

Building cold homes referrals with the health sector

This toolkit provides guidance on developing cold homes referrals in partnership with the health sector, so that health professionals are able to identify and refer patients who are vulnerable to living in a cold home. It will also help health professionals to understand the links between fuel poverty, cold homes and health.

“Why treat people and send them back to the conditions that made them sick?” Marmot, The Health Gap 2015



This is an interactive toolkit.

Elements have roll over and clickable content to add more detail or help navigate to further information.

You can use the arrow buttons to click through page by page or hover over graphics to see the link. You can use the navigation bar on the top of pages to move to each section.

January 2018 – Version 1

We will continue to add to this toolkit as more evidence is generated and more examples of work being carried out in this area becomes available.

Before you start:

Introduction to this toolkit

Who is this toolkit for?

The toolkit is designed for the following audiences:

- 1 To support the health sector to make cold homes referrals for people vulnerable to cold
- 2 To support organisations and local authorities to engage the health sector in making cold homes referrals.



Look out for **Case Studies** for more information throughout this toolkit.

This toolkit is focused on how health services can use energy efficiency to support fuel poor and vulnerable households. The toolkit is designed to:

- Help health services understand the drivers for taking action and how they can support people to live well at home;
- Help local authorities, third sector and other organisations understand how to best engage the health sector in making cold homes referrals
- Provide guidance, best practice recommendations and signpost to tools to support health action on cold homes.

Health services and local authorities already work closely together to reduce the health and wellbeing risks (including preventable deaths) associated with living in a cold or under-heated home. The toolkit provides health services with up to date tools for their communities to stay warmer and healthier for less to improve the health of the population. The toolkit is not designed to critically review evidence. Please refer to [this link](#) for reviews of evidence linking cold homes and unaffordable fuel bills to ill health.

The toolkit and the information contained applies to England only. Health services in Scotland and Wales may find some of the information of value and equally we could learn a lot from how things are done in Scotland and Wales.

Why is this important...



...for health services

Cold homes cost the NHS in England £850 million – £1.36 billion per year.* Those living in cold homes place increased pressure on already stretched health and social care services.

Overall poor housing represents a similar risk to the NHS as physical inactivity, smoking and alcohol.



...for local authorities

Most local authorities have fuel poverty and energy efficiency programmes to support vulnerable people living in cold homes within their area.

Under the Energy Company Obligation (ECO) local flexibility, local authorities can engage with energy suppliers to identify households that may benefit from energy efficiency improvements.



...for other partners

Across housing and energy services there is a range of support available for people at risk from cold homes.

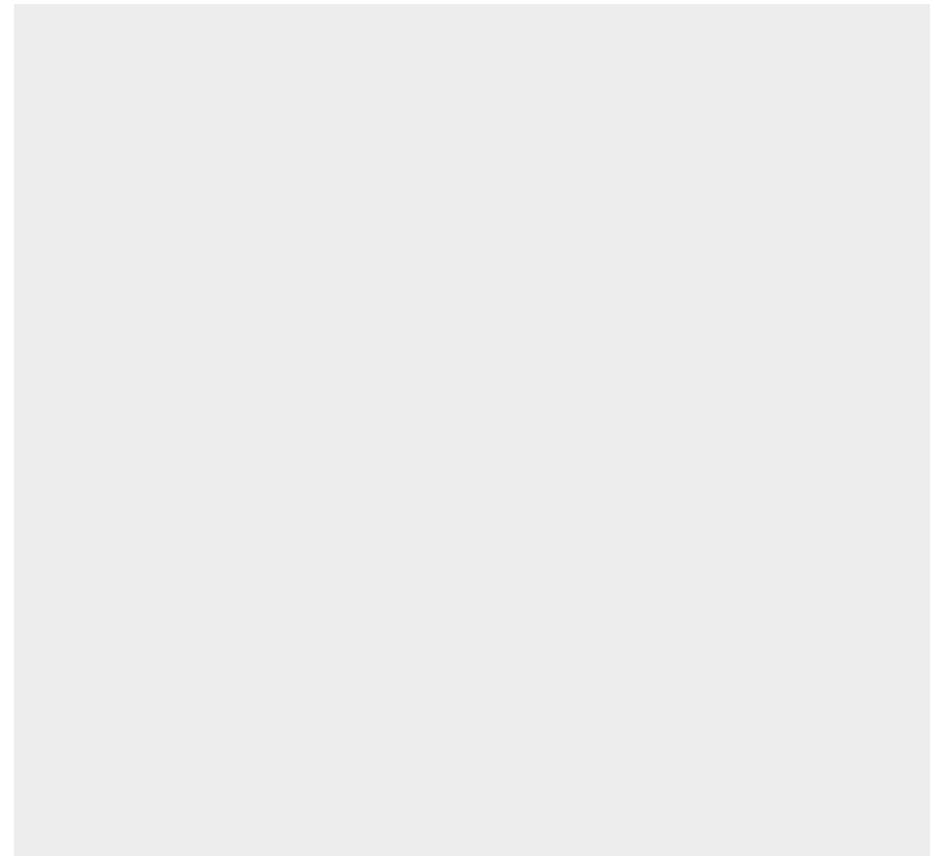
However provision is patchy and can be hard for people to access and link together without support.

*(BRE – 2015, Age UK – 2012)

1 Fuel poverty, cold homes and health

Addressing fuel poverty and cold homes has many benefits, including:

- Savings for the NHS and healthcare
- Better standards of living, especially for people with low incomes. Improved health outcomes and patients are better able to manage their existing health conditions.
- An improved and energy efficient housing stock
- Reduced number of winter deaths



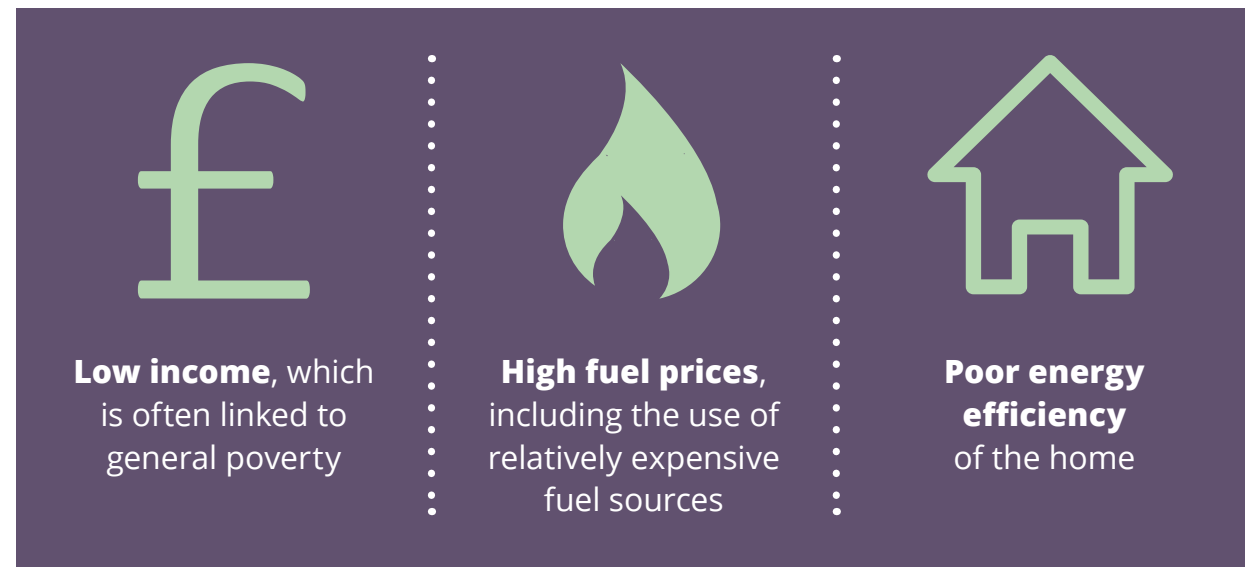
A Understanding fuel poverty

Fuel poverty occurs when a household cannot afford to keep their home adequately warm for a reasonable cost. This means that people living within the home may be cold, or if they choose to heat their home, may not have enough money to pay for food or other services. Living in a cold home can therefore lead to poor physical and mental health.

In 2015, about 2.5 million households in England (11% of all households) were estimated to live in fuel poverty, according to the **Annual Fuel Poverty Statistics report 2017**.

What causes fuel poverty?

While the reasons for fuel poverty are complex, it is generally agreed that fuel poverty is caused by a convergence of three factors:



How is fuel poverty measured?

The Low Income High Cost (LIHC) indicator is the official fuel poverty indicator and classes a household as being in fuel poverty if its energy costs are above the average (median) for its household type and this expenditure pushes it below the poverty line.

B How to identify a dwelling that might be at risk of being cold

The following characteristics are risk factors for fuel poverty and cold homes:



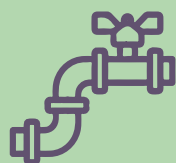
Buildings constructed with solid walls have a higher prevalence of fuel poverty compared to those with cavity walls



Older and larger buildings see higher levels of fuel poverty compared to new builds and smaller dwellings



Households with no boiler or a non-condensing boiler have higher levels of fuel poverty compared to those with condensing boilers



The level and depth of fuel poverty is also greater for households not connected to the gas grid

Interested in learning more? You can find small area estimates of the number and proportion of homes with poor EPC ratings for 2012 on:

- The [Centre for Sustainable Energy \(CSE\) website](#)
- The [Department for Communities and Local Government \(DCLG\)](#), but you'll need to register first and have facilities for processing the data.



Homes rated Energy Performance Certificate (EPC) E, F or G are more difficult to heat and keep warm at an affordable cost. There is a much higher proportion of fuel poor households in low rated homes than non-fuel poor households.

For more information on the link between fuel poverty and dwelling type, see [Annual Fuel Poverty Statistics report 2017](#)

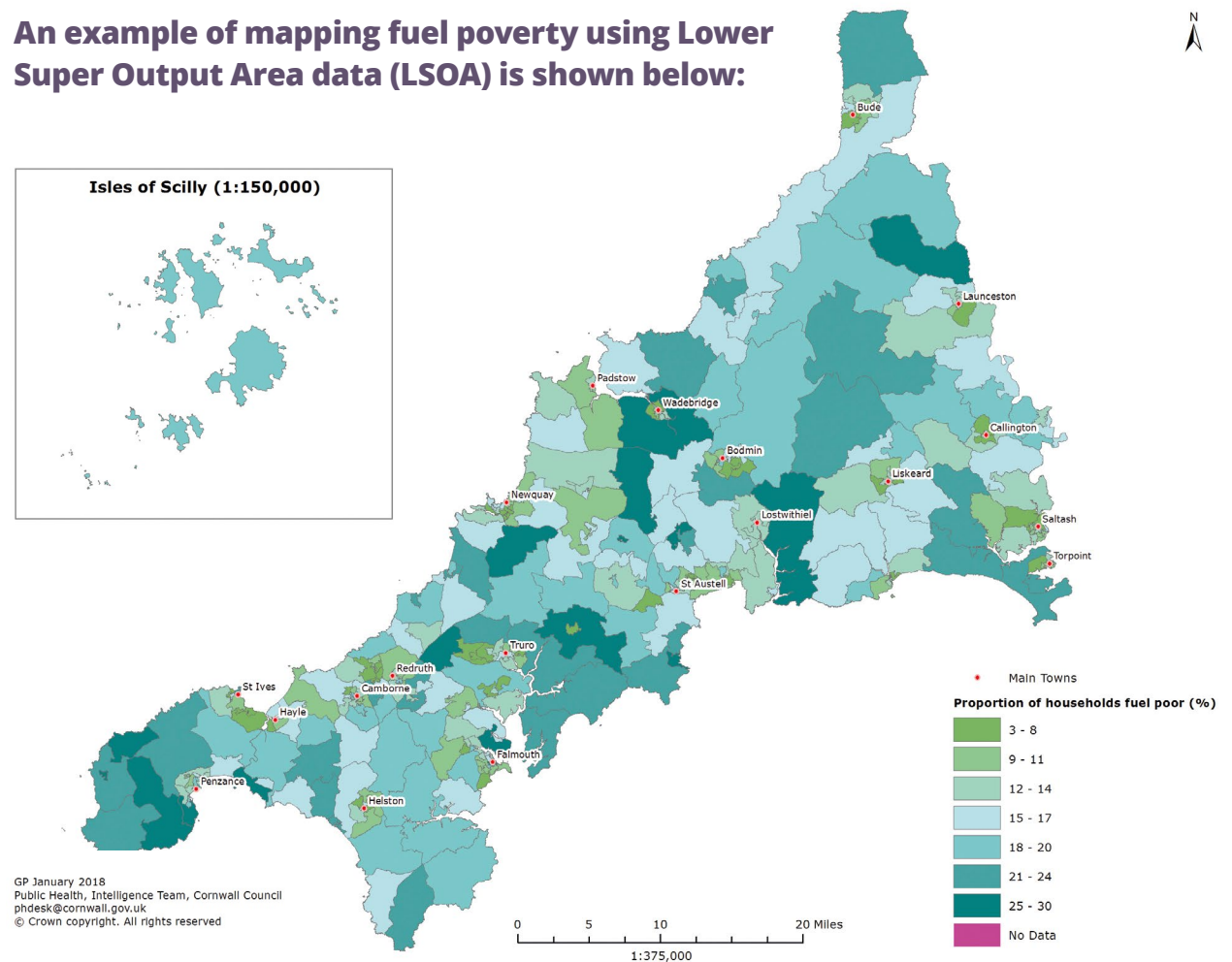
Location

Regional differences affect the level and depth of fuel poverty and are related to the age of the housing stock, climatic conditions and relative income levels across the country:

- The North East, Yorkshire and the Humber, West Midlands and the South West of England have the highest proportion of households in fuel poverty compared to the East and South East
- A much higher proportion of households in rural areas than urban areas are not connected to the gas grid and therefore rely on more expensive heating fuels. They therefore have a higher level and depth of fuel poverty
- It is important to understand how fuel poverty is experienced in your local area.

BEIS produces small area estimates of the level of fuel poverty in local areas – useful for showing where the worst problems are. These are reliable at local authority level but should be treated with caution at lower levels, such as Super Output Area.

An example of mapping fuel poverty using Lower Super Output Area data (LSOA) is shown below:



Demographics

NICE guidelines list the following groups of people as vulnerable to fuel poverty and the impacts of cold, damp homes:



- People with cardiovascular conditions
- People with respiratory conditions (in particular, chronic obstructive pulmonary disease (COPD) and childhood asthma)
- People with mental health conditions
- People with disabilities
- Older people (65 years +)
- Young children (under 5)
- Pregnant women
- People on a low income
- People who move in and out of homelessness
- People with addictions
- People who have attended hospital due to a fall
- Recent immigrants and asylum seekers

C What are the impacts of living in a cold home?

There is a substantial body of evidence linking cold temperatures with ill health and higher mortality and morbidity rates in winter. The World Health Organisation estimates that up to 30% of winter deaths are caused by cold housing.

Living in cold and damp housing increases incidence rates for heart attack, stroke, respiratory disease, influenza, falls and injuries and hypothermia, especially in the elderly. It can also cause poor mental health.

Other effects include a risk of carbon monoxide poisoning (i.e. through the use of cooking and heating appliances) and a wider effect on wellbeing and life opportunities.

For further information see:
[The Health Impacts of Cold Homes and Fuel Poverty](#)



30%

Winter deaths are caused
by cold housing



D What is a healthy temperature for a home?

Public Health England recommends the following indoor temperature thresholds:

Heating homes to at least 18°C (65F) in winter poses minimal risk to the health of a sedentary person, wearing suitable clothing.



* There is an existing recommendation to reduce Sudden Infant Death Syndrome (SIDS). Advice is that rooms in which infants sleep should be heated to between 16–20°C (61–68F).

Daytime recommendations

- The 18°C (65F) threshold is particularly important for people over 65yrs or with pre-existing medical conditions. Having temperatures slightly above this threshold may be beneficial for health.
- The 18°C (65F) threshold also applies to healthy people (1–64)*. If they are wearing appropriate clothing and are active, they may wish to heat their homes to slightly less than 18°C (65F)

Overnight recommendations

- Maintaining the 18°C (65F) threshold overnight may be beneficial to protect the health of those over 65 years or with pre-existing medical conditions. They should continue to use sufficient bedding, clothing and thermal blankets or heating aids as appropriate.
- Overnight, the 18°C (65F) threshold may be less important for healthy people (1–64 years)* if they have sufficient bedding, clothing and use thermal blankets or heating aids as appropriate.

The effect on comfort and health of exposure to varying living room temperatures

Indoor temp.	Effect
18°C	Heating homes to at least 18°C (65°F) in winter poses minimal risk to the health of a sedentary person, wearing suitable clothing. Additional flexibility around advice for vulnerable groups and healthy people is outlined in the main Cold Weather Plan for England .
Under 16°C	Resistance to respiratory diseases may be diminished.
9-12°C	Exposure to temperatures between 9–12°C for more than two hours causes core body temperature to drop, blood pressure to rise and increased risk of cardiovascular disease.
5°C	Significant increase in the risk of hypothermia.


Developed by PHE and UKHF, 2014



E What are the policy drivers to support cold homes work?

There are a range of health, environmental and social policies that support action on fuel poverty and cold homes. This section summarises the most relevant policy, planning and regulatory levers for local authorities.

We've outlined some of the key national drivers for cold homes work:



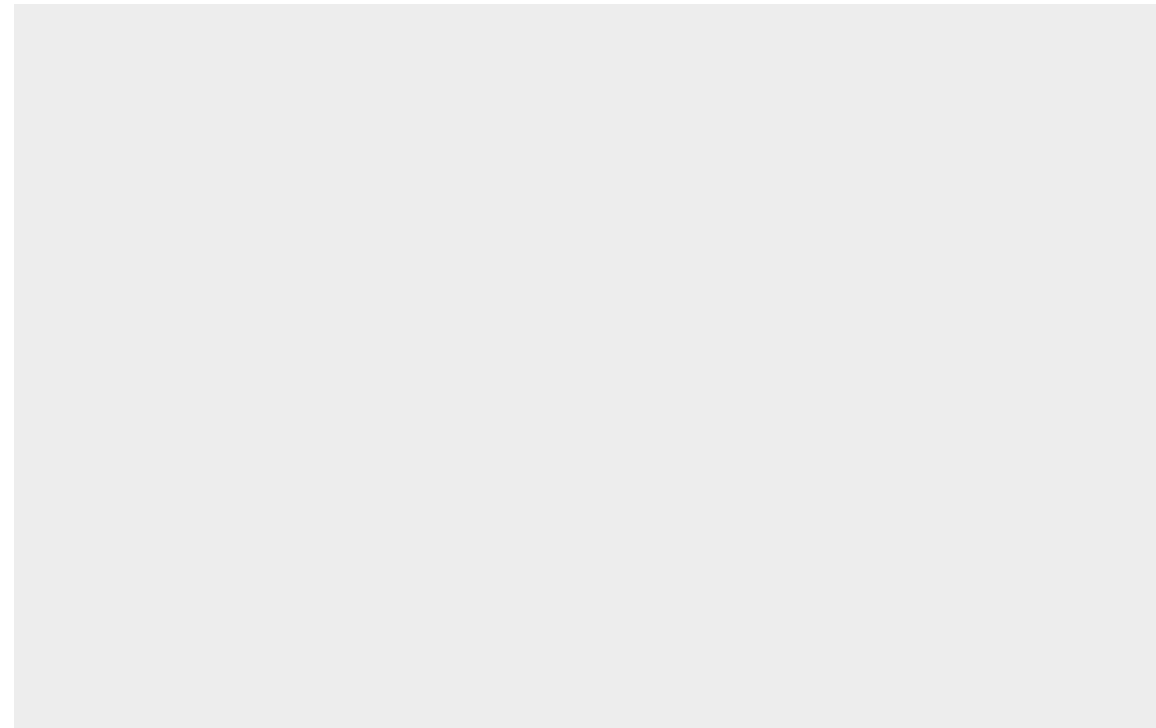
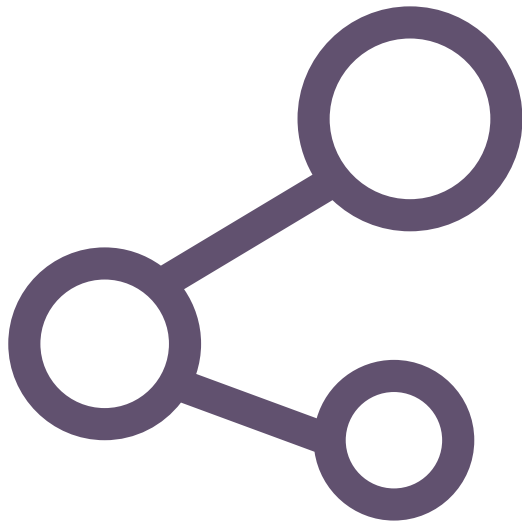
F What are the interventions to address cold homes?

There are many initiatives in place across the country to address cold homes and unaffordable fuel bills, with a variety of services that can help vulnerable people. The table provides examples of types of interventions:

Intervention type	What is typically offered?
Year round telephone advice services delivered by third sector bodies, housing association and local authorities	Debt advice for improved energy efficiency, e.g. tariff discounts, debt advice, collective switching, energy efficiency installations, grants and energy saving behaviours.
Face to face advice or training provision. May include services aimed at frontline workers	Different options – home visits, workshops or specific events. May include training front line professionals who have contact with vulnerable people. This helps frontline workers to spot people vulnerable to cold and help refer them to a service that can help.
Income maximisation advice either over the telephone or face to face	Advice on benefit entitlement and reducing debt, such as that provided by local Citizens Advice, can make a major contribution toward reducing fuel poverty
Practical help at home, normally for older or disabled people, in the form of a ‘handyman’ service	Physical help around the home to make energy savings changes, e.g. draught proofing windows and doors.
GP referrals of vulnerable patients	GP practices may have social prescribing schemes to refer vulnerable to cold patients to energy efficiency schemes. The provider of the cold homes prescription may include the local CCG, public health and the third sector.
Collective switching schemes, run by switching services or local authorities	This brings people together to enable collective buying power to negotiate a cheaper deal from a supplier.
Public health awareness scheme run by local authority/NHS/other	Giving advice on how to keep warm and links to services that can help.
Local delivery of national energy efficiency programmes/local authority and housing associations mass retrofit	Retrofit of energy efficiency installations such as boilers, cavity walls and loft installation.
Creation of ‘warm zones’	Area based schemes to target delivery of various energy efficiency services.

2 How to engage the health sector in the cold homes agenda

This section will help you to engage with your local health sector by explaining:



A Understanding the structure of the Department of Health

To get the health sector on board with making cold homes referrals, it's important to first understand health sector roles, how they interrelate, and who will be able to help with what.

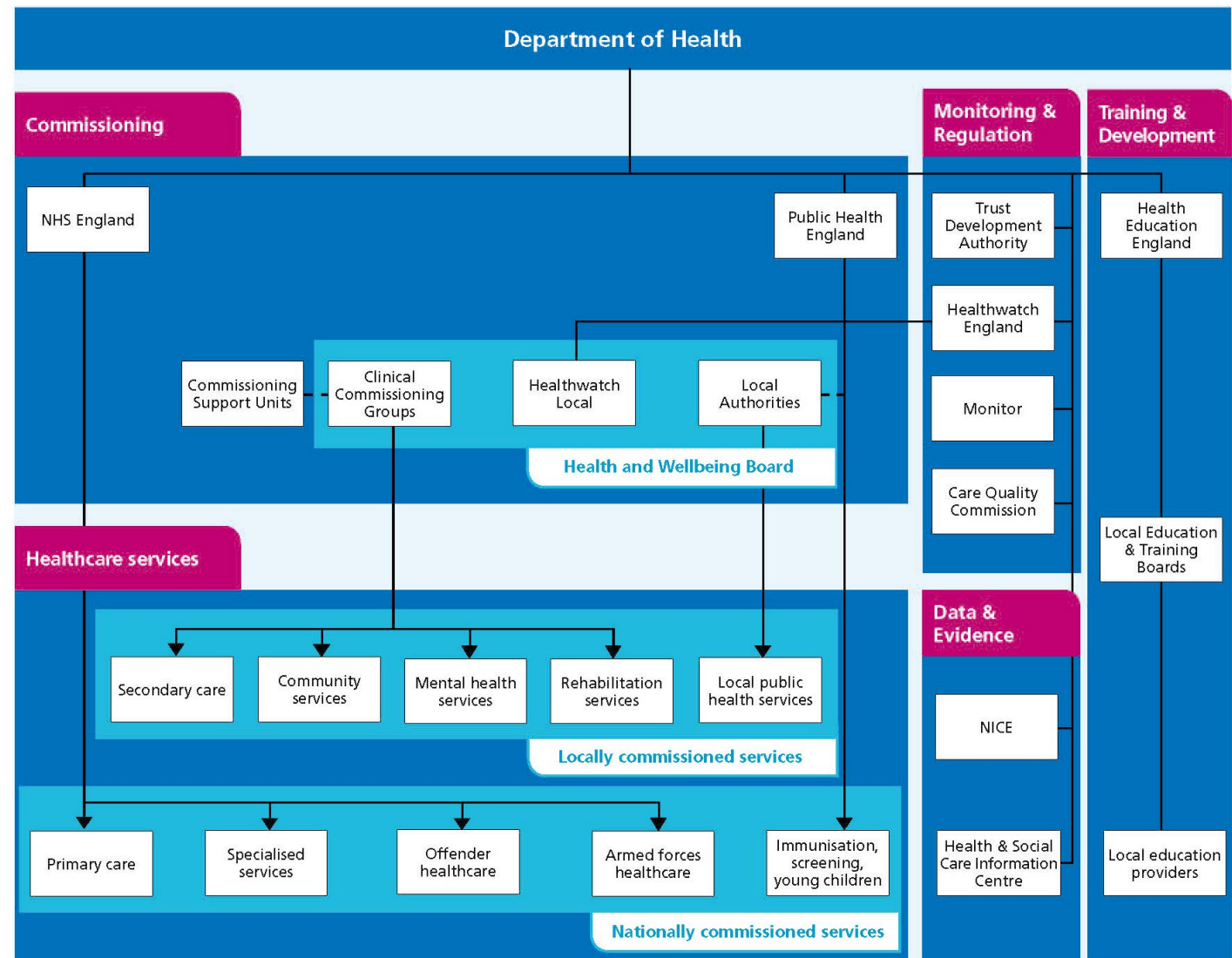


Figure 1. Department of health structure

B Understanding roles within the health sector, and who does what

If you are going to engage the health sector in making cold homes referrals, it's important to know who does what:



C How to build relationships within health

Before you build your case for support, it's first important to understand how to build relationships within health:

To quote Former President Obama, 'Show up. Dive in. Persevere'. Establishing partnerships will take longer than you expect. Make sure you give yourself a long run into any new service – at least 6 months+. It will take a lot of manager's time to get new relationships off the ground, so make sure you've resourced development activity adequately. Nothing beats face to face contact – get invited to meetings, get involved with networks, get your name known.

Take a collaborative approach and get health partners involved in developing your service (this is often called co-production in the health sector). Not only can partners provide crucial input to the design of your service, but it will also help them understand what you're

When you're approaching potential referral partners in the health sector, think about ways to bring your proposed models to life. This could be through sharing 'blueprints' of your service or examples of other services. As cold homes support is a broad area (and may be a new concept for some people), it can be difficult to understand what you're actually offering – having some materials to illustrate your ideas can be really helpful.

Health partners are in high demand and there is strong competition from other services. Be mindful of what you're asking of them – consider how you can help them and how you can work with other organisations to align services and proposals.

Important contacts



CCG – Operations manager and social prescribing lead

Public health – Director of, and officer with responsibility for excess winter deaths

Integrated commissioning – Better Care Fund lead (CCG)

GPs are often talked of as the key to accessing clients for cold homes support, however in practice you will often have much more success if you direct your energy at others within the health sector.

Local health structures are prone to changes in staff or scope – **keep in regular contact** so you are aware of what's going on and who you need to speak to.

D How to build your case for support, and understanding health sector drivers

When developing a business case or making an approach to the health sector for cold homes support, it's useful to know what the health sector is trying to achieve so that you can align your objectives. If you are able to show how you will enable them to achieve their goals, then you will stand a much better chance of success in applications for support.

The following frameworks have indicators that are relevant to cold homes:



In addition to the indicators within the frameworks below, the following also have priorities that are relevant to cold homes work:

Hospitals – reducing emergency hospital admissions, speeding up discharges to home from hospital

GP practices – managing demand, reducing repeat presentations to their services and reducing prescriptions

E The economic evidence behind warm homes and health

In addition to knowing the drivers behind each of the health organisations that you'll need to work with, it's also helpful to know how much money the NHS can save through cold homes interventions. Making cost effective savings is a big driver for both the NHS and other healthcare organisations, and any evidence you have that demonstrates how your cold homes/energy efficiency project can save money for these bodies, will put you in a much stronger position.

While figures and methodologies vary, it is generally agreed that improvements to homes improve health, and therefore result in health savings:



Age UK has calculated that cold homes costs the NHS

£1.36 billion per year

The King's Fund suggests that every:

£1



£70

spent on improving homes

saves the NHS over 10 years

(Making the Case for Public Health Interventions, 2014)

A Chief Medical Officer (CMO) report quotes that an investment of

£1

in keeping homes warm **saves the NHS**

20p 20p 2p

in health costs



The Building research Establishment (BRE) calculate that reducing excess cold hazards to an acceptable level **can save the NHS...**

£848 million per year

if the hazard were fixed, with 7.14 years calculated for payback

In addition, BRE calculate that reducing excess cold hazards to an acceptable level for households aged



55yrs +

can save the NHS **£442 million per year**

if the hazards were fixed, with 6.78 years calculated for payback

The Building Research Establishment (BRE) Housing Health Cost Calculator

If you'd like to calculate savings that can be achieved by removing hazards in the home, the BRE Housing Health Cost Calculator can be used to calculate the health costs of hazards in homes, and the savings made where these have been mitigated or significantly reduced. It details the cost savings to the NHS and wider society gained by both enforcement and improvement strategies – and allows these to be demonstrated. It is a free tool and the service is available for local authorities and housing bodies.

A number of authorities have used this methodology to carry out retrospective health-cost benefit analyses of hazards mitigated by their intervention, including Bristol, Liverpool, Plymouth, Great Yarmouth and 4NW (Northwest Region).



F How to secure health sector funding for cold homes work

While challenging to obtain, funding from the health sector for cold homes work is available and it's important to understand how to access it in your area.

Who can provide funding within the health sector?

- Public Health
- CCGs
- NHS, including the [Better Care Fund](#)

Clinical commissioning groups

As CCGs hold two thirds of the NHS budget and are required to respond to the needs of their local population, there is scope to secure funding for cold homes projects provided that you are able to make a good 'ask'. However, while CCGs are able to fund programmes, only relatively few fuel poverty/energy efficiency projects have received funding.



Affordable Warmth Access Referral Mechanism, Wigan Council

Wigan Council was one of the local authorities who requested and received funding from their local CCG. Wigan Borough Clinical Commissioning Group provided £200,000 of funding for more than two years to upscale the Council's existing Affordable Warmth Access Referral Mechanism (AWARM).

In order to secure funding you need to establish and run a single point of contact health and housing referral service, you need to present a robust business case to your local CCG. AWARM has made the following recommendations to help you do so:

1. Evidence base: Collate a strong evidence base using academic research, national and local data, reports and strategies. Identify your target geographical hotspots and health conditions. Include case studies to illustrate the problem and how your project can help. Provide details on how you will monitor and evaluate your project.

2. Health and Housing: Language Ensure that you use appropriate health and housing language and provide a definition for any specialist terminology used.

3. Invest to Save: Ensure that your project provides prevention and early intervention in order to reduce hospital admissions and facilitate prompt hospital discharge.

4. Endorsement and Support: Try to obtain endorsement and support for your project from key influencers, including:

- Director of Public Health
- Health and Wellbeing Board
- Council Senior Management Team
- Council Cabinet Portfolio Holder
- Council Scrutiny Committee

5. Deliverability: Ensure that you can deliver your project quickly. To this end, it is important to have experienced teams and networks in place together with established systems and processes for your project. Ideally, you should have data sharing agreements already signed so that you can access the relevant patient records. The best way to demonstrate this is by having an existing project that you can upscale.

To see the business case presented by Wigan Council to Wigan Borough Clinical Commission Group, see [here](#).



Gloucester and District Citizens Advice - CCG and Better Care funding for tackling cold homes

Gloucester and District Citizens Advice is launching a cold homes referral service this winter (2017), thanks to funding from Gloucestershire Clinical Commissioning Group (CCG) and Gloucestershire Council.

Working with partners, Warm and Well, Gloucester and District Citizens Advice will provide a complete advice and referral service for people suffering ill health due to living in cold homes. They will take referrals from health care professionals in GP surgeries, the Gloucestershire Respiratory Team and Warm and Well, as well as self-referrals from people who see their publicity about the service and tailor support to meet the client's needs.

Following the launch of Citizens Advice 'Winter Resilience' project last year, which piloted the housing and health referral service recommended by NICE at seven local Citizens Advice, Gloucester and District Citizens Advice approached their local CCG to request support for their scheme.

Their request for support came at a time when commissioning budgets are being cut nationally, and services are being commissioned with a significantly reduced budget. This makes it a challenging time to secure funding, and commissioners are having to decide how best to spend limited funds.

Despite this, Gloucester and District Citizens Advice were successful in their request for CCG funding, and have some tips for securing health sector funding!



Top tips for securing health sector funding from Gloucester and District Citizens Advice

Funding for commissioning is decreasing, and some commissioners are looking for ways to stretch the funds available and try new solutions. Be prepared to show how you can help them within this challenging context, and demonstrate where possible, how innovative and creative use of funding can help to address need within the population in a collaborative way that draws on partnership working and a wider determinants approach.

The cold homes agenda is continuing to build across the country, and as it does, more opportunities will open up locally so don't give up.

Make the most of your partnerships! Gloucester and District Citizens Advice attribute part of their success to their strong partnership with Severn and Wye Energy Agency, who are well respected in Gloucester. Showing that you have strong partners gives strength to your request.

Persevere until you connect with the right person. Gloucester and District Citizens Advice were able to connect with the housing commissioner, who worked for both Gloucester Council and Gloucester CCG. This commissioner provided the link to the Better Care Fund, and was central to the successful funding of the programme, both from the CCG and Better Care Fund.

Provide as much evidence as you can – Gloucester CCG wanted more evidence showing the health and economic impact of improving cold homes. While evidence for this is limited, be well versed in what does exist and show how you could contribute to this evidence base through an evaluation of your proposed scheme

G Demonstrating the impact of funding on energy efficiency

Investment in cold homes can help to make savings on household energy bills. These infographics can be used to demonstrate how investment in energy efficiency can save money for those who are vulnerable to cold.



FLAT

A top floor solid wall flat could see its annual energy bills reduced by:

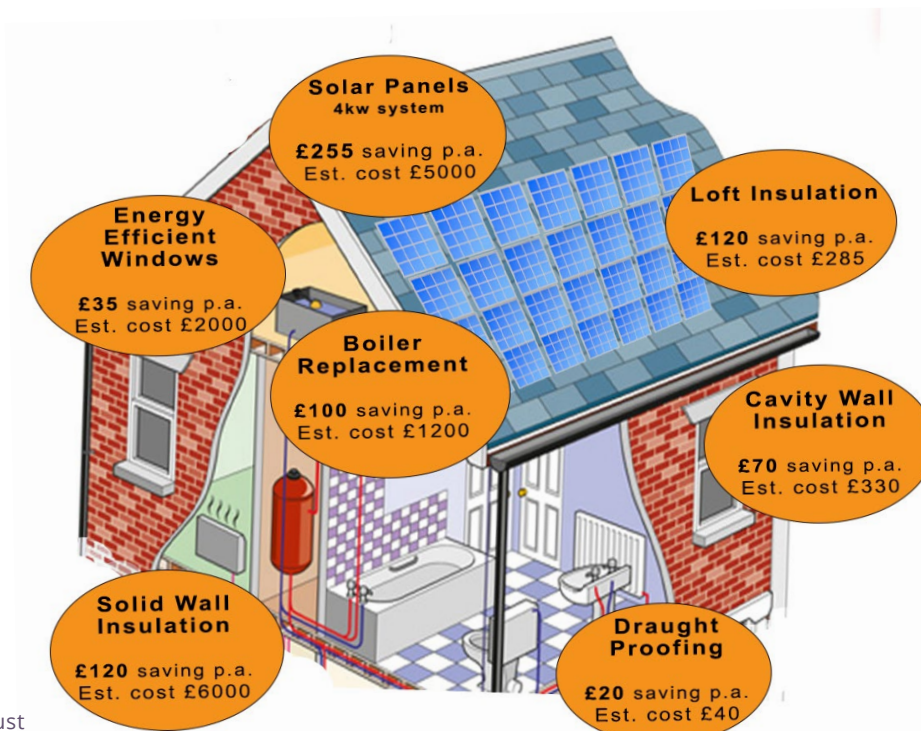
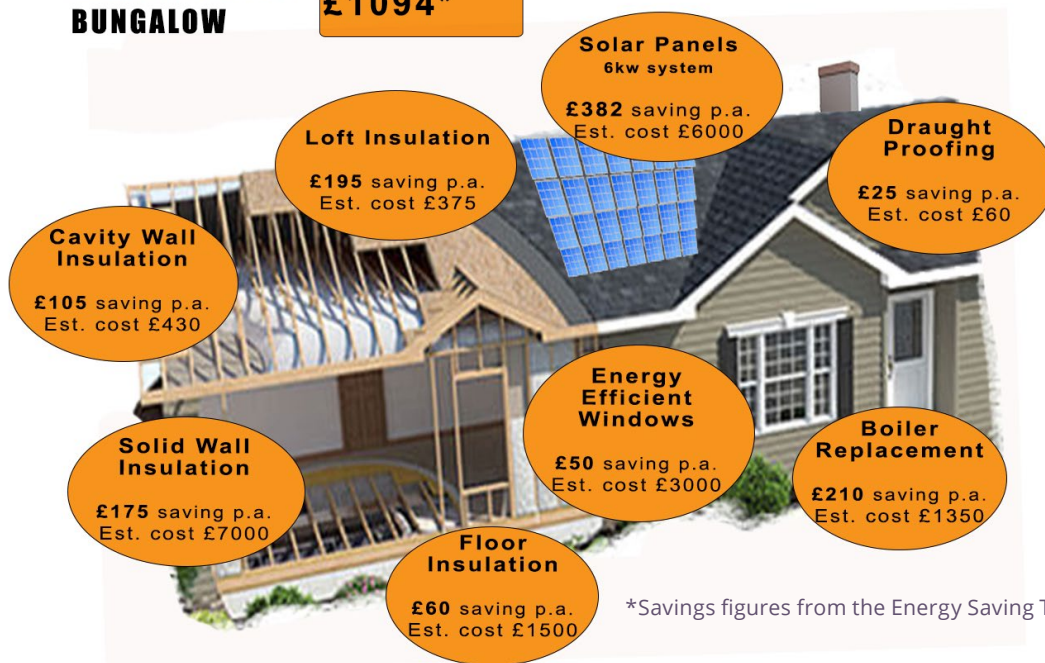
£650*



BUNGALOW

A detached solid wall bungalow could see its annual energy bills reduced by:

£1094*



*Savings figures from the Energy Saving Trust



TERRACE

A solid wall terraced house could see its annual energy bills reduced by:

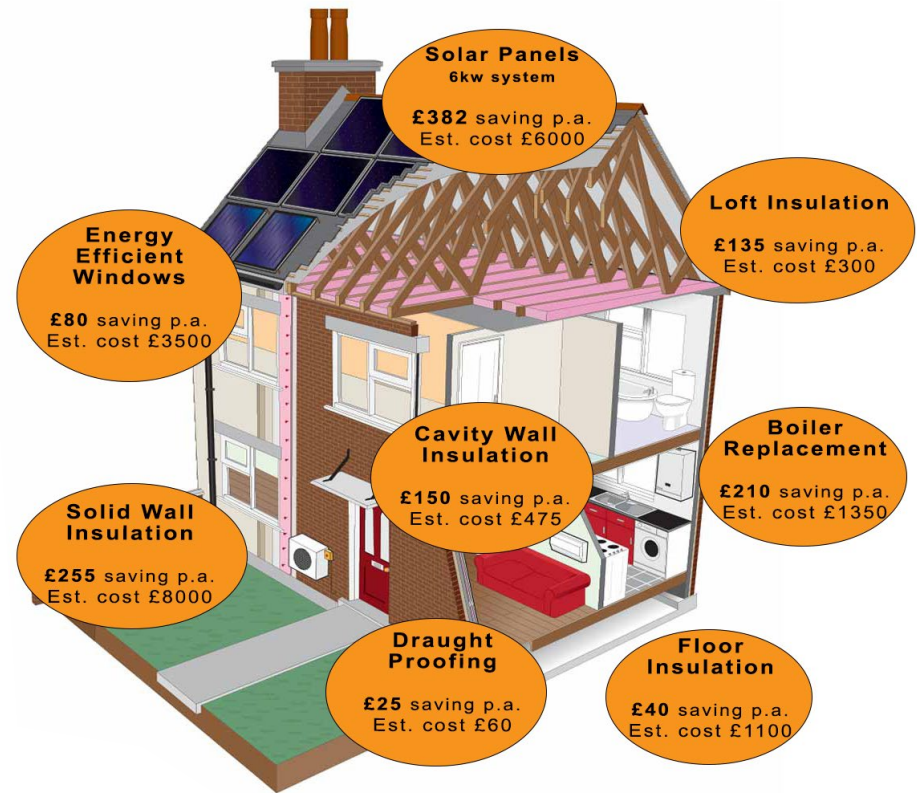
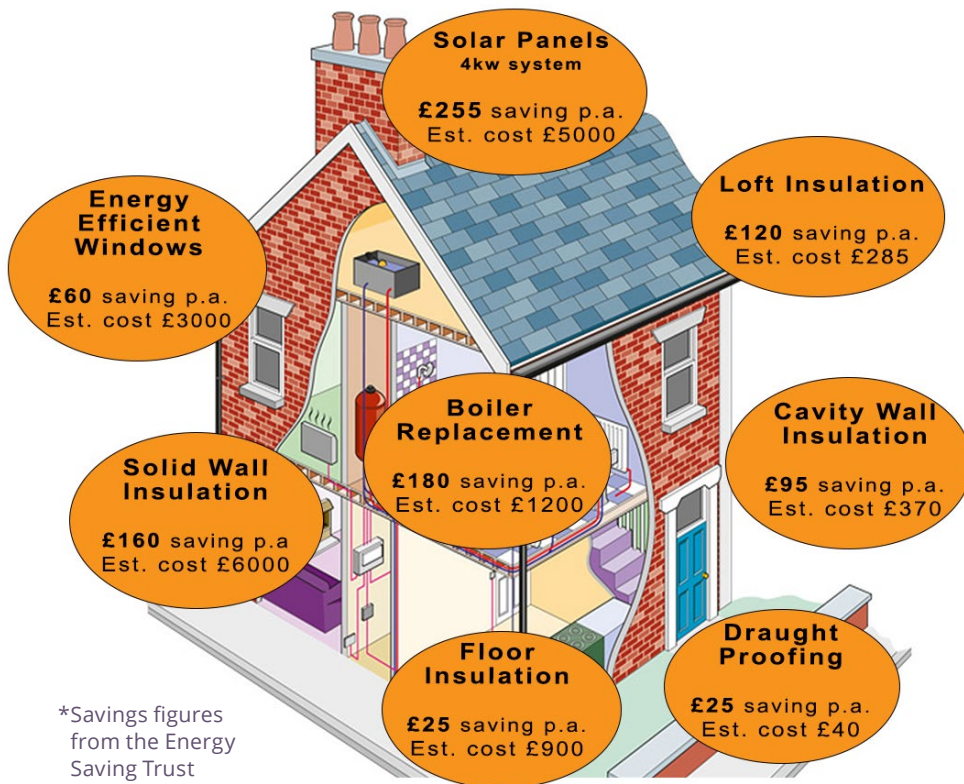
£920*



SEMI-DETACHED

A semi-detached solid wall house could see its annual energy bills reduced by:

£1127*



*Savings figures from the Energy Saving Trust



DETACHED

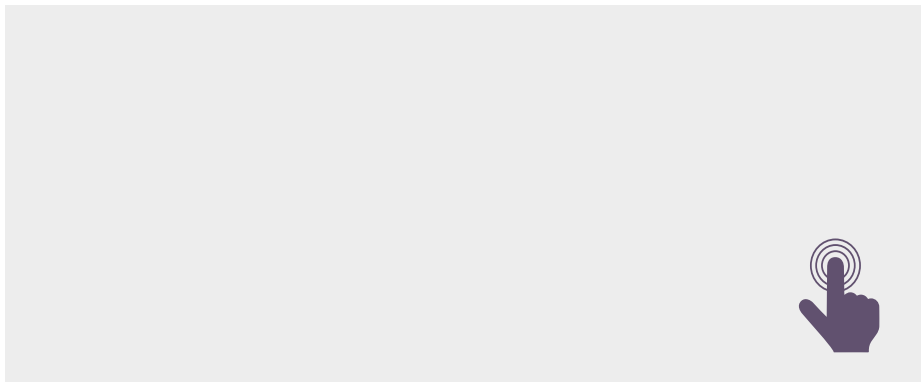
A solid wall detached house could see its annual energy bills reduced by:

£1680*



*Savings figures from the Energy Saving Trust

3 Working with the health sector to identify people who are vulnerable to living in a cold home



A How can the health sector help to identify people who are vulnerable to cold?

Health professionals are well placed to make a difference to people who are vulnerable to living in a cold home by referring them to agencies who are able to help. This is because they have regular contact with patients who are likely to be the most vulnerable, have knowledge of patients with health conditions that are most susceptible to the effects of a cold home, and are 'trusted' in their communities, so are able to act as a bridge for services that may not be known by the patient.

What health professionals can be engaged in making cold homes referrals?

- Health professionals that visit patients' homes spend more time with patients in their homes and are able to experience the patient's living conditions. These include professionals such as occupational therapists, ambulance team, community nurse, health visitor, midwife, podiatrist, respiratory specialists etc.
- GPs are well trusted by patients and will have regular contact with patients who have health conditions that you may want to target, such as COPD or children with asthma. A referral into your scheme by a GP may encourage the patient to engage, as GPs are generally 'trusted' sources of information.
- Hospital services, such as hospital discharge teams, would benefit from a cold homes referral service, as unplanned admissions, especially of elderly people, increase significantly over the winter period. Helping address the cold home of a vulnerable patient should help to reduce use of hospital services if the condition is of a nature that is affected by cold.

How can health professionals help with cold homes referrals?



B Setting cold homes eligibility criteria, flexible criteria, or no criteria

Setting eligibility criteria

The setting of criteria is the most common practice to identify people who are vulnerable to cold.

These groups often include:

- People with cardiovascular conditions
- People with disabilities
- People who move in and out of homelessness
- People with respiratory conditions (in particular, COPD and childhood asthma)
- Older people (65 years +)
- People with addictions
- People with mental health conditions
- Young children (under 5)
- People who have attended hospital due to a fall
- Pregnant women
- Recent immigrants and asylum seekers
- People on a low income



Setting flexible eligibility criteria

However, while bearing eligibility criteria in mind, it is important to consider what works best for your scheme. Many fuel poverty and energy efficiency schemes across the UK choose to have loose criteria for their schemes, as having complicated criteria often results in losing the very people you want to help in the first place.



C Bath and North East Somerset Council

Bath and North East Somerset (BANES) Council run the Energy at Home project and find that the more restrictions placed on support for cold homes, the more difficult it is to get people to come forward to receive cold homes support.

In response to this, BANES Council keep eligibility criteria as flexible as possible for Energy at Home to ensure that no eligible person is deterred, which includes people over the age of 60, with a disability or long term limiting illness, or an annual income of less than £20,000 a year and saving of less than £30,000 a year.

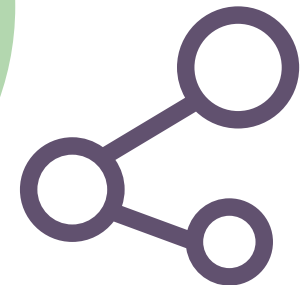
You will also need to consider what the objective of the referring health partner is – if you want to receive referrals, you need to make it easy and simple for them to refer, and to be able to refer the patients they believe are vulnerable to cold and who require support.

Top tips for identifying those vulnerable to cold:

If choosing to have criteria related to health – consider how many you want to include and how to weight it. Plymouth Healthy Homes scheme consider eligibility based on the severity of the condition, rather than the actual condition itself.

Find out if GP surgeries within your area have a resident care coordinator that are able to refer patients who are vulnerable to cold.

Ask people about their homes when you visit them! Frontline health professionals are best placed to identify signs of those living in a cold home – ‘does your boiler work?’ ‘are you using it?’, ‘do you feel warm at home?’ – Make it a habit to ask when visiting homes of vulnerable people.





Working with GPs to map household energy efficiency in catchment area

The Centre for Sustainable Energy (CSE) was initially contacted by the medical centre in Wellington to provide housing data for the patients in their catchment area. Wellington Surgery wanted to make a link between patients who were living in a cold home and the effects this was having on their health. CSE undertook mapping and data analysis to show the distribution of energy inefficient homes in the Wellington Medical Practice area, and developed a data-sharing agreement with the practice enabling sharing of limited patient data to match patients with health conditions related to cold homes with housing condition data.

Patients identified as living in property with low energy efficiency standards and also suffering from a cold related health condition were then pre-selected and proactively targeted with a letter from the surgery offering them home energy advice and support from CSE to help make their homes warmer and more affordable to heat.

Energy Performance Certificate (EPC) data for the properties purchased from the Energy Performance of Buildings Register through the Department for

Communities and Local Government (Since completion of this project this data has been made free to access by DCLG through www.data.gov.uk). CSE used Geographic Information Services (GIS) mapping to convert a picture of the catchment area provided by Wellington Medical Centre (WMC) to collate all addresses in their area – this returned 10,240 addresses. Using EPC data where it was available, CSE matched 4,226 EPC records to 10,240 addresses using an address matching programme, giving them energy performance data for around half the properties in the catchment area.

To make sure they had data for every property, CSE used other datasets to model the likely energy efficiency of those properties without an EPC. They developed a model that took the existing EPC ratings and predicted the ratings of similar dwellings within the same postcode. Once they had a full picture of the energy ratings for each property in Wellington Medical Centre catchment area they were able to formulate a map highlighting cold homes and subsequently overlay data on patients with cold homes related illnesses.

Find out if you can hold a 'cold homes surgery' in your local GP practices – this will help to raise awareness and enable direct contact with the people you want to help.

Approximately 100 patients responded to the letter from the surgery and subsequently received home energy advice and support from CSE. Immediate evaluation identified that patients valued the intervention but further evaluation (which was not in the scope of the project) would be required to establish any direct health-related impacts.

The work was made possible due to grant funding provided by Western Power Distribution who wanted to trial a new approach to reaching vulnerable customers with health conditions related to cold homes.

Top tips for mapping cold homes and vulnerable patients with GP practices:

You'll need a secure system to store your data – one that meets data storage regulations and conforms to NHS requirements for safe storage of information.

Where it is not possible to acquire an NHS email address, or time is too short, consider other ways to share data. In East Riding the hospital emails a spreadsheet every month of people requiring a referral. They weren't able to use an NHS email address, so use a GSX one instead. In other areas the NHS has issued a contract to a member of staff in the referral service.

If you plan to exchange data via email, you will need an NHS email account. You won't be able to exchange data via email without one.

Use data mapping techniques to overlay data – common data to overlay include: EPC data, household data, and properties with inhabitants with a certain health condition.

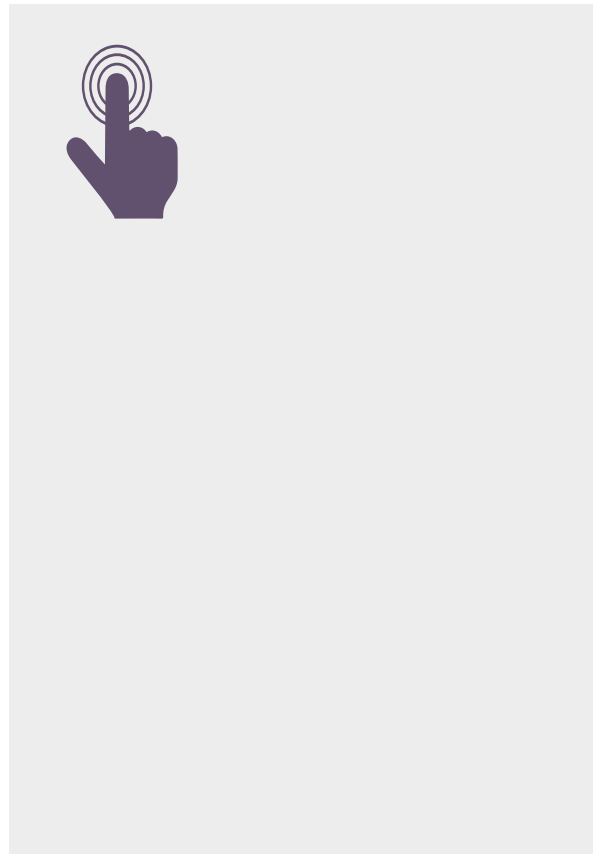
Where it is not possible to collect data, consider what you actually need. Can you ask fewer questions that do not require sensitive information? Keep it as simple as possible!

Make it easy for health partners to understand your agenda – produce a map of their catchment area to highlight the cold home dwellings.

4 How to develop and maintain a cold homes referral pathway

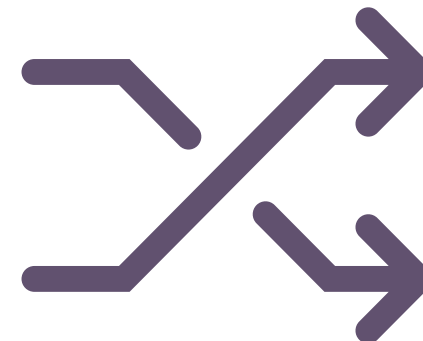
Health professionals are understandably very busy and any referral systems need to be easy to implement. Forming relationships with health professionals in order to set up referral pathways also takes time, and you'll need to factor this into your planning.

We've spoken to schemes across the UK that have set up cold homes referral pathways with the health sector, and can provide guidance on the following:



A Linking into health sector partnerships

One way to develop your referral pathway is to link into existing healthcare partnerships. This will allow you to meet the right people, connect your scheme to their cause, and build new relationships to develop referral pathways.





B Winter resilience planning

Winter resilience planning is coordinated by the NHS to prepare for the increase in numbers of people who require unplanned hospital treatment over the winter period. Winter resilience planning involves hospitals, GPs, public health, social services and other health professionals, who come together to work out the best way to prepare for the winter period and its impact on healthcare provision.

In developing winter plans, Local A&E Delivery Boards have a number of priorities, with the following being of direct relevance to cold homes schemes:

- Demand and capacity plans
- Flow through the Urgent and Emergency Care pathway
- Effective discharge processes
- Planning for peaks in demands over weekends and bank holidays

Cold homes and fuel poverty planning is well suited to help the NHS address these priorities, by helping to ensure that patients are not discharged to cold homes and reducing demand for this service by preventing ill health in the first place.

The winter planning board has representation from the following services, so it will also provide an opportunity to link in with key health sector personnel:

- CCG Clinical Leaders
- CCG Accountable Officers
- Acute Trust Chief Executive Officers
- Ambulance Trust Chief Executive Officers
- Mental Health Trust Chief Executive Officers
- Community Trust Chief Executive Officers
- Local Authority Chief Executive Officers

This partnership provides the ideal opportunity to link your work into winter planning. With planning starting as early as July, you will be well placed to embed your message from an early stage.



Cornwall Winter Resilience Plan linking to Winter Wellbeing

Winter Wellbeing is Cornwall and Isles of Scilly's warm homes programme which offers access to a range of services to help Cornwall residents stay warm in their homes.

Winter Wellbeing is included in Cornwall's Winter Resilience Plan and is recognised as an important pathway for health and wellbeing over the winter period:



Cornwall Winter Wellbeing Plan: Improve Health, Reduce Fuel Poverty and Progress to Work

It is estimated that fuel poverty contributes to an extra 300 deaths every winter.

Cornwall Council's ambition is to reduce fuel poverty to 5% by 2030. It is estimated that currently 15% of Cornwall households meet the fuel poverty definition and this is higher than the 10% national average

Inclusion Cornwall and Public Health coordinate around 30 partners including NHS each winter to offer advice to lift people out of fuel poverty, known as Winter Wellness.

The Winter Wellness campaign is launched each November to run until March the following year. Funding has been secured (from Warm Homes Fund) to install first central heating) for those with health conditions and in fuel poverty.

As part of the Cornwall Winter Resilience Plan, a new 'Home First' service is being rolled out across Cornwall to provide 48 generic support workers to support patients from hospital admission to discharge. These support workers will be tasked with ensuring that patients are discharged to a safe environment and, if identified as living in a cold home, the support workers will refer patients into Winter Wellbeing for help with their homes.

C Establishing a data sharing agreement with health care partners

If you plan to work with partner agencies then you will need to establish a data sharing agreement to share confidential information such as names and addresses. Health information is identified as a special category of data. If data is to be moved between partners, offer the 'opt in' choice for customers on the understanding that data is shared between partners, stored and protected for the purpose of helping to meet their specific energy efficiency needs.

All data sharing for fuel poverty work must be compliant with the General Data Protection Regulation and the Data Protection Act

New Digital Economy Act 2017

The new Digital Economy Act 2017 introduces powers which enable the disclosure of personal information for the purposes of alleviating fuel poverty. The powers enable data sharing for fuel poverty alleviation:

- between public authorities, including local authorities (bodies to be specified in Regulations);
- with energy suppliers for the purposes of fuel poverty schemes, such as the Warm Home Discount and Devolved Administrations grant schemes (bodies and schemes can be added/removed by Regulations) (See clause 30)
- From energy suppliers with public authorities, or with the persons providing services to the public authority who will then be able

to 'flag' which of the supplier's customers should be eligible for assistance (see Clause 31).

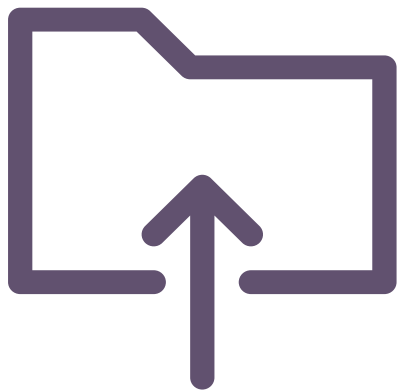
This could include data to target low income and high cost households (e.g. using social security data and Valuation Office Agency data on property characteristics), and there are limitations and safeguards to ensure data is used appropriately.

The new powers work alongside the Data Protection Act and the Information Commissioner's data sharing code of practice. There are also new criminal sanctions for unlawful disclosure and the powers are permissive, which means public authorities have the discretion whether to share data or not.

Data sharing will be subject to business cases, privacy impact assessment and data sharing agreement.

D Choosing a referral method

There are lots of different referral methods you can put in place, using new, innovative solutions, keeping it simple with paper, or anywhere in between. What matters most when designing your referral system, is choosing a method that will work for health professionals that you are trying to work with. It may sound simple, but the more complicated you make your referral process, the fewer referrals you will receive. If possible, before designing your referral pathway, seek the opinion of the health professionals you are trying to engage, and find out what will work for them.



Derby City Council's Healthy Housing Hub work with care coordinators to receive cold homes referrals from GP surgeries

Derby City Council's Healthy Housing Hub has set up a strong partnership with care coordinators within local GP surgeries. GPs are able to direct patients who they consider vulnerable to cold homes to their surgery's care coordinator, who makes referrals onto the Healthy Housing Hub.

Care coordinators work within GP practices in south Derbyshire as part of the Community Support Team (CST), to support and enhance integrated care delivery in the community.

The main aim of the care coordinator is to help to avoid unplanned and inappropriate hospital admissions. They do this by liaising with colleagues and other health and social care professionals to help to support and coordinate the care of patients within a GP practice identified as being at 'high risk' of their current situation deteriorating and who may benefit from a multi-agency approach either through referrals and/or analysis of available data (e.g. frequent attendees to A&E or out of hours services).



**Keeping it simple:
Citizens Advice
Manchester fax referral
system for patients with Chronic
Obstructive Pulmonary Disease
(COPD)**

In 2016, Citizens Advice Manchester received funding to develop a cold homes referral pilot in Manchester. With limited funding, the team wanted to ensure their referral pathway was as appropriate and targeted as possible, and after reviewing the health needs of the local population they decided to direct their support to people living with COPD. In Central Manchester alone there are more than 3000 people supported by the NHS who are living with COPD.

The team reached out to Central Manchester Hospital and were introduced to the specialist COPD

team. As the cold homes service hadn't yet been developed, they were able to work with both patients and the team to co- design the service. Citizens Advice Manchester had initially considered designing an app to enable the COPD team to make referrals easily and efficiently from the front line, but after talking to the COPD team they realised that the easiest way for the COPD team to make referrals was via fax. The COPD team send patient updates to GP surgeries following every home visit, and felt it wouldn't create any extra work to send an additional fax to Citizens Advice Manchester.

The initial pilot ran from October 2016 to March 2017 and received 89 referrals from the specialist COPD team, which consists of around 20 physiotherapists and nurses. Citizens Advice Manchester attributed their success to creating a referral system, which although surprising in its reliance

on older technology, is easy for the COPD team to use. Health professionals are very busy, and creating a referral system that can be easily implemented is central to success. The Citizens Advice Manchester team also stressed the importance of maintaining regular contact with the team in order to maintain referrals and they attended the specialist COPD team's quarterly team meetings.

The pilot is now moving onto its second phase, having received additional funding. The Centre for Sustainable Energy is currently conducting an evaluation of the COPD cold homes referral process, to understand outcomes for health and wellbeing. As the evaluation is currently underway, it is not ready to share, but will be publically available from February 2018.



RCGP 'one click' GP referral pilot with Warm and Safe Wiltshire

In collaboration with Warm and Safe Wiltshire, the Royal College of GPs (RCGP) created a referral system that allowed primary care practices in Wiltshire to refer patients for energy support as quickly as possible during their appointment. The project objective was to improve the circumstances and health outcomes of up to 750 patients in fuel poverty in Wiltshire through piloting a primary care health and fuel poverty referral system to a local authority advice hub.

The healthcare informatics firm Ardens developed a software tool that identified and flagged patients with one or more of a range of health conditions that can be exacerbated by cold homes. When a flag appears, the GP is prompted to speak to the patient about heating in their home and clicks if they need support, which leads to an automatic referral to Warm and Safe Wiltshire. In theory the referral takes less than a minute to complete: just three clicks of a mouse.

Evaluation of the tool suggests it works well as a process, but that it was culturally difficult to implement and the overall number of referrals was low. The project met its goal of recruiting 20 practices but fell a long way short of the goal to refer 750 people for support – just 71 people were referred in total over the course of the project.

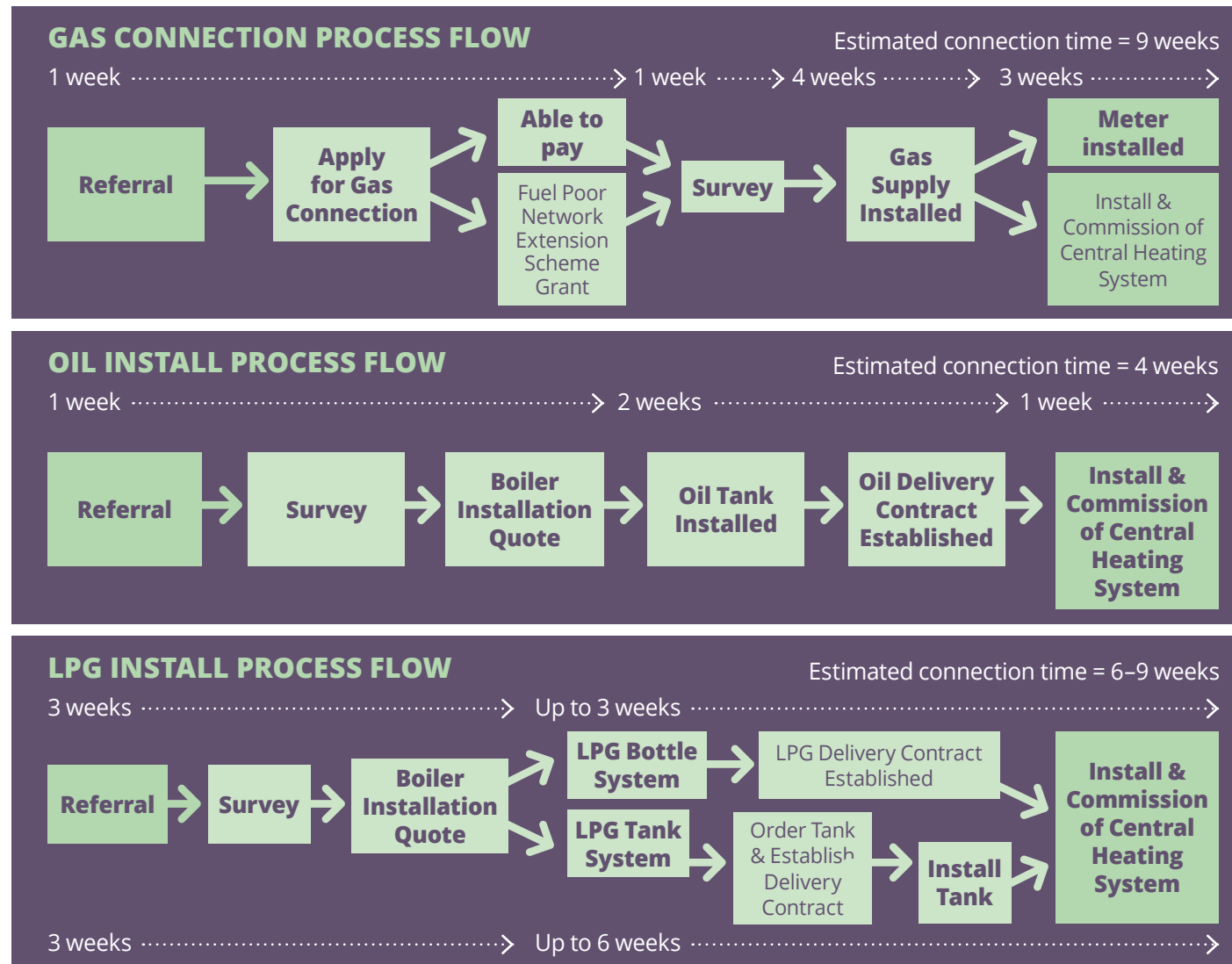
Despite the relatively small numbers of patients referred, evaluation of the pilot suggested the following:

- There was some evidence of cultural change, with primary care practitioners beginning to understand that they had a role to play in addressing cold homes and fuel poverty
- Even with small numbers coming through from GP practices, the referral mechanism added value to the WSW service. Staff felt that a high proportion of referrals through primary care would not have been made through other referral routes if the primary care pilot had not been operating
- Practices successful in making referrals had a member of practice staff acting as a champion for the project, usually a practice manager
- Where practices had sought to engage and convince them of the benefits, nurses and Care Coordinators were particularly effective sources of referrals
- Successful practices combined use of the template in consultations with mailout to patients identified by the software and information in newsletters
- Despite often being willing to engage with the pilot, GPs regularly felt unable to find the time to raise the issue of cold homes with patients
- Some practitioners and stakeholders talked about the lack of incentive to engage with the pilot other than the potential that it might in the long-term lead to improved health outcomes for some of patients
- Financially there is very little to stop many practices taking up the mechanism nationally and here is no reason in principle why the project should not be feasible as a nationally applied approach to fuel poverty in primary care.

E Demonstrating the urgency for early referrals

Interventions for cold homes take time to implement, depending on requirements, infrastructure and the type of energy intervention. It will be important to communicate this to the health professional you are hoping to engage in making a referral, so that they understand the importance of an early referral.

The figures on the right show average times taken to implement common energy installation interventions.





TOP TIPS for maintaining your referral service

Setting up a referral network is only a cause to celebrate when you have a process in place to keep the referrals coming in over the long term. You need to find a way to keep health professionals motivated so that they continue making referrals, and this is especially important during times of staff turnover and busy work periods. By this stage you have put in the effort to form the relationship and develop the referral system – now it is down to stewardship to keep the process going!

Health professionals are busy people who may move on to another job, or need reminding if it has been awhile since their last referral. Offer regular training sessions on how to make referrals, both as a refresher and to capture new staff member, and tell people 'if you don't use it, you'll lose it!'

Jane Mears, East Riding of Yorkshire

If you offer training, do so at a time that works for the health professionals that you want to engage. Adding 30 minutes onto the end of a team meeting works well - that way everyone is already gathered and it doesn't take much additional time out of their day.

Janine Michael, CSE

The London-based Seasonal Health Intervention Network (SHINE) keeps a league table of best referrers to encourage a bit of competition. They share the league table in their quarterly newsletter.

John Kolm-Murray, SHINE

Choose a referral mechanism that works for the health professionals you want to engage. Citizens Advice in Manchester receives cold homes referrals for Chronic Obstructive Pulmonary Disease (COPD) patients by fax, and it was only after speaking with the COPD specialist team that they realised this would be the preferred option for the team, who send patient updates to GPs this way.

If you want to work with GP surgeries, make sure you stay engaged with the practice manager, as they are the one who will keep the practice on board with your work.

Paul Burns, Gentoo Group

Think of innovative ways to reward health professionals who make referrals – the team East Riding of Yorkshire invite referrers to an awards event to say thank you, and ask them to bring along someone who has never referred before.

Jane Mears,
East Riding of Yorkshire

The Centre for Sustainable Energy recommends that finding a proactive medical centre that is willing to engage and fully understands the intentions and benefits of the proposed work is key to setting up a successful cold homes referral project.

Try where possible to feedback to health professionals who made the referral – let them know what impact their referral has made to their client's home and what energy efficiency support has been provided – this will help to keep them motivated, knowing their referral has made a difference.

Stay involved with relevant partnership groups to keep your project on the agenda – if you aren't represented then your cause will lose momentum.

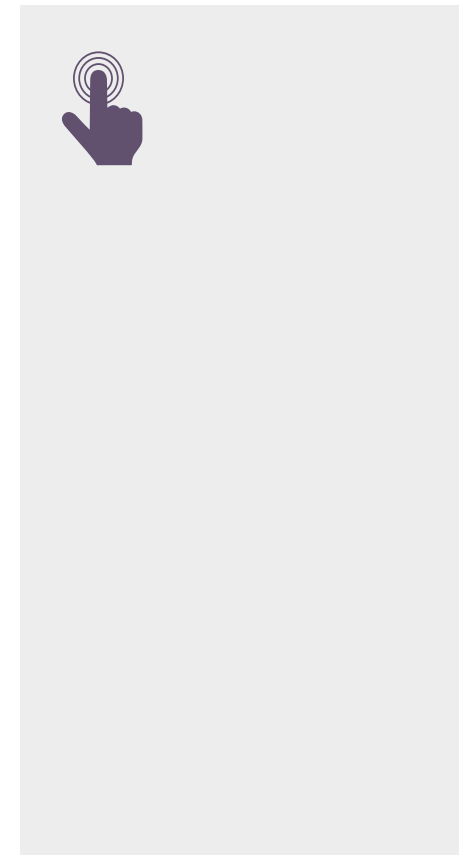
A good, enthusiastic practice manager is vital, one who is willing to communicate with the GPs and other medical centre staff and liaise with you periodically about the project.

The medical centre will need to take a proactive role in the project and as such they will need to know what is expected of them from the beginning and how much money is available to pay for this extra work (if any).

5 How to monitor and evaluate cold homes referrals

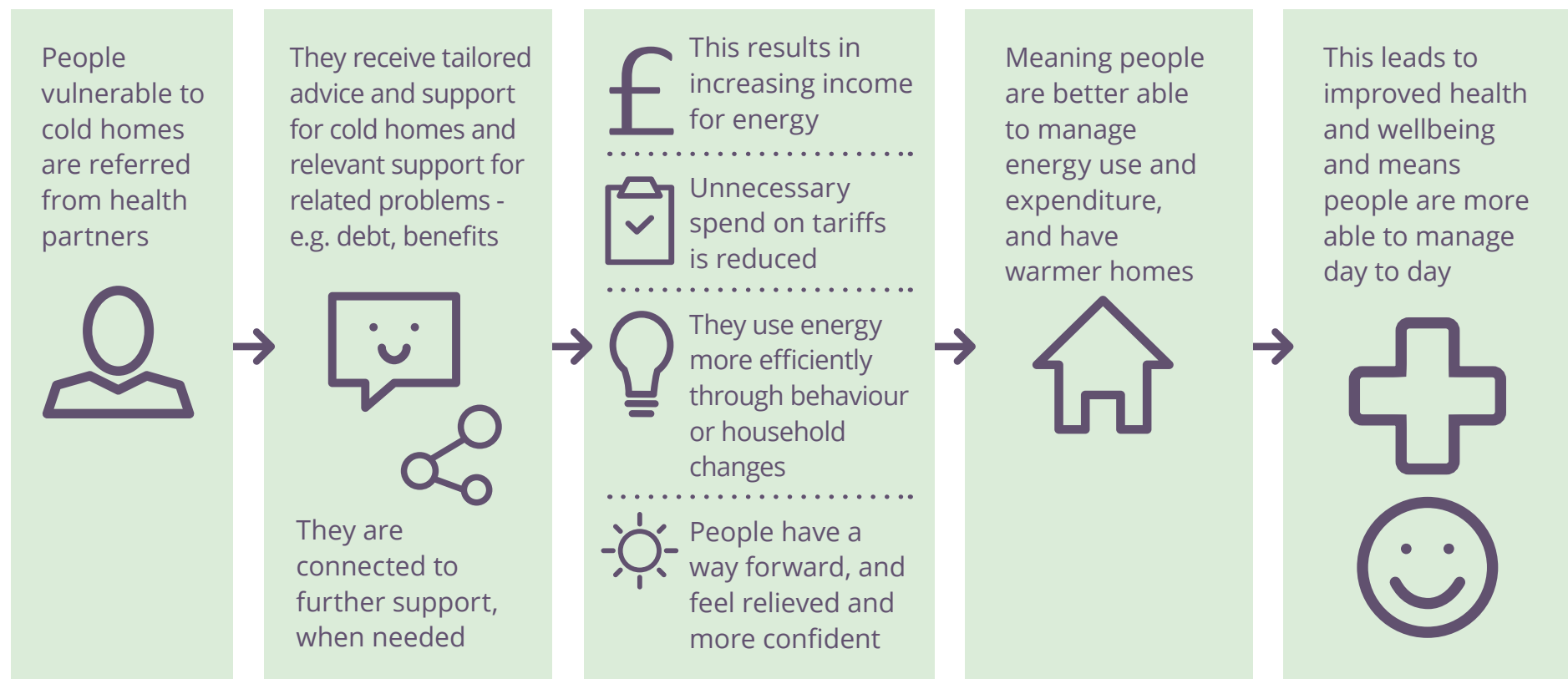
It will be important to build an evidence base for your affordable warmth scheme, as professionals within the health sector will be more inclined to support a scheme, whether financially or as a referrer, that has an evidence base showing benefits to health and wellbeing.

You can use impact evaluation to show health practitioners that your affordable warmth scheme has benefits for health and wellbeing outcomes:



A Define and demonstrate the impact of your service

Developing a 'theory of change' helps you clarify what outcomes you're aiming to achieve from your cold homes service and how your service will do this. We've developed a high-level theory of change for cold homes services which is outlined below.



B Evidencing health and wellbeing outcomes

When you're developing cold homes support you will want to show you are achieving positive outcomes for clients. These will usually relate to people's ability to afford and use enough energy to be warm in their homes, and you may want to think about

changes to clients' health and wellbeing. This can be powerful evidence, but it can also be challenging to provide and it's good to remember that health and wellbeing outcomes are not the only important ones to know. There are a number of things you need to consider when designing your outcomes framework:

Engaging service users in evaluations



- Consider carefully what you'd like to know so that you can keep questions to a minimum – asking too many questions may disrupt the client's experience of the service
- Questions should feel relevant to the client – if they weren't referred by a health partner then being asked questions about their health can feel uncomfortable
- Partners can help you reach a greater number of clients so consider how to use your network to reach the people you need to
- Where possible, try to make use of data you already collect for case monitoring

Timing



- There is no perfect time to collect 'before' and 'after' evidence in a cold homes service. You will need to strike a balance
- Consider the impact of seasonality on the responses, e.g. the client was helped in winter but were followed up with in high-summer when their home wasn't cold.
- Also consider the distance from the time the client was helped to the time they were followed-up with - there needs to be enough time for changes to take effect, but there may have been other changes to their lives which influence their response.
- Don't overpromise on the delivery of health outcomes. There are many factors that can affect both if they happen and if they can be recorded, particularly amongst clients with complex health needs.

Tools and indicators



Indicators to measure:

- Use of planned or emergency GP or hospital visits
- Reduction in number of unplanned overnight stays in hospital
- Savings for health care
- Client self-assessment
- Professional assessment



TOP RESOURCE!

The government has produced a toolkit to enable affordable warmth schemes to evaluate the health and wellbeing impacts of their practice in a thorough and academically robust way and contains good advice for all of the stages of an evaluation.

The **Affordable warmth & health impact evaluation toolkit** can be accessed [here](#).



C Holly Park: External Wall Insulation Evaluation

Holly Park is situated in the Tollington ward in the north of Islington borough. The estate comprises of 269 properties across 10 blocks and 84% of the properties are occupied by council tenants. The estate was built in 1952 using brick solid-wall construction. It is estimated that solid walls let through twice as much heat as cavity walls.

Given the links between poor housing and health, and the relationship between residents living within social housing and long term conditions, the site was chosen for external wall insulation work.

Camden and Islington Public Health Knowledge and Intelligence Team collected data before and after the installation of the EWI to evaluate the impact on residents' wellbeing.

External Wall Insulation (EWI) was a relatively new approach to insulating solid wall properties at the time of evaluation, and little was known about how it might impact wellbeing. The evaluation aimed to improve understanding of the impact of the EWI on residents' wellbeing by measuring a range of indicators before, during and after installation.

Health and wellbeing indicators used

The evaluation used self-reported health indicators to understand impact on health and wellbeing, including:

- Health and wellbeing (perceived overall wellbeing)
- Symptom severity (self-reported severity of health conditions associated with damp and cold homes)
- Use of planned and emergency health services.

However they also measured other indicators useful for understanding health and wellbeing:

- Ability to pay bills (extent to which heating is not switched on due to concern over cost; level of worry about paying heating bills)
- Number of rooms in which residents report that they have problems with condensation, damp or mould.

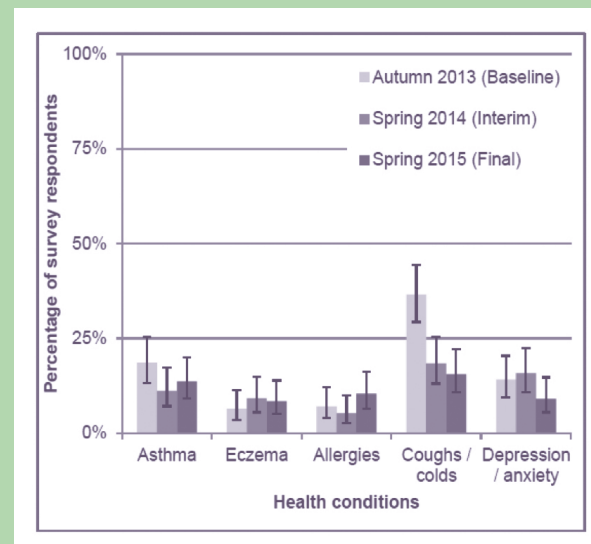
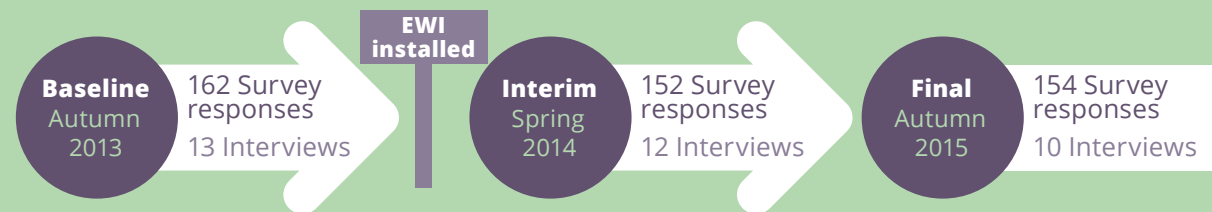
Evaluation

The evaluation was conducted by the Camden and Islington Public Health Knowledge and Intelligence team. Surveys and qualitative interviews were completed at three separate time points. Baseline data was collected before the EWI was installed. Interim data was collected after the work to install EWI had been completed (May-June 2014) and a final stage of data was collected in (May 2015) after the EWI had been in place for one full winter.

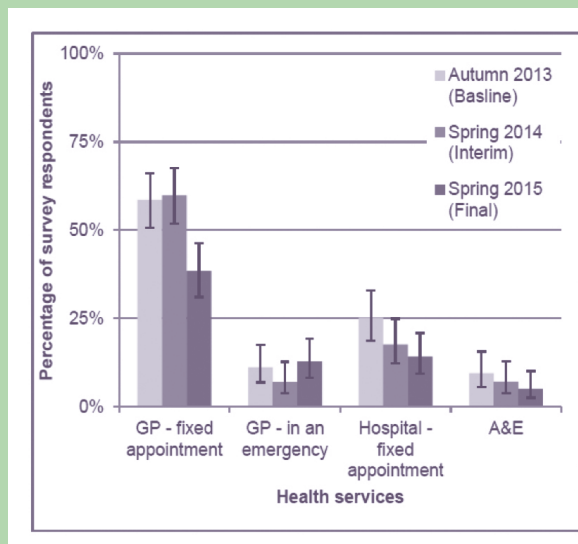
Findings

The graphs on the right illustrate the findings from the evaluation work and the impact of their energy efficiency measure on the health and wellbeing of the residents.

The figure below shows the evaluation process.



Prevalence of health conditions before and after EWI fitted



Self-reported health service use before and after EWI is fitted

6 Resources and evidence

The following documents demonstrate the impact of cold homes and fuel poverty on fuel poverty, cold homes and health:

- [The Cold Weather Plan For England](#)
- [Fuel Poverty, a framework for future action](#)
- [The cost of poor housing to the NHS](#)
- [Affordable warmth & health impact evaluation toolkit](#)
- [Annual Fuel Poverty Statistics Report 2017](#)
- [Fuel Poverty: How to improve health and wellbeing through action on affordable warmth](#)
- [The Health Impacts of Cold Homes and Fuel Poverty, Marmot Review Team](#)
- [Going local, A report for Consumer Focus on local authorities' work to tackle fuel poverty](#)

- [Preventing excess winter deaths and illness associated with cold homes](#)
- [Minimum home temperature thresholds for health in Winter – a systematic literature review](#)
- [Sub regional fuel poverty data 2017](#)
- [Housing improvement as an investment to improve health](#)
- [Health effects of home energy efficiency interventions in England: a modelling study](#)
- [The impact of household energy efficiency measures on health: A meta-analysis](#)
- [Excess winter deaths and illness and the health risks associated with cold homes](#)

Produced in January 2018 by Cornwall Council and Citizens Advice

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With Anthony Ball, Richard Sharpe and Shevuaghan Tolputt (Cornwall Council Public Health), Ben Simpson (Cornwall Council Economic Growth), William Baker (Citizens Advice) and Jonathan Cosson (Warm Wales).

Funded by the Department for Business, Energy and Industrial Strategy.

Methodology

This toolkit was produced by Cornwall Council and Citizens Advice. Methods included a desk top review of UK based cold homes and energy efficiency schemes, and semi structured interviews with cold homes experts. 'Experts' were identified through the desktop review, recommendations from key stakeholders and through a call out to relevant organisations asking fuel poverty, cold homes and energy efficiency schemes to make contact and self-refer for an interview. Interviews lasted on average for one hour, and conversation was directed using a survey.

The toolkit was produced using case studies from these interviews to provide best practice examples for cold homes referrals and input from expert partners.

Cold homes and health - resources and evidence base

Number	Organisation	Title	Link
1	Department for business, energy and industrial strategy (BEIS)	ANNUAL FUEL POVERTY STATISTICS REPORT, 2017	https://www.gov.uk/government/statistics/annual-fuel-poverty-statistics-report-2017
2	Centre for Sustainable Energy	NEED Anonymised data set - Estimates of energy efficiency ratings by LSOA	https://www.cse.org.uk/downloads/file/EPC%20Data%20in%20England%20and%20Wales.xlsx
3	Department for business, energy and industrial strategy (BEIS)	Sub-regional fuel poverty data 2017	https://www.gov.uk/government/statistics/sub-regional-fuel-poverty-data-2017
4	National Institute for Health and Care Excellence (NICE)	Preventing excess winter deaths and illness associated with cold homes	https://www.nice.org.uk/guidance/qs117/chapter/quality-statement-2-identifying-people-vulnerable-to-health-problems-associated-with-a-cold-home
5	The British Medical Journal (BMJ)	The health impacts of cold homes and fuel poverty	http://www.bmj.com/content/342/bmj.d2807
6	World Health Organisation (WHO)	Environmental burden of disease associated with inadequate housing	http://www.euro.who.int/_data/assets/pdf_file/0003/142077/e95004.pdf
7	Department of Health	Health and Winter Warmth, Reducing health inequalities	https://www.housinglin.org.uk/_assets/Resources/Housing/Housing_advice/Health_and_Winter_Warmth_-_Reducing_Health_Inequalities_January_2007.pdf
8	Public Health England (PHE)	Minimum home temperature thresholds for health in winter - a systematic literature review	https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/468196/Min_temp_threshold_for_homes_in_winter.pdf
9	The Lullaby Trust	The safest room temperature for babies	https://www.lullabytrust.org.uk/safer-sleep-advice/co-sleeping/
10	UK Health Forum	How to improve health and wellbeing through action on affordable warmth	http://nhfshare.heartforum.org.uk/RMAssets/HealthyPlaces/FuelPoverty/ToolkitJan2015.pdf
11	Department of Energy and Climate Change (DECC)	Cutting the cost of keeping warm, a fuel poverty strategy for England	https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/408644/cutting_the_cost_of_keeping_warm.pdf

12	OFGEM	Energy Company Obligation	https://www.ofgem.gov.uk/environmental-programmes/eco/about-eco-scheme
13	The National Archives	Town and Country Planning Act 1990	https://www.legislation.gov.uk/ukpga/1990/8/contents
14	Department for communities and local government	Housing, health and safety rating system	https://www.gov.uk/government/publications/housing-health-and-safety-rating-system-guidance-for-landlords-and-property-related-professionals
15		Energy Act 2016	http://www.legislation.gov.uk/ukpga/2016/20/pdfs/ukpga_20160020_en.pdf
16	National Health Service (NHS)	NHS Five Year Forward View	https://www.england.nhs.uk/wp-content/uploads/2014/10/5yfv-web.pdf
17	Public Health England (PHE)	Cold Weather Plan for England	https://www.gov.uk/government/collections/cold-weather-plan-for-england
18	Department of Health	Joint Strategic Needs Assessment and joint health and wellbeing strategies explained	https://www.gov.uk/government/publications/joint-strategic-needs-assessment-and-joint-health-and-wellbeing-strategies-explained
19	Centre for Sustainable Energy	Affordable warmth and health impact evaluation toolkit	https://www.cse.org.uk/downloads/toolkits/fuel-poverty/affordable-warmth-and-health-evaluation-toolkit.pdf
20	NHS England	Understanding the New NHS, a guide for everyone working and training within the NHS	http://www.airedale-trust.nhs.uk/wp/wp-content/uploads/2013/07/simple-nhs-guide.pdf
21	NHS Clinical Commissioners	About CCGs	https://www.nhscc.org/ccgs/
22	The Kings Fund	The new NHS: health and wellbeing boards	https://www.kingsfund.org.uk/projects/new-nhs/health-and-wellbeing-boards
23	NHS Confederation	What are community health services	http://www.nhsconfed.org/~media/Confederation/Files/public%20access/guide_community_services.pdf
24	Faculty of Public Health	What is public health	http://www.fph.org.uk/what_is_public_health
25	Public Health England (PHE)	Public Health Outcomes Framework	https://fingertips.phe.org.uk/profile/public-health-outcomes-framework

26	Department of Health	NHS Outcomes Framework 2016 to 2017	https://www.gov.uk/government/publications/nhs-outcomes-framework-2016-to-2017
27	Department of Health	Adult social care outcomes framework 2016/17	https://www.gov.uk/government/publications/adult-social-care-outcomes-framework-handbook-of-definitions
28	Friends of the Earth	The health impacts of cold homes and fuel poverty	https://www.foe.co.uk/sites/default/files/downloads/cold_homes_health.pdf
29	Health Protection Agency	Blowing Hot and Cold at Home	http://www.cieh.org/assets/0/72/998/1022/1046/1086/efe3d49f-cc0f-4f57-9e66-3f3d0f8a880f.pdf
30	The Kings Fund	Making the case for public health interventions	https://www.kingsfund.org.uk/audio-video/public-health-spending-roi
31	Building research Establishment	BRE, Homes and ageing in England	
32	NHS England	NHS - What are our priorities and how are we doing?	https://www.england.nhs.uk/contact-us/pub-scheme/priorities/
33	Building research Establishment	Housing Health Cost Calculator	https://www.bre.co.uk/housing-health-cost-calculator
34	NHS England	Better Care Fund	https://www.england.nhs.uk/ourwork/part-rel/transformation-fund/bcf-plan/
35	Department for communities and local government	Domestic Energy Performance Certificate Register	https://www.epcregister.com/
36	Western Power Distribution / Centre for Sustainable Energy	Assessing the health impacts of cold homes	https://www.cse.org.uk/downloads/reports-and-publications/fuel-poverty/energy-advice/insulation-and-heating/Assessing-the-health-impacts-of-cold-homes.pdf
37		Digital Economy Bill	https://publications.parliament.uk/pa/bills/cbill/2016-2017/0045/en/17045en.pdf
38	Derbyshire Community Health Services	Care Coordinators South Derbyshire	http://www.dchs.nhs.uk/find_services_by_topic/id/52102
39	Building research Establishment	The cost of poor housing to the NHS	https://www.bre.co.uk/filelibrary/pdf/87741-Cost-of-Poor-Housing-Briefing-Paper-v3.pdf

40	UK Health Forum	Fuel poverty, tackling cold homes and ill health	http://nhfshare.heartforum.org.uk/RMAssets/HealthyPlaces/PrimaryCareGuidance_HP.pdf
41	Consumer Focus	Going local, A report for Consumer Focus on local authorities' work to tackle fuel poverty	https://stirling.rl.talis.com/items/E9D21678-79D6-60F3-C093-ABB2C893F4AA.html
42	Public Health England (PHE)	Minimum home temperature thresholds for health in Winter	https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/468196/Min_temp_threshold_for_homes_in_winter.pdf
43	Department for business, energy and industrial strategy (BEIS)	Sub regional fuel poverty data 2017	https://www.gov.uk/government/statistics/sub-regional-fuel-poverty-data-2017
44	Cochrane	Housing improvement as an investment to improve health	http://www.cochrane.org/CD008657/PUBHLTH_housing-improvement-as-an-investment-to-improve-health
45	British Medical Journal	Health effects of home energy efficiency interventions in England: a modelling study	http://bmjopen.bmj.com/content/5/4/e007298
46	Energy Policy	The impact of household energy efficiency measures on health: A meta-analysis	http://www.sciencedirect.com/science/article/pii/S030142151301077X