounts, debt advice, switching, energy efficiency installations, grants and energy saving behaviours.
<b>Face to face advice or training provision. May include services aimed at frontline workers.</b>	Various - may include home visits, workshops, or specific events. Types of advice similar to above. May include sessions aimed at professionals who work with vulnerable people.
<b>In-home practical help – may be targeted at older people or disabled people e.g. via a ‘handyman’ service</b>	Practical assistance may be provided with simple measures such as draught proofing windows and doors
<b>GP referrals of vulnerable customers</b>	GPs may have social prescribing schemes through which they refer customer deemed to be vulnerable for energy efficiency advice or efficiency measures. The providers of the prescription may be public health or CCG employees or maybe a third sector provider they are working in partnership with.
<b>Collective switching schemes run by switching services or local authorities</b>	Bringing together a group of people to use their collective buying power to negotiate a cheaper deal from their supplier
<b>Seasonal public health awareness campaigns run by local authority/NHS/other. Also e.g. awareness campaign re. switching</b>	Keeping warm advice and practical help. May include messaging advice services. Switching advice.
<b>Local delivery of national energy efficiency programmes. Also housing association or local authority mass retrofit</b>	Retrofit of energy efficiency installations. May include e.g. boilers, cavity wall or loft insulation.
<b>Multi-agency schemes e.g. to identify vulnerable people.</b>	Sharing information, such as health registers or GP referrals, to target energy advice and assistance.
<b>Creation of ‘Warm Zones’</b>	Area-based schemes to target delivery of various energy-efficiency services.

This toolkit is intended to be flexible for using to plan and conduct a health impact evaluation for different types of schemes and for use by different types of organisations. The above set of examples is not exhaustive.

Other relevant toolkits and guidance to be aware of include:

The [Magenta book](#) is the core government guidance for all UK government departments on evaluation. It sets out good practice in designing and managing evaluation, outlines a number of approaches to evaluation, and provides advice on how to interpret and present evaluation results.

[Fuel poverty and health: a guide for primary care organisations, and public health and primary care professionals](#): This aims to help strategic planners and health professionals, in partnership with local authorities, to design and implement local strategies to reduce fuel poverty.

[Abacus Health](#) The Abacus team from Sheffield Hallam University aims to assist Health and Wellbeing Boards in making decisions relating to fuel poverty and excess winter death outcomes. They have produced [a commissioning module](#) and a [delivery module](#) to measurably reduce fuel poverty.

[Avon Primary Care Research Collaborative Evaluation Toolkit](#) This toolkit is aimed at commissioners within the health sector to help plan a robust evaluation. It includes a checklist for planning and an evaluation process flow chart, as well as other templates and tools.

[HACT's Standards of Evidence](#): The HACT (Housing Associations Charitable Trust) and partners have developed standards for producing and using evidence in the housing sector. This may be particularly useful for schemes run by housing associations or in partnership with a housing association. A useful worked example for energy efficiency can be found [here](#).

# Deciding whether to conduct a health impact evaluation

Impact evaluations take time and money. Before committing to it, it is worth first stopping to think about your resources [see Resource planning for your evaluation] and whether it is worthwhile conducting an impact evaluation at this time. Things to think about are:

- Is it reasonable to expect that the scheme has made a difference to the health of intended beneficiaries?
- Would an impact evaluation be useful and used? E.g. to help identify opportunities to improve the scheme or to help secure funding in the future?
- Is it feasible to measure or assess impact? Is suitable data available? Are plans in place to collect data? Has suitable pre-intervention data been collected? An evaluation that cannot compare the situation pre and post intervention is of limited value.
- Are there sufficient dedicated resources to project manage and to carry out the evaluation, and an identifiable person with the necessary skills and capacity to engage beneficiaries and to collect and record data systematically?
- Is an impact evaluation the most appropriate type of evaluation for your intended purpose?

*Table 2: Decision guide on whether or not to conduct an impact evaluation.*

Issue	Question	If answer is 'No'
<b>Reasonable to expect health outcomes</b>	Can the intervention activities be reasonably expected to lead to the intended health outcomes within the timeframe being studied?	Focus efforts on rethinking the intervention to increase its potential effectiveness OR delay evaluation until more appropriate time.
<b>What you want to find out from the evaluation</b>	Do you mainly want to learn what changes in health or wellbeing are associated with the intervention? Or are you also/more interested in learning how the scheme was delivered or why changes were (or weren't) achieved?	Consider whether a different evaluation approach may be more appropriate, such as a process evaluation, to understand how the intervention was delivered. Impact and process evaluations can be delivered together.
<b>Intended use and timing</b>	Are key stakeholders, such as funders, scheme operators (e.g. a Housing Association) and scheme beneficiaries, agreed on value of evaluating at this time?	Do not proceed with evaluation unless can negotiate agreement amongst key stakeholders.
<b>Intended use and timing</b>	Is the timing right to inform important decisions about the programme?	Do not proceed with evaluation unless there are other sound reasons to do so.

**Resources**

Are there adequate resources dedicated for use in the evaluation, including good quality data and/or time and money to collect more and an individual with the practical skills to engage with beneficiaries and the project management skills to build a data base to record the data?

Attempt to resolve resourcing or data quality issues before proceeding. Consider outsourcing or delaying evaluation.  
If limits relate to analysis capability, consider proceeding with data collection now, for analysis at a later date.

# Planning and designing your evaluation

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Planning and designing your evaluation involves thinking about the process of doing the evaluation as a discrete project. It also involves thinking about what changes or benefits you want to measure. It is important to plan for an evaluation at the point of planning your scheme. This will make sure that you can compare the pre and post intervention situation. If you do not plan at this point, it makes it far harder to undertake a good quality evaluation.

In the case that a decision to evaluate is made after the intervention has already commenced or even been completed, it is important to think through what is achievable, particularly if you have missed the opportunity to conduct a pre-interview questionnaire, or to make sure suitable monitoring data is being collected systematically. It may still be possible to do an impact evaluation, but it will be a struggle to catch up and the value of any evaluation will be reduced.

In planning, you need to consider your resources. Your available resources (time, money, skills) will influence your evaluation scope and design. There are resource implications in certain design choices. Data protection, data sharing and ethics issues also have resource implications. 'Resource planning for your evaluation' has some more detailed advice on resource considerations [[see Resource planning for your evaluation](#)]. It will help you think about:

- What budget is needed for an impact evaluation?
- What scope and methodological adjustments may be needed to fit with your resources?
- What can be delivered within the available timeframe for the evaluation?
- What are some of the resourcing implications of data protection and data sharing and methodological choices?

The [RUFDATA approach](#) to evaluation planning is a useful tool to help [[see Resource planning for your evaluation](#)] in preparing to evaluate. It asks a set of questions which will help frame the evaluation.

Consider the risks to the evaluation. Risks could include short timescales or lack of participation from beneficiaries. List the risks in an evaluation risk register, with a score out of 3 for likelihood (with 3 being most likely) and for potential impact (with 3 being high impact). Multiply the two scores together to get a rating for each risk. The higher the risk rating, the more important it is to have a plan to mitigate the risk. Identify what actions you can take to avoid or minimise the risks. Remember to refer back to your risk register at key points in the evaluation process, including to identify any newly arising risks and to make sure that measures to minimise risks have been actioned.

## Who should do the evaluation? Who should oversee it?

An impact evaluation needs somebody to plan it, manage it and needs staff to conduct specific activities [[see Resource planning for your evaluation](#) for more on this]. You may decide that the evaluation can be done in-house by a named member of staff, using other staff or volunteers to help with data collection activities. Or you may decide to appoint an external evaluator (e.g. a university

or an evaluation specialist) to do the evaluation – again, this may still involve staff or volunteer time to help with certain tasks. It will also require a named person to oversee and be a point of reference for the external evaluator. If you decide to appoint an external evaluator, you will need to prepare a Terms of Reference (TOR). [See [‘What should a TOR include?’](#)]

## Evaluation design

The evaluation design identifies the overall purpose, the scope and key evaluation questions of your health impact evaluation.

### Purpose

An evaluation can have a range of purposes and so it is important to agree on why you are carrying out the evaluation. This will help to ensure that resources are focused on the correct area and that the desired outcomes are achieved.

Impact evaluation is not the only form of evaluation available. If

### Stakeholder priorities

Have you considered the requirements of stakeholders and audiences such as potential funders? Are there specific things that they would like to know regarding the health and wellbeing impacts of your scheme and their importance? [[See Stakeholder assessment](#)]

- Funders are likely to require an impact evaluation to demonstrate value for money and that that the scheme is achieving outcomes in line with their priorities.
- The scheme manager may want to use the evaluation to justify continuation of the scheme and identify opportunities to improve the scheme. This may include looking at how it can better contribute to certain health outcomes.
- Local health partners, such as a GP practice, may particularly want to understand which health and wellbeing issues the scheme is most strongly linked with.

## **Engaging with the health sector**

Engaging with the health service early in your evaluation design will give you the best chance of evaluating your project in a way that highlights the impact your warm homes intervention is having on health outcomes.

The starting point for doing this is to take some time to understand how commissioning in the health and social care services work. For a helpful diagram that illustrates this [[see Understanding Health and Social Care Commissioning](#)].

If you currently do not have a relationship with the health sector, it will take time to build up a relationship. This may well not be possible within the timescale of your evaluation. Other affordable warmth schemes have first engaged with the health sector in terms of referrals, and are building up the relationship to include health data for evaluation.

For this reason we have provided information about engaging with the health sector both to start getting referrals and to get data for evaluation.

Experience has shown that there is a great deal of local variation in terms of the best way to engage. Sometimes going straight to the main commissioning bodies is most successful, and sometimes there may be individual GPs or a practice manager who take an interest in making referrals to an affordable warmth scheme and perhaps helping to provide data for an evaluation. It is very important to try and get advice on who are the key players locally and what the best approach to take might be in your area. For instance, there may be major funding schemes or other opportunities and initiatives in your area which you can take advantage of.

Getting a consensus amongst interested parties on the purpose of the evaluation will help to focus your efforts and make it more likely that they will take notice and act on the evaluation findings.

## **Scope**

The 'scope' defines the scheme elements being evaluated (the entire scheme or certain interventions), the time frame (e.g. from project start date to a fixed date, or a year's period), the geography (all areas where the scheme is delivered or a particular area). The scope may also identify which health issues are being evaluated and/or which groups of beneficiaries.

## **Refer back to your programme design**

You already know your scheme's objectives, and you probably already have a very good idea of the mechanisms by which your scheme is intended to achieve its objectives. Take some time to set this out in a diagram.

For example, a referral process is set up with a GP. The GP (or practice manager) refers a patient. The patient receives a new boiler through the scheme. The patient uses the boiler and heating controls to warm their home. This results in the patient having a warmer and drier home, which in turn reduces the patient's symptoms of asthma.



*Figure 2: A simple logic model*

Logic models and the theory of change, which are two ways of logically working through the design of a scheme to show and understand how it attempts to achieve its intended outcomes [[see Logic models and theory of change](#)], can help with this. You may even have used these to design your scheme in the first place. If you didn't think about the potential health and wellbeing changes associated with the scheme, it is worthwhile doing this in thinking about the focus of the evaluation. Consider which physical and mental health needs the scheme may help with and what changes in health the scheme could contribute to, even if these weren't stated as intended benefits of the scheme. These might include improved relationships within the household, improved ability to cope with daily life, and improved diet [[See Diagrams of links between warm homes and health](#)].

## Scheme interventions

Make sure that you are clear on which interventions (and combinations of interventions) are available to beneficiaries so that you can evaluate which interventions – and which combinations of interventions - lead to good health outcomes. This may require some thought to categorise types of interventions and to differentiate between 'light touch' and more 'in depth' interventions. See the section titled 'Recording and classifying scheme interventions'. You may want to focus the evaluation on only certain interventions.

## Who is affected?

Think about the different sub-groups of households amongst your scheme's target beneficiaries. Your impact evaluation can identify whether different types of households are benefiting from your scheme or whether certain groups are missing out. For example, it can help you identify whether the scheme is reaching lone parent households with children, and what difference (or not) this is making for parent's mental health or for children's physical health (e.g. asthma). The importance of involving stakeholders in the process of deciding on the focus of your evaluation is vital where you are using a social return on investment approach (SROI) to evaluation of value for money.

You may choose to focus your evaluation on what impact the scheme is having for a particular type of household. For example, you may want your evaluation to consider whether the scheme is helping older low income households to avoid deterioration in their physical health.

Another decision to make is whether you include indirect beneficiaries as well as direct beneficiaries. Direct beneficiaries are those who benefit directly from activities funded by a scheme (say, an adult with a long term health condition), whereas indirect beneficiaries are those who benefit as a result of the improvements made to the direct beneficiaries (say, a carer who does not live in the household). It is important to determine whether the indirect beneficiaries will be included in your evaluation.

## Identifying the key evaluation questions

Refreshing the programme design logic, the mechanisms by which beneficiaries are expected to achieve outcomes, the range of interventions offered and the different sub-groups in your target population, you should have a clearer idea on how you want to focus your evaluation.

You can then define your key evaluation questions. These will further focus the evaluation.

### **Example key evaluation questions focused on health**

- Did the affordable warmth programme achieve the intended health outcomes for target beneficiaries?
- How did health outcomes vary amongst different target beneficiary groups?
- Which combination of interventions is most strongly associated with health outcome improvements?
- How effectively did the affordable warmth advice line contribute to improved health amongst frequent GP service users?
- Did the affordable warmth programme represent good value for money?

This toolkit is here to help you evaluate health and wellbeing outcomes. Alongside this there may be other outcomes that you want to evaluate. It is possible to do an impact evaluation that focuses on both health and other outcomes, with a corresponding set of key evaluation questions. But it is important to make sure the focus is clear and you do not try to answer too many questions.

# Choosing which type of evaluation design to use

There are a range of different types of evaluation design which can be used in an impact evaluation.

These vary in terms of:

- Purpose
- The circumstances in which they are suitable
- The types of evidence used
- The degree of certainty about whether the outcomes can be attributed to the interventions – and not to other causes.

Within the health sector and in academic circles, there are important philosophical differences in terms of how you can know whether or not an intervention can be linked to an outcome. In practice, it is important to use an approach that will best help you answer your evaluation questions with the available resources.

*Table 3: Types of impact evaluation<sup>1,2</sup>*

Types / forms of evaluation	Circumstances	Type of evidence
Pre-post design	The intended outcomes have been identified at programme design stage. Suitable monitoring data has been collected from the start of the scheme.	Scheme monitoring data. Quantitative data gathered using pre- and post-questionnaire (i.e. before and after client receives intervention). May also include qualitative information e.g. scheme documentation / interviews.
Post-intervention only design  A post-intervention design should only be used if a pre-post design is not possible. It makes it harder to be certain of what has changed – and whether it can be attributed to the scheme.	The intended outcomes have been identified at programme design stage. Late decision to evaluate and suitable monitoring data has NOT been collected from the start of the scheme to allow use of a pre-post design.	Post-intervention questionnaire. The questionnaire should be designed to capture changes from the ‘pre-intervention’ situation as well as data on the ‘post-intervention’ situation.
Case study design <sup>3</sup>	Case study design may be appropriate where: the	A case study approach can include use of both quantitative and

<sup>1</sup> This table is adapted from Westhorp, G (2015) Realist evaluation DECC Workshop slides. Community Matters Pty Ltd

<sup>2</sup> There is additional guidance on impact evaluation provided in the Magenta Book guidance – “Quality in policy impact evaluation”. Available from:  
[www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/190984/Magenta\\_Book\\_quality\\_in\\_policy\\_impact\\_evaluation\\_\\_QPIE\\_.pdf](http://www.gov.uk/government/uploads/system/uploads/attachment_data/file/190984/Magenta_Book_quality_in_policy_impact_evaluation__QPIE_.pdf)

<sup>3</sup> An article on case study design for project evaluation is  
[www.case.edu/affil/healthpromotion/ProgramEvaluation.pdf](http://www.case.edu/affil/healthpromotion/ProgramEvaluation.pdf)

Types / forms of evaluation	Circumstances	Type of evidence
	programme design is unique; where there is unexplained variation in impacts, or where you want to understand how impact was achieved by the programme.	qualitative evidence, including observation, to understand change over time and how this happened. It can produce rich evidence for a narrower focus than other forms of evaluation.
Experimental/quasi-experimental pre-post design	Random (in experimental) or non-random (in quasi-experimental) assignment of households to the intervention group or the control group (who receive no intervention).	Pre- and post- questionnaire Validated health questionnaire or purpose-designed questionnaire. May include qualitative evidence.
Designs which include comparison against the counterfactual. This is possible with all the above design types, even for small impact evaluations.	When there is scope for comparison of the impact measures of interest amongst the beneficiary population with a similar population who were not exposed to the programme.	Experimental design: Collect data for a control group Quasi-experimental: Use data for a created comparison group Non-experimental: Logically construct a hypothetical prediction of what would have happened without the intervention, using the baseline data.

In practice, most local organisations are likely to use a pre-post design using a questionnaire administered before (pre) and after (post) the intervention.

Even for small scale evaluations, it is possible to establish a counterfactual, either by using data for a created comparison group (for example, by comparing health impact measures achieved against published data for a similar local area) or by logically constructing a prediction, using baseline data. For more on counterfactuals in impact evaluation, see the [Better Evaluation](#) site. Designs where you are confident in your control group or comparison may not need a 'pre-intervention' measure.

If the scheme has been pre-designed as part of a larger study that includes a 'control' group, then an experimental or quasi-experimental pre-post design can be used. It is highly likely that there will be university involvement in such a study, if an experimental approach is used then their involvement may include managing the random assignment of households to the intervention or the control group.

A pre-post approach can also include collection of qualitative evidence, including document review and interviews with project managers and staff, beneficiaries of interventions and other stakeholders, such as health workers. This can be particularly useful in evaluating why an intervention did or did not achieve the intended outcome. It can also be used to understand the context in which a particular intervention achieved health outcomes for target beneficiaries.

A post-intervention only design (that only uses evidence collected after the intervention) can be used as the 'next-best thing' in the situation where the decision to evaluate comes too late to administer a suitable pre-intervention questionnaire, or where suitable pre-intervention monitoring data has not been collected. This approach will provide less reliable data on what change has happened and how far that change can be associated with the scheme or intervention. It is strongly preferably to use a pre-post design whenever possible. [See Retrospective Questionnaire Example](#) for an example of a post-intervention only survey – which includes questions asking participants to

recall the pre-intervention situation. There are important limitations with this reliance on recall of the 'pre' situation.

In the absence of collection of 'pre' intervention data an alternative option is possible for evaluation of some impacts. The 'post' intervention situation can be compared to a control group who have not received an intervention. This approach is known as a counterfactual evaluation. A counterfactual group must be established by taking a comparison group that is identical to the treatment group, except from the fact it is not subject to the intervention.

Counterfactual evaluation may be prospective or retrospective. Prospective evaluation begins during the design of the intervention and involves collection of data at the baseline point and after the intervention for both the treatment group and the control group. Retrospective evaluations involve collection of data only after the intervention has taken place. For some validated questionnaires that may be published norms allowing a counterfactual evaluation.

*Box 1: Some key terms used in evaluation*

**Counterfactual:** What would have happened in the absence of the scheme (or intervention) being evaluated. A good impact evaluation will include recognition that most outcomes are affected by a range of factors, not just the scheme or intervention being evaluated. By comparing the results achieved against those you would expect if the scheme, you can test the extent to which the scheme was responsible for the change.

**Survey:** A survey is a method of social research and encompasses any measurement procedure that involves asking questions of respondents. Use of a questionnaire as a method of data collection is one means of conducting a survey, but there are other forms of surveys, such as those using interviews.

**Sampling:** in quantitative research, involves selecting a representative set of units (e.g. individuals or households) from a population. There are different way of sampling, including probability (random) sampling and non-probability (non-random) sampling.

**Population:** The population of interest, is the set of all units (individuals or households) being investigated and about whom you wish to draw conclusions. For example, all the households who received interventions as part of your scheme delivery.

**Random sampling** is when the probability of any unit being included in the sample is known and equal. This is mainly used in quantitative methods. If you have a complete list of all the households participating in your scheme, you can select a random sample for inclusion in your study. This allows you to conduct statistical analysis to draw inferences about all the households involved in the scheme (your population of interest). If you don't have a complete list of households involved, it will weaken the sample to population representativeness. Guidance on generating a random sample is provided [here](#), including use of an online random sample generator.

**Non-random sampling** is used when either:

- For real-life reasons, it is difficult to achieve a random sample; e.g. if you only have consent to re-contact a limited proportion of the households involved.
- Or when you deliberately select participants with particular characteristics or experiences. For example, you want to include households who received a particular combination of interventions delivered by your scheme. Or you want to include households which include children aged under-five.

**Sampling bias** describes the case where certain sections of the population are more likely to be included in a population, thus skewing results. **Non-response bias** can arise in follow-up surveys, where the respondents (who do complete a questionnaire) differ in meaningful ways from non-respondents (who don't complete a questionnaire).

**Sample size:** This refers to the number of people included in the sample. In general, the larger the number of people included in the sample, the more representative it will be of the population. However, you need to balance this against cost issues. The findings of a small, well-balanced sample can be more useful than the findings from a larger but less well-balanced sample.

An online sample size calculator, such as [this one from Survey Monkey](#), can be useful for calculating sample sizes required for different sizes of populations and confidence levels for use in random sampling. The calculators provide simple guidance but if you have access to a statistician it is preferable to ask their advice.

**Qualitative research** uses different approaches to **sampling** and does not rely on representativeness or size of sample. Qualitative samples are usually small in size. Sampling is usually based on selection criteria, so that the sample includes cases (individuals or households) that are characteristic of the population (or population subgroup) of interest. The sample should also include a diversity of cases that reflect the variation that exists amongst the population of interest (e.g. in terms of their age or housing situation).

**Questionnaire:** A questionnaire is a method of data collection. It involves a set of written questions used for collecting information. Sampling decisions (see above) about who is asked to complete the questionnaire are important, as this will affect the quality and usefulness of the data collected using a questionnaire. If

**Pre-post design:** This is a shortened version of pre-test post-test design, sometimes also referred to before/after design. It is a design where measurement data is collected before and after an intervention. The design means you are able to see the effects of an intervention on a group. In a classic pre-post design, participants are assigned (ideally on a randomized basis) to an intervention group or a (non-intervention) control group. This means that you can measure actual changes for scheme participants. Even where you don't have a But, you will be limited in your ability to know how far any change recorded was due to the scheme intervention and not due to other factors.

# Different standards of impact evaluation using a pre-post design

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The design of your evaluation will strongly influence your ability to make confident claims that reported health and wellbeing outcomes are associated with the scheme. This will depend on what resources you are able to draw on and your chosen design, including whether you are able to include health data for individuals and whether you are able to compare results against a counterfactual.

The ideal pre-post evaluation will have pre-and post- intervention data from questionnaires administered face to face for a representative sample of cases, will include a suitable counterfactual and will include analysis of health data for those cases, either accessed via a health partner or analysed by a health partner. This is more likely to be possible where you have an established relationship with the health sector or by involving a university with established NHS links.

If you cannot obtain data from health partners, a good standard of evaluation can be obtained by administering a validated health assessment tool (questionnaire) pre and post intervention to your sample, which will allow you to identify a change in health over time. Done correctly this will give a good standard of evaluation. However, there is a resource requirement in administering the questionnaire twice for every household in your sample - and also in analysing the data. For analysis, if you don't feel confident doing this in-house you could commission external support or bring in analytical support through existing relationships, for example with a university or health researcher. Where you can, use volunteers, students or partners to undertake data collection, data entry or other tasks.

If, for practical or financial reasons, a pre-/post- questionnaire can't be used, a compromise could be to administer a questionnaire only once, after the intervention. This will significantly limit your ability to confidently report that a health outcome is associated with the intervention, as you will be asking questionnaire respondents to remember what their health was like at a point in the past, rather than asking them twice how they felt on that day.

The table below summarises the resourcing requirements associated with different data collection methods. In practice, the scheme-specific circumstances and chosen evaluation design will mean that each evaluation may be a hybrid of these various 'levels'.

*Table 4: Indicative levels of evaluation and their resourcing requirements*

Resource requirement	Data	Capability required	Relationships required	Usability of evaluation findings
<b>Low (one phase only)</b>	Post-intervention only data collection.	Administer questionnaire in one home visit after intervention delivered	External relationships not required, although external analytic support would be useful.	Limited usability as hard to be sure changes reliably reported and if reported changes are due to intervention.

Resource requirement	Data	Capability required	Relationships required	Usability of evaluation findings
<b>Medium (spread over two phases)</b>	Pre-and post-intervention data collection.	Administer questionnaire in two home visits before and after intervention delivered	May require volunteer or partner input to share tasks. Likely to require external analytic support.	Evaluate changes achieved and indicate which reported health and wellbeing changes associated with interventions.
<b>High</b>	Either of 1 or 2, with data from health service.	Collect NHS number from client, along with consent to access data and ethics approval.	Relationship with health partners required for data access. Analytic support from health or academic partners also required.	In addition to (2) above, may be able to link recorded public health outcomes with interventions.

Whichever form of data collection you decide to use, if you do not have resource at this stage to analyse the data, it may still be worth collecting the data with a view to finding resource later to help with the analysis.

#### Case Study: Derbyshire Healthy Home Programme

The Derbyshire Healthy Home Programme is working with a number of GP practices across Derbyshire to identify vulnerable householders living in fuel poverty with cold sensitive health conditions. The scheme works on the basis of GPs address matching housing and benefit information to lists of patients with cold sensitive health conditions. Anyone found to be in all categories is sent a letter suggesting they contact the programme for assistance. Due to data protection issues GPs are unable to directly share information on appropriate households with the scheme coordinators.

The programme is starting working with The Springs Health Centre in Clowne to evaluate the impact of affordable warmth interventions on a group of 12 patients.

The evaluation project will capture anonymised information about specific interactions with the NHS over the last 12 months and compare this level of interaction throughout the following 12 months after the project has provided affordable warmth solutions.

During this period, energy consumption will be monitored to ensure that residents are not under-heating their home.

It is hoped that the following NHS interactions will be measured:

1. A&E visits where a patient has been into hospital and out again in a day
2. District Nurse visits
3. Pharmaceutical and medication prescriptions
4. Calls to the falls Care Line service
5. Planned daytime hospital admissions
6. Unplanned overnight stays in hospital from:

- A&E, or
  - Out of hours service
  - Ambulance dispatches
7. Doctor out of hours callouts

# Which type of tool should we use to collect information for a health impact evaluation?

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There is a variety of tools that can be used to collect information.

## Tools to collect quantitative data (data you can count)

Where you want to measure what difference a scheme has made, tools that allow you to collect data that can be counted are extremely useful. They are essential if you want to 'put a number on it' or attribute a financial value to the outcomes.

### Questionnaires

It is often impractical to issue a questionnaire to everyone in the population of interest and so it is important to consider fully the sampling process that you will use to target the questionnaire. Getting a representative sample of people to answer your questionnaire is vital ensuring high quality, useful results.

Questionnaires are a very useful tool that allows you to collect information that can be counted, including information on people's attitudes and their perceived health (how good or bad they think their health is) using a scoring system.

E.g. In general, would you say your health is:

Excellent (1)	Very Good (2)	Good (3)	Fair (4)	Poor (5)
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By asking this same question pre and post intervention, it is possible to observe if there is a change in how recipients score their health. This is more accurate than doing a post-questionnaire only, where the recipient is asked post-intervention to remember what their health was like pre-intervention.

Questionnaires include a number of questions to ask beneficiaries and may involve some questions that have been validated and some which have not. A validated question is one which has been used and tested over time in terms of its ability to generate reliable and valid findings. [See validated health questionnaires](#) for examples.

Some questions in a questionnaire, or indeed the whole questionnaire, may have been purpose designed specifically to collect the information needed to answer the evaluation questions. When designing such questions it is a good idea to test questions out on a small sample first of all to check their accessibility to the target audience. [See Booster Fund Questionnaires](#), for an example.

### **Validated health questionnaires**

There are some health questionnaires developed by researchers which have been validated, meaning that they have been tested and found to produce reliable results when used on different populations.

We have reviewed the available validated health questionnaires and have found two that would be most suitable for looking at the health impacts of affordable warmth schemes: these are the EuroQol EQ-5D-5L and the Short Form Health Survey (SF-36). These are described in more detail in [Validated health questionnaires](#).

If your scheme covers specific health conditions or you want to use a more in-depth survey, you may want to review some of the other relevant validated questionnaires. Other validated health questionnaires are also described in [Validated health questionnaires](#).

In practice, you may find that you need to develop a purpose-designed questionnaire that includes questions from a validated questionnaire and additional questions which are specific to your affordable warmth scheme. If you do this, make sure that you refer to the user guidance for the validated questionnaire, in terms of question order.

Questionnaires can be administered in-person or over the phone or on-line. In-person questionnaires are generally more effective, and for some client groups, administering the questionnaire over the phone or on-line will not be appropriate. However, telephone and online questionnaires are more economical than in-person questionnaires which require home visits.

It is also important to design your questionnaire so that it is accessible by all groups, as this helps to ensure there is no coverage bias. Particular groups that it may be important to take account of are those with learning difficulties, such as dyslexia, or people with sight difficulties. It may be helpful to consult organisations with experience of working with these groups for advice on making questionnaires as accessible as possible. Simple measures, such as the use of a font known as Read Regular or sans-serif fonts that do not have lines at the end of characters and are known to be easier to be read, can help with accessibility for dyslexic people.

### **Monitoring data**

The monitoring data for the scheme, covering the different interventions and the recipients, is another important source of quantitative data. Monitoring is the routine and systematic collection of data to check scheme progress against plans. The monitoring data can be used in evaluation. Evaluation activity may include additional data collection (e.g. post-intervention questionnaire or project staff interviews) to answer evaluation questions.

Where you use both monitoring data and data from a questionnaire in an evaluation, you will need to think about how you combine the data from both sources, so that you are able to match up monitoring data with questionnaire data for the same households.

## Tools to collect qualitative information

Where you want to understand why or how a project has achieved a health impact, tools to collect qualitative information are useful. However, quantitative methods can also include questions about how an intervention worked and questions that allow analysis of why interventions worked.

Qualitative information can also be used to help inform interpretation of quantitative findings.

### Interviews

Interviews with the scheme manager or staff can be used to understand contextual questions, such as barriers to achievement of hoped-for health outcomes for beneficiaries. Interviews with beneficiaries can be used to gather more in-depth understanding of what difference an intervention makes for beneficiaries. For example, an interview can explore how living in a cold home affected their mental health and how an intervention has helped them cope. An example of a semi-structured interview guide can be found in [Qualitative research – example interview guide](#).

### Focus groups

Focus groups can be used to explore with a group (e.g. a group of advice line workers or a group of people living in private rental homes) their thoughts, including differing and shared views and experiences. For example, this could explore how particular advice messages have proven helpful in enabling householders to change their practices to reduce problems of damp – and to explore what can make it hard to respond to advice appropriately.

Further information on qualitative and quantitative data collection methods [see [Evaluation – data collection and analysis methods](#)]

#### **Case study: creation of a database for monitoring and evaluation of ‘Warm and Safe Wiltshire’ project.**

From project set-up, the Warm & Safe Wiltshire partnership planned to evaluate the health and wellbeing impact of their project. They realised an immense amount of data needed to be collected, including sensitive personal data. This included: data on property type and tenure; client specific data; financial data including benefit payments; health conditions; measures installed; and referrals made and outcomes of those referrals. A suitable database needed to be found.

#### **Steps taken to put in place a suitable database**

The Wiltshire public health team did not have its own dedicated database, so initially a property database was used to record cases. In working with adult social care, it became apparent that their client database, Care First, provided that vital link to other health services needed by Warm and Safe clients.

#### **Key considerations**

New pages were added to the Care First database to collect the right information to monitor outcomes, as well as to provide an easy-to-use system for giving advice over the phone. The Warm and Safe partnership used the Centre for Sustainable Energy’s existing energy advice database as a template.

#### **Value as part of the project delivery**

Now, healthcare and cold homes information is joined up and stays with the client. Warm and Safe Wiltshire can make direct referrals within the system to healthcare providers, who can see what

activity has been carried out. Customers can self-refer via the social care website.

**Importance in helping to build evaluation into the process**

It is absolutely vital to think about what information you will need to evaluate the project right at the set up phase, as it is much harder to change once set up. By setting up a cold homes section within the social care database, there will be more opportunities in the future to link cold homes interventions into health outcomes.

# What data will you need to collect for a scheme health impact evaluation?

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Much of the data you need you will be able to collect yourself, or you may already have collected as part of the scheme delivery and monitoring. You may also want to use data provided by health partners.

Types of data you will need include:

- Data on scheme interventions e.g. type of advice given; energy saving installations made
- Data about scheme beneficiaries and their homes e.g. household size; tenure type; property SAP rating
- Beneficiaries' subjective experience e.g. data on people's views, attitudes and behaviours outcomes that may be early indicators of possible longer term health benefits.
- Health data: this can include data you can collect yourself and data provided by health partners.

The timeframe of the evaluation of your scheme may mean that it is not realistic to establish whether the effect has had a measurable change on someone's general health or on the size of their fuel bill. However, it may be possible to collect data on short term indicators of change, which may be associated with longer term health improvements. These may include subjective data on e.g. whether they feel able to cope with cost of fuel bills.

## Recording and classifying scheme interventions

A scheme may have a number of possible interventions. For example, it may offer several types of insulation, heating improvements, advice, and referrals to other services.

You should think carefully about how you classify interventions – for example, advice could range from a leaflet with generic advice to a home energy audit, and so it would be useful to break 'advice' down into different types of advice. This data should be recorded as part of the scheme's monitoring data. It is important to ensure that project staff are briefed on what data they need to record as part of the project's monitoring data. It would also be useful to record information about the condition of the property prior to any intervention. Before beginning the project it is also important to establish a database to record the intervention details in.

It could be useful to sit down with your project team so that advisors who do home visits and talk to people on the phone can generate a list of all the different types of advice that could be given. These should be categorised so that you can gather enough detail without having an unmanageable number of categories. Example categories are:

- Dealing with fuel debt
- Behavioural advice
- Using heating controls
- Getting the most out of a newly installed measure

- Switching energy supplier
- Benefits check

In the case of advice you should also record whether the advice was given on the phone, in the individual's home, or at an outreach event.

You may already be gathering information on intervention type for your funders, and if so your list should be compatible with that, but you will probably need more detail in the list of interventions you use for the evaluation.

For installed measures and referrals, generating a list of interventions is probably quite straightforward. .

Different interventions will be combined depending on the needs of the client, and the individual interventions should be recorded, as well as the date of the intervention. It is better for the advisor / caseworker to record the intervention as it may be more difficult to get the same level of specific intervention information from the client in a post-intervention interview / questionnaire.

What you record about your intervention also depends on how much resource you have to analyse the data. For example, if you will only be producing aggregate results for the scheme as a whole, you will only need to describe the number and type of each intervention. But if you want to find out which interventions are most effective, you will need a record of the interventions each client received so that you can link the intervention and the outcome.

The referrals that you make to other services will also have an impact on outcomes for the client and so these should be recorded. If it possible to get information about the outcome of the referral from your partners, this would be useful.

## Data about scheme beneficiaries

### Data you can collect yourself

This data will be obtained by administering a questionnaire to the client (**usually**) in their own home. Ideally this will take place once pre-intervention and once again post-intervention, but if you have limited resources you may choose to administer one questionnaire following the intervention.

You are likely to have collected some information about scheme beneficiaries as part of your monitoring. You may need to collect information via a questionnaire to fill any gaps or to undertake analysis for specific types of beneficiaries. Remember that there are data protection requirements for any personal data you collect as part of the evaluation. Only collect information that you need to answer your key evaluation questions. Similarly, you will need to check that suitable permissions are in place for re- use of personal data previously collected as part of the scheme records.

The personal information you need to collect on individual and household characteristics will help you understand the impact for different groups of target beneficiaries. Below we identify personal data you are likely to need to collect in order to undertake a health impact evaluation:

- Client NHS number. This is needed if you want to access health data. However, this will only work if CCGs give permission, data protocols are accepted and ethics committees agree to this.
- Age, sex, ethnicity of individual (and of other household members?)
- Whether household includes anyone with a disability

- Household size, household type (for use in LIHC fuel poverty calculation)
- Number (and age) of dependent children
- Number of people aged 65 or over; number of people age 75 or over
- Tenure type
- Household income (This can be difficult to collect. Asking about means tested benefits may be a suitable proxy for use in LIHC calculation)
- Receipt of benefits, particularly means-tested benefits (for use in LIHC fuel poverty calculation)
- Employment status
- Household falls within low income, high cost definition of fuel poverty [see Figure 3: Fuel poverty measure]
- Information about debt
- Interventions received by beneficiaries
- Other social problems experienced by the household relevant to health and wellbeing

## Data about the homes of scheme beneficiaries

You are likely to have collected relevant data as part of the scheme monitoring.

- Postcode: this is particularly useful as a lot of secondary data can be accessed with this information;
- Condition of the home and heating system
- Dwelling SAP rating from household energy performance certificate (ratings of D, E or F can be used as a proxy of 'high energy costs' for use in LIHC calculation)
- Temperature and humidity measurements
- Fuel bill information and ability to pay bills

*Figure 3: Fuel poverty measure*

### Fuel poverty measure

If you want to evaluate the scheme's contribution to reducing fuel poverty, you will need to collect data corresponding to the chosen fuel poverty measure - low income high costs (LIHC) or 10% indicator. The LIHC definition of fuel poverty has been the official definition of fuel poverty in England since 2012. Northern Ireland, Scotland and Wales continue to use the 10% indicator.

The LIHC indicator finds a household to be fuel poor if it has an income below the poverty line (including if meeting its required energy bill would push it below the poverty line); and has higher than typical energy costs. [The low income high cost definition of fuel poverty](#) provides further detail about the LIHC definition of fuel poverty and how to calculate it for individual households.

The 10% indicator finds a household to be fuel poor if it needs to spend more than 10% of its income (measured before housing costs) on energy in the home.

## Beneficiaries' subjective experience and reported behaviours

Data on beneficiaries' subjective experience can be useful where it is not realistic to see a change in health related to the intervention received, where the 'post-intervention' questionnaire is conducted within just a few weeks or months of the intervention. It can help identify how a scheme may contribute to health e.g. where help to switch to a lower cost tariff means someone is less worried about their fuel bills and so enjoys improved mental health. This data can be collected using quantitative or qualitative methods.

- Resident views on ability to pay bills
- Resident practices relating to bill payment
- Resident perceptions on housing standard, warmth, damp
- Resident behaviour practices related to heating and damp
- Questions on attitudes to comfort levels in home
- Resident experiences of acting on advice e.g. tariff switching advice

#### **'Telling your story once'**

Clients with complex needs may feel burdened by being asked to tell their stories repeatedly to professionals from health, housing, social care or other service providers, including recounting upsetting personal details over again. In discussing with partners, it is worth checking whether they are moving towards 'Telling your story once', so that accounts collected for one purpose can be shared with other professionals, minimising the burden on users. An example of this is the ['Golden Key'](#) initiative in Bristol.

The [Bedford scale](#) is a commonly-used seven point scale for measuring subjective feelings of warmth or comfort levels.

+3	Much too warm
+2	Too warm
+1	Comfortably warm
0	Comfortable neither warm nor cool
-1	Comfortably cool
-2	Too cool
-3	Much too cool

**Retrospective questionnaire example** includes other questions for measuring subjective experience relating to affordable warmth interventions in a questionnaire.

### **Health data**

Examples of the types of data included here are:

- Simple health questions, asked pre and post interventions
  - Simple subjective health assessment questionnaire
  - Wellbeing questions
  - Anxiety / depression
  - Self-assessment health rating
  - Simple condition-specific questions
- Days off school or work (in a specific time period pre and post-intervention)
- Number of visits to health facilities over 12 month period

### **Data provided by health partners**

The health service (and in particular GPs) holds very extensive patient data. However, there are significant challenges to getting hold of clinical outcome data. Any data will be anonymised and in most cases there will need to be a formal involvement of academic researchers or specialist researchers working in the health service.

Where a health partner has agreed to collaborate with you, you may also be able to include data which has been collected by the health service for purposes other than the evaluation. Examples of the kinds of data that could be provided by health partners listed below. All of these would be for a specific time period pre and post-intervention:

- Hospital admissions/readmissions, both planned and unplanned
- Number of primary care visits
- Number of prescriptions

To date, Wigan (see case study in box) and Oldham Councils have both succeeded in getting agreements in place with the Clinical Commissioning Group to share health data for evaluation purposes. These evaluations are both ongoing at the time of publication of this toolkit.

#### **Collaborating with the CCG to use health data in an evaluation**

There are limited examples of local authorities and health bodies sharing data for research purposes, building on referral relationships with health sector partners. Wigan Council is one of the most advanced in this approach.

They are working with the local Clinical Commissioning Group (CCG) [see [Understanding Health and Social Care Commissioning](#)]. The scheme collects the NHS number of clients with their consent. An anonymization process is carried out by the Council's Public Health Analyst on the numbers so that the individuals cannot be identified, but records of their use of health services pre and post-intervention can be accessed by the CCG, using the anonymised codes. The CCG will not pass the raw data over to the Council, rather they will analyse it internally.

This approach has developed from a long standing relationship between the CCG and the Council, and the two bodies share the same office building which increases the interaction between them. Joint commissioning, for example through the Better Care Fund focused on older and disabled people, may increase opportunities in the future for collaboration with the health sector.

If you do manage to establish a working relationship with an organisation in the health and social care sector, you will need to enter into data sharing and data protection agreements. It is likely that the health partner will not give you the raw data, but will retain it for analysis internally. The evaluation will therefore be a collaboration between yourselves and the health partner.

When working with health partners there will be additional data management and protection requirements. In the case of referrals, the health partner will be passing on names and addresses, and possibly lists of patients on particular risk lists. This requires good data protection systems to be in place, and the health partner will be able to provide you with data sharing frameworks which you must agree to and comply with. Two example frameworks can be found in [Examples of data sharing frameworks for referrals](#).

Another important document to complete is a Privacy Impact Assessment, which will check that systems are in place to prevent patients' privacy being breached.

If you are not able to get data from the CCG within the timescale of your evaluation, you may be able to access data from GP practices. This route provides a way of getting started and could lead on to further opportunities to access data more widely. If the survey is well designed and targets the

population of interest well then although the number of beneficiaries covered may be small, this data may still be possible to use to draw conclusions about the population.

# Analysing your data

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Once you've collected all your data, you can now analyse it to answer your evaluation questions. The approach to analysis will depend on what type of evidence you have collected. This will broadly divide between qualitative data (e.g. from interviews or focus groups), and quantitative data (e.g. from questionnaires).

## Quantitative data analysis

The analysis of numerical data from pre/post-intervention questionnaires allows you to report changes in outcome indicators, before and after the scheme intervention. More advanced analysis can allow you to look at changes for different sub-groups.

Interpretation, including inferential analysis (with statistical analysis), enables you to identify with what degree of confidence you can report that the change is associated with the intervention. Statistical analysis is only possible where you use probability sampling, so that the sample is representative of the population of interest (e.g. all beneficiary households).

There are different levels of quantitative analysis that can be used.

### Descriptive statistics:

Provide a basic tabular summary of the sample size and response rate for all beneficiaries.

*Table 5: Example of table showing number of respondents.*

Total number of beneficiaries	Pre-intervention questionnaire completed	Response rate (%) (pre-intervention)	Post-intervention questionnaire completed	Response rate (%) (post-intervention)
9,068	9,061	100	6,015	66

This information on response rate – including the differences between pre and post intervention response rates - is important to understand how sampling bias may limit generalisability, i.e. your ability to draw conclusions about the population of interest (i.e. everyone who has received the intervention).

If there is a high non-response rate post-intervention, you should think about how this affects how well the sample reflects the population.

Then provide a summary of the characteristics of your sample, in tabular or bar chart format. This might include:

- Geographic location
- Age of respondents
- Disability status
- Tenure of respondents
- Occupation of respondents
- Household size
- Number of dependent children in household

This will enable you to consider how far the sample reflects the target population for your scheme, including different sub-groups within the target population.

Report overall outcome indicators for all respondents, comparing the pre and post intervention situation, as illustrated in Table 6.

*Table 6: Tabular comparison of pre- and post- response to questions*

	Pre-intervention (%)	Post-intervention (%)	Difference (%)
<b>Percentage of respondents who report switching the heating off to save money</b>	21	11	-10
<b>Percentage of respondents reporting problems with their day to day activity</b>	12	11	-1

For an evaluation to understand how the impacts have varied for different types of households, further analysis can be used to show impact data by household characteristic, including percentage change between pre and post intervention.

Tables and charts enable you to present data succinctly. These can be supported by short summaries to explain what are the key findings identified.

Analysis may look at how impacts vary by different combination of interventions, to help identify which combination of intervention are most strongly associated with changes in health impact indicators.

Standardised health questionnaires are supported by specific guidance on how to analyse the results, including the [Euroqol User Guide](#). This includes guidance on administering the tool and on analysing and presenting the results.

Other sources of information on analysing your findings which may be helpful include:

- Homeless Link ‘Picture the Change: Data [analysis](#) toolkit’
- Evaluation Support Scotland (2013) [Evaluation support guide 3.1: Analysing information for evaluation](#)
- London Sustainability Exchange (2014) [Energise London Monitoring and Evaluation Toolkit](#)

## Qualitative data analysis

There are different ways of analysing data, and there are software packages that can be used to help, though it is possible to use more manual methods, or common word processing or spreadsheet packages to help organise the data. [[Evaluation – data collection and analysis methods](#)] presents a framework approach to analysis, as recommended in government guidance on qualitative research<sup>4</sup>.

<sup>4</sup> HM Treasury (2012) [Quality in qualitative evaluation: a framework for assessing research evidence \(supplementary Magenta Book guidance\)](#).

This approach provides a systematic and transparent way to analyse your data that is well-suited to evaluation. However, if you are more familiar and experienced with other approaches to analysing qualitative data, it is worth sticking with an approach that works for you. Whatever approach you take though, it is worth thinking about the questions below on quality in qualitative evaluation.

Qualitative approaches are not an easy alternative to quantitative evaluation. The main challenge with qualitative data analysis is simply the amount of time it can take and –relatedly – the amount of material you need to digest and make sense of. It is normal to feel ‘overwhelmed’ as part of the process of making sense of qualitative data, as you try to make sense of and identify patterns and meaning in the data. If you feel that the sheer amount of data is too much, it might be worth involving a university or external consultant.

### Quality of qualitative evidence

Your ability to make claims that the findings from qualitative elements of your evaluation are applicable to the wider population of interest (e.g. the population of households that your scheme serves) or to other comparable contexts will relate to the reliability of the research design. There are a number of questions that you should think about which can help others to understand how the evaluation was approached.

- Was the sample design selected without bias? Does it fairly represent the target population, including different sub-groups within the target population? How did non-responses or selected participants dropping out of the sample affect how well it reflected the target population?
- Were the interviews or other field work activities carried out in a consistent fashion? Were participants able to respond fully about their experience relating to the focus of the evaluation study?
- Was the analysis carried out in a systematic way? Did more than one person check the analysis and the consistency of how the information was interpreted?
- Does the body of evidence strongly support the evaluation findings?
- Did the design allow different perspective on how and whether the scheme was associated with health outcomes to be identified? <sup>5</sup>Data analysis training

If you plan to conduct the analysis yourself, it may be worth investing in some training. Possible providers, who may offer discounted rates for charities or organisations with a low turnover, include:

[National Centre for Research Methods – Training database for research methods training courses](#)

[Social Research Association](#)

[Cathie Marsh Institute for Social Research](#)

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<sup>5</sup> These questions are adapted from Ritchie, J. & Lewis, J. *Qualitative research practice: a guide for social science students and researchers*. Sage: London.

# Other forms of evaluation

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## Process evaluation

This toolkit concentrates on assessing the change in health after an intervention and so focuses on impact evaluation. Impact evaluation is looking at what happened *as a result* of what you did.

You may also wish to evaluate processes in your scheme – looking at what you did and how this could be done better next time<sup>6</sup>. For example, how well is the referral process working, how smooth is the ‘customer journey’. The divide between a process and an impact evaluation is not clear-cut and impact evaluations may include an element of process evaluation. In some value for money approaches (such as SROI – see below), process evaluation can lead to the identification of other impacts than can be valorised.

A process evaluation can be useful to undertake alongside or in follow-up to a health impact evaluation to help identify how programme design could be changed to contribute more to health outcomes.

## Valuing health benefits using cost benefit analysis or other economic approaches.

Cost benefit analysis (CBA) is an approach used to compare the total monetary costs of a scheme with the monetary costs of its benefits<sup>7</sup>. It can be used to evaluate a completed project in quantifiable and monetised terms. This is distinct from a cost-effectiveness analysis which compares the monetary costs of the scheme with the value of the outcome, which are not measured in monetary terms. One widely used outcome in cost-effectiveness analysis is quality adjusted years of life gained (QALY).

CBA assumes that a monetary value can be estimated and placed on all the non-market costs and benefits of a scheme. This can include ‘costs avoided’, e.g. avoided treatment costs. More information about these techniques can be found in HM Treasury, Public Service Transformation Network and New Economy [guidance](#).

[Social return on investment \(SROI\)](#) is an approach gaining increasing currency, which is based on CBA but which seeks to incorporate a wider concept of value, to fully recognise the social impacts of an intervention. This approach is consistent with interest in ‘value for money’ that an intervention can offer not only in terms of health savings for the NHS, but also wider benefits for the public sector and for society. This approach places a strong emphasis on participation of stakeholders in determining the focus of an evaluation on the types of impacts a scheme is having for a particular sub-set of clients e.g. people with long term health conditions. An SROI approach can generate both qualitative reporting of value as well as monetised value.

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<sup>6</sup> For more information on planning a process evaluation, see chapter 8 of HM Treasury (2011) [The Magenta Book: Guidance for Evaluation](#).

*Box 2: Value for money of affordable warmth schemes for health and wellbeing*

[Better Value in the NHS](#) is a report by the Kings Fund (2015) is a report concerned with productivity in the NHS and how more care can be delivered within the same budget. It calls on doctors, nurses and other staff to use evidence to find better ways of delivering care and support services, particularly for patients with long term conditions and older people, at lower cost.

It suggests that value for money means delivering not just savings in NHS spending but also in terms of benefits to the wider public sector and society more widely, including by working more effectively with community-based services to support people with long-term conditions.

An evaluation of the value for money of an affordable warmth scheme would need to measure the health and wellbeing outcomes achieved for people at risk of health-related effects of cold homes, the scheme's contribution to delivery of NHS-identified health outcomes, in relation to the costs of delivering the scheme. Social return on investment is one technique for doing this.

Cost-offset approaches have been used to estimate cost savings to the NHS of retrofit interventions to improve the energy efficiency of cold homes, using estimated values for avoided housing risks to health and estimated years of life gained<sup>8,9</sup>. Such approaches are not suitable for looking at the wider value for money of a scheme.

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<sup>8</sup> BRE 'A retrospective health impact assessment of housing standards interventions in Derby' [www.bre.co.uk/filelibrary/pdf/casestudies/Derby\\_retro\\_Final\\_report.pdf](http://www.bre.co.uk/filelibrary/pdf/casestudies/Derby_retro_Final_report.pdf)

<sup>9</sup> Liddell, C. (2008) 'Estimating the health impacts of Northern Ireland's Warm Homes Scheme 2000-2008' <http://uir.ulster.ac.uk/26080/1/FPcostbenefitsfinal.pdf>

# Ethics – ethics approval, informed consent, data protection and data sharing

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In planning an evaluation, you need to think about the balance between the potential benefits and potential harm from doing it. There are potentially important benefits for fuel-poor households and for the wider public good from a well-designed and well-executed evaluation. A well-thought through evaluation should give rise to minimal harm.

## Ethics approval

Where you are involving the NHS or using NHS data you may need to think about ethics approval requirements. There is a simple flow chart in [Ethical considerations and data protection in evaluation](#). The SRA (Social Research Association) have also produced ethical guidelines on ethical considerations for social researchers<sup>10</sup>.

## Informed Consent

When interviewing beneficiaries, administering a questionnaire or collecting an NHS number in order to access health service records, you need to make sure that the client has given informed consent. This includes the provision of clear information in written, verbal and/or pictorial form to participants and the provision of time for reflection and questions. When gaining consent from children, or vulnerable adults (with mental health problems or learning difficulties), arrangements must be made to ensure the relevant information is provided in a form which the participant can understand. Participants should be clear what the data will be used for and provide their consent for this use. It should also be made clear to them that they can refuse the interview or specific questions, and that refusal will not affect the services they receive under the scheme.

Things to take into consideration when obtaining informed consent from the client:

- Does the client have adequate skills in English to understand or do you need to arrange for an interpreter and/or provide materials in a different language?
- Are there reasons why the client may not be able to provide informed consent (e.g. dementia)?
- Does the client understand that they can refuse to answer one or all of the questions, and that this will have no effect on the services they receive?
- Does the client understand what their answers will be used for?
- Does the client understand how long the information will be stored for?
- If the data may be passed on to others, does the client understand what those other parties will do with the data?
- Does the client understand the extent of anonymity they will receive in any reporting?
- If any data being collected will be used to obtain further data in health records, does the client understand and consent to this?

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<sup>10</sup> <http://the-sra.org.uk/wp-content/uploads/ethics03.pdf>

If for any reason the client is not capable of understanding these points, you may have to limit the amount of data you collect from them, or terminate the interview. If you have specific client groups who will struggle with this, give some thought to whether you could pare down the interview or use of the data to reflect the extent of the informed consent you will receive from this group.

An example consent form can be found in [Booster Fund Questionnaires](#).

## **Data protection and data sharing**

You need to make sure that the systems you have for storing and analysing the data allow you to keep to the agreement you have made to the client. The Research Ethics Guidebook includes a page on [data storage and data security](#), which includes planning who will have access to the data and planning how they will access the data. As part of running the scheme you will already have processes in place and an understanding of how to keep personal data secure, so the best thing to do here is to review the processes you already have to make sure they are fit for storing the evaluation data. You should also define how long the data will be kept for and provide a time period after which the beneficiary can ask for their data to be removed. You should also make sure that everyone who is working with the data has an understanding of the requirements of handling the data.

You must also be clear on whether data will be anonymised to ensure that individuals, organisations or businesses cannot be identified. A person's identity can be disclosed by either direct identifiers (names, addresses, postcodes, telephone numbers or pictures) or indirect identifiers (information on workplace, occupation or exceptional values of characteristics such as salary or age). The client should also be informed about how the findings of the evaluation will be reported.

For further information on ethical considerations, including links to ethical guidelines, see [Ethical considerations and data protection in evaluation](#). Data sharing is covered in the section on engaging with health partners.

# Reporting with impact

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When deciding how best to disseminate findings, consider:

- Who is the target audience?
- What is the most important information for this audience?
- What is the best way of communicating with this audience?

The target audience will vary depending on the specifics of the project and your organisation but could include: the health service, local authorities, potential funders, project partners, internal staff, project participants, and the wider public.

## Identifying the target audience

You probably already have a good idea of who you want to reach, but it is worth going back to your list of stakeholders [[see Resource Planning for your evaluation](#)] to make sure you don't miss anyone out.

## Dissemination materials

There are many different ways available to share evaluation findings. These include:

- Formal reports
- Executive summaries
- Presentations
- Webpages
- Newsletters
- Posters
- Public meeting
- Conferences
- Maps, graphics etc.

When deciding on the strategy to employ you should keep in mind the communication channels typically used by the target group, their level of technical expertise and how much time they have to look at the materials.

The funding organisation, as well as the delivery organisation, is likely to require a draft report and presentation of the findings, and a final report, setting out the findings to the key evaluation questions.

Senior staff in the funding and scheme delivery organisation may require a summary document that presents the key findings in a visual format, supported by a fuller report.

For the wider public a key graphic or an illustrated case study might be more appropriate. Easy read versions which use visuals to illustrate each key finding can make evaluation findings accessible to a wider audience, including people with learning disabilities. An example can be seen [here](#).

Furthermore the medium used needs to be taken into account; an article in a newsletter should be brief and suitable for the layman whereas at a conference it may be more appropriate to go into more depth.

## **In context**

In the context of an evaluation into the health and wellbeing benefits of an affordable warmth programme there could be some specific considerations. After performing a stakeholder analysis it might be decided that the goal is to share the success of the project with residents, to attract further funding and to inform project partners and colleagues. Each of these groups might require a different strategy to ensure optimal engagement. For residents a presentation at a community meeting might have the biggest impact. For potential funders and executive summary containing detailed statistics, financial modelling or cost benefit analysis might be most appropriate. In the case of project partners and colleagues an article or webpage outlining the findings could be the method of choice.

When reporting you should bear in mind, and be honest, about the limitations of the findings. If you only have a small sample, say so, and be clear that your evaluation shows correlation rather than causation.

## **Further resources**

- [A guide on disseminating evaluation findings by the National Evaluation of Sure Start \(NESS\)](#) - web link
- [A guide to help ensure the use of evaluation findings by the National Center for Chronic Disease Prevention and Health Promotion](#) – web link
- [Picture the Change Toolkit – Homeless Link](#). This is a toolkit on presenting information in a graphic or visual format to help present your evaluation findings in a simple format and in a way that gets your message across to different people. It includes links to free tools to help get you started.
- [The English housing survey 2013 – report on energy efficiency](#) – web link

# Resources

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The full list of additional resources in the toolkit is below. This is followed by links to a selection of external web-based resources that you may find helpful.

## Links to additional documents in this toolkit

[Resource planning for your evaluation](#)

[What should a TOR \(Terms of Reference\) include?](#)

[Stakeholder assessment](#)

[Understanding health and social care commissioning](#)

[Logic models and theory of change](#)

[Diagrams illustrating links between warm homes and health](#)

[Retrospective Questionnaire Example](#)

[Validated health questionnaires](#)

[Fuel Poverty and Health Booster Fund Questionnaires](#)

[Qualitative research example interview guide](#)

[Evaluation - data collection and analysis methods](#)

[Examples of data sharing frameworks for referrals](#)

[Ethical considerations in evaluation](#)

[Example Evaluation Report Structure](#)

[The low income high cost definition of fuel poverty](#)

[The low income high cost definition of fuel poverty](#)

Below are links to resources produced by other organisations that provide useful all-round guidance on evaluation:

- [\*\*Energise London Monitoring and Evaluation\*\*](#): This is a document produced by the London Sustainability Exchange and it includes 13 key sections: 'Introduction'; 'what is monitoring and evaluation'; 'language of Monitoring and evaluation (including outputs/outcomes)'; 'monitoring'; 'data'; 'data collection' (including advice on methods and social return on investment calculations); 'managing your data'; 'evaluation'; 'reporting'; 'step-by-step practical guide'; 'common mistakes and top tips', 'case studies' and 'resources' (including practical considerations). The sections are concise and include clear information with diagrams and photographs.
- [\*\*Charities evaluation service\*\*](#): This is a user friendly website which includes a tab titled '[tools and resources](#)' under which further links are provided to '[terms and definitions](#)'; '[planning for monitoring and evaluation](#)'; '[outcomes and outcome indicators](#)'; '[evaluation methods](#)'; '[evaluation for funders](#)'; '[quality management resources](#)' and '[performance improvement: A handbook for mentors](#)' and further links are found under each of these headings also. The website also includes links to evaluation training events and 'think pieces' with handy hints.

- [Evaluation support Scotland](#): This is another user friendly website which includes a tab titled '[evaluation](#)' which includes an overview of why evaluation may be necessary and an evaluation pathway with four stages. Stage 1 is '[setting outcomes](#)'; '[stage 2: collecting information](#)'; '[stage 3: analysing and reporting](#)'; '[stage 4: learn from your findings](#)'. Each stage includes a link to further resources including practical guides and creative aids which may help in the process, such as a '[big picture route map](#)' which is a cartoon map for sketching evaluation pathways on. This website also has links to workshops and events and includes plenty of information links included, which may take some time to explore fully.
- [Better Evaluation](#) This website has a large number of resources to help with planning an evaluation, including options, approaches, and resources.

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## Resource planning for your evaluation

# Resource planning for your evaluation

It is important to think through the resource requirements for the evaluation and to plan effectively. Do not underestimate the time and cost associated with an evaluation – whether you commission an external body to undertake it or you do it in-house. The Big Lottery have suggested in the past that up to 10% of their awarded grant budget should go towards monitoring and evaluation activity.

The scale of project to be evaluated as well as scope and design of your evaluation will have resource implications, including the costs of setting up appropriate databases; methods used; how to practically monitor, track and assess impact with beneficiaries; cost of software purchase; item permission usage; undertaking ethics; impact method chosen and economic technique adopted.

Resources include anything that will contribute towards your evaluation, including staff time, potential funding, sources of data, sources of support such as academic and health sector partners. Below are some questions and pointers to ask to help you assess your resources and to provide some advice on practical ways to address potential resourcing challenges.

The RUFDATA approach is one example of thinking through the evaluation requirements. There are resource implications associated with many of these decisions.

Figure 1: The RUFDATA approach to evaluation planning

R	Reasons and purposes	What are our <b>Reasons</b> and <b>Purposes</b> for evaluation? These could be planning, managing, learning, developing, accountability.
U	Uses	What will be our <b>Uses</b> of our evaluation? They might be providing and learning from embodiments of good practice, staff development, strategic planning, PR, provision of data for management control, gaining resources.
F	Foci	What will be the <b>Foci</b> for our evaluation? These include the range of activities, aspects, emphasis to be evaluated, they should connect to the priority areas for evaluation
D	Data and evidence	What will be our <b>Data</b> and <b>Evidence</b> for our evaluation? These could be numerical, qualitative, observational, case accounts. Data are facts and figures, whereas evidence is relevant data that supports a conclusion
A	Audience	Who will be the <b>Audience</b> for our evaluation? Community of practice, commissioners, colleagues
T	Timing	What will be the <b>Timing</b> for our evaluations? When should evaluation take place, coincidence with decision-making cycles, life cycle of projects
A	Agency	Who should be the <b>Agency</b> conducting the evaluation? Ourselves, external evaluators, combination.

Adapted from Saunders, M. (2000). Beginning an evaluation with RUFDATA: Theorizing a Practical Approach to Evaluation Planning. *Evaluation*, 6(1): 7-21.

## **Paying for the evaluation**

Ideally you will have money set aside for evaluation as part of the project budget. Otherwise, you may need to think about additional grant funding or other sources of money to cover the evaluation costs. Are there any project stakeholders that can help with this? Does your organisation or any of your partners have money available for learning from schemes and initiatives?

Common estimates of the budget required for an evaluation can range between 5 – 15% of budget costs. This will be influenced by the scale of the project, whether it has been evaluated before, the ethics requirements. The available resources (time, money, available expertise) are likely to determine the achievable scope of the evaluation (how many questions, sample size, how data is collected, approach to analysis) and the evaluation design.

## **Be clear on your timescale**

Your timescale will shape what can be realistically achieved, so that the evaluation findings are available in time to be considered at key decision points for the scheme and/or the wider organisation.

When does the scheme start (if it hasn't already started) and finish? Is there time to set up the systems you need to collect the evaluation data? For effective evaluation of heating and energy efficiency measures, a winter needs to pass to evaluate what difference the scheme has made to health and wellbeing of the intended beneficiaries.

## **Identify who will conduct the evaluation**

*Who will lead the evaluation work? Who else will work on it? And how much time do they all have available?*

At the planning stage, make sure that staff will have time to undertake evaluation tasks, participate in key activities and reflect on the results. It is also important to make sure that evaluation doesn't take a disproportionate amount of resource away from delivery. If you identify this as a risk, you may want to think about outsourcing all or some of the tasks.

A local university, specialist research organisation or freelance evaluation specialist may be able to conduct the evaluation or take on more specialist tasks. Those with previous experience of research involving the NHS are likely to be very helpful if you plan to use NHS health data or otherwise involve the health service.

Make use of volunteers or university students to undertake data collection, data entry and other tasks affordably.

Partner organisations may be able to contribute in kind by contacting clients, administering survey questionnaires, analysing data, reporting, or disseminating results.

## **Resource implications of key methodological considerations**

Certain choices about scope and methodology will influence the scale of resources needed for the evaluation. Or, looked at the other way round, your available resources may influence or limit your choices. Ethics and data protection requirements and the practical implications of engaging with the health sector will also have important resource implications. Thinking these through will help you make an assessment of the scope and methods that will fit with the resources you have available.

### **Scope**

Thinking about what you want your evaluation to cover – the number of questions you want to answer will affect resources. A tightly focused scope will help you deliver a cost-effective evaluation. Think carefully about the size of sample that will deliver a ‘good enough’ evidence base, but don’t unnecessarily skimp if this might undermine the trustworthiness of the evaluation findings.

### **Data collection methods**

Choices about whether survey questionnaires are administered in people’s homes or over the phone or by email will affect your budget. If home visit staff can administer it during a routine visit, that will save money. Phone or email administered questionnaires can be very cost effective, if they are suitable. The length of the survey questionnaire or duration of a qualitative interview will affect costs.

### **Database for recording monitoring data**

The amount of monitoring data that is systematically collected and recorded on clients of a scheme can quickly become too great to be easily manageable in a spreadsheet format. The set-up of a suitable database is a time-consuming and complex task. Such data is invaluable for use in an impact evaluation. But where such data has not routinely been collected and recorded, this can seriously compromise an evaluation before it has even started.

### **Mixed methods research**

Where your evaluation includes both qualitative and quantitative data, you will need to factor in time to undertake two types of data collection and analysis.

Analysis methods: Numerical data can be relatively quick to input, quality check, analyse and generate charts and tables for use in reporting. You are likely to already have access to a spreadsheet package for analysing quantitative data. Qualitative data (e.g. from interviews) can be much more time consuming to analyse. Qualitative data analysis software can be purchased and may save on staff time. It is possible to get time-limited free trials online. However, the skills involved in undertaking good qualitative analysis should not be under-estimated. This is a task it may be best to ask a university or an experienced freelance researcher for help with.

### **Social return on investment**

This method of analysing the economic benefits of a scheme for society – and for specific groups of stakeholders – requires stakeholder involvement throughout the process. To do this well, you need to have in place an effective means of recording staff time spent on interventions, differentiating between time with clients and time in dealing with referral and signposting agencies.

## Research instrument permissions

If you choose to use a validated questionnaire, you may need to pay for permission to use it. You must make sure you follow the instructions associated with permission to use instruments, including those which do not have a financial cost.

## Designs involving health data sharing

Examples of this would be number of hospital admissions, GP visits, primary care visits, or number of prescriptions over a specific period for individuals. This requires consent from clients to access their health data, data sharing measures to be agreed and may require ethics approval. It will require the participation of a health sector partner and matching up NHS data with data recorded on interventions. It will incur a serious cost in terms of both time and effort involved. You should think carefully about whether this will be achievable. The need for data sharing agreements and ethics approval may be avoidable if the health sector partner handles NHS data internally and undertakes the analysis, avoiding the need to share individual health data externally.

## Data sharing permissions

You will be collecting personal data which means you have data protection responsibilities. You may already deal with data protection in the day to day running of your scheme, so should have in place robust data handling processes. However, it is important to check what permissions clients have given to the data sourcing organisation (whether your own organisation or a partner organisation) to share this information for different purposes, including for evaluation. In most cases, it is likely that suitable permissions are NOT in place already. If it is not in place already, then you need to establish a system for gaining their permissions. This is expensive and would involve an external evaluator.

## Resource demands on clients

In addition to considering the resource demands for your organisation, also consider the demands on clients. This will influence your ability to get responses from a sample that reflects the variety of people in your population of interest.

You will probably be asking clients to let you into their home to do an interview (and give time to do the interview), or to give consent to access data, or both. What is it reasonable to ask of your clients? How will what you're asking clients for affect the number of responses you get, or the types of people who respond?

It is likely that even a simple evaluation will require the completion of survey questionnaires before and after the intervention. These will likely be administered in the client's home, although this depends on the client group. Will there be barriers such as language, dementia, or disability to be taken into consideration? Will suitably qualified staff be available to undertake interviews with people with additional communication needs? How much of the client's time can fairly be taken up by responding to a survey questionnaire?

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What should a TOR (Terms of Reference) include?

# What should a TOR include?

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The Terms of Reference (ToR) is a useful document that sets out what you want the evaluation to achieve, and how you want it done. In certain approaches, such as Social Return on Investment approaches, it is prepared in a highly participative way with the involvement of all key stakeholders and forms the starting point for analysis.

## Background

- A summary of the rationale for the scheme development. Explain what has led to the decision to do an impact evaluation. Identify the evaluation should reflect your organisation approach.

## Evaluation team requirements

- Identify what skills and experience the team doing the evaluation will need to have
- Requirements regarding liability insurance, data protection, confidentiality

## Liaison

- Who will be the internal contact person for the evaluator?

## Evaluation purpose, objectives and scope

- Explain the rationale for doing an evaluation. Is it to inform learning? If so, how is this learning expected to be applied? Is it to enable you to report to funders?
- The objectives may focus on what effects are produced, which sets of intended beneficiaries benefitted.
- The objectives may also consider the programme's effectiveness – the extent to which the programme's objectives were achieved.
- Scope – is the evaluation is looking at all interventions as part of the project, or only a limited set of interventions?

## Data collection

- What information already exists?
- What other sources of information should evaluators refer to?
- How should data be collected? Identify how far you are flexible in terms of approach.
- Who are key sources of knowledge or information?
- Confidentiality of data.

## Timescale and budget

- Dates for proposal submission, decision, appointment,
- Timescale for work to be carried out. Timeframe for reviewing draft reports. Desired completion date.
- Available budget. State if budget includes VAT.

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## Stakeholder assessment

# Who are the project stakeholders?

This can include clients, funders, partners and agencies referring to your scheme or who you refer out to, and individuals within your organisation. From this list, think of the things that each of these stakeholders need from the evaluation, and what they can contribute to the evaluation. For example, funders will want to see evidence of impact, and may be able to provide additional funds for evaluation. Clients need to be treated ethically, which covers many considerations, e.g. protecting their data, not wasting their time. Stakeholders will contribute data and resources.

Stakeholder type	What do they require from us?	What do we need from them?	What else could they contribute?
Clients	<ul style="list-style-type: none"> <li>• Time should not be wasted</li> <li>• Vulnerable people need to be treated appropriately</li> <li>• Respect</li> <li>• Evaluation should not get in the way of delivering the scheme's intervention</li> <li>• Confidentiality</li> <li>• Data protection</li> <li>• Informed consent</li> <li>• Their involvement (see <a href="http://www.invo.org.uk/">http://www.invo.org.uk/</a>)</li> </ul>	<ul style="list-style-type: none"> <li>• Data - this may also mean allowing access to their home for interview</li> <li>• Consent to use the data</li> <li>• Help with the Impact Map and Logic Modelling e.g. to identify what outcomes are valued.</li> <li>• Their involvement (see <a href="http://www.invo.org.uk/">http://www.invo.org.uk/</a>)</li> </ul>	<ul style="list-style-type: none"> <li>• Some clients may be happy to have their story represented as a case study, either anonymously or identified.</li> </ul>
Funder	<ul style="list-style-type: none"> <li>• Requirements specified by funding agreement</li> <li>• Additional evidence of impact welcome</li> </ul>	<ul style="list-style-type: none"> <li>• If the funder's money is used to undertake the evaluation, permission to use the money for evaluation rather than more delivery</li> </ul>	<ul style="list-style-type: none"> <li>• Additional funds for evaluation - will probably come with specific requirements</li> </ul>
Partner example - GP surgery	<ul style="list-style-type: none"> <li>• Patients treated with respect</li> <li>• Sufficient evidence of informed consent to release any details from medical records</li> <li>• Sufficient evidence of appropriate treatment of data, both handling data and reporting results</li> <li>• Evidence of impact of referrals on health</li> </ul>	<ul style="list-style-type: none"> <li>• Data from patients' medical records (if this type of evaluation is used)</li> </ul>	<ul style="list-style-type: none"> <li>• Advice on what to measure in the evaluation</li> </ul>
Members of staff	<ul style="list-style-type: none"> <li>• Clear requirements on what the evaluation is for and what should be done</li> </ul>	<ul style="list-style-type: none"> <li>• Time working on the evaluation</li> <li>• Commitment to doing a good evaluation</li> </ul>	<ul style="list-style-type: none"> <li>• Ideas on how to do the evaluation</li> </ul>

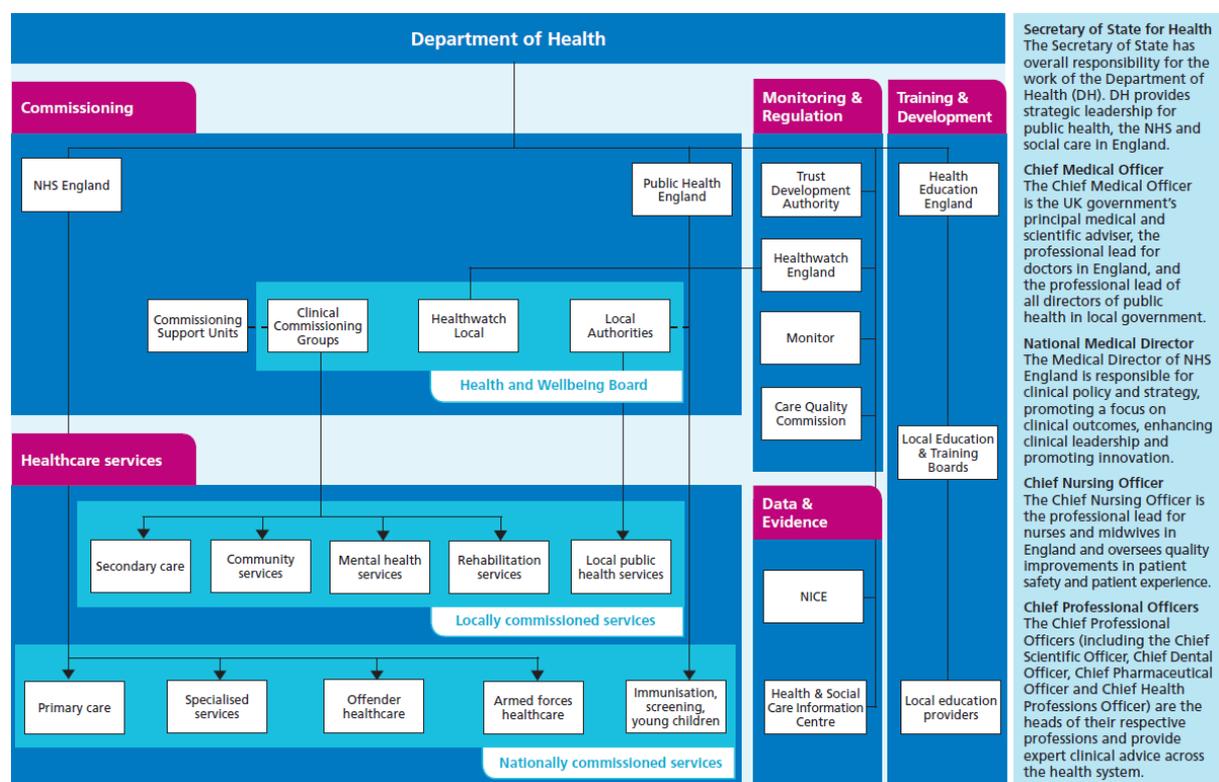
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## Understanding health and social care commissioning

# Understanding health and social care commissioning

To an outsider, understanding how the health service operates can be daunting and bewildering. The diagram below, reproduced from [Understand the New NHS](#) presents the structure of the NHS in England. The guide also includes difference between the NHS in England and the other home countries.

Figure 1: The structure of the new NHS



An alternative starting point is to watch this [Kings Fund video](#).

In practice there are five key areas where you can focus your attention – the following table outlines these areas and their relevance - in England:

Table 1: Key Areas of Focus for Engaging with the NHS

<p><b>Health and Wellbeing Board</b></p>	<p>This is the body responsible for the strategic direction for health priorities for a given Local Authority area. The board will look at national targets and refine this according to local need (often assessed through the Joint Strategic Needs Analysis) to create priorities at a local level. The board is not able to commission local services but sets the framework for priorities under which commissioning can occur. The results of your evaluation may well</p>
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	be useful to show the impact of your intervention and thus make cold homes a strategic priority for the Health and Wellbeing Board in the future.
<b>Local Public Health Services*</b>	<p>Public Health is delivered by each Local Authority (and located within the local authority team). Public Health has smaller budgets than the Clinical Commissioning Group and focus on meeting local health objectives.</p> <p>Areas where Public Health may be useful to your project:</p> <ul style="list-style-type: none"> <li>• Public Health campaigns (including through local pharmacies)</li> <li>• They conduct the Joint Strategic Needs Analysis – a data led assessment of local health needs</li> <li>• They deliver local social services</li> </ul>
<b>Clinical Commissioning Groups*</b>	<p>This is the collective decision making and commissioning arm of the local primary care service. The CCG will commission local services e.g. Adult Social Care – these services are generally commissioned based on achieving health outcomes and as such assess performance on health indicators e.g. reduced hospital admissions. The Clinical Commissioning Group is governed by local GPs. CCG boundaries are often similar to LA boundaries but are not always the same. You can find your local CCG here: <a href="https://www.england.nhs.uk/resources/ccg-maps">https://www.england.nhs.uk/resources/ccg-maps</a></p>
<b>Commissioning Support Units</b>	<p>These organisations provide management and administrative support to CCGs. Notably this includes data analysis and management. While it is unlikely you would get data from a CSU without a CCG’s blessing, it is the part of the organisation that you may end up linking in with for the details of data sharing (including data protection agreements). This is likely to only be the case for a large (LA level) project.</p>
<b>Individual GPs (Primary Care)</b>	<p>GPs hold extensive, and arguably the best, patient data. They hold data on patient visits as well as their referrals onto further primary and secondary care and the outcomes of these referrals. They generally use one of only a few software data management systems – the most popular are EMIS Web and SystemOne.</p>

\* There is currently a shift towards joint commissioning and integrated service delivery between public health and the clinical commissioning groups. A good example of this is the Better Care Fund – driven nationally this provides a framework for integrated care and joint commission principally aimed at the over 65s. There are also an increasing number of initiatives being delivered in partnership with third sector organisations, particularly around wellbeing.

While these are the five key areas to focus your attention in scoping to engage with the health sector, it will also be worth looking at which providers have been commissioned<sup>1</sup> to provide community health care services. These services are different from the care provided by GPs (primary

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<sup>1</sup> There may be multiple commissioned providers for a single service – talking to the Public Health team will help you understand who all these providers are in social care, and the CCG will be able to understand who they are in community health care.

care) and hospitals (secondary care), because the healthcare is provided in the community or in patients' homes e.g. by District Nurses. These services are of note as they will have an ongoing relationship with a patient who has a long-term health condition (such as COPD) and so may be able to assist you in evaluation of your intervention where there is a benefit to them or they are required to do so by the CCG.

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## Logic models and theory of change

# Logic models and theory of change

Logic models and theory of change are two ways of logically working through the design of a scheme to show and understand all the ways that the scheme attempts to achieve its intended impacts. Setting this out on paper makes it easier to identify measurements that can be used for your evaluation.

Logic models and theory of change are often confused with each other as they have many similarities. Logic models are always graphic, and show the components of a programme. Theory of change is a way of designing a programme by working backwards from a specific change goal, and includes justifications for why specific actions will have the intended outcomes<sup>1</sup>.

## Logic models<sup>2</sup>

A logic model is a framework which describes the logical links between project inputs, outputs and outcomes. They are typically represented as a diagram showing the relationships between different stages of the project. Although they can vary widely in complexity, logic models all show the steps necessary to achieve the desired outcome. An example of a simple logic model is shown below:

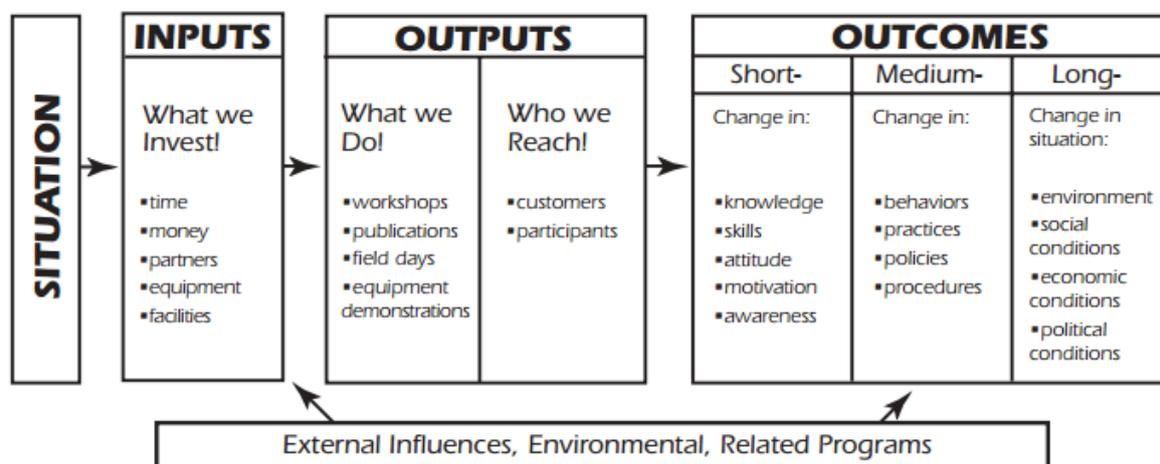


Figure 1: Elements of the Logic Model, from McCawley, Paul F., *The Logic Model for Program Planning and Evaluation*, University of Idaho Extension<sup>3</sup>.

Because the logic model shows the assumed cause and effect expected in the programme, you can then develop evaluation questions to test whether the programme worked as expected in the logic model.

<sup>1</sup> More information about the differences between logic models and theory of change can be found here: [www.theoryofchange.org/wp-content/uploads/toco\\_library/pdf/TOCs\\_and\\_Logic\\_Models\\_forAEA.pdf](http://www.theoryofchange.org/wp-content/uploads/toco_library/pdf/TOCs_and_Logic_Models_forAEA.pdf)

<sup>2</sup> More information: Developing a Logic Model, from Evaluation Support Scotland: [www.evaluationsupportscotland.org.uk/media/uploads/resources/supportguide1.2logicmodelsjul09.pdf](http://www.evaluationsupportscotland.org.uk/media/uploads/resources/supportguide1.2logicmodelsjul09.pdf)

<sup>3</sup> Available from [www.cals.uidaho.edu/edcomm/pdf/CIS/CIS1097.pdf](http://www.cals.uidaho.edu/edcomm/pdf/CIS/CIS1097.pdf)

## Theory of change

The theory of change approach provides a way of working backwards from programme goals to more specific programme objectives in order to produce a desired change. The illustration below from the Charities Evaluation Service's guide, shows an example of working backwards from the programme goal, at the top, down through changes that need to happen to achieve these, to get to a point where interventions that can be done by the programme can be identified.

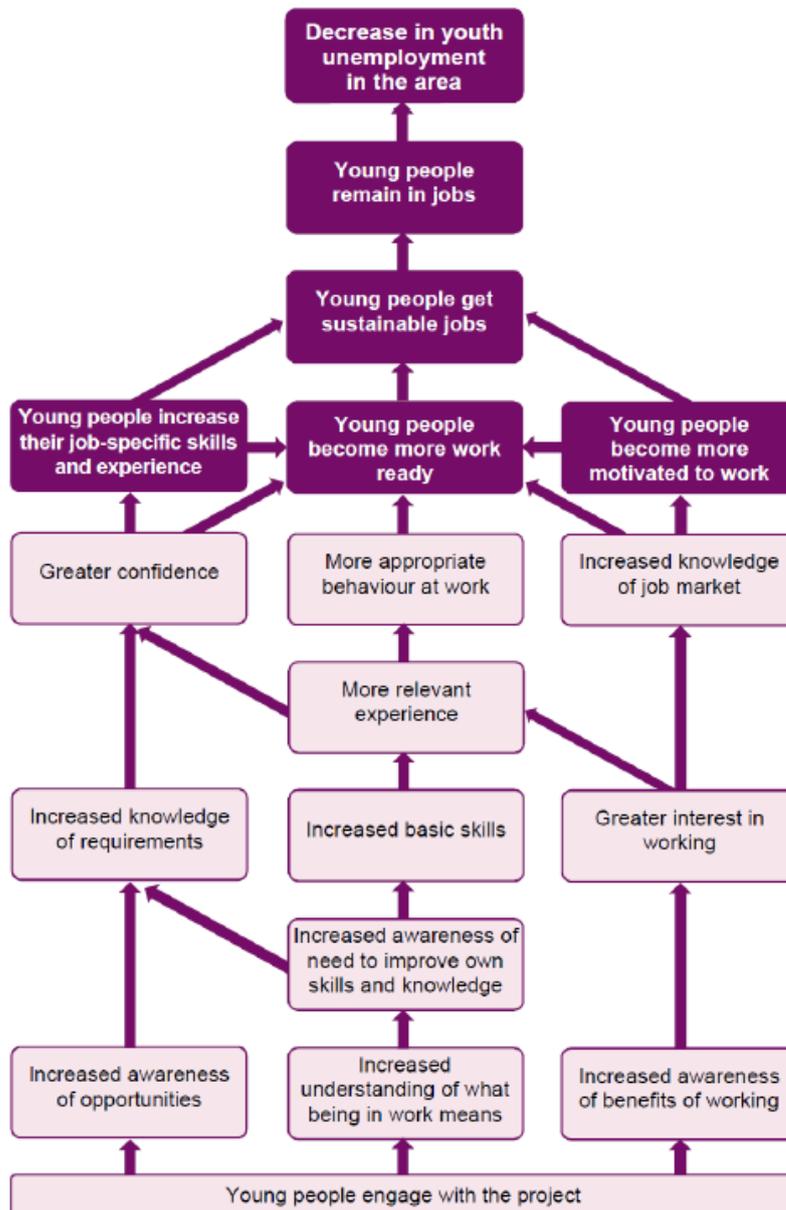


Figure 2: Theory of Change illustration, from Charities Evaluation Service<sup>4</sup>

<sup>4</sup>Ellis, J., Parkinson, D, and Waida, A., *Making Connections: Using a theory of change to develop planning and evaluation*. Charities Evaluation Service, 2011. Available from [www.ces-vol.org.uk/tools-and-resources/Evaluation-methods/making-connections-tools.html](http://www.ces-vol.org.uk/tools-and-resources/Evaluation-methods/making-connections-tools.html)

Evaluation then involves testing the theory of change that you have developed. What outcomes would you expect to see if the theory of change was correct? How can these be assessed?

Articulating a Theory of Change is one of the most important steps in an SROI approach. In this context it is highly participative and involves engaging all stakeholders to get their opinions on project outcomes and using these as a starting point for analysis.

- More information: Using a Theory of Change, from Charities Evaluation Service:  
[www.ces-vol.org.uk/tools-and-resources/Evaluation-methods/making-connections-tools.html](http://www.ces-vol.org.uk/tools-and-resources/Evaluation-methods/making-connections-tools.html)
- NPC Theory of Change tool:  
[www.thinknpc.org/publications/theory-of-change/](http://www.thinknpc.org/publications/theory-of-change/)

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## Diagrams illustrating links between warm homes and health

# Diagrams of links between warm home interventions and health

Diagrams can help you to think through how interventions can contribute to addressing health. The two diagrams are published on the basis of research.

The logic model below is reproduced from a Cochrane review to assess the health and social impacts on residents following improvements to the physical fabric of housing, including warmth and energy efficiency improvements<sup>1</sup>. For a better quality copy of this visual, please visit the [figure as presented on the Cochrane review site](#).

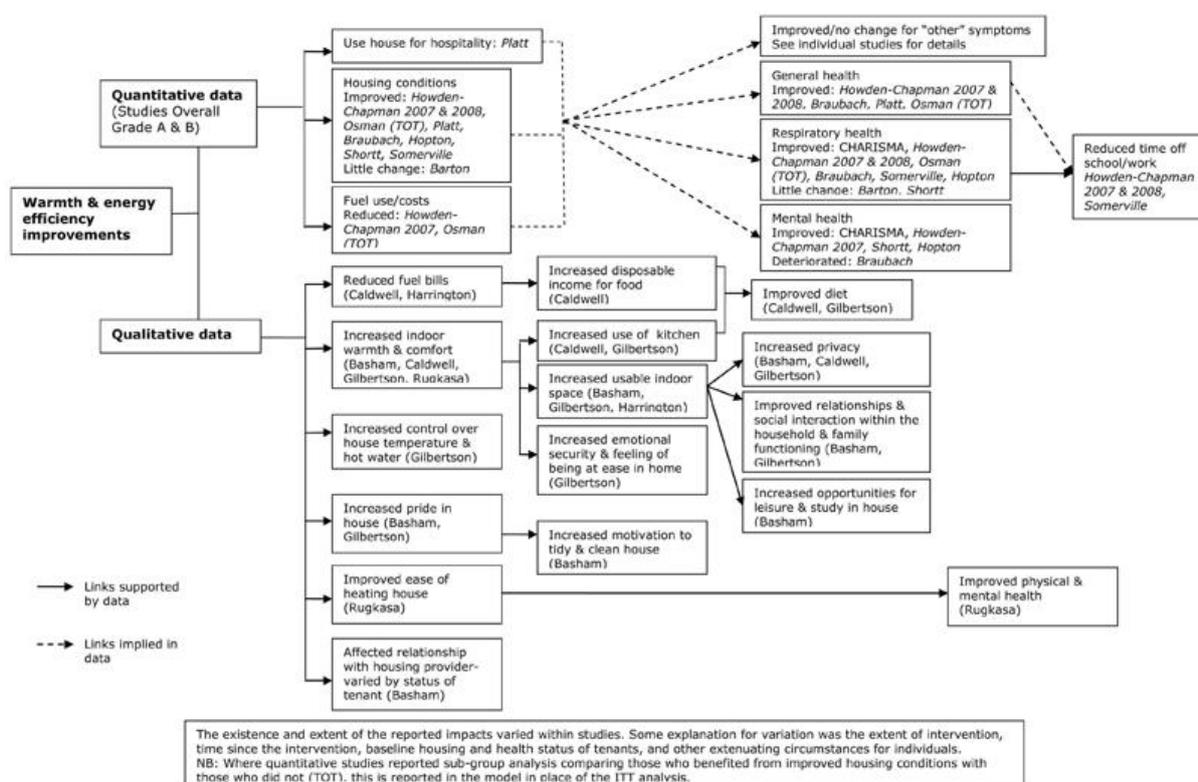


Figure 1: Logic model mapping impact types and direction, and links to health impacts reported in qualitative and quantitative studies of warmth and energy efficiency improvements<sup>2</sup>

<sup>1</sup> Thomson H, Thomas S, Sellstrom E, Petticrew M. Housing improvements for health and associated socio-economic outcomes. Cochrane Database of Systematic Reviews 2013, Issue 2. Art. No.: CD008657. DOI: 10.1002/14651858.CD008657.pub2. <http://onlinelibrary.wiley.com/doi/10.1002/14651858.CD008657.pub2/abstract;jsessionid=A791E30A9ED9A4811470D0B7D335A097.f02t02>

<sup>2</sup> Ibid. <http://onlinelibrary.wiley.com/doi/10.1002/14651858.CD008657.pub2/figures>

The diagram below shows the risks linking fuel poverty and mental health. It does not identify how improvements in household health and insulation may contribute to addressing these.

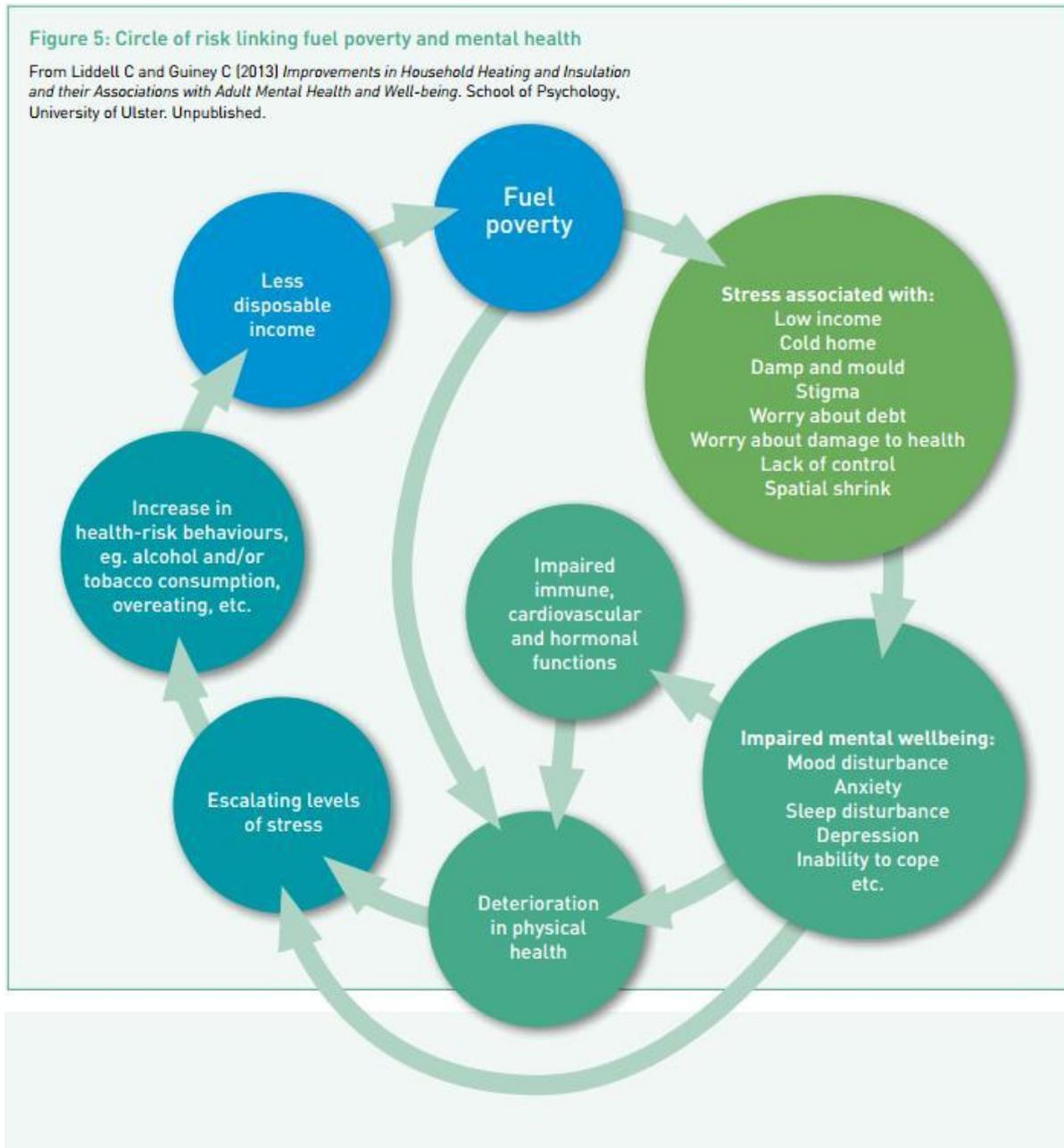


Figure 2: Circle of risk linking fuel poverty and mental health<sup>3</sup>.

<sup>3</sup> From Liddell, C & Guiney, C. (2013) *Improvements in Household Heating and Insulation and their associations with Adult Mental Health and Well-being*. School of Psychology, University of Ulster: Unpublished. As reproduced in Butcher, J. (2015) Fuel Poverty: How to Improve Health and Wellbeing through Action on Affordable Warmth. UK Health Forum.

<http://nhfshare.heartforum.org.uk/RMAssets/HealthyPlaces/FuelPoverty/ToolkitJan2015.pdf>

See also Liddell C, Guiney C, Living in a cold and damp home: frameworks for understanding impacts on mental well-being, Public Health (2014), <http://dx.doi.org/10.1016/j.puhe.2014.11.007>. Available also at: [http://uir.ulster.ac.uk/31059/1/mental\\_health\\_framework\\_paper.pdf](http://uir.ulster.ac.uk/31059/1/mental_health_framework_paper.pdf)

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## Retrospective Questionnaire Example

# Example of a retrospective (post-intervention only) questionnaire

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From Christopher D Maidment (2016), *The health impacts of household energy efficiency measures*, PhD thesis (unpublished), The University of Sheffield

This example is for illustration only. It is not a validated questionnaire, though it does include questions from two validated health questionnaire (the VAS and the EQ5). You should make sure that any questionnaire – and the questions within it – is suitable for your scheme. Avoid just using an ‘off the peg’ questionnaire.

This questionnaire is designed to capture data on the post-intervention and on the change from pre-intervention. This is for use in the situation where pre-intervention data was not collected at the start.

It is a hybrid form of questionnaire, which combines questions to collect data about the client and their household, questions from two validated health questionnaire (the VAS and the EQ5) and questions about the condition of the home. Such hybrid questionnaires can be difficult to use in the field without proper training and understanding by those delivering it.

Question 4 uses a group approach, which is no longer recommended practice. It is now considered preferable to ask: ‘how old are you?’ and record the person’s actual age (e.g. 53). This gives you ratio data which makes inferential statistics easier than the ordinal data that is the output here. In analysis it also helps the researcher to create his/her own age ranges e.g. for a project particularly interested in people who are 50 and over.

In place of Euroqol questions on wellbeing, it may be preferable to consider using the Office of National Statistics wellbeing indicators. These are validated questions and are the UK’s official measure of wellbeing. There is a national dataset with good demographic splits and local authority and ward level scores. This can be useful for analysis of attribution in any economic analysis of impact.



### About you

Please note that your answers will remain confidential

Office use only: Ref No:
-----------------------------

1. IF YOU WOULD LIKE TO BE ENTERED INTO THE **PRIZE DRAW**, PLEASE PROVIDE YOUR NAME AND ADDRESS.

If not, you can leave the box blank.

Postcode:

2. How long have you lived at your current address?

---

3. What is your gender?     Male     Female

4. How old are you?

<input type="checkbox"/> Under 18	<input type="checkbox"/> 35 to 44	<input type="checkbox"/> 65 to 74
<input type="checkbox"/> 18-24	<input type="checkbox"/> 45 to 54	<input type="checkbox"/> 75 to 84
<input type="checkbox"/> 25 to 34	<input type="checkbox"/> 55 to 64	<input type="checkbox"/> 85 or over

5. Which of these best describes what you are doing at present? *If more than one of these applies to you, please tick the main ONE only*

Full-time paid work (30 hours or more each week) }  
 Part-time paid work (under 30 hours each week) }

If working full or part time, what is your occupation?

---

Full-time education at school, college or university

Unemployed

Permanently sick or disabled

If retired or sick / disabled, what was your occupation?

Fully retired from work

---

Looking after the home

Doing something else

6. How would you describe your..
- |                              | Very bad                 | Bad                      | Fair                     | Good                     | Very good                |
|------------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| ..mood and happiness?        | <input type="checkbox"/> |
| ..energy levels?             | <input type="checkbox"/> |
| ..relationships with others? | <input type="checkbox"/> |

7. In the last 12 months, how many times have you visited the following health services **regarding your own health?**

Doctor / GP \_\_\_\_\_ Walk-in centre \_\_\_\_\_ Hospital \_\_\_\_\_

Total number of nights spent in hospital in the last 12 months \_\_\_\_\_

8. Over the last year, has your health...

- ..worsened a lot?    
 ..worsened a little?    
 ..not changed?    
 ..improved a little?    
 ..improved a lot?

And has your general mood and mental wellbeing...

- ..worsened a lot?    
 ..worsened a little?    
 ..not changed?    
 ..improved a little?    
 ..improved a lot?

9. Do you suffer from any of the following problems and, if so, have you seen a doctor or health professional about it in the last 12 months?

(Please tick **one** box in **each** row)

	No, I do not suffer from this	Yes but I have not seen a doctor	Yes and I have seen a doctor
Joint pain, arthritis	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Respiratory problems, breathing, wheeze	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Psychological / emotional conditions	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Heart problems, angina	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Circulatory problems, high blood pressure	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Persistent flu symptoms, headaches	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Allergies, hay fever	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Falls or accidents in the home	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other(s), please state:			
_____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

By placing a tick in one box in each group below, please indicate which statements best describe your own health state today.

**10. Mobility**

I have no problems in walking about

I have some problems in walking about

I am confined to bed

**11. Self-Care**

I have no problems with self-care

I have some problems washing or dressing myself

I am unable to wash or dress myself

**12. Usual Activities**

*(e.g. work, study, housework, family or leisure activities)*

I have no problems with performing my usual activities

I have some problems with performing my usual activities

I am unable to perform my usual activities

**13. Pain/Discomfort**

I have no pain or discomfort

I have moderate pain or discomfort

I have extreme pain or discomfort

**14. Anxiety/Depression**

I am not anxious or depressed

I am moderately anxious or depressed

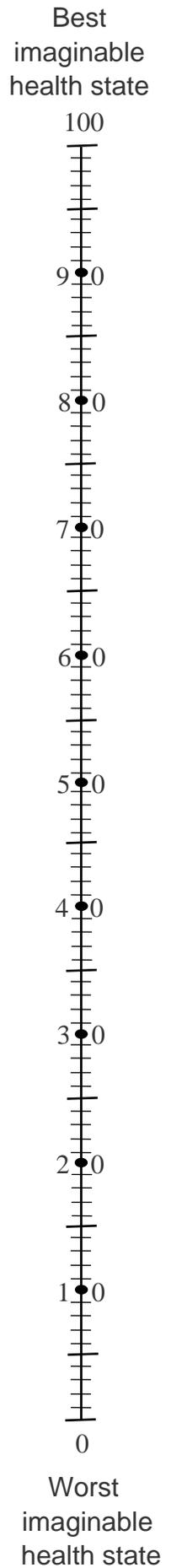
I am extremely anxious or depressed

15.

To help people say how good or bad a health state is, we have drawn a scale (rather like a thermometer) on which the best state you can imagine is marked 100 and the worst state you can imagine is marked 0.

We would like you to indicate on this scale how good or bad your own health is today, in your opinion. Please do this by drawing a line from the box below to whichever point on the scale indicates how good or bad your health state is today.

**Your own  
health state  
today**



## About your home

1. What type of house do you live in?  

<input type="checkbox"/> Detached house	<input type="checkbox"/> Terraced house
<input type="checkbox"/> Semi-detached house	<input type="checkbox"/> End-terraced house
<input type="checkbox"/> Flat	<input type="checkbox"/> Other
  
2. Roughly when was your house built? \_\_\_\_\_
  
3. How many rooms does the property have, **not** including hallways, landings or cellars?  
Total \_\_\_\_\_ How many of these are bedrooms? \_\_\_\_\_ ..and bathrooms? \_\_\_\_\_
  
4. How many people live in your household? Adults \_\_\_\_\_ Children \_\_\_\_\_
  
5. Does anyone regularly smoke inside your home?  Yes  No
  
6. Are there any pets in the home?  Yes  No  
What animals if so? \_\_\_\_\_
  
7. Do you own or rent your home?  

<input type="checkbox"/> Own outright	<input type="checkbox"/> Rent
<input type="checkbox"/> Own with a mortgage or loan	<input type="checkbox"/> Live here rent free
<input type="checkbox"/> Shared ownership	<input type="checkbox"/> Other
  
8. If renting, who is your landlord?  

<input type="checkbox"/> Housing association	<input type="checkbox"/> Employer of a household member
<input type="checkbox"/> Council (local authority)	<input type="checkbox"/> Relative or friend
<input type="checkbox"/> Private landlord or letting agency	<input type="checkbox"/> Other
  
9. What fuel do you mainly use for heating?  
(*e.g. gas, electricity, coal*)

10. Which of these measures do you currently have in your home?

11. For the measures you have in your home only, please circle below to tell us..

	Yes	No	Not sure	..how long ago was it installed?			..and, who paid?			
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	0-2 years	2-5 years	Over 5 years	I / We paid	Received a grant	Landlord or Council	Other
Loft insulation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	0-2 years	2-5 years	Over 5 years	I / We paid	Received a grant	Landlord or Council	Other
Cavity wall insulation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	0-2 years	2-5 years	Over 5 years	I / We paid	Received a grant	Landlord or Council	Other
External wall insulation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	0-2 years	2-5 years	Over 5 years	I / We paid	Received a grant	Landlord or Council	Other
Internal wall insulation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	0-2 years	2-5 years	Over 5 years	I / We paid	Received a grant	Landlord or Council	Other
Renewable energy (e.g. solar panels)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	0-2 years	2-5 years	Over 5 years	I / We paid	Received a grant	Landlord or Council	Other
Double or triple glazing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	0-2 years	2-5 years	Over 5 years	I / We paid	Received a grant	Landlord or Council	Other
Home energy monitor	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	0-2 years	2-5 years	Over 5 years	I / We paid	Received a grant	Landlord or Council	Other
Draught proofing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	0-2 years	2-5 years	Over 5 years	I / We paid	Received a grant	Landlord or Council	Other
Efficient 'a-rated' (condensing) boiler	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	0-2 years	2-5 years	Over 5 years	I / We paid	Received a grant	Landlord or Council	Other
Central heating	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	0-2 years	2-5 years	Over 5 years	I / We paid	Received a grant	Landlord or Council	Other



## And, finally..

15. Compared to this time last year, has the standard of your housing...

- ..worsened a lot?     ..worsened a little?     ..not changed?     ..improved a little?     ..improved a lot?

Has the indoor environment (such as the temperature, humidity, air freshness)...

- ..worsened a lot?     ..worsened a little?     ..not changed?     ..improved a little?     ..improved a lot?

Have any problems with damp, mould and condensation..

- ..worsened a lot?     ..worsened a little?     ..not changed?     ..improved a little?     ..improved a lot?

Have any problems with paying your bills..

- ..worsened a lot?     ..worsened a little?     ..not changed?     ..improved a little?     ..improved a lot?

16. Over the last year, have you made any changes to how you use your heating, how you dry clothes, how often you open windows for ventilation or use extractor fans?

If so, or if you have any general comments or questions, please provide details:

17. Would anyone else living at your address be willing to complete a shorter version of this survey? Or would you be happy to complete it on their behalf? If so, please tick the box below and I will post some more questionnaires.

- Yes, please send more questionnaires for the other members of my household

*If you have answered 'Yes' to question 17, please provide your name and address on the front page of the questionnaire.*

## Thank you for your time

*Please return the completed questionnaire in the envelope provided*

If you have any questions regarding this research, please contact Chris Maidment at the University of Sheffield (Tel: 0114 222 6647, email: pcp11cdm@sheffield.ac.uk).

For any questions regarding your health, please contact your GP.

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## Validated health questionnaires

# Validated health questionnaires

## Summary

Name	Use	Length	How to access	Cost	User guide	Age (where stated)
<b>MOST USEFUL</b>						
<b>ONS Wellbeing Indicator</b>	Assessment of subjective wellbeing	4 questions as part of ONS's Integrated Household Survey, alongside work from ONS monthly Opinions Survey.	<a href="#">here</a>	Free	<a href="#">here</a>	
<b>EuroQol EQ-5D-5L</b>	Standardised measure of health status	Five questions plus a scale to rate general health	<a href="#">here</a>	Free (author must be credited)	<a href="#">here</a>	
<b>Short Form Health Survey (SF36)</b>	Generic health questions	36 questions. There is a shorter version (SF-12) with 12 questions.	<a href="#">here</a>	Free (author must be credited)	<a href="#">here</a>	
<b>OTHER VALIDATED QUESTIONNAIRES</b>						
<b>General Health Questionnaire (GHQ)</b>	Assessing minor psychiatric disorders in the general population	Four versions: 12 questions, 28 questions, 30 questions 60 questions	<a href="#">link</a>	£80 + VAT for a pack of 100. Photocopying is not allowed.	Provided on purchase of form	Adolescent upwards
<b>Patient Health Questionnaire (PHQ-9)</b>	Detect depression	9 questions	<a href="#">link</a>	Free: terms <a href="#">here</a>	<a href="#">link</a>	
<b>Core questions from the Scottish Government cross-sectional surveys</b>	Socio demographics plus questions covering disability, self-assessed health, smoking, and caring.	Disability: 2 questions Health: 1 question Smoking: 1 question Caring: 2 questions	<a href="#">link</a>	Free (author must be credited)	Some information available on website	
<b>International Physical Activity Questionnaire (IPAQ)</b>	Assesses physical activity undertaken across a range of domains	Two versions: Long version - 27 questions Short version – 7 questions	<a href="#">link</a>	Free	<a href="#">link</a>	Adults aged 15 -69

Name	Use	Length	How to access	Cost	User guide	Age (where stated)
<b>Warwick-Edinburgh Mental Well-being Scale (WEMWBS)</b>	Assessment of mental wellbeing. Used by NHS.	Long version: 14 questions Short version: 7 questions	Long version <a href="#">link</a> Short version <a href="#">link</a> .	Free (author must be credited)	<a href="#">link</a>	
<b>Work Social Adjustment Scale</b>	Assessing whether people's problems are affecting their ability to carry out certain day-to-day tasks. Used by NHS.	5 questions	<a href="#">link</a> .	Free (author must be credited)	Not provided	
<b>Hospital Anxiety and Depression Scale</b>	Measurement of anxiety and depression. Designed for use in hospital medical outpatient clinic.	14 questions	<a href="#">link</a>	Free (author must be credited)	Not provided	
<b>Duke-UNC functional support questionnaire (FSSQ)</b>	Measurement of extent of social support a person has.	14 questions	<a href="#">link</a>	Free (author must be credited)	<a href="#">link</a>	
<b>Dartmouth COOP/WONCA functional health assessment charts</b>	The adult COOP covers physical and emotional function, daily activities, social activities, social support, family communication and health habits. The COOP/WONCA includes physical fitness, emotional feelings, daily and social activities, changes in health, overall health and pain. Used internationally.	9 questions	View a copy <a href="#">here</a> , but official access is from <a href="#">Dartmouth</a>	Admin fee of \$100	Request from <a href="#">Dartmouth</a>	
<b>Paediatric Quality of Life Inventory</b>	Measures health-related quality of life (HRQOL) in healthy children and adolescents, and those with acute and chronic health conditions.	Physical functioning (8 questions); emotional functioning (5 questions); social functioning (5 questions) and school functioning (5 questions).	Available by agreeing to a disclaimer on purpose of use, <a href="#">here</a>	is free of charge for non-funded academic study or for a charge of 1058 + 840 Euros per study for non-commercial organisations	Not provided	Children aged 8-12
<b>UCLA Loneliness Scale</b>	Subjective feelings of loneliness and isolation	20 questions	<a href="#">link</a>	Free (author must be credited)	<a href="#">link</a>	
<b>Friendship Scale</b>	Measurement of social isolation and social connection	Six questions	<a href="#">link</a>	Free (author must be credited)	Not provided	
<b>Satisfaction With Life Scale</b>	Global cognitive judgements of satisfaction with life	Five questions	<a href="#">link</a>	Free (author must be credited)	<a href="#">link</a>	

Name	Use	Length	How to access	Cost	User guide	Age (where stated)
<b>Ryff Scales of Psychological Well-being</b>	Psychological well-being	Longer version has 54 questions	Information and ordering <a href="#">here</a>	Administration fee	<a href="#">link</a>	
<b>The Positive and Negative Affect Schedule (PANAS)</b>	Measures extent of different feelings and emotions.		<a href="#">link</a>	Free, provided source is cited (citation is printed on document linked to)	Not provided	
<b>The General Self-Efficacy Scale (GSE)</b>	Assesses general sense of perceived self-efficacy aiming to predict the ability to cope with daily hassle and adaptation to change after experiencing stressful life events	10 questions	<a href="#">link</a> (scroll down for questions)	Free (author must be credited)	Not provided	It is designed for adults or adolescents over the age of 12

## Most useful questionnaires for affordable warmth schemes

### EuroQol EQ-5D-5L tool

This is a short health questionnaire developed by the EuroQoL Group; a network of multi-disciplinary researchers established in 1987. The EQ-5D-5L has been validated in six countries with diverse patient populations. The EQ-5D is a standardised measure of health status developed by the group which aims to provide a simple generic measure of health for clinical and economic appraisal. The EQ-5D-5L was developed as this includes five available response options for 'no problems', 'slight problems', 'moderate problems', 'severe problems' and 'extreme problems', under each of the five headings; 'mobility', 'self-care', 'usual activities', 'pain/discomfort' and 'anxiety/depression'. Under each of these listed headings the respondent selects the option which is most suitable to them. At the end of the questionnaire they have an option to mark their health on a scale ranging from 0 to 100 with 0 being the 'worst health you can imagine' and 100 being the 'best health you can imagine'. It is available for free from [here](#).

A user guide with data collection and analysis guidance is available [here](#). To summarise some of the key information, the analysis would usually start by coding the responses provided ranging from '1' for 'no problems' to '5' for 'extreme' problems, and missing values are coded as '9'. The health scale is scored using the figure which participants mark. This [data](#) can then be entered into a database and presented either as [descriptive data](#) within a health profile, used as a measure of overall self-rated health status or presented from the index value. The health profile could be presented within a table with the frequency or the proportion of reported problems for each level/dimension. This could be broken down to include the proportions per subgroup, e.g. age, before vs. after treatment etc. The data can also be divided between 'no problems' (level 1) and 'problems' (levels 2 to 5), therefore changing the profile into frequencies of reported problems. These data could be presented in tables or graphs. To present all aspects of the data, or the index values, a central tendency and measure of dispersion can be included. This could include the mean values and the standard deviations, or where the data are skewed, the median values and the 25<sup>th</sup> and 75<sup>th</sup> percentiles. The [T-test](#) may be useful for pre-post comparison studies. This can also be presented in tables or charts.

### Short Form Health Survey (SF-36)

This is a set of generic health questions for self-administration which were developed as part of the Medical Outcomes Study which has been running for over 30 years. The SF-36 is based on the four weeks prior to the respondent filling out the questionnaire. It includes eight health concepts: physical functioning, bodily pain, role limitations due to physical health problems, role limitations due to personal and emotional problems, emotional well-being, social functioning, energy/fatigue, and general health perceptions. The responses required are generally based on selecting yes/no responses. It is available for free from [here](#), the scoring system, terms and conditions and further information are all available [here](#). When printing and distributing the survey, the user must credit RAND as the developers of the instrument. There is a shorter version called the SF-12.

## Other validated health questionnaires

### General Health Questionnaire (GHQ)

This is a 'screening device' for assessing minor psychiatric disorders in the general population, through research studies, community and non-psychiatric clinical settings such as primary care or general medical out-patients. It's not suitable for children but can be used for all other age groups from adolescent upwards. Generally it is sensitive

to short-term psychiatric disorders as it compares the respondent's current state from their usual state, but not to long-standing attributes of the respondent. The GHQ is available in four different versions varying in depth from the GHQ-12; a quick reliable and sensitive short form which is recommended for research studies to a fully detailed 60-item questionnaire. The form comes with a GHQ user's guide which provides guidance on setting-up localised validation studies. It is available at a cost of £80.00 + VAT for a pack of 100 from this [link](#). At the point of purchase information must be provided on the brief details of the project, how many administrations the study will require, whether the study will use all of the items as they stand or some of the questions within a larger questionnaire and whether you are a student or clinical practitioner. Translations of the study are available. Photocopying the GHQ is treated as theft.

### **Patient Health Questionnaire (PHQ-9)**

The PHQ-9 is a simple set of questions which seek to detect depression in respondents. It is designed by Pfizer and targeted for use by clinicians or students. The question responses are all on the scale ranging from 'not at all' to 'nearly everyday' in connection to factors which have bothered respondents such as 'feeling, down, depressed or hopeless'; 'poor appetite' or 'over-eating'. Each question is concerned with the two week period leading up to the respondent completing the survey. It is available from [here](#). As the questionnaire relies on patient self-report, all responses should be verified by the clinician and a definitive diagnosis made on clinical grounds. The full terms of use defined by Pfizer are available [here](#), and the user guide is [here](#). The questionnaire has been field-tested in an office practice.

### **Core questions from the Scottish Government cross-sectional surveys**

The Core questions are used in all Scottish cross-sectional surveys (from January 2012) and they allow data to be pooled, some questions are designed for use in interviews. The questions are broad and cover general socio-demographic topics in addition to disability (two survey questions), self-assessed health (one survey question), smoking (one survey question), caring (two interview questions), mental well-being (using WEMWBS) and perception of local crime rate (one survey question). The health-related questions could be useful for description, but do not include any measure of severity so are not as useful for measuring changes over a period of time or after an intervention. The questions are available for free from [here](#). The questions are recommended for use in other surveys for comparison with National results.

### **Warwick-Edinburgh Mental Well-being Scale (WEMWBS)**

This is a scale of 14 positively worded items, with five response categories ('none of the time' to 'all of the time'), for assessment of mental wellbeing and is used by the NHS (named Warwick-Edinburgh as those were the universities who developed it around 2006). It includes both hedonic (def. relating to pleasure) and eudaemonic (def. conducive to happiness) perspectives. It is available for free from [here](#). There is also a short version of the WEMWBS, which can be found [here](#). A user guide can be found [here](#).

### **Work Social Adjustment Scale**

This short questionnaire aims to assess whether people's problems are affecting their ability to carry out certain day-to-day tasks. It consists of five questions for which people can respond using a number ranging from 0 (not at all) to 8 (very severely). This results in a score from 0 to 40; between 10 and 20 is considered to be associated with significant functional impairments, over 20 moderately severe or worse psychopathology and scores below 10 associated with 'subclinical populations'. The questionnaire has been developed within the 'Serenity Programme' which is based on cognitive behaviour therapy (CBT) and designed by a consultant nurse therapist working within the NHS. It is available for free [here](#).

## Hospital anxiety and depression scale (HADS)

This consists of 14 questions where respondents choose one response from a choice of four. Respondents should be advised to provide immediate responses and not consider the question for too long. The questions are divided between those that relate to anxiety (marked with an A) and those that relate to depression (marked with a D). The scale was developed and found to be effective when tested in a hospital medical outpatient clinic, as [reported](#) in 1982. It is available for free from [here](#).

## Duke-UNC functional support questionnaire (FSSQ)

This is a one page questionnaire consisting of eight questions within a matrix table where respondents can select answers ranging from 5 (as much as they would like) to 1 (much less than I would like). The questions are related to interactions with other people such as 'I have people who care what happens to me'. It is available for free from [here](#), with further information available on administration, scoring and limitations [here](#). This questionnaire would be useful for measuring social isolation.

## Dartmouth COOP/WONCA functional health assessment charts

This is a general functional status measure designed for clinical use in primary care. The Dartmouth COOP/WONCA charts are international. The adult COOP covers physical and emotional function, daily activities, social activities, social support, family communication and health habits. The COOP/WONCA is similar and includes physical fitness, emotional feelings, daily and social activities, changes in health, overall health and pain (optional). They also contain a scaling system for responses from 1 (no impairment) to 5 (most impairment). A copy of the COOP charts can be viewed [here](#), but the charts should be obtained from [Dartmouth](#), and there is a one-off administration fee of \$100.

The name originates from the Dartmouth Primary Care Cooperative Information Project (COOP project) and the World Organisation of National Colleges, Academies, and Academic Associations of General Practices/Family Physicians. They are available for a single \$100 administration fee and the pack includes an overview, assessment of function and measures information. They can be ordered via an email link on [this](#) page and a manual can be found [here](#).

## Paediatric Quality of Life Inventory

The PedsQL Measurement Model is a modular approach to measuring health-related quality of life

(HRQOL) in healthy children and adolescents, and those with acute and chronic health conditions. The PedsQL Measurement Model aims to integrate both generic and core scales and disease-specific modules into one measurement system. There are two versions; one for parents to report on their child and one for children to report on themselves: both aimed for children aged 8-12. The questions within these two are based on problems within physical functioning (8 questions); emotional functioning (5 questions); social functioning (5 questions) and school functioning (5 questions) and each one requires an answer on a scale ranging from 'never' to 'almost always'. They are both available by agreeing to a disclaimer on purpose of use, [here](#). The tool is free of charge for non-funded academic study or for a charge of 1058 + 840 Euros per study for non-commercial organisations, to account for the Owner's Royalty Fees and the Mapi research Trust's Distribution fees respectively; additional modules are chargeable at 300 Euros each. There are also annual subscription options. The tool is protected by copyright and the user agreement describes the conditions for use which includes prohibition from modification or duplication of the questionnaire.

## UCLA Loneliness Scale

This is a 20-item scale designed to measure subjective feelings of loneliness as well as feelings of isolation. Each question requires an answer on the scale of O: 'I often feel this way', to N: 'I never feel this way'. The scale is available for free download, with guidance on interpreting the results and a brief history on the development of the scale (1978) from [here](#).

## Satisfaction With Life Scale

This is a five-item instrument which aims to measure global cognitive judgements of satisfaction with life and usually takes about one minute to complete. The five questions such as 'in most ways my life is ideal', require an answer ranging from 1: strongly disagree to 7: strongly agree. This is copyrighted but free to use providing the authors are credited: 'Ed Diener, Robert A. Emmons, Randy J. Larsen and Sharon Griffin as noted in the 1985 article in the *Journal of Personality Assessment*'. It can be downloaded [here](#), along with guidance on interpreting the results.

## Ryff Scales of Psychological Well-being

This is a questionnaire consisting of 54 questions (there are two other versions available) used to judge psychological well-being, each of which require an answer on a scale of 1 (strongly disagree) to 6 (strongly agree). Some of the answers are reverse scored. The well-being facets include self-acceptance, establishment of quality ties to other, a sense of autonomy and thought in action, the ability to manage complex environments to suit personal needs and values, the pursuit of meaningful goals and a sense of purpose in life, continued growth and development as a person. It is available to use without charge but institutions must pay for the cost of reproducing it from the electronic master file, which is sent upon request and available [here](#).

## The Positive and Negative Affect Schedule (PANAS)

This scale questionnaire consists of 20 words that describe different feelings and emotions. Alongside each word, respondents are required to mark a 1 (very slightly or not at all) to 5 (extremely) in relation to how they feel at that moment, *or* within the last week. The words used include 'interested', 'irritable', 'inspired', 'nervous' and 'jittery'. It is available to use for free and available [here](#). This is under copyright by the American Psychological Association and should be cited when used (using the citation at the bottom of the schedule).

## The General Self-Efficacy Scale (GSE)

This is designed to assess a general sense of perceived self-efficacy aiming to predict the ability to cope with daily hassle and adaptation to change after experiencing stressful life events. It is designed for adults or adolescents over the age of 12. The scale is usually self-administered as part of a larger questionnaire with a preference on mixing the questions amongst others with the same response categories. The responses are on a four-point scale ranging from 1 (not at all true) to 4 (exactly true). The questions include 'I am confident I could deal efficiently with unexpected events' and 'I can solve most problems if I invest the necessary effort'. The questions are available for free providing the scale is correctly cited, from [here](#) and a FAQs page [here](#). It is available in 33 languages.

Section divider

## Fuel Poverty and Health Booster Fund Questionnaires

## **Additional Doc 10. Fuel Poverty and Health Booster Fund Questionnaires**

The attached questionnaires were designed in 2015 by Sheffield Hallam University and the Department for Energy and Climate Change, for local authorities that were awarded funds under the Fuel Poverty and Health Booster Fund in 2015 to use in evaluating their schemes.

There is a pre-installation questionnaire and a post-installation questionnaire. These are both shown below.

The option to collect the NHS number of the resident is included if local authorities are confident they can access health data using the NHS number. Currently only Wigan is doing this.

## CONSENT FORM

**This evaluation is being undertaken for the purpose of research and analysis to measure the impact interventions which increase the warmth, safety or energy efficiency of a home have on a household's health and wellbeing; and if there are any consequential impacts on health services.**

I understand that by ticking each box I am consenting to this element of the survey. I understand that it will be assumed that leaving boxes unticked means that I DO NOT consent to that part of the research and evaluation.

- I understand that my participation in this evaluation is voluntary and that I am free to withdraw at any time without giving any reason, and this will not affect my access to any support or assistance under this scheme.
- I understand that any data collected about me through this evaluation will be handled and processed in accordance with the UK Data Protection Act 1998.
- I agree that data collected about me and my property in this evaluation may be shared with the Department of Energy and Climate Change (DECC) and may be matched against existing datasets held by DECC regarding the property's Energy Performance Certificates (EPC) for the purpose of research and statistical analysis.
- I agree as part of this evaluation that the local authority may share my information with the NHS in order to match against my existing medical records for the purpose of statistical analysis.

To assist in the collection of this data, please provide your NHS number, if known:

- I understand that confidentiality and anonymity will be maintained and it will not be possible to identify me in any publications.
- I agree to be contacted in the future by the study team researchers to participate in follow-up surveys.

Name of participant

Date

Signature

Name of person taking consent

Date

Signature

# Health Booster Fund scheme impact evaluation

Please interview the occupant of the household that generated the referral from the health professional. If he/ she is not present then another occupant may complete on behalf of the household. However the same person should be interviewed post-intervention. Only one person per household should be interviewed.

## Pre-installation information

*To be completed at the first contact with the household (before or at the time of providing measures/ advice)*

**Date data  
collected:**

**Consent form (attached) approved and signed**

## Q1) OCCUPANTS

### Basic information

Q1a How many people live in the property?

Q1b What is the age of the youngest household member?

- 0       1       2       3       4       5       6+

Q1c Are any of the people living in the house over the age of 75?

- Yes  
 No

Q1d What best describes the ethnic group or background of the majority of occupants living in the property?

**Give all possible response options before person decides**

- White English / Welsh / Scottish / Northern Irish / British  
 White Irish  
 Gypsy or Irish Traveller  
 Any other White background (**please specify**)  
 Mixed / Multiple ethnic background: White and Black Caribbean  
 Mixed / Multiple ethnic background: White and Black African  
 Mixed / Multiple ethnic background: White and Asian  
 Any other Mixed / Multiple ethnic background (**please specify**)  
 Asian / Asian British: Indian  
 Asian / Asian British: Pakistani  
 Asian / Asian British: Bangladeshi  
 Asian / Asian British: Chinese  
 Any other Asian background (**please specify**)  
 Black / Black British: African  
 Black / Black British: Caribbean  
 Any other Black / African / Caribbean background (**please specify**)  
 Arab  
 Any other ethnic group (**please specify**)  
 Prefer not to answer

Other, please specify:

## Health information

Q1e Please complete **for each household member**:

Does the **respondent** have one or more of the following health conditions and/or disabilities?

**Please tick all that apply**

- A cardiovascular condition (incl. coronary heart disease, stroke, high blood pressure (hypertension) transient ischemic attack etc)
- Respiratory condition (COPD, childhood asthma etc)
- Neurological condition (including Dementia, Parkinson's Disease, Multiple Sclerosis, epilepsy etc)
- Musculoskeletal conditions (incl. Osteoarthritis, Rheumatoid Arthritis etc)
- Blood conditions (incl. Sickle Cell Disease, Thalassemia etc)
- Cancer
- Diabetes
- Mental health condition
- Disability (that is the consequence of an impairment that is physical, cognitive, mental, sensory, emotional, developmental, or some combination of these)
- Is pregnant
- A long-standing illness, disability or infirmity
- None
- Don't know
- Prefer not to answer

**Household member 2:** Does this household member have one or more of the following health conditions and/or disabilities?

**Please tick all that apply**

- A cardiovascular condition (incl. coronary heart disease, stroke, high blood pressure (hypertension) transient ischemic attack etc)
- Respiratory condition (COPD, childhood asthma etc)
- Neurological condition (including Dementia, Parkinson's Disease, Multiple Sclerosis, epilepsy etc)
- Musculoskeletal conditions (incl. Osteoarthritis, Rheumatoid Arthritis etc)
- Blood conditions (incl. Sickle Cell Disease, Thalassemia etc)
- Cancer
- Diabetes
- Mental health condition
- Disability (that is the consequence of an impairment that is physical, cognitive, mental, sensory, emotional, developmental, or some combination of these)
- Is pregnant
- A long-standing illness, disability or infirmity
- None
- Don't know
- Prefer not to answer

**Household member 3:** Does this household member have one or more of the following health conditions and/or disabilities?

***Please tick all that apply***

- A cardiovascular condition (incl. coronary heart disease, stroke, high blood pressure (hypertension) transient ischemic attack etc)
- Respiratory condition (COPD, childhood asthma etc)
- Neurological condition (including Dementia, Parkinson's Disease, Multiple Sclerosis, epilepsy etc)
- Musculoskeletal conditions (incl. Osteoarthritis, Rheumatoid Arthritis etc)
- Blood conditions (incl. Sickle Cell Disease, Thalassemia etc)
- Cancer
- Diabetes
- Mental health condition
- Disability (that is the consequence of an impairment that is physical, cognitive, mental, sensory, emotional, developmental, or some combination of these)
- Is pregnant
- A long-standing illness, disability or infirmity
- None
- Don't know
- Prefer not to answer

**Household member 4:** Does this household member have one or more of the following health conditions and/or disabilities?

***Please tick all that apply***

- A cardiovascular condition (incl. coronary heart disease, stroke, high blood pressure (hypertension) transient ischemic attack etc)
- Respiratory condition (COPD, childhood asthma etc)
- Neurological condition (including Dementia, Parkinson's Disease, Multiple Sclerosis, epilepsy etc)
- Musculoskeletal conditions (incl. Osteoarthritis, Rheumatoid Arthritis etc)
- Blood conditions (incl. Sickle Cell Disease, Thalassemia etc)
- Cancer
- Diabetes
- Mental health condition
- Disability (that is the consequence of an impairment that is physical, cognitive, mental, sensory, emotional, developmental, or some combination of these)
- Is pregnant
- A long-standing illness, disability or infirmity
- None
- Don't know
- Prefer not to answer

**Household member 5:** Does this household member have one or more of the following health conditions and/or disabilities?

***Please tick all that apply***

- A cardiovascular condition (incl. coronary heart disease, stroke, high blood pressure (hypertension) transient ischemic attack etc)
- Respiratory condition (COPD, childhood asthma etc)
- Neurological condition (including Dementia, Parkinson's Disease, Multiple Sclerosis, epilepsy etc)
- Musculoskeletal conditions (incl. Osteoarthritis, Rheumatoid Arthritis etc)
- Blood conditions (incl. Sickle Cell Disease, Thalassemia etc)
- Cancer
- Diabetes
- Mental health condition
- Disability (that is the consequence of an impairment that is physical, cognitive, mental, sensory, emotional, developmental, or some combination of these)
- Is pregnant
- A long-standing illness, disability or infirmity
- None
- Don't know
- Prefer not to answer

**Household member 6:** Does this household member have one or more of the following health conditions and/or disabilities?

***Please tick all that apply***

- A cardiovascular condition (incl. coronary heart disease, stroke, high blood pressure (hypertension) transient ischemic attack etc)
- Respiratory condition (COPD, childhood asthma etc)
- Neurological condition (including Dementia, Parkinson's Disease, Multiple Sclerosis, epilepsy etc)
- Musculoskeletal conditions (incl. Osteoarthritis, Rheumatoid Arthritis etc)
- Blood conditions (incl. Sickle Cell Disease, Thalassemia etc)
- Cancer
- Diabetes
- Mental health condition
- Disability (that is the consequence of an impairment that is physical, cognitive, mental, sensory, emotional, developmental, or some combination of these)
- Is pregnant
- A long-standing illness, disability or infirmity
- None
- Don't know
- Prefer not to answer

**Household member 7:** Does this household member have one or more of the following health conditions and/or disabilities?

***Please tick all that apply***

- A cardiovascular condition (incl. coronary heart disease, stroke, high blood pressure (hypertension) transient ischemic attack etc)
- Respiratory condition (COPD, childhood asthma etc)
- Neurological condition (including Dementia, Parkinson's Disease, Multiple Sclerosis, epilepsy etc)
- Musculoskeletal conditions (incl. Osteoarthritis, Rheumatoid Arthritis etc)
- Blood conditions (incl. Sickle Cell Disease, Thalassemia etc)
- Cancer
- Diabetes
- Mental health condition
- Disability (that is the consequence of an impairment that is physical, cognitive, mental, sensory, emotional, developmental, or some combination of these)
- Is pregnant
- A long-standing illness, disability or infirmity
- None
- Don't know
- Prefer not to answer

**Household member 8:** Does this household member have one or more of the following health conditions and/or disabilities?

***Please tick all that apply***

- A cardiovascular condition (incl. coronary heart disease, stroke, high blood pressure (hypertension) transient ischemic attack etc)
- Respiratory condition (COPD, childhood asthma etc)
- Neurological condition (including Dementia, Parkinson's Disease, Multiple Sclerosis, epilepsy etc)
- Musculoskeletal conditions (incl. Osteoarthritis, Rheumatoid Arthritis etc)
- Blood conditions (incl. Sickle Cell Disease, Thalassemia etc)
- Cancer
- Diabetes
- Mental health condition
- Disability (that is the consequence of an impairment that is physical, cognitive, mental, sensory, emotional, developmental, or some combination of these)
- Is pregnant
- A long-standing illness, disability or infirmity
- None
- Don't know
- Prefer not to answer

**Household member 9:** Does this household member have one or more of the following health conditions and/or disabilities?

***Please tick all that apply***

- A cardiovascular condition (incl. coronary heart disease, stroke, high blood pressure (hypertension) transient ischemic attack etc)
- Respiratory condition (COPD, childhood asthma etc)
- Neurological condition (including Dementia, Parkinson's Disease, Multiple Sclerosis, epilepsy etc)
- Musculoskeletal conditions (incl. Osteoarthritis, Rheumatoid Arthritis etc)
- Blood conditions (incl. Sickle Cell Disease, Thalassemia etc)
- Cancer
- Diabetes
- Mental health condition
- Disability (that is the consequence of an impairment that is physical, cognitive, mental, sensory, emotional, developmental, or some combination of these)
- Is pregnant
- A long-standing illness, disability or infirmity
- None
- Don't know
- Prefer not to answer

**Household member 10:** Does this household member have one or more of the following health conditions and/or disabilities?

***Please tick all that apply***

- A cardiovascular condition (incl. coronary heart disease, stroke, high blood pressure (hypertension) transient ischemic attack etc)
- Respiratory condition (COPD, childhood asthma etc)
- Neurological condition (including Dementia, Parkinson's Disease, Multiple Sclerosis, epilepsy etc)
- Musculoskeletal conditions (incl. Osteoarthritis, Rheumatoid Arthritis etc)
- Blood conditions (incl. Sickle Cell Disease, Thalassemia etc)
- Cancer
- Diabetes
- Mental health condition
- Disability (that is the consequence of an impairment that is physical, cognitive, mental, sensory, emotional, developmental, or some combination of these)
- Is pregnant
- A long-standing illness, disability or infirmity
- None
- Don't know
- Prefer not to answer

Q1f Under each heading, please tick the **ONE** box that best describes the respondent's health **TODAY**:

### **MOBILITY**

- I have no problems in walking about
- I have slight problems in walking about
- I have moderate problems in walking about
- I have severe problems in walking about
- I am unable to walk about

### **SELF-CARE**

- I have no problems washing or dressing myself
- I have slight problems washing or dressing myself
- I have moderate problems washing or dressing myself
- I have severe problems washing or dressing myself
- I am unable to wash or dress myself

### **USUAL ACTIVITIES** (*e.g. work, study, housework, family or leisure activities*)

- I have no problems doing my usual activities
- I have slight problems doing my usual activities
- I have moderate problems doing my usual activities
- I have severe problems doing my usual activities
- I am unable to do my usual activities

### **PAIN / DISCOMFORT**

- I have no pain or discomfort
- I have slight pain or discomfort
- I have moderate pain or discomfort
- I have severe pain or discomfort
- I have extreme pain or discomfort

### **ANXIETY / DEPRESSION**

- I am not anxious or depressed
- I am slightly anxious or depressed
- I am moderately anxious or depressed
- I am severely anxious or depressed
- I am extremely anxious or depressed

We would like to know how good or bad the respondent's health is TODAY:  
Imagine a scale numbered from 0 to 100.  
100 means the best health you can imagine. 0 means the worst health you can imagine.

**What number on the scale indicates how the respondent's health is TODAY?**

## Benefits information

Q1g Is anyone in the household receiving one or more of the following means-tested benefits?

**Please tick all that apply**

- Pension credit (not state pension)
- Income support
- Income-based Jobseeker's Allowance
- Child Tax Credit
- Working Tax Credit
- Income-related Employment and Support Allowance
- Universal Credit
- None of these
- Don't know
- Prefer not to answer

Q1h Is anyone in the household receiving a disability benefit or premium?

- Yes
- No
- Don't know
- Prefer not to answer

## Income information

Q1i What is the household income per month **before** housing costs (rent, mortgage), in £?  
**(estimated values are accepted)**

What are the housing costs (rent, mortgage) per month, in £?  
**(estimated values are accepted)**

- Tick if either of above answers are unknown

**If answers to Q1(i) are unknown, please answer Q1(j) below, otherwise go to Q2**

Q1j After housing costs, is the household income estimated to be:

- More than £800
- Less than £800
- Unknown

## Q2) PROPERTY

### Structural information

Q2a What is the current SAP/ EPC certificate for the property?

- G
- F
- E
- D
- C
- B
- A
- Unknown

Q2b What type of tenure is the property?

- Social rented
- Private rented
- Owner occupier

Q2c What is the property type?

- Flat
- End-terrace
- Mid-terrace
- Semi-detached
- Detached
- Bungalow

Q2d What is the property age?

- Post 1964
- 1945-1964
- 1919-1944
- Pre-1919

Q2e How many bedrooms are there?

Bedsit

1

2

3

4

5+

## Energy efficiency information

Q2f Does the property use mains gas as the primary heating fuel?

- Yes
- No

Q2g What is the age of the current heating system?

- Less than 3 years
- 3-12 years
- More than 12 years
- Unknown

Q2h What type of fuel does the household primarily use?

- Gas
- Electricity
- Oil
- Solid fuel - coal
- Solid fuel - biomass (e.g. wood)
- Other (***please specify***)

Other, please specify

Q2i Does the property have a boiler?

- Yes
- No
- Unknown

***If the answer to Q2(i) is 'yes', please answer the following additional question, otherwise go to Q2(j)***

What type of boiler is used in the property?

- All condensing
- Combination
- Standard
- Back boiler
- Unknown

Q2j Which of these energy efficiency measures does the property already have?

**Please tick all that apply**

- Loft insulation
- Cavity wall insulation
- Solid wall insulation
- Draft proofing
- Double glazing
- Secondary glazing
- Other (**please specify**)

Other, please specify:

Q2k Has the loft insulation been installed or upgraded since 1985?

- Yes
- No
- Unknown

### Q3) ENERGY USE

Q3a If known, what is the overall household energy cost per year, in £?

Unknown

***If the answer to Q3(a) is 'unknown', please answer the following additional question, otherwise go to Q3(b)***

What is the estimated total energy cost per year?

- £1400 or more (£120 or more per month)
- Less than £1400 (less than £120 per month)

Q3b Which methods do you use to pay for your electricity/ gas/ other fuel?

***Please tick all that apply***

- Direct Debit or standing order
- Monthly or quarterly bill
- Pre-payment (keycard or token) meter
- Included in rent
- Frequent cash payment method (more frequent than monthly)
- Fuel direct or direct from benefits
- Fixed annual bill (however much gas or electricity is used e.g. Stay Warm)
- Other
- Don't know

Q3c Over the winter, how easy or difficult has it been to keep your home warm when the heating is on?

- Very easy to keep warm
- Fairly easy to keep warm
- Fairly difficult to keep warm
- Very difficult to keep warm
- Don't know

Q3d How well are you and your household keeping up with your energy bills at the moment?

- Managing very well
- Managing quite well
- Get by alright
- Having some difficulties
- Having severe difficulties
- Prefer not to say

Q3e What support has the household requested, or what measures does it seem the property requires?

Energy efficiency measures:

**Please tick all that apply**

- Boiler
- Loft insulation
- Double glazing
- Secondary glazing
- Central heating system
- Cavity wall insulation
- Solid wall insulation
- Draft proofing
- Other (**please specify**)

Other, please specify:

Advice or referrals:

**Please tick all that apply**

- Debt advice
- Benefit entitlement checks
- Income maximisation or money saving advice
- Switching support
- Advice on use of heating system
- Energy saving advice
- Advice on housing options (e.g. if under-occupying)
- Referral for flu jab
- Referral to fire service (for trip and fall prevention etc)
- Referral for other health intervention
- Hazard check
- Other (**please specify**)

Other, please specify:

## CONSENT FORM

**This evaluation is being undertaken for the purpose of research and analysis to measure the impact interventions which increase the warmth, safety or energy efficiency of a home have on a household's health and wellbeing; and if there are any consequential impacts on health services.**

I understand that by ticking each box I am consenting to this element of the survey. I understand that it will be assumed that leaving boxes unticked means that I DO NOT consent to that part of the research and evaluation.

- I understand that my participation in this evaluation is voluntary and that I am free to withdraw at any time without giving any reason, and this will not affect my access to any support or assistance under this scheme.
- I understand that any data collected about me through this evaluation will be handled and processed in accordance with the UK Data Protection Act 1998.
- I agree that data collected about me and my property in this evaluation may be shared with the Department of Energy and Climate Change (DECC) and may be matched against existing datasets held by DECC regarding the property's Energy Performance Certificates (EPC) for the purpose of research and statistical analysis.
- I agree as part of this evaluation that the local authority may share my information with the NHS in order to match against my existing medical records for the purpose of statistical analysis.

To assist in the collection of this data, please provide your NHS number, if known:

- I understand that confidentiality and anonymity will be maintained and it will not be possible to identify me in any publications.
- I agree to be contacted in the future by the study team researchers to participate in follow-up surveys.

Name of participant

Date

Signature

Name of person taking consent

Date

Signature

#### **Q4) REFERRAL - TO BE COMPLETED BY THE LOCAL AUTHORITY**

Q4a What agency referred this household for support?

- |                                      |   |
|--------------------------------------|---|
| <input type="radio"/> Hospital       | <input type="radio"/> Occupational therapist          |
| <input type="radio"/> GP             | <input type="radio"/> Ambulance service               |
| <input type="radio"/> Practice nurse | <input type="radio"/> Community group                 |
| <input type="radio"/> Health visitor | <input type="radio"/> Charity                         |
| <input type="radio"/> Midwife        | <input type="radio"/> Police                          |
| <input type="radio"/> District nurse | <input type="radio"/> Fire service                    |
| <input type="radio"/> Social worker  | <input type="radio"/> Other ( <i>please specify</i> ) |

Other, please specify:

Q4b What was the method of referral?

- Email
- Online
- Electronic portal
- Postal
- Fax
- Telephone
- Other (*please specify*)

Other, please specify:

Q4c What was the date of referral?

# Health Booster Fund scheme impact evaluation

Please interview the occupant of the household that generated the referral from the health professional. If he/ she is not present then another occupant may complete on behalf of the household. However the same person should be interviewed post-intervention. Only one person per household should be interviewed.

## Post-intervention information

*To be completed no less than three months after intervention and ideally after a winter has passed. The period of time between the pre- and post- surveys should be as close to consistent to all households as possible in any case. Please ensure you survey the same member of the household that completed the pre-intervention survey.*

Date data  
collected:

Consent form (attached) approved and signed

## Q5) SUPPORT PROVIDED

Q5a Did the household accept some form of support, assistance or advice?

- Yes  
 No

If **No**, please specify why:

Q5b What support was provided to the household?

Energy efficiency measures - please indicate which measures were installed:

**Please tick all that apply**

- Boiler  
 Loft insulation  
 Double glazing  
 Secondary glazing  
 Central heating system  
 Cavity wall insulation  
 Solid wall insulation  
 Draft proofing  
 Other (**please specify**)

Other, please specify:

Advice or referrals - please indicate what support was provided:

**Please tick all that apply**

- Debt advice  
 Benefit entitlement checks  
 Income maximisation or money saving advice  
 Switching support  
 Advice on use of heating system  
 Energy saving advice  
 Advice on housing options (e.g. if under-occupying)  
 Referral for flu jab  
 Referral to fire service (for trip and fall prevention etc)  
 Referral for other health intervention  
 Hazard check  
 Other (**please specify**)

Other, please specify:

Q5c Was the type of support, assistance, measures or advice provided **different from** the requirements originally identified?

Yes

No

If **Yes**, please specify why:

Q5d Were any costs incurred on the household to install any energy efficiency measures?

Yes

No

If **Yes**, please specify how much, in £:

## Q6) IMPACTS OF INTERVENTION ON HOUSEHOLD

### Wellbeing

Q6a Under each heading, please tick the **ONE** box that best describes the respondent's health **TODAY**:

#### **MOBILITY**

- I have no problems in walking about
- I have slight problems in walking about
- I have moderate problems in walking about
- I have severe problems in walking about
- I am unable to walk about

#### **SELF-CARE**

- I have no problems washing or dressing myself
- I have slight problems washing or dressing myself
- I have moderate problems washing or dressing myself
- I have severe problems washing or dressing myself
- I am unable to wash or dress myself

#### **USUAL ACTIVITIES** (*e.g. work, study, housework, family or leisure activities*)

- I have no problems doing my usual activities
- I have slight problems doing my usual activities
- I have moderate problems doing my usual activities
- I have severe problems doing my usual activities
- I am unable to do my usual activities

#### **PAIN / DISCOMFORT**

- I have no pain or discomfort
- I have slight pain or discomfort
- I have moderate pain or discomfort
- I have severe pain or discomfort
- I have extreme pain or discomfort

## **ANXIETY / DEPRESSION**

- I am not anxious or depressed
- I am slightly anxious or depressed
- I am moderately anxious or depressed
- I am severely anxious or depressed
- I am extremely anxious or depressed

We would like to know how good or bad the respondent's health is TODAY:

Imagine a scale numbered from 0 to 100.

100 means the best health you can imagine. 0 means the worst health you can imagine.

**What number on the scale indicates how the respondent's health is TODAY?**

## Energy use

Q6b If known, what is the new SAP/ EPC certificate for the property?

- G
- F
- E
- D
- C
- B
- A
- Unknown
- Unchanged

Q6c What is the overall household energy cost per year, in £?

- Unknown

***If the answer to Q6(c) is 'unknown', please answer the following additional question, otherwise go to Q6(d)***

What is the estimated total energy cost per year?

- £1400 or more (£120 or more per month)
- Less than £1400 (less than £120 per month)

Q6d Over the winter since the intervention, how easy or difficult has it been to keep your home warm when the heating is on?

- Very easy to keep warm
- Fairly easy to keep warm
- Fairly difficult to keep warm
- Very difficult to keep warm
- Don't know

Q6e Since the intervention, how well are you and your household keeping up with your energy bills?

- Managing very well
- Managing quite well
- Get by alright
- Having some difficulties
- Having severe difficulties
- Prefer not to say

## Behaviour

Q6f Have you changed how often the heating is turned on or off since the intervention?

- Yes (turned on more)
- Yes (turned off more)
- No

Q6g Have you changed the temperature of your heating since the intervention?

- Yes (turned up more)
- Yes (turned down more)
- No

Q6h Have you changed the number of rooms that you heat since the intervention?

- Yes (more rooms)
- Yes (less rooms)
- No

Q6i Could you please describe any other ways in which you have changed the way you heat your home, use energy or reduced your energy bills since the intervention?

## Benefits

Q6j Is anyone in the household receiving one or more of the following means-tested benefits?

**Please tick all that apply**

- Pension credit (not state pension)
- Income support
- Income-based Jobseeker's Allowance
- Child Tax Credit
- Working Tax Credit
- Income-related Employment and Support Allowance
- Universal Credit
- None of these
- Don't know
- Prefer not to answer

Q6k Is anyone in the household receiving a disability benefit or premium?

- Yes
- No
- Don't know
- Prefer not to answer

## Income

Q6l What is the household income per month **before** housing costs (rent, mortgage), in £?  
**(estimated values are accepted)**

What are the housing costs (rent, mortgage) per month, in £?  
**(estimated values are accepted)**

- Tick if either of above answers are unknown

**If answers to Q6(l) are unknown, please answer Q6(m) below**

Q6m After housing costs, is the household income estimated to be:

- More than £800
- Less than £800
- Unknown

Section divider

## Qualitative research example interview guide

# Qualitative research – example interview guide

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## Semi-structured telephone interviews – Topic guide

This topic guide is slightly shortened version of semi-structured interview guide used in Anderson, W. , White, V. & Finney, A., 2010, '[You Just Have to Get By: Coping with Low Incomes and Cold Homes](#)' CSE, Bristol.

### Introduction

I'm calling from a charity called the Centre for Sustainable Energy. You took part in a survey a few weeks ago and kindly agreed that we could contact you again to take part in a follow-up telephone interview (that's how we got your telephone number). Are you still happy to do this?

The interview will explore your experience of managing money at home and in particular coping with energy costs. The interview will last 20-30 minutes. Everything we discuss during the interview will be confidential, so that what you say cannot be traced back to you, and your name will not be revealed to anyone else. So please be assured that you can be honest and open in talking about your views and experiences.

As a thank-you, you will receive £25 in shopping vouchers <sup>1</sup>

### Consent

Do you understand that any information you share will be treated as confidential? Can you confirm you are happy to go ahead? YES / NO [If 'no', ask reasons and if not willing to proceed for whatever reason, end call]

I'd like to make an audio recording of this conversation to use in the research. It will mean I won't have to write down your responses as we talk and should make the call a bit quicker. Are you happy for me to record the conversation? YES / NO

### 1. Personal circumstances

May I begin by just asking a few questions about you and your household?

Age / Household / Tenure /Employment

### 2. Paying for electricity and heating

How do you pay for your electricity?

### 3. Household income (and coping strategies)

Over the last 12 months, have there been any changes in your household income? Or your regular costs?

Have you found it difficult to make ends meet at any time over the past 12 months?

How do you cope at these times?

Explore spending priorities and management of bills, borrowing, savings, extra earning

Explore budgeting and financial planning

### 4. Keeping warm in winter

Thinking back to last winter, when the weather was cold, did you feel your house was warm enough?

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<sup>1</sup> The payment of incentives is a decision to be made at project design stage.

Is your house difficult to keep warm even with the heating on?

Did you have the heating on as much as you wanted? Why not? (self-disconnection may not be deliberate)

Did you cut back on other things in order to keep warm? Or borrow money? Or do anything else? (e.g. switch supplier, install energy efficiency measures)

How did any difficulties experienced affect your health?

How did any difficulties experienced affect your family's health?

### **5. Energy efficiency improvements**

Have you ever had energy efficiency improvements done to your house, such as improvements in insulation, draught-proofing, windows or your heating system?

If yes: Did you do these yourself or were they done professionally?

If professionally, explore who bore the cost (including landlords, grants/schemes), satisfaction

Have you felt any benefits from these improvements (warmth, comfort, money?)

If no:

Why not?

### **6. Energy advice follow-up**

If you like, we can pass your name and contact details on to an energy advisor who can give you advice about the grants you could get to improve the warmth of your home. Would you like us to do this?

### **7. Thank you and [optional] incentive and address details**

Thank you very much for your time in taking the time to answer these questions.

Would you like an ASDA or an M&S shopping card as a 'thank you'?

May I take your address to send it to? Your address details will be stored separately from your responses and will only be used to send you the voucher.

Section divider

## Evaluation - data collection and analysis methods

# Evaluation – data collection and analysis methods

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## Quantitative and qualitative data collection techniques

Both quantitative (numeric) and qualitative (usually words) data collection techniques can be adopted for an evaluation. The list below provides an overview of the main types used within process evaluation. However, process evaluation may not be the most appropriate evaluation technique and more information is provided of evaluation methods beneath the main data collection methods<sup>1</sup>.

- **Interviews:** interview data may be qualitative or quantitative and can provide rich insights about attitudes, opinions and experiences of people involved in a policy, or intervention.
- **Group interviews:** similar to interview data but allows people to build and reflect on each other's opinions.
- **Observation/participation:** observing or participating in the intervention and recording in narrative form or in a pro-forma.
- **Questionnaire:** A questionnaire is a sequence of questions designed to elicit information on a subject from an informant.
- **Consultative and deliberative methods:** can combine a number of methods, often qualitative but go beyond people's views and behaviours to come up with appraisals, solutions or strategies. Often includes intensive exercises with small groups.
- **Statistical analysis of quantitative data:** a number of sources of quantitative data including administrative and monitoring data, survey data and numerical case files can provide statistical data on a policy's delivery, e.g. no. of participants receiving an intervention, characteristics and initial information about costs.
- **Document analysis:** access to and analysis of documents relevant to the policy/intervention being evaluated analysed using content analysis techniques.

It should be noted that in statistical analysis a variable can be classified as qualitative (categorical), or quantitative (numerical)<sup>2</sup>. A qualitative variable is a name or label and a quantitative represents a measurable quantity.

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<sup>1</sup> The Magenta Book, pp 92. Available from: [www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/220542/magenta\\_book\\_combined.pdf](http://www.gov.uk/government/uploads/system/uploads/attachment_data/file/220542/magenta_book_combined.pdf)

<sup>2</sup> What are variables, Stat Trek. Available from: <http://stattrek.com/descriptive-statistics/variables.aspx?Tutorial=AP>

There are a variety of approaches to evaluation, which vary in terms of the types of data they use (qualitative/quantitative), the analytical techniques required and the nature of results they provide. An evaluation will generally involve a mixture of these methods. Some of the main evaluation types, adopted from The Magenta Book<sup>3</sup> and the necessary data are outlined below:

- **Process evaluation:** use a variety of qualitative and quantitative techniques to explore the success of a policy or intervention.
- **Experimental or quasi experimental impact evaluation:** uses quantitative data to test whether a policy or intervention was associated with any significant changes to relevant outcomes.
- **Economic evaluation:** measuring the cost effectiveness of the policy or intervention by calculating the economic costs related to a policy or intervention and the economic value (estimated or measured) of impacts made to provide a full cost-benefit analysis.
- **Theory-based evaluation:** this can incorporate a wide range of qualitative and quantitative methods to systematically test the theory/assumption.

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<sup>3</sup> The Magenta Book, pp 45. Available from:  
[www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/220542/magenta\\_book\\_combined.pdf](http://www.gov.uk/government/uploads/system/uploads/attachment_data/file/220542/magenta_book_combined.pdf)

## Quantitative analysis

Quantitative analysis can be used to generate numerical findings. This can be represented in tables, charts or other visual presentations.

### Descriptive statistics

Descriptive statistics are used to describe the basic features of the data in a study<sup>4</sup>. Inferential statistics are used to try and reach conclusions that reach beyond the immediate data alone<sup>5</sup>.

Descriptive statistics are used to provide summaries –usually in table format - about the sample group used in the study. They do not try and learn about the wider population which the sample is representing. Alongside graphs (or pie charts etc.) they provide the basis of almost every type of quantitative data analysis. They are a form of statistical analysis, and can include reporting the mode, mean and median and range of the sample group.

### Inferential statistics

You will only be able to undertake inferential analysis if you have used random sampling to generate a representative sample. Inferential statistics investigate questions, models and hypotheses. They use the results gathered from a sample to try and make inferences about the results for a wider population.

In most research the analysis section follows three key phases<sup>6</sup>:

1. Description of how the data were prepared (usually brief)
2. Descriptive statistics usually carefully selected and organised into summary tables and graphs showing the key information.
3. Inferential analyses, where possible ie. where the sample used in the evaluation has been selected using random sampling.

Inferential statistics can be drawn from testing a hypothesis. This consists of four key steps<sup>7</sup>:

- State the hypotheses. This includes the null and alternative hypotheses – they must be opposite so that is one is true, the other is false.
- Design the data analysis plan – this describes how to use the sample data to evaluate the null hypothesis, often focused around a single test statistic.
- Analyse the data and find the value of the test statistic (mean score, proportion, t-score etc) as set out in the analysis plan.

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<sup>4</sup> Descriptive statistics, Research Methods Knowledge Base. Available from: <http://www.socialresearchmethods.net/kb/statdesc.php>

<sup>5</sup> Inferential statistics, Research Methods Knowledge Base. Available from: <http://www.socialresearchmethods.net/kb/statinf.php>

<sup>6</sup> Analysis. Research Methods Knowledge Base. Available from: <http://www.socialresearchmethods.net/kb/analysis.php>

- Interpret results. Confidence intervals and the statistical power will enable the null hypothesis to be accepted or rejected.

Further detail on inferential statistical analysis is not provided here, as it is something that requires training and experience in selecting and using the appropriate analytic technique. This is something that university partners will be able to undertake on your behalf if you do not have a member of staff experienced in statistical analysis.

### Qualitative analysis using a framework approach<sup>8</sup>

This summary draws from Ritchie, J. & Lewis, J. (2004) *Qualitative Research Practice: A guide for social science students and researchers*. Sage: London. For more detailed guidance, please refer to the book, or [Ritchie, J. & Spencer, L. \(1994\) "Qualitative data analysis for applied policy research" in \*Analysing Qualitative Data\*, Bryman, A. & Burgess, R. \(eds\) pp.173-194 Taylor & Francis Books Ltd.](#) A [presentation](#) introducing this approach to analysis is produced by Surrey University's NatCen learning.

Before you can start, the data needs to be in a form you can analyse. For interviews, this means typing up transcripts – or good quality summaries – of interviews. Experienced analysts may be able to undertake analysis directly from an audio recording. You may also have notes from observation to write up.

A first step is to undertake a thorough review of the data, looking across all the cases and seeing how much 'depth' there is to the data. As you look through the different cases, you can start to identify a long list of relevant themes or concepts.

The next step is to construct an index. To do this, you need to identify links between the various themes or concepts in your long list, and group them into common categories. These can then be organised so there are main headings and subheadings. You should be aiming to have a manageable list of themes that can help in the next stages of analysis. The index can be further refined as you proceed with analysis and choose either to add, discard or combine certain categories. For an evaluation, pre-defined themes or concepts derived from the evaluation key questions can help in structuring your index. But other relevant themes and concepts from the data will make sure that the index reflects the actual data. This index development can be done using post-it notes manually on a bit sheet of paper or into a spreadsheet.

When doing qualitative analysis within an evaluation, for the purpose of efficiency, it is acceptable to restrict your analysis to themes and concepts that are relevant to the focus of the evaluation and not to pursue other emergent themes that you judge do not contribute to answering the evaluation questions. However, where apparently non-relevant themes do emerge strongly, it is worth reflecting whether they may help you to develop understanding in response to your key evaluation questions.

Once you have constructed an initial index, this can be applied to the data, either by marking it in the margin of the transcript, or by using software package. In some cases, where the topic guide or semi-structured interview means the responses are already very clearly ordered, it may be possible to move straight to sorting and synthesising the data. Equally where time is short, this stage may be left out.

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<sup>8</sup> Ritchie, J. & Lewis, J. (2004) *Qualitative Research Practice: A guide for social science students and researchers*. Sage: London.

The next stage is to create a series of thematic charts, with one chart for each main theme of analysis. The chart headings will follow the index for the theme. Each row represents a case (e.g. an interview transcript). Then for each case, a synthesis of key points is inserted into the chart, reflecting the marked-up transcript. It is important to find a balance between inserting too much material that makes the chart unwieldy and over-condensing to the point that the explanatory richness of the data is lost. Keep a note of the page reference of each piece of data so you can refer back to the transcripts during the analysis. Use asterisks to identify quotations to use.

In an evaluation, the analysis of qualitative data can enable **descriptive** understanding of the circumstances of beneficiary households, how beneficiaries responded to an intervention and how beneficiaries talked about what differences the interventions had for their health.

By preparing a descriptive account of the themes and concepts, including using words, phrases or explanations actually used by interviewees, this can help to move the analysis forward towards identifying patterns and explanations.

Qualitative analysis can involve identifying **patterns**. For example, you may identify that people in similar circumstances tend to particularly emphasise or use the same sort of explanations for how they feel an intervention has helped improve their health. It can also involve developing **typologies**, where you are able to create categories of types of households which have differed in how they have experienced interventions and their understanding of associated health changes.

As you become increasingly familiar with the data and more confident with identifying themes, patterns, you may be able to begin to develop explanations for how or why an intervention has or hasn't worked, including identifying explanations for variations in how far the scheme intervention has made a difference in certain contexts. It is important to test such explanatory theories by looking back through the different cases to see how well it fits with the data, whether there are any cases that contradict this or whether there are gaps which make it hard to be certain. By going back through the data to check the patterns, typologies or explanations that you have identified, this will help you to further refine these or identify alternative explanations. Explanation in qualitative research for reasons for why things happened are not able to identify a single variable that directly causes an outcome, but can help clarify how the interrelationship between particular circumstances, attitudes and ways of understanding.

The completed analysis phase should allow you to answer evaluation questions about how change has been achieved and to provide qualitative explanations for how the intervention relates to associated health outcomes. It should also allow you to describe how this has varied by different types of household and may allow you to provide explanations of why certain interventions have been more or less associated with health benefits.

Section divider

## Examples of data sharing frameworks for referrals

# Additional doc 13: Examples of data sharing agreements for referrals

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This document contains some examples of data sharing agreements set up between health partners and affordable warmth schemes, so that health partners can refer patients to schemes (note these are not agreements to share data for evaluation, but such agreements would be likely to build on these). The examples are as follows:

1. Wigan's Information Assurance Framework. This is used for agencies which work under the Awarm scheme. These agencies may be accessing patient risk lists with names and addresses, attending GP's surgeries, talking to patients and gathering personal information, or passing on data such as NHS numbers to the Council. The Information Assurance Framework is a checklist of all the requirements the agencies must fulfil and provide evidence for, to show that they will handle the data correctly. It supports the signing of a data sharing agreement.
2. Data sharing compliance agreement required by a community healthcare provider in order for the healthcare provider to refer patients to an affordable warmth project. The agreement makes sure that the affordable warmth project manages confidential patient data in accordance with requirements. The affordable warmth scheme manager was required to complete the Organisational Compliance Statement, and to sign up to an Information Exchange Agreement (also shown in this document) and provide a brief quality assurance agreement to define the support services that those referred would receive.

**TIER 2 INFORMATION ASSURANCE FRAMEWORK – SELF ASSESSMENT**

The following Self-Assessment Framework should be used to support the signing of the Tier 2 Information Sharing Agreement. Please ensure that all sections are completed.

Provider:	
Completed by:	
Designation:	
Date:	

No	Requirement	Examples of Supporting Evidence	Additional Actions Required / Comments	Deadline Date	Completion Date	Provider Lead
1	There is a named individual within the organisation that is responsible for Data Protection <ul style="list-style-type: none"> <li>• Caldicott Guardian or Equivalent</li> <li>• Information Governance Lead – Responsible for information sharing</li> </ul>	<ul style="list-style-type: none"> <li>• <i>Contact names and details</i></li> </ul>				
2	IG Training is provided on an annual basis and is approved by the sponsoring/commissioning organisation	<ul style="list-style-type: none"> <li>• <i>Copy of training material and staff compliance figures</i></li> </ul>				
3	Data Protection/confidentiality is documented within all staff contracts and any breaches of Data Protection Legislation may lead to disciplinary proceedings.	<ul style="list-style-type: none"> <li>• <i>Contract Examples</i></li> </ul>				
4	There are appropriate technical measures in place to ensure the secure transfer of Patient Confidential Data and such methods have been discussed/approved with the sponsoring/commissioning organisation	<ul style="list-style-type: none"> <li>• <i>Data Flow mapping</i></li> <li>• <i>Specific Technical Documents</i></li> </ul>				
5	There is an identified escalation process for reporting any data loss / security breach incidents. Provider organisations must report these to the sponsoring/commissioning	<ul style="list-style-type: none"> <li>• <i>Copy of incident reporting procedure or flowchart</i></li> </ul>				

	organisation within 24 hours					
6	There are appropriate Technical controls in places to ensure that any electronic systems are appropriately secure.	<ul style="list-style-type: none"> <li>• <i>Network/Infrastructure Security Policy</i></li> <li>• <i>Access Policies/Procedures to Systems</i></li> <li>• <i>Evidence of staff awareness</i></li> </ul>				
7	Provider organisation are aware of all Systems that they have access to and utilise as part of their day to day business and these are supported by appropriate contractual arrangements	<ul style="list-style-type: none"> <li>• <i>Assets Management System</i></li> </ul>				
8	There are documented Business Continuity Plans and Disaster Recover Plans.	<ul style="list-style-type: none"> <li>• <i>Evidence of Testing</i></li> <li>• <i>CQC</i></li> </ul>				
9	If access to a clinical system at the Sponsoring/Commissioning Organisation has been granted there are documented procedures and guidance to inform patients that staff are accessing their clinical information from a NHS Healthcare setting	<ul style="list-style-type: none"> <li>• <i>Leaflets</i></li> <li>• <i>Procedures</i></li> <li>• <i>Clinical Assurance Documentation</i></li> </ul>				
10	The organisation must display and have in place clear policy for the purposes of Records Retention and Return to ensure that any personal confidential data is not held inappropriately.	<ul style="list-style-type: none"> <li>• <i>Records Management Policy</i></li> </ul>				

Please note sponsoring/commissioning organisations reserve the right to audit the provider organisations to ensure that the above is a true reflection.

## Organisational compliance statement example

The following activities must be undertaken to comply with responsibilities set out in this document. Each organisation using this document is required to indicate whether relevant activities are in place or in development. In completing the statement, reference should be made to appropriate organisational policy, process and guidance documentation.

Completion should be by the Organisation's nominated Data Protection Officer/Information Governance lead. Each signatory must store their own statement and be able to provide it to another signatory on request.

### Organisational responsibilities:

Responsibility area	In Place? In Progress/target date?
<i>Keeping subjects informed</i>	
<ul style="list-style-type: none"> <li>▪ Active provision of information to patients/service users of the uses to which information about them may be put and to whom it may be disclosed.</li> </ul>	
<ul style="list-style-type: none"> <li>▪ Publicise and implement processes to provide access to records to subjects on request</li> </ul>	
Provide choice	
<ul style="list-style-type: none"> <li>▪ Have policy covering consent to use information and respond to any specific requests made by subjects with regard to handling their information</li> </ul>	
<i>Protect information</i>	
<ul style="list-style-type: none"> <li>▪ Have documented policy and processes to check the accuracy and clarity of data both with the subject and on information systems</li> </ul>	
<ul style="list-style-type: none"> <li>▪ Protect the confidentiality and security of data in any form, during collection, storage and sharing with appropriate security arrangements (generally compliant with ISO27000 Information Security Management standard) – via relevant policy, process and staff guidance on handling information</li> <li>▪ Have facilities to encrypt data sent via email, placed on removable media, or stored on mobile devices</li> </ul>	
<ul style="list-style-type: none"> <li>▪ Documented policy and process relating to retention and disposal of information &amp; equipment</li> </ul>	
<ul style="list-style-type: none"> <li>▪ Ensure contractual arrangements with staff (employment terms), contractors and other suppliers/individuals handling identifiable information contain reference to confidentiality/non-disclosure, secure data handling and destruction</li> </ul>	

<ul style="list-style-type: none"> <li>▪ Provide education and training to all staff on the safe handling of personal data including sharing/disclosing information.</li> <li>▪ Control access to shared information on the 'need to know basis'</li> </ul>	
<ul style="list-style-type: none"> <li>▪ Complete and maintain a Data Protection notification detailing all sources, subjects, purposes and disclosures relevant to their function and partnerships under any agreement</li> </ul>	
<b>Monitoring</b>	
<ul style="list-style-type: none"> <li>▪ Have incident and risk reporting arrangements that incorporate information related issues</li> <li>▪ Audit &amp; assess security of information flows and information systems</li> <li>▪ Perform regular (at least annual) assessments and audits of organisational compliance with legislation and regulation on processing personal information</li> </ul>	
<p><b>Organisation Name &amp; contact details:</b></p>	

## Information exchange agreement example

	<b>DATA TRANSFERRED BETWEEN:</b>	<b>AND:</b>
<b>NAME</b>		
<b>ADDRESS</b>		

**PURPOSE/REASON for  
TRANSFER/ACCESS**

The legal framework relating to the purpose(s) for sharing information.  
Agreed purposes for the use of information and a process for agreeing further purposes if necessary

**DATA TYPE**

**e.g. patient, staff, business/finance**  
Refer to the level of identity used in the sharing of data and where necessary assessing the level of identity from combined sets of data.

**DATA DESCRIPTION**

**DATABASE(S) USED**

**e.g. PMS, Pathology, Radiology**

**CONSENT/LEGAL BASIS**

The legal basis for sharing information, in relation to the initiative, based on consent or other legal justifications for sharing.

How individuals will be informed of the sharing of data where required

**PHYSICAL TRANSFER METHOD**

**e.g. Memory Stick, Network access, NHSNet, Laptop PC**  
Agreement to the process of exchange, taking account of threats and vulnerabilities in the proposed communication methods and ensuring adequate safeguards to protect the information during transit and storage are in place.

**SOFTWARE FORMAT USED**

**e.g. Word, Excel, CSV, etc.**

**ENCRYPTED or UNENCRYPTED**


**QUALITY**

A commitment to accuracy and completeness of data exchanged, including a process for informing all relevant parties of any inaccuracies identified

**SECURITY**

A process for managing breaches of security, inappropriate disclosure of data and loss of data

**DATE and TIME OF TRANSFER**

or commencement if ongoing

**FREQUENCY IF ONGOING**

**RETENTION**

Agreement to the period of retention of data – with reference to organisational retention schedules and the longest applicable period, unless there is reason for destruction of copies of data.

**MONITORING**

Who will monitor that the processes above are taking place and are effective? What checks will be made?

**INCIDENT MANAGEMENT & RESOLUTION PROCESS**

How will any breaches of principles be reported and managed? What will be the procedure to update this protocol in the light of any findings?

I the undersigned certify that the personal data being received will not be disclosed to unauthorised persons. The Data and their Purposes of Use are Notified under the Data Protection Act 1998 and my organisation/company is committed to compliance with the Data Protection Principles.

**DATE**

**SIGNATURE**

**JOB TITLE**

For and on behalf of: **ORGANISATION**

**DATE**

**SIGNATURE**

**JOB TITLE**

For and on behalf of: **ORGANISATION**

Copy to: Information Governance Officer


## PROCEDURES FOR ENSURE SAFE TRANSFER OF INFORMATION

Every member of staff has an obligation to request proof of identity before confidential personal information is passed on.

Every member of staff is personally responsible to take precautions to ensure the security of confidential personal information both whilst it is in their possession and when it is being transferred from one person or organisation to another.

The following is a list of recommended procedures to ensure the safe transfer of information:

- Envelopes should be securely sealed, clearly addressed to a known contact and marked “confidential” and “addressee only”. A return to sender address should also be marked on the envelope<sup>1</sup>.
- Telephone validation, or “call back” procedures should be followed before disclosing information to someone you do not know to confirm their identity and authorisation<sup>2</sup>. Fax transfer is not safe and should be avoided wherever possible. Where it is necessary “Safe Haven”<sup>3</sup> procedures should be followed.
- Data held on removable media/disk should be encrypted and the physical security of the device should be protected i.e. kept under lock and key. The encryption password must be kept separate from the device. Any external agencies used to create device must use individual passwords for each device.
- E-mailing patient confidential information is only permitted if it is encrypted<sup>4</sup> or where system-to-system networks are known to be secure.
- Confidential patient information **must not** be transmitted via the Internet without it being encrypted.

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1 The NHSIA recommend a return “post-box” address is used to avoid revealing the identity of the sender where this may compromise confidentiality.

2 The details of the caller and the agencies published telephone number (not direct dial or mobile phone numbers because they cannot be validated) should be obtained, checked against directories and a telephone call made back to check authenticity.

3 Safe Haven Requirements (EL (92) 60) – An agreed set of administrative and physical security procedures for ensuring the safe and secure handling of confidential patient information including locked rooms and special arrangements for the transit of records and correspondence

4 Encrypted – information in plain-text format is converted into characters and codes using privacy enhancing technology so that it cannot be understood if intercepted in transit, the recipient de-codes it.

- When anonymised or pseudonymised<sup>5</sup> information is shared, care should be taken to ensure that the method used is effective and individuals cannot be identified from the limited data set e.g. age and postcode together could be sufficient enough to reveal an individual's identity.

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5 Anonymised information is data with all personal identifiers stripped out; it can neither reveal the identity of the individual concerned nor link back to that person – even if it became necessary at a later stage. Pseudonymised data is where one key is left in order to link back to an identity if there is a need to do so e.g. a numerical identifier.

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## Ethical considerations in evaluation

# Ethical considerations and data protection in evaluation

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This document sets out the key ethical considerations and data protection aspects particularly relevant to evaluation in a fuel poverty and health context.

In general, researchers should respect the diversity of human society; where possible, evaluations should take account of age, disability, gender, sexual orientation, race, culture and religion. It is worth noting ten *questionable* practices in social research (including evaluation) according to Robson (2011<sup>1</sup>):

1. Involving people without their knowledge or consent
2. Coercing them to participate
3. Withholding information about the true nature of the research
4. Otherwise deceiving the participant
5. Inducing them to commit acts that may diminish their self-esteem
6. Violating rights of self-determination (e.g. in studies aiming to promote individual change)
7. Exposing participants to physical or emotional stress
8. Invading their privacy
9. Withholding benefits from some participants
10. Not treating participants fairly, or with consideration, or with respect

## Ethical guidelines

Research ethics refers to the moral principles guiding research from inception through to publication. Research or evaluation which include people vary widely in the method and purpose, however basic ethical principles should be followed in each and carefully considered from the design stage<sup>1</sup>. Relevant ethical guidelines include:

- [Research Councils UK Policy and Guideline on Governance of Good Research Conduct](#) (2013)
- The British Psychological Society - [Code of Human Research Ethics](#).
- [Research Governance Framework for Health and Social Care](#), produced by the Department of Health attempts to bring together guidelines/ statutes in the field. The document includes a section on ethics (2.2) with guidance for protecting research participants' rights. This sets out the primary consideration for protecting the dignity, rights, safety and well-being of participants.
- The UK Government Social Research Unit published guidance on [Ethical Assurance for Social Research in Government](#) which details their five main ethical responsibility principles: Principle 1: Sound application and conduct of social research methods, and interpretation of the findings; Principle 2: Participation based on informed consent; Principle 3: Enabling participation; Principle 4: Avoidance of personal and social harm and Principle 5: Non disclosure of identity.

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<sup>1</sup> Robson, C. (2011) Real World Research, third edition, pp.211, John Wiley & Sons Ltd, Chichester.

## Ethics review process

You are likely to need to get ethics approval for an evaluation that involves contact with the health service. The ethics review flowchart can help you decide on necessary steps. Where NHS or social care ethics approval is required, further advice on the steps to follow is set out below. Meanwhile, continue to engage with partners and stakeholders to develop ideas about the evaluation while applying, because this will allow you to develop your proposal and actually see if people will play ball.

## Applying for NHS ethics approval

If you are in one CCG area, check with your health partner whether they can set up data sharing protocols based around informed consent. Check if this is practically feasible in terms of CCG resources.

Then:

If you are getting a university to evaluate your project, get them to undertake the application.

Otherwise advice on applying can be found with the National Research Ethics Service (NRES), now part of Health Research Authority.

[www.hra.nhs.uk/research-community/applying-for-approvals/](http://www.hra.nhs.uk/research-community/applying-for-approvals/)

## The Integrated Research Application System

The Integrated Research Application System (IRAS) needs to be used for obtaining ethical permission if you are working with NHS patients and/or in a NHS setting or wanting NHS data. It is a single online system for applying for permissions and approvals for health and social care/community research in the UK.

<http://www.hra.nhs.uk/research-community/applying-for-approvals/#sthash.w3eYy7E7.dpuf>

To use the system there is a free on-line module available

<https://www.myresearchproject.org.uk/ELearning/index.html>

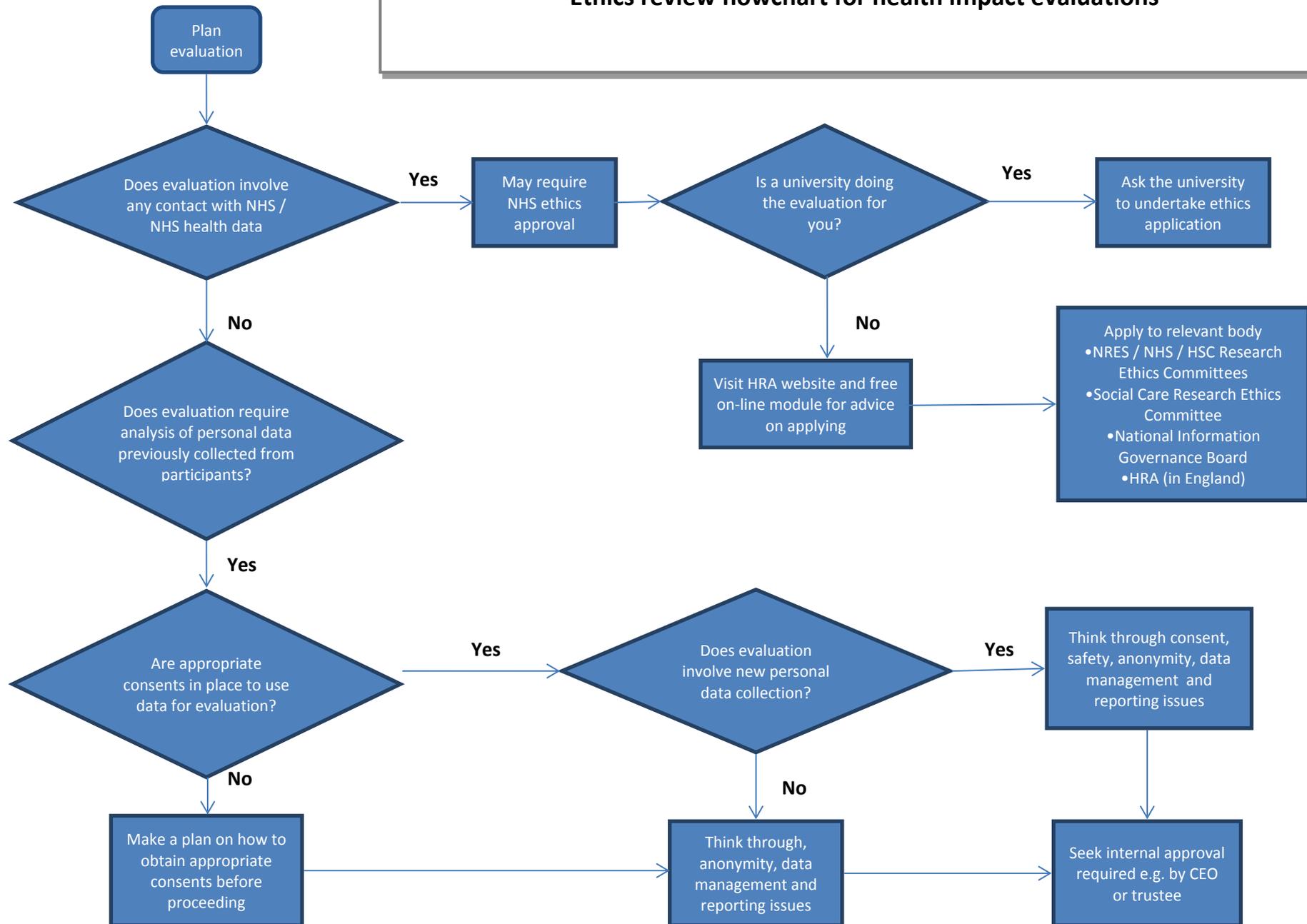
The three research governance bodies most pertinent to this area of work will be:

- NRES / NHS / HSC Research Ethics Committees
- Social Care Research Ethics Committee
- National Information Governance Board

For projects in England you can apply to HRA

[www.hra.nhs.uk/resources/hra-approval-applicant-guidance/](http://www.hra.nhs.uk/resources/hra-approval-applicant-guidance/)

## Ethics review flowchart for health impact evaluations



## Informed consent

Informed consent must be gained from participants in ethical research and evaluation. This includes the provision of clear participant information in written, verbal and/or pictorial form to participants and the provision of time for reflection and questions. When gaining consent from children, or vulnerable adults (with mental health problems or learning difficulties), arrangements must be made to ensure the relevant information is provided in a form which the participant can understand.

[Additional document 10, Booster Fund Questionnaires](#), contains an example consent form.

[Homeless Link Ethics Toolkit](#) includes a template consent form to receive consent from clients for use before seeking information from external bodies.

The [Mental Capacity Act 2005](#) provides safeguards for people who lack capacity to provide consent; the researcher may be able to respect the person's previous wishes, or consult a carer who can take an independent view with consideration towards the person's interests, wishes and feelings. The Regulations under [Section 60 of the Health and Social Care Act 2001](#) specify the very limited circumstances when identifiable patient information may be used for research without consent.

The [NHS National Patient Safety Agency](#) debates ethical procedures and publishes guidance on issues such as '[time to consent](#)' and '[how Research Ethics Committees consider and decide about the inclusion or exclusion of participants in research who may have difficulties in adequate understanding of English?](#)'

The [Research Methods Knowledge Base](#) includes general guidance on ethics, and background cases of the unethical human research which led to more stringent ethical guidance.

## Data protection considerations

The Information Commissioner's Office has a [guide to data protection](#).

The NHS has a general advice webpage on [using confidential patient information](#). Under the [Health Service \(Control of Patient Information\) Regulations 2002](#), confidential patient information may be processed *for medical purposes* without consent in certain circumstances, provided that the processing has been approved by the [Health Research Authority](#) through the [Confidentiality Advisory Group \(CAG\)](#). The [NHS Act 2006](#) sets out the legislation the NHS must abide by in terms of working with local authorities and other partners, in addition to more general legislation.

The UK Data Archive has a [Managing and Sharing Data](#) best practice guide which includes information on the benefits of data sharing and the appropriate ways to arrange it. The guide provides advice on anonymising data for ethical purposes and the provision of access control.

The Research Ethics Guidebook includes a page on [data storage and data security](#), which includes planning who will have access to the data and planning how they will access the data. This is in accordance the [Data Protection Act 1998](#) which controls how personal information is stored and used. Files which contain personal or identifiable data must be either encrypted or password protected and only accessed by agreed members of the team; where data is anonymised it still needs to be held securely. In using shared computers and email, particular care needs to be taken.

## **Anonymisation**

Guidance on [anonymising data](#) is provided by the UK Data Archive. Anonymising data ensures that individuals, organisations or businesses cannot be identified. A person's identity can be disclosed by either direct identifiers (names, addresses, postcodes, telephone numbers or pictures) or indirect identifiers (information on workplace, occupation or exceptional values of characteristics such as salary or age).

In [quantitative data](#) variables can be removed or aggregated to, again minimising the impact this has on the data analysis in terms of variable relationship analysis and where spatial references have value.

In [qualitative data](#) pseudonyms, replacement descriptors or vaguer terms can be used whilst ensuring the data is not distorted and the maximum content is maintained.

[Homeless Link](#) have produced an Ethics Toolkit which can assist evaluation staff with getting anonymization right.

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## Example Evaluation Report Structure

# Example Evaluation Report Structure

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This example table of contents is intended to help you plan the layout of your report.

**Summary of key findings** (ideally a one-pager, max 5 pages)

**Introduction** – Introduce evaluation purpose and approach

**Scheme description:** briefly introduce the scheme design, target users, how it is delivered [use appendices for detail]

**Evaluation scope and methodology** – concise summary [use appendices for detail]

**Profile of beneficiary households and their homes** – use tables and charts to present concisely.

**Evaluation findings – by key evaluation question or by theme** (example below)

- Energy efficient practices practised in household - before/after intervention
- Changes in ability to pay bills and/or anxiety about bills - before/after intervention
- Changes in warmth / comfort levels in home - before/after intervention
- Changes in general health - before/after intervention
- Changes in anxiety or depression - before/after intervention
- Changes in mobility - before/after intervention

For each question or theme (as for the examples above), the report should cover:

- Quantitative reporting of before/after changes, in a table or chart format, with supporting information on number of respondents
- If sample size permits, selected cross-tabs analysis by household characteristics, to identify patterns in outcomes by household type.
- If sample size permits, selected cross-tabs analysis by type of intervention, to identify associations between intervention type and outcome type
- Qualitative reporting on subjective experiences of respondents concerning outcome

**Evaluation findings - Case studies** [optional] Where a qualitative approach to evaluation has been used, consider writing up case studies to illustrate how households have experienced changes which are associated with health benefits.

**Appendices** – what appendices you include will depend on your programme, research design, and the requirements of the users of the report. Use appendices to include information that provides detail that provide additional information for readers to gain further information on the scheme, and the research design, as well as more detailed analysis of the data.

- More detailed documentation on scheme e.g. scheme logic diagram
- Detailed methodology
- Research instruments used
- Full cross-tabs tables of data

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The low income high cost definition of  
fuel poverty

# The low income high cost definition of fuel poverty

The 'low income high cost' definition of fuel poverty has been the official definition of fuel poverty in England since 2012.

Under this definition, a household is in fuel poverty when:

1. Its required total fuel costs are higher than the national average (median) fuel cost;  
AND

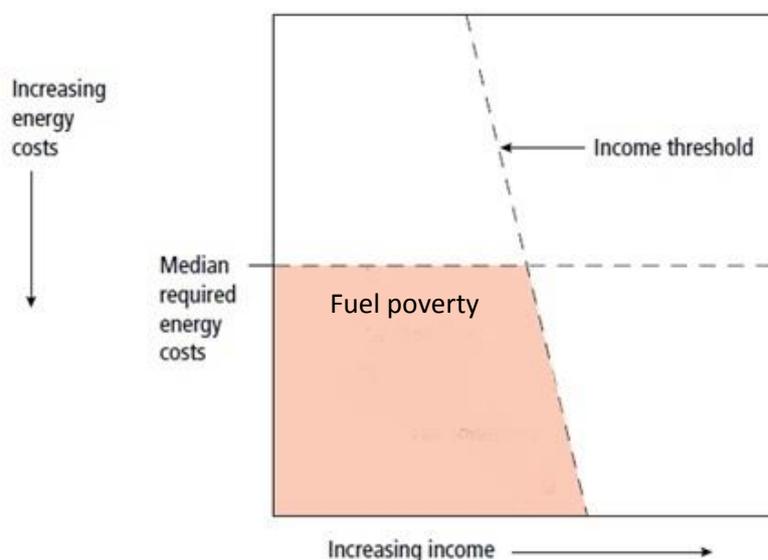
2. After required fuel costs, the household's remaining income would be below the standard government definition for poverty (60% of England's median income after housing costs).

Both the income and fuel costs are adjusted to account for the household's size and composition. This adjustment is known as 'equivalisation.'

The fuel cost is not the actual amount that the household spends, but the theoretical amount that the household would have to spend to heat the home to an 'adequate level of warmth', being defined as 21°C in the living room and 18°C in the rest of the home. As fuel poor households tend to under-heat their homes, this theoretical fuel cost is likely to be higher than a household's real expenditure on heating.

The low income high cost definition is illustrated in the figure below. All households can be placed somewhere in the square, depending on their equivalised income and required fuel cost. For example, a household with high income and low fuel cost would be in the top right hand quadrant. Households falling into the shaded area are fuel poor.

Figure 1: Representation of low income, high cost' (LIHC) indicator\*



\* Adapted from Hills J. (2012) Getting the measure of fuel poverty. CASE report 72. Centre for Analysis of Social Exclusion for Department of Energy and Climate Change (DECC)

[www.gov.uk/government/publications/final-report-of-the-fuel-poverty-review](http://www.gov.uk/government/publications/final-report-of-the-fuel-poverty-review), p.9

The low income high cost definition also allows the measurement of the 'fuel poverty gap'. This is the amount by which a household's required energy bill would need to decrease (through energy efficiency measures) or its income increase, to move the household out of fuel poverty.

In order to calculate whether a specific household is in fuel poverty under the low income high cost definition, you need to know the following information as a minimum:

- Number of adults and children in household
- Household income after housing costs
- Energy Performance Certificate for the property, which gives the fuel cost requirement

You also need to know median household income after housing costs. This can be found in government statistics on [Households below average income](#), published on gov.uk. This [infographic](#) show how the low income threshold - 60% of median household income is measured.

For further information on official measurement of fuel poverty, see:

[www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/211180/FuelPovFramework.pdf](http://www.gov.uk/government/uploads/system/uploads/attachment_data/file/211180/FuelPovFramework.pdf)

[The Fuel Poverty Statistics Methodology and User Manual](#) provides a guide for users of DECC fuel poverty statistics.

# Glossary

**Affordable warmth schemes** – The Affordable Warmth scheme is a Government initiative to try and ensure everyone in the UK can afford to heat their homes. It offers grants to those people deemed in the greatest need, to finance energy efficiency measures or heating systems.

**Impact evaluation** – An impact evaluation reviews the changes in the outcomes which have occurred as a result of a particular intervention. This involves considering what would have happened in the absence of the intervention.

**Joint Strategic Needs Assessment (JSNA)** – A JSNA examines the health and care needs of a population in a local area and uses this to guide the planning of health, well-being and social care services within the local authority area.

**Public Health Outcomes Framework** – Indicators that help us to measure the public's health and wellbeing

**Evaluation risk register** – determines the level of impact of a risk and the likelihood of the risk occurring

**Data protection** – The Data Protection Act controls the way in which organisations, businesses and the government are allowed to use data. Those using data must adhere to data protection principles.

**Informed consent** – Before a healthcare intervention is carried out then permissions must be obtained from the individual involved. Consent must be informed, meaning that the person must fully appreciate and understand the facts, implications and consequences of what they are consenting to.

**Terms of Reference (TOR)** - The Terms of Reference are a description of the purpose and structure of a task which a group have agreed to complete

**Logic models** - A logic model is a framework which describes the logical links between project inputs, outputs and outcomes.

**Theory of change** - The theory of change provides a way of working backwards from programme goals to more specific programme objectives in order to produce a desired change.

**HACT (Housing Associations Charitable Trust)** - An agency committed to promoting ideas and innovation in the housing sector, in order to provide housing solutions to marginalised people.

**HACT's Standards of Evidence** – These are standards for producing and using evidence in the housing sector, produced by HACT with funding from Public Health England.

**Home energy audit** – This is an assessment of how much energy your home consumes and an evaluation of what measures might make the home more energy efficient.

**Means-tested benefits** - Allocation of certain benefits is based upon means-testing. Means-testing involve an assessment of the amount of capital and income that a person has.

**SAP rating** - A SAP (Standard Assessment Procedure) rating is a measure of the energy efficiency of a building. It is based upon a methodology, defined by the Government, for assessing and comparing the energy and environmental performance of dwellings.

**Outcome** – The changes, benefits, learning or other effects that happen as a result of services and activities provided by an organisation.

**Clinical outcome data** – Clinical outcomes are broadly agreed measurable changes in health or quality of life resulting from health care. Clinical outcome data would be data demonstrating these changes.

**Clinical Commissioning Group (CCG)** – A CCG commissions health services for their local area.

**Commissioning** – The process by which services are planned and provided effectively to meet a population's needs.

**Privacy Impact Assessment** – Privacy Impact Assessments are tools which help in the identification of privacy risks and in forming a strategy in order to ensure compliance with data protection obligations and individuals' expectations of privacy.

**Impact** - The change, effect or benefit that results from the provision of a services or activity on a wider society than its direct users. It is often long term, broad and sustainable and can include affecting policy decisions at government level.

**Indicator** - Well-defined information which shows whether something is happening.

**Social return on investment (SROI)** – A social return on investment is an analytical tool for measuring and accounting for a concept of value, broader than just economic value. This may account for social and environmental, as well as economic, values.

**Fuel poverty** – A person defined as being in fuel poverty is unable to heat their home adequately.

**Community health care services** - Community health care is vital health provision provided outside of the hospital, within the community setting.

**Primary care** – Focuses on the treatment of minor injuries and illnesses, and deals with minor surgery and the on-going management of chronic conditions. It is the first point of contact most people have with the NHS, and is delivered by a wide range of professionals, including family doctors (GPs), nurses, dentists, pharmacists and opticians.

**Secondary care** – Covers care in general and specialist hospitals for conditions that normally cannot be dealt with by primary care services. It includes medical and mental health services.

**COPD (Chronic Obtrusive Pulmonary Disease)** – COPD is the name for a collection of lung diseases, including chronic bronchitis, emphysema and chronic obtrusive airways disease. People suffering from COPD have difficulties with breathing.

**Randomised controlled trials (RCT)** - A RCT is a study involving a group of people who are randomly assigned into groups, in which one group receives the treatment being tested and the other receives an alternative treatment – usually a placebo or nothing at all. Groups are followed up to see how effective the treatment was.