A practioner's guide to establishing a fuel poverty intervention project targeting health outcomes

There are a number of guides and toolkits that identify the steps needed to establish a local health related fuel poverty alleviation project. Eaga Charitable Trust has funded the previous National Heart Forum Fuel Poverty and Health Toolkit[1] and the Housing Health and Fuel Poverty Forum (HHFPF) also developed a toolkit which includes some of the learning from the AWARM project in Manchester. The following guide complements these toolkits by setting out some of the key considerations for each stage in the development of a scheme following the reformation of the NHS. It also draws out some of the issues identified in our assessment[2] for the potential of a fuel poverty related Social Impact Bond, which are also relevant for the design of any fuel poverty intervention seeking direct funding from the health sector.

Key health outcomes

The negative health impacts of living in a cold and/or damp home, although not always exclusively linked to the dwelling, have been identified by multiple studies as being related primarily to both cardiovascular (e.g. stroke) and respiratory (e.g. asthma) ill health. As these conditions often cause frequent (and sometimes life threatening) attacks, the majority of sufferers are likely to present directly to the NHS and, as such, any reduction in these patients' presentations should be relatively easy to track (subject to agreements to access sensitive health data). Those aged under 5 and over 70 are particularly susceptible to these health risks (although cardiovascular is primarily linked with adults and the elderly) and, as such, can be considered as the key groups vulnerable to poor health arising from cold homes.

Poor mental health, in the form of depression and anxiety, is another key impact of dealing with a cold and/or damp home and unaffordable fuel bills. However, the majority of householders affected by this condition are unlikely to present to the NHS and as such will prove much harder to identify and track.

Although being in fuel poverty is not perfectly correlated with living in a cold / damp home, it is a strong indicator, irrespective of the variety of proposed definitions of fuel poverty that currently

[1] www.eagacharitabletrust.org/index.php/projects/item/fuel-poverty-and-health-a-toolkit-for-primary-care-trusts-strategic-health-authorities-and-primary-care-teams

[2] Centre for Sustainable Energy, 2013. Fuel Poverty Social Impact Bonds: Their potential role and associated challenges. Research for the eaga Charitable Trust.

exist. Indeed, the Housing Health and Safety Rating System (HHSRS) deemed both 'excess cold' and 'damp and mould' as category I hazards which rule the property unfit for occupation. Thus we can determine that there is a link between being in fuel poverty and having a higher risk of ill health as a result of cold/damp homes. In response to this issue, the National Institute for Health and Care Excellence (NICE) are currently putting together public health guidance on the link between cold weather, cold housing and ill health.[3]

The new NHS

The Health and Social Care Act 2012 will attempt to modernise the health service and avoid a future crisis in funding and delivery. It plans to achieve this by placing clinicians at the centre of commissioning health services, which will hopefully allow health care providers to innovate, empower patients and give a new focus to public health.[4] There will therefore be new statutory bodies with responsibilities for commissioning health services, namely the NHS Commissioning Board (NHS CB), Clinical Commissioning Groups (CCGs) and commissioning services within the Local Authority; all of which operate under the new Health and Wellbeing Boards (HWB) – see Figure 1 for an illustrative diagram.

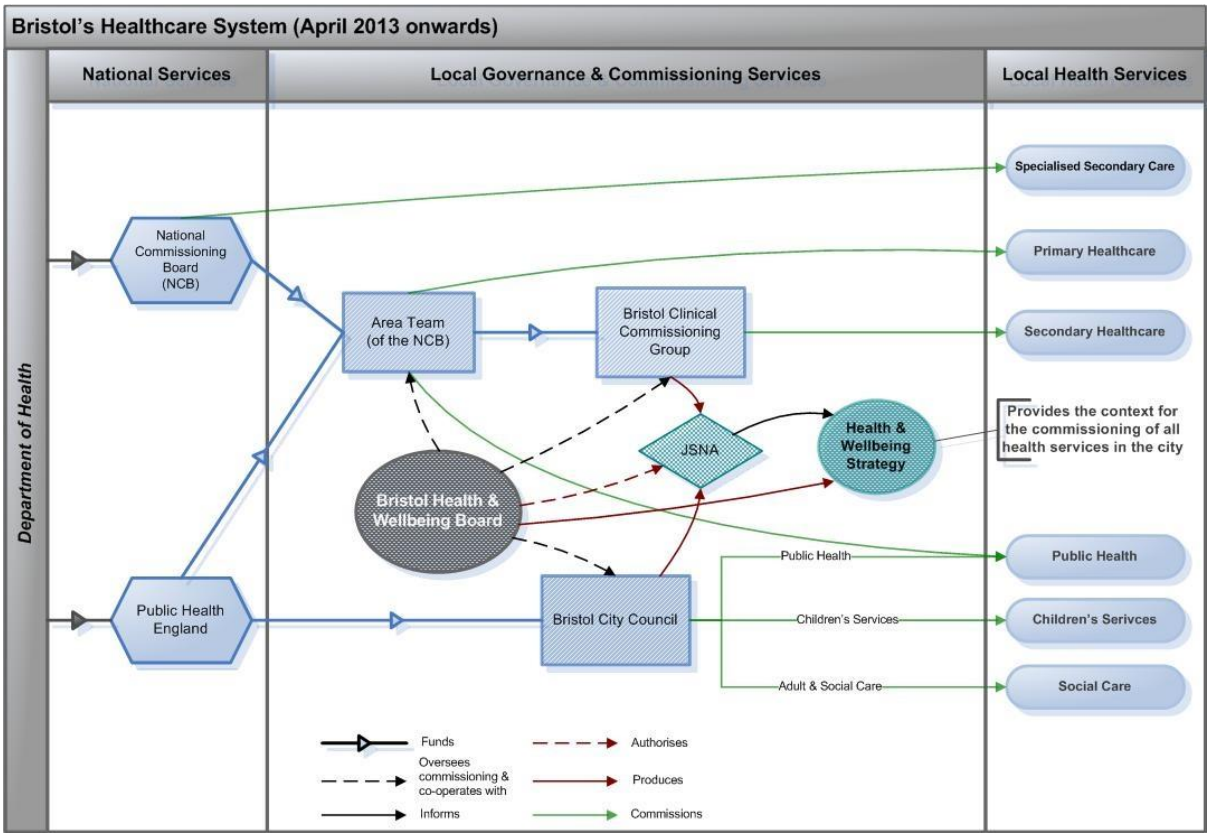


Figure 1: Revised NHS organisational structure in England and Wales from April 2013, using Bristol as an example

Although the government have promised to increase the NHS budget over the life of this parliament, David Nicholson has issued the "Nicholson Challenge" to make £20 billion of productivity savings by 2015, which should help cope with demand for services that are increasing faster than funding. The

[3] NICE, 2013. Public Health Guidance Final Scope Report: http://www.nice.org.uk/nicemedia/live/13899/63745/63745.pdf

[4] Please note that this is only relevant to the NHS in England and Wales.

challenge to deliver productivity savings results in a number of key challenges for fuel poverty alleviation schemes that seek to gain funding from a health provider on the basis that the resulting investment will deliver savings. If these savings are captured for the scheme provider, then this means they can't be diverted to other health services which face budget cuts. In this situation, the perceived value to the NHS of this 'invest to save' approach may be low, relative to other cost-saving measures (such as reducing staffing or closing facilities) that leave the savings achieved available for redirection.

In addition, the NHS is currently focussed on the delivery of short-term savings which may themselves be subsumed by the following year's budget limitations. If a scheme is focused on the health outcomes identified in this study, it may therefore gain more support from health providers if it targets those outcomes that reduce costs in the near term. For example, CCGs will pay hospitals directly for their services and, as such, Excess Winter Admissions (EWAs) represent a significant short term cost - approximately 25%[5] of winter admissions for childhood asthma can be attributed to indoor mould and dampness.

Laying the foundations

Identifying needs locally

If you are thinking of setting up a fuel poverty related alleviation project, it is important to understand the local health needs and priorities, regardless of the future funding source. The priorities for health care and public health delivery will be defined and managed by the local Health and Well Being Board (HWB). Each HWB is required to produce an annual Joint Strategic Needs Assessment (JSNA), which enables health and social care commissioning groups to set their priorities for the year based on the health and wellbeing issues of the local community. This will be written up in the Joint Health and Wellbeing Strategy (JHWS).

If you want to work with health providers to deliver interventions to help deliver affordable warmth, then you need to know which health issues are important in your area. For example, a fuel poverty scheme targeting childhood asthma is unlikely to gain support if rates for this condition are very low in your area. Start by reviewing the latest JSNA to see if cold-related health issues are a local priority. If you want further information or data then contact the JSNA project manager, who is likely to work for your local authority.

Unfortunately, so far it seems that the majority of published JHWS overlook fuel poverty and its impact on their local community (in terms of excess winter death): more than half are side-lining issues surrounding fuel poverty, 42% exclude mention of either, and only 4% appear to be doing as much as possible to impact upon it[6]. It may be harder to gain support for a fuel poverty based intervention project in areas where it is not mentioned as a priority or quantified.

Making links locally

Some local authorities and energy agencies already have strong links with the local health sector through local affordable warmth partnerships. These partnerships typically featured someone from

[5] WHO (2010): Environmental burden of disease associated with inadequate housing.
[6] Rees, N. for Age UK, 2013. Are Health and Wellbeing Boards taking fuel poverty seriously? A snapshot of Strategy Reports.

the Primary Care Trust (PCT) with responsibility for fuel poverty. The creation of the HWB and the transference of public health responsibilities to local authorities should make it easier to identify the right contact, and also then make cross-linkages to the private sector housing teams.

We would recommend trying to contact the following if you are trying to establish a local project in an area without any existing partnerships or forums:

- NHS CB, Local Area Director (of NCB Local Area Team)
- HWB Members: e.g. Public Health Director, a representative from each local CCG
- CCG: various members, e.g. Locality Mangers, Chair, Financial Officers
- Local Authority: e.g. Directors of Public Health, Adult & Social Care, Children's Services, Private Housing Manager, Environmental Health Officer, Strategic Housing Manager, JSNA Project Manager
- The local Mental Health Trust[7]
- The local hospital trust which will be either a Care or Foundation Trust depending on the management structure[8]
- The regional contact for energy supplier funded energy efficiency schemes i.e. the Energy Company Obligation (ECO)
- Local debt advice agencies, Citizens Advice Bureaus and Credit Unions
- Local community housing and health groups (grass-roots / social organisations)

One way to increase engagement is to identify and link with interventions already in existence. For example in Bristol, Home Action Zones is a rolling programme that recognises the link between housing standards and poor health – deprived areas of the city are targeted for home improvements based on the risk of health issues arising from poor housing standards using the HHSRS as a tool to identify need.

Setting up a local project

Identifying funding sources

As mentioned previously there are numerous guides and toolkits to help people and organisations establish a successful energy efficiency related intervention project. However, establishing the right partnerships with organisations that hold the correct skills and knowledge is the key to success. If you are delivering health services or interventions then you should seek to work with an agency with some prior experience of delivering energy efficiency measures, and vice versa if you aren't working in the health sector. Similarly you will also need to involve an organisation that is able to deliver benefits advice to help maximise a householder's income.

The scheme will need to access various funding routes for interventions, i.e. via energy suppliers or trust funds. The PlanLoCaL resource for Energy Efficiency and the Green Deal has a selection of downloads to help identify useful sources of funding.[9] However, for the purposes of this guide the

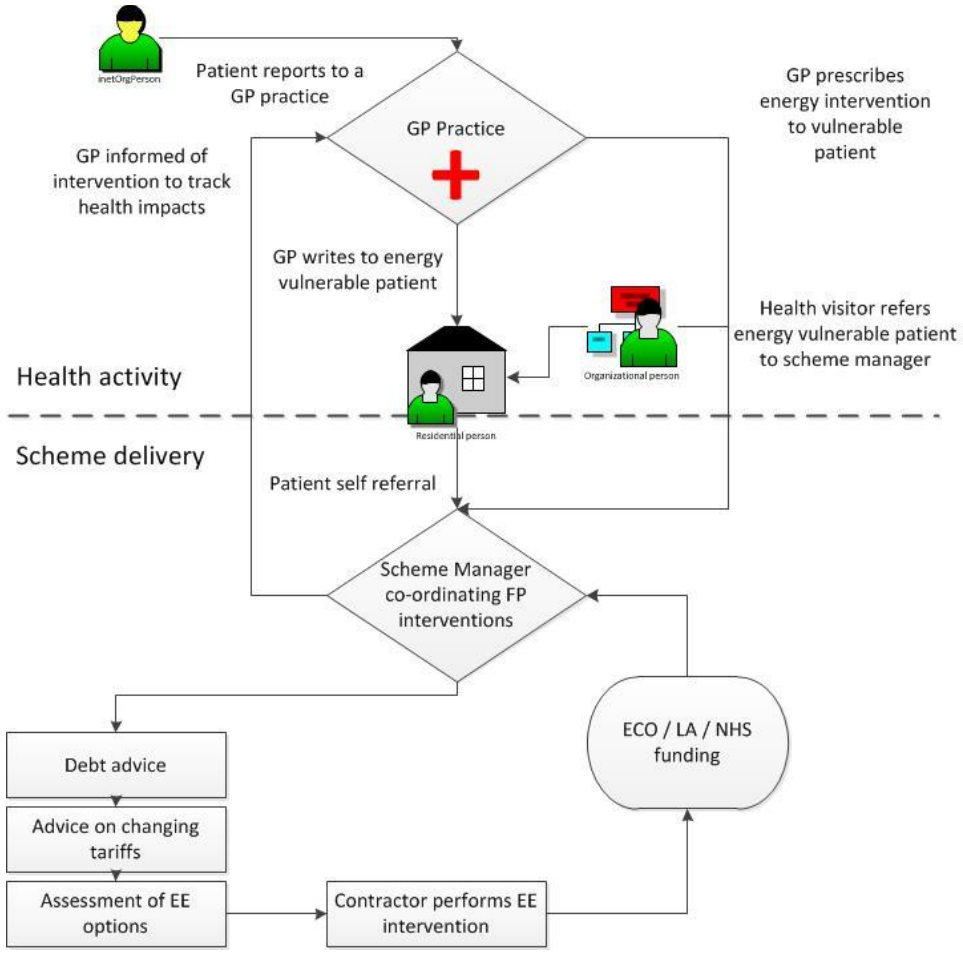
[7] www.nhs.uk/ServiceDirectories/Pages/MentalHealthTrustListing.aspx
[8] www.nhs.uk/NHSEngland/thenhs/about/Pages/authoritiesandtrusts.aspx
[9] See www.planlocal.org.uk/pages/energy-efficiency-and-the-green-deal

following summarises the most important existing sources of advice provision or funding that may be relevant:

- Energy Company Obligation funding for Affordable Warmth customers
- Energy Company Obligation funding for customers in Communities Carbon Saving areas (generally those in the lowest 15% of areas on the Index of Multiple Deprivation)
- Energy Assistance Package or its successor in Scotland
- Home Energy Efficiency Programme, Scotland
- NEST, Wales
- Arbed, Wales
- The Big Lottery Fund
- Warm Homes Healthy People fund, Department of Health[10]
- Trust funders, e.g. Scottish Power Energy People Trust and The Nationwide Foundation have funded work in this area

Establishing a single referral route

Figure 2: An example of an integrated referral system



To be successful, a local fuel poverty scheme working with the health sector needs to offer a 'Single Local Clearing House', i.e. a single contact number that provides access to access all local and

[10] See the recent positive review of WHHP fund by Age UK: Maddox, P. for Age UK, 2013. The Warm Homes Healthy People Fund: A Valuable Resource?

national relevant interventions. This makes the referral process simple (and avoids the need for health professionals to understand all of the programmes and their eligibility). It also builds confidence amongst health professionals that their patient will not be passed around between agencies and it enables the orchestration (by the clearing house or 'hub') of a tailored set of available interventions to meet each household's specific needs.

The AWARM project in Manchester identified the possibility of creating automated transferral systems by making relatively simple changes to the NHS patient data management systems. In this instance, GPs can get an on-screen prompt if the patient they are seeing is vulnerable to fuel poverty. With the consent of the patient they can refer them to the local affordable warmth scheme at the touch of a button. The key challenge for any project seeking to replicate this simple but effective approach will be engaging the CCG and / or local GPs sufficiently for them to invest time and potentially resources in making these changes to their system and understanding the benefits available to their patients from them making a referral.

Making the case for the intervention scheme

Commissioning groups and patient data

Households living in fuel poverty are likely to be more expensive and resource-intensive to the NHS. Bringing down the level of fuel poverty by improving incomes and / or the thermal efficiency of a property is therefore likely to result in cost savings to the NHS. However, despite the wealth of evidence linking cold homes to ill-health, there is still a lack of detailed evidence on the observed impact of interventions on health outcomes and, most relevantly for any 'invest to save' funding mechanism, their impact on health service usage and associated costs. In the reformed NHS system commissioning bodies now require a greater level of evidence detailing that savings can be created from investments before funding is released. A successful pilot scheme may be necessary before any investment from NHS commissioning bodies can be approved.

The provision of sensitive health data is another key challenge to any health related fuel poverty project that wishes to track the impact of interventions. To develop the rationale for funding a pilot phase the delivery agent is likely to need to access historical data on health outcomes. This would require the delivery agent to gain clearance to access data from Hospital Episode Statistics (HES) and / or local CCGs (i.e. for patient data). Following discussions with health providers and researchers we would recommend working in partnership with the regional Public Health Observatory (PHO) or health care providers, who themselves either hold patient data and / or are able to access the HES interrogation system to perform ad hoc analyses of the data.

Identifying the target cohort and measuring health outcomes

Developing a cohort to receive the intervention will be dependent upon a variety of factors. Typically the amount of available funding and the level of evidence and monitoring required are likely to define the size of the target group. Our interviews with stakeholders suggest a varying level of evidence depending on the health outcome targeted. For example, the delivery of public health and social care objectives such as improvements to mental well-being may require less evidence than a reduction in visits to hospital or GP practices. However, it may also be harder to identify and capture associated financial savings which could justify funding the interventions.

As discussed above, one of the key challenges facing a fuel poverty scheme will be the link between the intervention and the outcome. To provide a satisfactory level of evidence to both acute health providers (such as hospital trusts providing primary care services) and financial investors, the scheme may need to put together a control group. The objective of the control group is to provide a measure of the incidence of the negative health impacts experienced by the wider cohort who did not receive the intervention. For example, in a scheme targeting childhood asthma, the actual measure under comparison would be the 'frequency of health events' (which have an explicit associated cost), which is defined as the number of times a patient uses their inhaler, reports to the GP, or is admitted to hospital.[11] The NHS Prescription Services can also provide CCGs and Hospital Trusts with data on the costs of prescriptions and as such savings; however, a lower level of granularity is available for Hospital Trusts, i.e. the individual writing the prescription cannot be identified. The match variables for a control group are likely to vary depending on the health condition targeted. For example, childhood asthma may require the SIB to allow for factors such as age, ethnicity[12], if the parent(s) smoke, whereas adult heart disease may require the evaluation of factors that are entirely related to the patient only.

Define the financial outcomes of the project

The emerging nature of the new NHS structure poses certain challenges to an intervention of this nature in the short term. For example, many of the health professionals we interviewed as part of this project weren't fully aware of the final details of the relationships between themselves and other actors in the new NHS structure. Funding streams, commissioning responsibilities, and the strength of the evidence required, were all key aspects that took time and patience to comprehend. Figure 1 above provides a useful map for the overall organisational structure.

Local authorities and CCGs are currently developing contracts for services, many of which are the first of their kind. However, a number of health providers have identified potential difficulties with the form of these contracts. In particular it may only be possible to capture savings to the health service if contracts between commissioners and healthcare providers allow savings to accrue. The contracts may be designed to protect either party from excessive costs, i.e. the extent to which an under-spend or over-spend occurs may already be limited to protect both parties from unforeseen circumstances, e.g. a flu epidemic.

In delivering this study and developing this guide, we have identified a range of relevant stakeholders to interview whose knowledge helped to shape our view of the NHS in its current state of redevelopment (see Figure 1). Any fuel poverty intervention project would need to identify a network of people to endorse and help develop the project strategy, e.g. a range of local healthcare professionals, health economists and project managers of similar interventions elsewhere. In doing so it should be possible to replicate the successes of other projects who've managed to establish an integrated referral system such as that shown in Figure 2.

[11] Note that these measures are not directly related to the actual health of the child but to the extent to which s/he makes use of health services. To the extent that these are correlated (i.e. more healthy children use the health service less), this is a reasonable (but not perfect) proxy for the health outcome.

[12] Smith, L. et al., 2005. Rethinking race/ethnicity, income, and childhood asthma: racial/ethnic disparities concentrated among the very poor, Public Health Report, US National Library of Medicine, National Institutes of Health.