Homes and health in the Outer Hebrides: A social prescribing framework for addressing fuel poverty and the social determinants of health

Cormac Lawler [a 1], Graeme Sherriff [b], Philip Brown [c], Danielle Butler [d], Andrea Gibbons [b], Philip Martin [b], Margaret Probin [b]

[a] *Salford Social Prescribing Hub, School of Health & Society, University of Salford, Salford, M6 6PU, UK*
[b] *Sustainable Housing & Urban Studies Unit (SHUSU), School of Health & Society, University of Salford, Salford, M6 6PU, UK*
[c] *School of Human and Health Sciences, University of Huddersfield, HD1 3DH, UK*
[d] *National Energy Action, West One, Forth Banks, Newcastle upon Tyne, NE1 3PA, UK*

E-mail addresses: C.Lawler@mmu.ac.uk (C. Lawler), G.Sherriff@salford.ac.uk (G. Sherriff), P.A.Brown@hud.ac.uk (P. Brown), Danielle.Butler@nea.org.uk (D. Butler), agibbons@soilassociation.org (A. Gibbons), P.Martin5@salford.ac.uk (P. Martin), M.Probin@edu.salford.ac.uk (M. Probin).

Abstract

Health services are increasingly being reshaped with reference to addressing social determinants of health (SDoH), with social prescribing a prominent example. We examine a project in the Outer Hebrides that reshaped and widened the local health service, framing fuel poverty as a social determinant of health and mobilising a cross-sector support pathway to make meaningful and substantive improvements to islanders' living conditions. The 'Moving Together' project provided support to almost 200 households, ranging from giving advice on home energy, finances and other services, to improving the energy efficiency of their homes. In so doing, the project represents an expansion of the remit of social prescribing, in comparison with the majority of services currently provided under this banner, and can be seen as a more systemic approach that engages with the underlying conditions of a population's health. We present a framework through which to understand and shape initiatives to address fuel poverty through a social prescribing approach.

Acknowledgements

The 'Moving Together' project, including the evaluation, was funded by European Social Fund Aspiring Communities Fund.

Key messages

- In order to address fuel poverty, social prescribing needs to engage with structural aspects of health and social care
- Home visits can play vital role in diagnosing health needs and vulnerability
- Cross-sector support network enables tangible action on social determinants

[1] Present address: Department of Natural Sciences, Manchester Metropolitan University, Manchester, M1 5GD, UK.

1 Introduction

An increasing sensitivity to the social determinants of health (SDoH) has been presented as an argument for reframing and reshaping health policy and services (Marmot, 2010; CSDH, 2008). Social prescribing, which often entails a referral by a GP, via a link worker, to non-medical support such as community-based activities and advice services, is one of the most prominent examples (Dayson, 2017; Wildman et al., 2019). Such initiatives have however been criticised as 'fantasy paradigms' of health (Mackenzie et al., 2020; Scott-Samuel & Smith, 2015) due to the ways in which SDoH are often treated independently of the socio-economic reality that tends to determine the social environments shaping life chances and directly impacting upon health. Social prescribing initiatives, they contend, tend not to engage with and seek to address these underlying factors. Instead, they place emphasis on a form of 'health behaviouralism' (Scott-Samuel & Smith, 2015) that relies on individuals 'helping themselves'.

We respond to these critiques by introducing a framework through which social prescribing can address SDoH at different levels, graded by their structural complexity. We illustrate this with a project, 'Moving Together' ('Gluasad Còmhla' in Gaelic), led by a specialist housing and energy organisation. Moving Together formed part of a cross-sector partnership aiming to widen the scope and provision of health care in the Outer Hebrides, with a focus on fuel poverty and housing. We argue that the project can be viewed as part of the social prescribing canon, whilst also pushing at its boundaries, by responding to fuel poverty, a factor in particular chronic disease and one that is prevalent in the Outer Hebrides. To date, although the relationship between fuel poverty and health has been the subject of much work (e.g. Bray et al., 2017; Tudor Edwards et al., 2016), fuel poverty, with some exceptions, has not been a major focus of social prescribing practice and research.

Moving Together made this link by engaging a network of health professionals to identify where health was being affected by poor housing and fuel poverty. The project directly engaged with the ways in which people live in and manage their homes, and included support not only in advice and guidance but also with direct involvement in the provision of improvements to the home. Given that inequality in the condition of homes is a SDoH, the project sought to directly engage with social factors of chronic illness.

By drawing on the experience of Moving Together we illustrate how a new framework for social prescribing in the context of housing as a major social determinant of health can be addressed. Moving Together is an example of a social prescribing approach, in that it relies on deploying non-medical interventions in the pursuit of health. We emphasise, however, that it is distinct in this sphere of activity in that it seeks to change people's relationship with energy through direct interventions in their energy-related practices and the fabric, systems and technologies in their homes. The study is the first of its kind, not only in developing a systemic integration of fuel poverty, social prescribing and health service delivery, but also in exploring approaches to fuel poverty at an island scale.

2 Context

2.1 Cold homes and fuel poverty

Fuel poverty (sometimes referred to as 'energy poverty') refers to a situation in which a household is unable to access or afford sufficient energy to maintain good comfort, health, and wellbeing. It is understood as the result of the interplay of three factors: low incomes,

high energy costs, and poor-quality energy inefficient housing (Boardman, 1991) and accentuated by vulnerabilities such as health conditions. While many countries are yet to formalise definitions of and strategies for tackling fuel poverty, the UK has a history in academic research dating back to the late 1970s (Isherwood & Hancock, 1979) and in policy, with the first Fuel Poverty Strategy being introduced in 2001. The most recent statistics suggest that more than four million UK households are affected (BEIS, 2021).

The implications of fuel poverty for health and wellbeing have been extensively examined (see for example Liddell & Morris, 2010; Marmot et al., 2011). More than 8,000 UK deaths a year are attributable to cold homes, a figure that has risen sharply in recent years (Rosenburgh, 2020). The annual cost of these health impacts has been estimated at more than £2.5 billion (Nicol et al., 2010).

As a devolved issue, each of the UK nations have their own definition, targets and related policies. In Scotland, a household is classed as living in fuel poverty if, after housing costs, more than 10% of income is needed to maintain a satisfactory heating regime (BEIS, 2021). If this exceeds 20%, a household is classed as living in extreme fuel poverty. Estimates suggest that this affects almost one in four (24.6%) households. Across the rural and remote islands that make up the Outer Hebrides the situation is starker, with almost two-thirds (62%) of households classed as fuel poor (Outer Hebrides Community Planning Partnership, 2019). Certain vulnerable demographic groups are at even greater risk: three out of four households of pension age in fuel poverty, 40% in extreme fuel poverty (ibid.). These high levels of fuel poverty are associated with the age of the housing stock and the prominence of detached houses off the gas network. This has a significant impact on householder health, placing considerable burden on health services.

2.2 Homes as a Social Determinant of Health

Integrating efforts to tackle fuel poverty into the SDoH agenda is not a new approach, but one that has received limited attention to date. For example, in 2016, the 'Warm Homes for Health' initiative (Bray et al., 2017) examined the impacts of warmth-related housing improvements on health, wellbeing, and quality of life. Bray et al. (2016) found significant self-reported health benefits from energy efficiency improvements, a 10% reduction in GP visits, and a 67% reduction in hospital attendance over 12 months. Similarly, the 'Connecting Homes for Health' project (Rosenburgh, 2020) explored not only the impacts of new heating systems on householder health and wellbeing, but also the potential for incorporating health-based eligibility criteria into measures-based schemes seeking to tackle fuel poverty.

Improving housing conditions has long been recognised as a key "…mechanism for health improvement and the reduction of health inequalities" (Thomson et al., 2009: S691). In a global review examining 100 years of housing improvement intervention studies, Thompson et al. (2009) concluded that interventions to improve housing conditions that included 'warmth' improvements were especially beneficial for health. Effective targeting of advice, support and related interventions to the most vulnerable households was recognised as a critical element in better understanding and coordinating action around housing as a SDoH. Gibson et al. (2011) note that the evidence has commonly pointed towards the benefits of "warmth and energy efficiency interventions targeted at vulnerable individuals" (p.175). Across both reviews, the authors argue that the greatest impacts are likely to be seen in interventions targeted towards older and low-income households, as well as those where individuals have pre-existing health conditions.

2.3 Social determinants and social prescribing

Our case study fits within a widespread and international movement in health policy and practice to address the SDoH – i.e., factors, such as work, food, housing and finances – that underpin and shape a person's mental and physical health and wellbeing (Marmot & Wilkinson, 2006). Studies that estimate that only 10–15% of our health is treatable by a GP (Braveman & Gottlieb, 2014) echo a national and global recognition that statistics on causes of death (such as heart disease or COPD) present only a partial picture, and that, for a more complete understanding, we must probe deeper into the 'causes of the causes' (Marshall et al., 2019.

The creation by the World Health Organisation of a Commission on Social Determinants of Health and its 'Closing the gap in a generation' report (CSDH, 2008) demonstrates the desire to tackle, at an international level, the underlying determinants of health, including socio-economic and other inequalities – both between and within countries. Though countries differ, income inequality is a strong cross-national predictor of health quality and inequality (Wilkinson & Pickett, 2006), thus framing the SDoH agenda as one of social justice (Birn, 2009). SDoH interventions may be either 'targeted' (i.e. towards specific disadvantaged populations) or 'universal' (i.e. affecting the whole population), with policies directed at varying levels of structural complexity and individual or behavioural involvement (Solar & Irwin, 2010). A wide range of social policy areas are therefore explicitly framed as health policies (Marmot & Wilkinson, 2006) – with national strategic policy overviews such as the UK's Marmot Review (Marmot 2010, Marmot et al. 2020) considering health and social policies that redress inequalities in health and wellbeing.

Both in parallel and in reference to the SDoH policy shift, a range of initiatives under the banner of social prescribing have emerged to create social mechanisms, or non-medical initiatives, to maintain and/or improve a person's wellbeing (Polley et al., 2017; Kellezi et al., 2019). The range of activities to which social prescribing service users are referred is vast – including participation in arts, exercise or nature-based activity (Chatterjee et al., 2018). Services themselves can range from signposting to more 'holistic' support (Kimberlee, 2015), and will differ according to their commissioning and structure (Pescheny et al., 2018). A development is the creation of a new role in health care – usually referred to as 'link worker' (Moffatt et al., 2017; Wildman et al., 2019) - who play a pivotal role in assessing needs and identifying appropriate activity or support (Elston et al., 2019).

Social prescribing is not new (e.g. Huxley, 1997; Harris et al., 1999) – and the case has long been made for social prescribing "to become fully integrated as a patient pathway for primary care practices in Scotland and the potential to strengthen considerably the links between health care providers and community, voluntary and local authority services that influence the wider determinants of mental health" (Friedli et al., 2007: 5). Though the evidence base for social prescribing has been questioned (Bickerdicke et al., 2017), it is nevertheless strong and growing (Polley et al., 2017; Elston et al., 2019; Husk et al., 2019), and social prescribing has become embedded in national UK health policy (e.g. NHS England, 2019a, 2019b). This move towards a more 'personalised' health care system is central to the Scottish policy context of 'realistic medicine' (Scottish Government, 2019). Unlike the SDoH movement, social prescribing is predominantly a UK phenomenon. There is however evidence of a growing interest internationally, in for example Canada (Nowak & Mulligan, 2021), Portugal (Hoffmeister et al., 2021) and Finland, the US, and Brazil (Chiva Giurca & Santoni, 2019).

This sphere of approaches is not without its challenges and critics, and how social prescribing and other SDoH-related initiatives fit with health care *practice* is a mixed story. GPs have not always welcomed social prescribing initiatives and have sometimes regarded

them with scepticism (Brandling & House, 2009) or indifference (Bertotti et al., 2018) – though social prescribing has significant support within the GP profession in the UK (RCGP, 2018). White et al (2017) document the ways in which barriers can form where different frameworks of health shape different health professionals' willingness to engage with others in the health system. They note a lack of trust between health professionals and some voluntary sector (VCSE) organisations. There are also concerns from the VCSE sector about the implications of an emphasis on social prescribing on their organisational capacity (Dayson 2017), and consequently a recognition of the need for a healthy 'ecosystem' of organisations to sustain social prescribing (Gibbons et al., 2019).

Mackenzie et al.'s (2020) critique of the language and practice surrounding the SDoH agenda is of a more fundamental nature. They argue that the concept of 'determinants' should acknowledge their inherent socio-political realities rather than being abstracted topics of interest, or "free-floating phenomena" (Mackenzie et al., 2020: 4). Social prescribing is seen as being inherently limited – in that it does not actually change the determinants themselves (Mackenzie et al., 2020). They echo others' frustration with a lack of recognition of the "causes of the 'causes of the causes,' viz., what creates inequity in the first place" (Birn, 2009:172), and the risk of using this agenda to justify the undermining and cutting back of the public sector (Friedli, 2012).

Factors that can be considered determinants of health are many and varied, and seen to be tackled at different levels of structural complexity. The framework put forward by Solar & Irwin (2010) usefully sets out levels of structural and intermediary determinants and the levels at which policy and action can address these. This framework can be adapted to help illuminate how social prescribing can tackle SDoH (Figure 1).

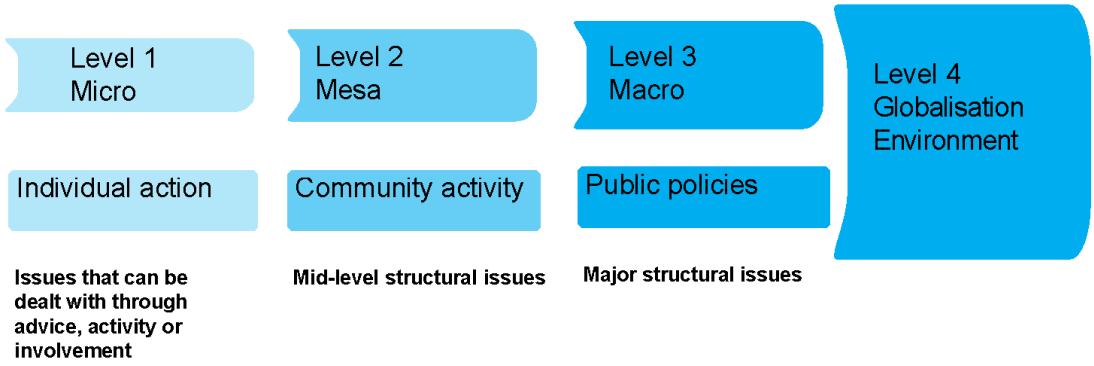

Figure 1 Framework for understanding approaches to addressing social determinants of health, following Solar & Irwin (2010: 60)

The majority of social prescribing, even that which is targeted at tackling social determinants (Husk et al., 2019), is undertaken at Level 1. Level 3, or 'macro' structural issues, largely animate the 'fantasy paradigm' critiques, since they are seen to be out of reach of social prescribing initiatives (Mackenzie et al., 2020). However, there are opportunities to address social determinants at the intermediary level, Level 2 – and we now explore how our case study, Moving Together, approached this.

3 Case Study: Moving Together

With the rationale of improving the health of the most vulnerable people on the islands by improving living conditions, 'Moving Together' was conceived as creating a referral pathway from GPs to organisations able to provide support and advice around housing and energy and, in some cases, to facilitate physical improvements to homes in the form of energy efficiency and heating systems (Sherriff et al., 2020). Over time, the project expanded in various ways in response to challenges and opportunities in rural community public health. Despite fuel poverty being a significant and long-recognised issue in the Outer Hebrides, this is the first time it has been explicitly addressed as a public health initiative.

Moving Together was a cross-sector partnership, funded from the European Social Fund from March 2018 to March 2020, with lead partner Tighean Innse Gall (TIG). In its first 15 months, the project covered the catchment of the Langabhat Medical Practice in Lewis, the most populated area, subsequently expanding to cover the entirety of the Outer Hebrides for the final nine months. 199 households were assisted, with support ranging from advice on energy-use and tariffs, to substantial changes to insulation and heating systems (Table 1). Along with TIG and Langabhat Medical Practice, other partners were Western Isles Citizens Advice Service (WICAS), The Shed, Western Isles Foyer, and Western Isles Association for Mental Health (WIAMH). Moving Together ran alongside, and in alignment with, a project run by mPower, in which a community navigator based at the same GP practice referred patients to community-based services. Table 2 shows the distribution of referrals across the different agencies involved in project delivery. The overarching aim was to facilitate partnership working across networks of established organisations and agencies to enable a process of 'moving together' towards common goals of reducing poverty and improving living conditions and health.

Measure	**Phase 1**	**Phase 2**	**Total (% of households)**
Home energy visit and/or advice	85	42	127 (64%)
Referral onto other assistance	47	22	69 (35%)
Help with bills, including switching	29	18	45 (23%)
Grants and Benefits	22	10	32 (16%)
Insulation	17	9	26 (13%)
Other	11	4	15 (8%)

Table 1 - Number of households receiving support in the forms listed. Note that some households received more than one form of support. Data is from TIG's delivery records.

Source of referral	Phase 1	Phase 2	Total (% of households)
Benefits advice	4	14	18 (11%)
TIG	9	9	18 (11%)
Community Organisation	25	3	28 (16%)
Nurse / Health Visitor	17	26	43 (25%)
Surgery or practice	54	3	57 (33%)
Other	4	3	7 (4%)

Table 2 - Sources of referrals into the project for assistance. Note that we have record of 171 referrals, and percentages are calculated to this total. The other category includes self-referral.

4 Methods

The research comprised a mixed-methods evaluation of the Moving Together programme, as detailed in Table 1, with ethical approval through the University of Salford.

Data source		Description
Householder interviews	17 households	Conducted face to face, mostly in householders' homes. Interviewees had received some form of support through the project.
Stakeholder interviews	23 individuals	Actors involved in the Moving Together partnership in some way – staff from TIG and partners, GPs and Health Service senior managers. Interviews were conducted either face to face in stakeholders' places of work, in the TIG offices, or by phone.
Stakeholder workshops	2 workshops	Conducted in September 2019 at a transitional point in the project, at which its reach was expanded to cover the entire Outer Hebrides. One held in Stornoway, the other in Benbecula.
Householder survey	27 responses	Posted to all householders who had received support, including a link to complete online if preferred.
Data from TIG		Additional data from TIG were used to provide background and demographic information about project beneficiaries, and the form and extent of support received.

Interviews were semi-structured, rich, in-depth and with a significantly wider focus than that of the Moving Together project alone. They were centred on lived experiences in relation to energy and vulnerability (Middlemiss & Gillard, 2015; Butler & Sherriff, 2017), health, life on the islands, and their involvement with the project.

All interviews and workshops were audio recorded and transcribed verbatim. Qualitative data were analysed using Nvivo, and initially thematically coded by individual researchers.

These themes were subsequently compared, categorised and grouped into meta-themes, which informed a second pass through the data. These themes and findings were used to construct a narrative on the challenges faced by project actors and the challenges and opportunities involved in aligning fuel poverty and social prescribing. We found the framework presented by Solar & Irwin (2010) to be a useful way of describing and categorising the impacts, barriers and challenges raised in our interviews and it became a device with which to structure our framework.

5 Findings

We explore Moving Together from the point of view of impact and delivery, looking in particular at the connections with the social determinants of health, the creation of new and widened referral pathways and the relationship between the project and the home as a site of diagnosis and care. Through these themes we see the fusion of social prescribing and fuel poverty agendas as they push against each other's boundaries to make more concrete improvements to people's lives, living situation, and health. In narrating the challenges faced by project stakeholders, we have sought to evidence ways in which these challenges have been overcome. To protect the identity of our participants, we use pseudonyms when presenting interview quotations.

5.1 Improving the social determinants of health

Our starting point is a consideration of the ways in which Moving Together sought to address SDoH and an exploration of the evidence of its impact upon the lives of householders. Moving Together has added to the evidence base on the severity of fuel poverty on the Islands. Concerns about fuel poverty and housing were evidentially at the forefront of stakeholders' minds: it was clear from this project – as it had been to project partners beforehand – that many householders on the islands suffer from chronic health conditions as a direct or indirect result of their housing.

An illustrative example was a couple who were hospitalised with hypothermia after having turned off their heating due to the cost. Other householders lived confined to one or two rooms in their homes, staying mostly in bed, using their bedroom as a "bolthole", in order to save on bills. There were also accounts of the effects of fuel poverty on mental health, and vice versa: that being in fuel poverty can be a significant contributor to stress and anxiety, and that having a diagnosed mental health condition may create challenges in being able to deal with fuel poverty: *"…there comes a point with my mental illness, I've noticed that I don't even notice that I'm also cold… It's like anybody, if you're cold you're not comfortable and everything is harder."* [Householder - Claire]

One way in which the project sought to alleviate these issues was by means of material changes to homes and heating systems. Through the support of the project, householders reported being warmer, healthier and happier – for example being able to live in their home that they had previously been considering 'unliveable': *"it was coming to the stage that I was nearly, I would be better moving into another house for my health, but it's warm now."* [Householder - Callum] Further illustrating this, project partners could see the benefits to both physical and mental health:

> *"It's a physical improvement, but it's also a mental improvement, because they know the house is warmer and they know they don't have to have the heating on as long, therefore they won't be hopefully spending as much on cost of fuel, whether it be oil or coal or whatever. So you're helping them twofold."* [Stakeholder 12]

Other impacts included increased comfort and flexibility in using the house, particularly in the often-hostile climate of the Islands – '*I can now stay upstairs in my bed in a storm'*, whereas they were *'always having to flee downstairs to the sofa before...' [Householder - comment through online survey]* – reporting lower anxiety about the deterioration of their home and being able to keep the home better organised. But some aspects of the project's support that made the most difference were unrelated to their homes' energy efficiency – such as getting a blue badge for parking. For one householder, saving money was transformative in that it enabled him to purchase a car and no longer be reliant on limited public transport to get to shopping, friends and health care:

> *"you're more independent, you can go, it's just like if you've got an appointment with someone, even doctors… I've got a car, because I had to get a bus, and if you had an appointment you had to arrange, 'When is my appointment?' Eleven o'clock, if my bus is at ten o'clock, I have a wait of nearly an hour sitting. I'll be falling asleep before the doctor appears."*
> [Householder - Callum]

Stakeholders were also keen to stress that the impact of support was not always proportional to its financial value. Quite modest support was sometimes more meaningful to one person than a costly support package was to another: *"a £50 debt write-off can mean more to that individual than £15,000 worth of measures… the impact I've seen of people with what to you and I would be a relatively small debt has on their lives is enormous."* [Stakeholder 13] This person's life was described as:

> *"...completely transformed: she went back to sleeping… she changed job in order to make it more affordable, it completely changed her outlook, but it also made her aware that the support network was there so that if she saw that she was losing control of anything, all she had to do was pick up the phone. So from that point of view it's not just a parachute in, do what you have to do and leave again, it's leaving with the confidence that the client knows that that support network is there no matter what." [Stakeholder 13]*

A stakeholder workshop participant emphasised that fuel poverty support needed to be part of a broader support package that covered ways of increasing income:

> *"You need to do that, because you can go in with the physical measures for the property and they'll deliver an improvement, but they won't always deliver an improvement that will take the person out of fuel poverty." [Stakeholder Workshop Participant]*

5.2 Setting up a new referral pathway for energy and health vulnerability

Moving Together reflects an attempt to deploy social prescribing approaches in tackling fuel poverty. This required a strategic alignment of organisations and a way of referring householders through the network towards services that would respond to their requirements. In this section we recount the reflections of stakeholders on the challenges of forming these new referral pathways.

From the outset there was a focus on the most vulnerable people in the Outer Hebrides – as outlined by a project stakeholder on the rationale for the project:

> *"…there are a relatively small number of people with medical conditions that basically draw down most of the NHS funding in the Western Isles. The attempt is to try and work out a way, could that number of people who are* reaching the top of that pyramid be reduced by making their living conditions better." [Stakeholder 19]

This meant bringing new actors into referral networks and mechanisms *"to deliver more effective services for frail people,"* and furthermore*, "to take into account all of the other agencies that help vulnerable and frail people and try and bring all of that together."* [Stakeholder 19] It is important to note that the project did not arise out of a vacuum but rather built on previous work by several of the project partners: *"Moving Together itself has been an evolution of previous attempts to try and get things going on this particular topic"* [Stakeholder 18]

From a GP's perspective, the rationale was to link the GP practice more explicitly with the voluntary sector to address their patients' underlying issues:

> *"I guess our only visible route was thinking about getting in touch with social work to get carer support in, but that clearly wasn't addressing the problem. So there was an awareness there but also an ignorance of how to do anything about it, and I think part of that is that whilst health promotion and public health are very integrated with third sector, I'm not quite sure that the primary care practices are that integrated." [GP4]*

The referral pathway was initially envisaged as being instigated by a GP if a conversation with a patient flagged up potential fuel poverty. However, it was recognised shortly into the project that GPs were slow to refer, or not referring at all – despite them being positive about the project. As one GP later acknowledged: *"I'm really strong an advocate of it, and I'm a really poor referrer*" [GP4].

Unsurprisingly, the limiting factor of GPs' ten-minute consultation was referred to repeatedly, amongst householders, stakeholders and GPs themselves as a practical issue – but linked to this was the impact these time limitations had on potentially restricting the perspective of GPs. One householder, for example, narrated a process of misdiagnosis due to what they perceived to be an overly narrow focus, a situation that was later addressed by being sent to a specialist: "*Eventually, I said, 'Look, you keep telling me that I can only come in here with one problem, but what if all the problems I'm trying to get you to listen to about are the same* thing?'" [Householder - Harry]

GPs acknowledged they were in a sense stepping into the unknown – one GP reflecting that, despite a long-standing emphasis on "practising holistically", they had to unlearn *"26 years of bad habits"* – and recognise: "*that we don't see hearts and lungs, we see people with lives, and that we should be looking at the bigger picture."* [GP1] Another GP reflected that *"[w]e don't focus on all the psychosocial aspects in the same way, and it is quite an uncomfortable shift for us, I think, because we are straying into areas that we haven't got a clue what we're on about,"* admitting that colleagues sometimes *"feel a little bit vulnerable I think because their authority gets taken away"* [GP4]. This GP did, however, situate this shift as following the overall direction of travel in healthcare provision: *"the way healthcare is going… we are all going to be much more multi-disciplinary and I'm not the boss anymore thankfully, it's a shared decision between me, the patient and the other healthcare professionals"* [GP4].

Following the realisation at a relatively early point in the project that GP referrals alone would be insufficient, a number of key enabling mechanisms for increasing project referrals were adopted. Firstly, the manager of the GP practice was given a more active role in making referrals based on the GPs' verbal suggestions. Secondly, and in coordination with the practice manager, the project's reach was extended by engaging specialist nurses, who carry out extensive home visits in the community, as first referrers. This latter innovation significantly expanded the project in terms of its population reach as well as the partnership of health professionals engaged in the project. Thirdly, self-referral emerged as another enabler, whereby community members could find out about the project and services at

events or hubs – which stakeholders discussed *"empower[ing] people more to take hold of their own life and wellbeing and destiny,"* [GP3] and enabling them to engage with projects and services in a way that feels right to them.

The self-referral mechanism also enabled a route into the programme via word-of-mouth at an informal community level, where neighbours, relatives or friends were able to pass on details. Conversely, stakeholders emphasised the importance of maintaining a focus on health and vulnerability to ensure their work supported the people who most need it, flagging the risk that relying on self-referrals might be to the detriment of this aim:

> *"Just to make sure that - aside from the fuel poverty side of things, we're working with - we're doing drop-ins at the DWP as well, to try and find people who might be on ESA or other passport benefits. Still keeping that health focus in mind. … [W]e need to work with not just the health services but third sector as well, I think, to make sure we're picking up on anybody that has that vulnerability there." [Stakeholder 18]*

Focusing on the right people was a key theme in project midpoint stakeholder focus groups*: "We all know people that, if you do a community engagement event, they will come to you. In my opinion, they are not the people that we need to get to. We need to get to the people that won't engage." [Stakeholder Workshop Participant - Stornoway]* An extension of this point was also made in that there are some community members who are not on the radar of GPs and other health professionals: *"really vulnerable [people] whose home's in disrepair, who just don't go to their GP or don't go or are not part of the care network*." [Stakeholder Workshop Participant - Stornoway]

The experiences of our stakeholders illuminate some of the tensions inherent in setting up a new referral pathway for energy and health vulnerability, and finding a balance between maximising opportunities for engagement and ensuring the right people benefit. A key facilitator to this work happening and developing is the degree to which organisations were already interconnected and strategically aligned. Many of the stakeholders involved sit on the boards of partner organisations, allowing strategic conversations to take place about how each organisation complemented the work of others. There was also a readily apparent culture of collective problem-solving – for example getting around the "computer says no" [Stakeholder] scenario – where organisations worked together to see how a person can be offered support and not fall between the cracks of particular services' eligibility criteria.

As well as organisational links, individual links had to be made across the community, sometimes happening through chance encounters – e.g. *"meeting an Occupational Therapist on a ferry"* [Stakeholder 23]. Making the project work required *"working hard on relationships"*, and often finding a *"go-to person in a community."* [Stakeholder 17] There was a significant degree of innovation from project stakeholders: it was apparent that if the recruitment method had been fixed at the start and not able to evolve, the project reach would have been more limited.

5.3 The home as a site of care and diagnosis

A key innovation in the development of Moving Together was the identification of the significant role community-based health professionals could play in widening the referral pathway. This is not unique within the social prescribing canon, but neither is it widespread: the majority of social prescribing is based on the GP-link worker referral pathway. Home visits are thus a potentially transformative way to embed into health care a mechanism for tackling the social determinants of health, especially when the focus of an initiative is the home itself. Moving Together provided funding to make time and capacity for home visits, but this was not an approach that was completely new to those delivering health care on the Islands.

The vital role that home visits played in addressing vulnerabilities was repeatedly highlighted by stakeholders. A GP reflected on the fact that home visits give significantly more information than their short consultations:

> *"As much as we try to think of the whole person and their circumstances, you are time-limited; you don't have that insight that you do if you are visiting somebody at home, because you can actually see their surroundings, you can see their - sometimes their support network, that kind of thing." [GP3]*

Home visits were therefore also a way to ensure that the project targets the 'right' (i.e. most vulnerable) people: *"that way we can be sure we're seeing the people we need to see."* [Stakeholder Workshop Participant – Stornoway]

Visiting homes provided experienced professionals with a view into living conditions that were often invisible from the outside of the house, a recognised feature of Hebridean housing. Home visits could also reveal issues and challenges that were hidden by householders themselves:

> *"I think being in the home is so, so important because I think someone going into a GP's surgery is hiding something that they might have at home which may really be the main issue that they're there at the GP's surgery for but they're just too embarrassed to discuss about it. It might be embarrassing for someone that they can't afford to heat their home." [Stakeholder 4]*

To some extent an approach focused on home visits suited health work on the Islands, reflecting the variety of household types and conditions and the difficulty householders might have in accessing health care. Conversely, the geographical extent of the Islands meant that this was an extremely challenging and resource intensive part of the project, highlighting the comparatively challenging nature of social prescribing in rural and remote areas as opposed to, say, urban housing estates: *"We all appreciate that the geography is huge and it doesn't just take you ten minutes to get to a home visit; it might take you an hour… [or] a whole day."* [Stakeholder 4]

There may also be political implications to home visits – flagged by a workshop participant as a potential barrier from a policy perspective:

> *"[T]he one thing…[the Scottish Government] are very reluctant to fund is that face-to-face interaction. … They say, 'Okay, that's quite a good idea on the surface, but we'll have this centralised system of doing it', and it loses that local connection and it loses that local trust and it doesn't work because of that. …[A]nd of course, civil servants hate it because instead of dealing with one organisation that they can say, 'That's our contact for face-to-face advice', they have to then deal with a myriad of organisations through the country." [Stakeholder Workshop Participant]*

5.4 Trust and a 'natural island reticence'

Tackling fuel poverty, whether through making sometimes significant changes to people's homes or changes to the ways in which energy bills are paid, requires a level of trust between the householder and the variety of organisations and personnel involved (see Brown, Swan and Chahal, 2014). This was particularly evident in the work of Moving Together, with the islands' culture a key factor. Overcoming what one stakeholder described as a "natural island reticence" [Stakeholder] emerged as a key theme. Whilst there is evidently a culture of neighbourliness and mutual support which enabled referrals and other project outcomes to materialise, the stigma around needing help alluded to above was

acknowledged to be part of a resilient culture of self-sufficiency, which can prevent people from seeking help.

Additional to this context, and something particularly relevant to Moving Together, was the psychological and emotional impact on householders of having work done on their houses. This was especially difficult for individuals who told of their daily struggles with managing mental health issues. For example, one householder recounted their trepidation at the beginning of the process and described this as feeling 'invaded':

> *"I got too scared. The idea of being invaded by the workmen was terrifying for me for someone with my condition. … But it was mostly my fault. I was frightened. I was frightened of the stuff they were going to put in, was it combustible? My fire phobia..." [Householder - Callum]*

An important part of Moving Together's work was therefore providing support and reassurance to people who were anxious about such intrusions. A GP told of how a patient who had had significant reservations about going through with having work done had been given extensive emotional support by project partners:

> *"I met one of the patients a couple of weeks ago, who found it a really stressful thing, a really stressful experience, because they'd got mental health issues and so they almost backed out at the last minute, but between TIG and mPower input, which they found very, very supportive, they were able to go through with the work that needed doing. So it's not just identifying the work, I think it's the… workers providing the support for that individual… [because] allowing somebody into the home is a big thing for them." [GP4]*

One proposed response to this challenge, and a way in which Moving Together was instrumental, lies in community-based trust – as evidenced by a woman who, after being helped herself, made five referrals to friends and neighbours - *"because they obviously trust her, and therefore by default that trust then is, albeit cautiously, transferred to you. And that's for me the most invaluable way of targeting the people most in need."* [Stakeholder 13] This again signals the importance of the self- (and community-) referral mechanism in widening access to such schemes.

The specific individuals involved in the project, and their roles, was therefore important, and health workers provided a level of authority that energy advisors alone could not necessarily provide:

> *"maybe they feel like, well, if my nurse has said that I'm entitled to this then I probably am, it's not just me thinking it or it's not just someone in the street telling me, it's someone that they feel has authority. So I've found that to be a really good way of getting around that stigma and resistance." [Stakeholder 10]*

GPs were acknowledged to occupy a particularly high level of trust in the community – according to a stakeholder workshop participant: *"[Islanders] trust the elders of the church and GPs. Whatever they say, they tend to abide with that, so I think they've got an important role." [Stakeholder Workshop - Stornoway]*

6 Discussion

We present a framework for social prescribing that engages more directly with the SDoH. We then consider the ways in which this project provides insights into how such a framework

could be deployed to guide a social prescribing approach to tackling cold homes and fuel poverty.

Moving Together represents a significant expansion of the remit of the majority of social prescribing services, in line with what has been put forward as 'social prescribing plus' (Dayson 2017). It can also be seen as a response to legitimate critiques of social prescribing and the wider SDoH agenda (Mackenzie et al, 2020) in that it seeks to address the SDoH themselves. Of course, addressing social determinants through making actual material differences to the quality of people's lives is at the heart of inequalities policy agendas (Marmot, 2010; CSDH, 2008), but, despite the prominence of social prescribing as a proposed solution to a complex problem, a focus on structural inequalities has thus far been lacking. Moving Together therefore represents a case that can provide a more structural, and arguably political, approach to social prescribing and SDoH initiatives.

Figure 2 presents a number of the social determinants of health tackled by Moving Together within the matrix of SDoH levels, as described above, and based on and building upon Solar & Irwin's (2010) framework. Level 3 issues (i.e. major structural issues) were not tackled by Moving Together, but rather the project served to highlight where policy and other work is needed to do so. Issues at Level 1 were similar to those documented by the vast majority of social prescribing literature. Where we feel Moving Together has most to offer is to show how Level 2 issues were addressed in this project, and how this may help to map more generally and explicitly how social prescribing can address SDoH.

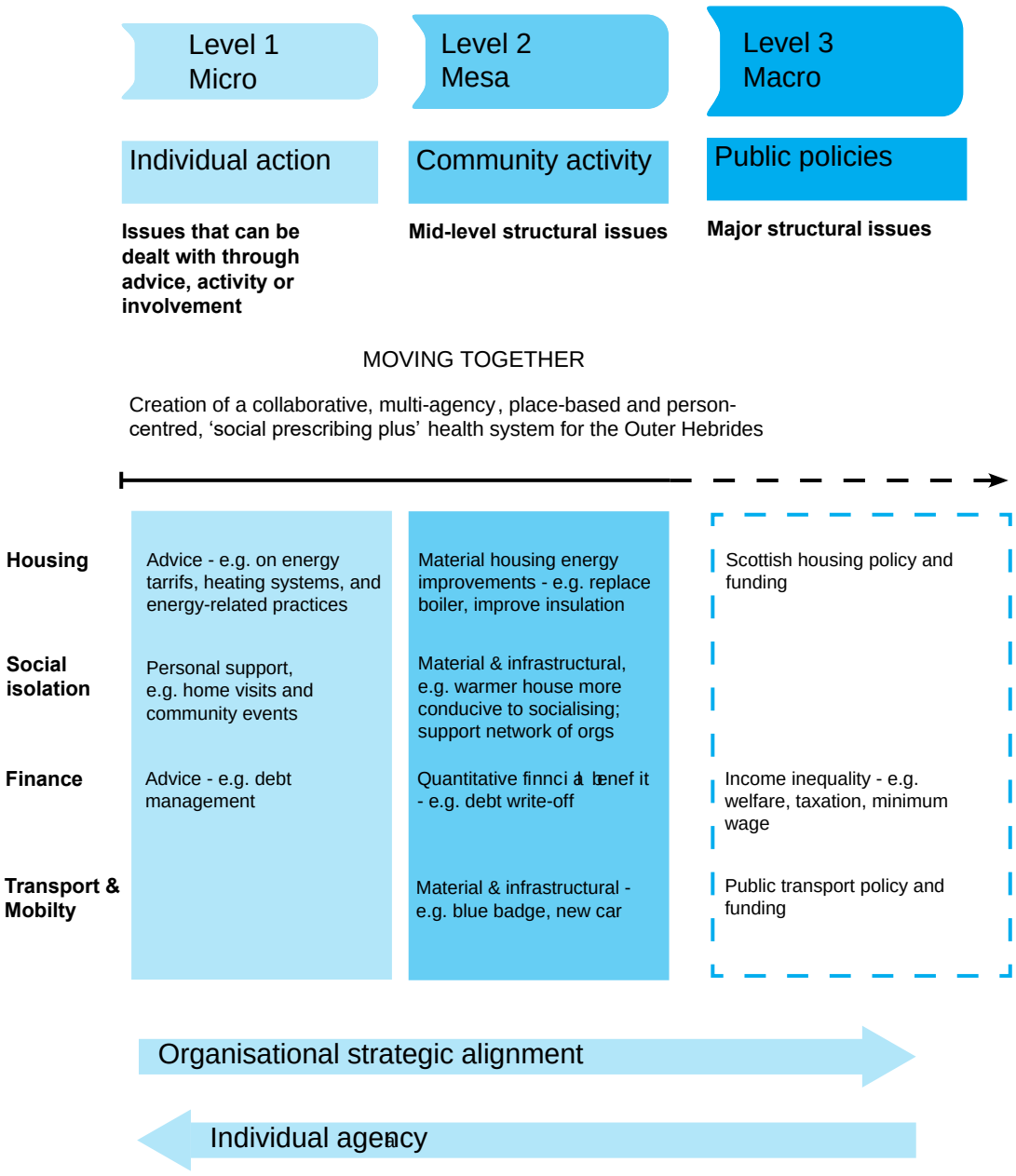

Figure 2 Examples of interventions and outcomes of Moving Together using the Social Prescribing / Social Determinants of Health matrix

As Figure 2 illustrates, moving from left to right involves more complex, structural, and intersectoral approaches, while, conversely, the level of householders' individual agency to tackle issues decreases. Moving Together shows how the intersectoral support provided by the project partnership – such as material improvements to housing insulation and heating systems, quantitative financial benefits (e.g. reductions or write-offs of personal debt), and other material and infrastructural changes (e.g. financial ability to buy new car, blue badge) – had beneficial impacts on participants' health. Furthermore, these material improvements complemented other support and advice that enabled participants to live richer, happier and healthier lives. Perhaps of note is that, in contrast to the findings of McGowan et al. (2021), many interventions that had most impact were ones with low levels of participant agency and high levels of input and resources from organisations – though it was outside the scope of our study to evaluate outcomes in terms of place-based inequalities.

Placing social prescribing explicitly within a SDoH framework may be of value to public health commissioners as a heuristic metric to gauge the impact, or potential impact, of health initiatives. On a practical level, this would involve a number of key steps - and which partly echo the shift towards place-based health systems (Ham & Alderwick, 2015):

1. explicitly identify which SDoH, and at what level, health initiatives are to be targeted;
2. engage the relevant expert, strategic and delivery partners required to do so, across sectors;
3. identify referral pathway(s), including appropriate training for referrers on relevant SDoH;
4. secure sufficient funding within and across the partnership to ensure strategic work can be supported.

Although Moving Together had a predominant focus on housing and fuel poverty from the beginning, this did not limit the range and scope of support offered. This reinforces what we regard as another key generalisable learning point: that SDoH-focused initiatives need to keep participants' needs front and centre, and that, in keeping with person-centred principles (NHS England 2019b), this means focusing on outcomes that are meaningful and that 'matter' to the individual. Combinations of place-based and person-centred social prescribing approaches, therefore, are well-placed to tackle SDoH at Level 2 – albeit requiring the focus, strategic alignment, infrastructure, expertise and funding to do so.

Mapping social prescribing against a matrix of SDoH can help to foster a form of social prescribing that is more directly engaged with the political reality of the factors affecting health, and this is what the 'fantasy paradigms' critique calls for. It echoes a parallel critique of the asset-based approaches agenda by Friedli (2012), who advocates for the revival of a radical agenda, including "the relationship between public sector professionals and the communities they serve, the democratic deficit and abandonment of areas of deprivation by both the market and the state, steep income hierarchies within the NHS and the social, material and emotional distance between those who design public health interventions and those who experience them." (Friedli, 2012: 139)

We intend that the framework outlined here can help outline both the opportunities for and limitations of social prescribing in tackling the SDoH, and perhaps help to shape more equitable health services. While we acknowledge that making energy efficiency improvements to people's housing may not alter some of the most substantive 'fundamentals' of people's lives – such as those highlighted by Friedli (2012) – it goes some way towards redressing inequalities.

Moving Together has highlighted some particular considerations for the implementation of social prescribing in a way that engages with Level 2. Firstly, the extent of wrap-around

support needed – particularly for Level 2 issues – requires cross-sector coordination and collaboration amongst those who are referring beneficiaries. Widening the referral pathway from GPs to include community nurses is by no means unique to Moving Together – practice nurses are becoming an established part of the referral pathway (Chatterjee et al., 2018; White, 2017). Given the fundamental constraint of time on GPs' work – which often meant that more holistic connections between patient, life and home were missed when proposing treatment – it made sense to involve other professionals whose time is not constrained to the same extent. Identifying those who were most in need of support through the project was greatly improved by having a wider, community-facing network of professionals, who could furthermore leverage their community knowledge and personal networks to see that the people most in need were supported.

Of particular interest in Moving Together is the degree to which individuals and organisations in the referral pathway worked in partnership to offer personalised and wrap-around support. GPs, community nurses, community navigators, staff of voluntary sector organisations and public sector services formed a web of professionals supporting islanders' health and wellbeing, each professional with a distinct focus and remit, but with sufficient overlap and interlinking to ensure that householders were supported holistically. The development of a network of community-facing professionals therefore played a fundamental role in tackling SDoH. This web of support was significantly facilitated by a strong culture of organisational interconnection on the islands – e.g. through sharing board members – and the project therefore provided a scaffolding for building on already established networks to form specific referral and intervention pathways.

Secondly, the emphasis on direct engagement in homes and households meant a focus on the home as a site of care, and therefore on the home visit as part of the diagnostic process. Home visits brought both practical and emotional challenges. The practical challenge relates to the time required to visit and engage with people in their homes, something that is particularly pronounced given the scale and remoteness of the Outer Hebrides. The emotional side relates to the value of the home as a window into people's lives: it is also a site of vulnerability and exposure. This reinforces the importance of building trust, which Moving Together was able to do through its networked approach. This was important not only in relation to health care professionals and energy advisors from the project gaining access to homes but also in relation to convincing people to allow contractors to make changes to their homes. Insofar that work on fuel poverty at Level 2 will require engaging with homes and their owners, building trust is an essential element of any similar project.

Thirdly, the project's particular focus on fuel poverty and housing implied a requirement for a level of stakeholder knowledge about these issues. It raised awareness of these issues amongst health professionals, as well as other project partners – changing the way they worked and thought about their work. Had they not been closely networked with TIG through the Moving Together project, health professionals would not have had access to the same level of knowledge about the health impacts of cold homes, nor information about what approaches would help and what support schemes were available.

Finally, although much can be generalised from this project, there are a number of contextual factors specific to its setting to be noted. The integration of health and community services into a place-based system was certainly aided by an unusually strong inter-organisational culture of strategic enmeshing in the Outer Hebrides. The importance of home visits was clearly highly relevant to the context of the Outer Hebrides, both in terms of sensitively overcoming issues relating to reticence to seeking help, and of revealing housing problems that can otherwise be invisible from outside. Neighbourly and community-based networks of trust sat in tension with the socio-cultural stigma of having housing and health problems, creating particular enabling and constraining dynamics in the work of this project.

Perhaps more fundamental than any other factor was the inescapable harshness of life on the islands, with weather and remoteness shaping islanders' lives to a significant extent. A strong culture of resilience and self-sufficiency – illustrated in part through islanders' memories of cutting and burning peat – created further layers of complexity and called for the sensitivity of local-based organisations and professionals, steeped in the specific experience of this place (Malpas, 2003).

While there may be particularities to the Outer Hebrides, we envisage that all of these aspects – particularly home visits – are likely to play a significant role in any similar work tackling fuel poverty, with practical and indeed political implications for project commissioning, design and delivery. We also recognise that projects of this nature at this scale require significant funding and development time (Ham & Alderwick, 2015) – which relies upon the stability and capacity of local VCSE organisations (Dayson, 2017).

7 Conclusion

The growth of social prescribing has created many opportunities and innovations in health and social care, but there is need and scope to tackle health determinants at a larger scale and structural level. Moving Together was one such example of a multi-sector collaboration, using elements of social prescribing to tackle fuel poverty and health vulnerability, reshaping health services in the Outer Hebrides, and offering insight into how social prescribing and fuel poverty can mutually benefit and expand each other's boundaries. The direct relationship with the home helps to ground help and support in relation to health concerns and experiences and assists health professionals in understanding the ways in which the cold homes and financial stress associated with fuel poverty are impacting health. Furthermore, the capacity to make direct interventions in the home, making improvements to energy technologies and the energy efficiency of the building, means that one aspect of the social determinants of health, housing, is being addressed at a structural level.

8 References

BEIS (Department for Business, Energy and Industrial Strategy) (2021). *Annual Fuel Poverty Statistics in England, 2021 (2019 data*), Report. Retrieved from: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/966509/Annual_Fuel_Poverty_Statistics_LILEE_Report_2021__2019_data_.pdf

Bertotti, M., Frostick, C., Hutt, P., Sohanpal, R., & Carnes, D. (2018). A realist evaluation of social prescribing: An exploration into the context and mechanisms underpinning a pathway linking primary care with the voluntary sector. *Primary Health Care Research & Development*, 19(3), 232–245. https://doi.org/10.1017/S1463423617000706

Bickerdike, L., Booth, A., Wilson, P. M., Farley, K., & Wright, K. (2017). Social prescribing: Less rhetoric and more reality. A systematic review of the evidence. *BMJ Open*, 7(4), e013384. https://doi.org/10.1136/bmjopen-2016-013384

Birn, A.-E. (2009). Making it Politic(al): Closing the Gap in a Generation: Health Equity through Action on the Social Determinants of Health. *Social Medicine*, 4(3), 166–182.

Boardman, B. (1991). *Fuel poverty: from cold homes to affordable warmth*. Great Britain: Belhaven Press.

Brandling, J. & House, W. (2009). Social prescribing in general practice: Adding meaning to medicine. *British Journal of General Practice*, 59(563), 454–456. https://doi.org/10.3399/bjgp09X421085

Braveman, P. & Gottlieb, L. (2014) The social determinants of health: It's time to consider the causes of the causes. *Public Health Reports*, 129 (Supplement 2), 19–31.

Bray, N., Burns, P., Jones, A., Winrow, E., & Tudor Edwards, R. (2017). Costs and Outcomes of Improving Population Health through Better Social Housing: A Cohort Study and Economic Analysis. *International Journal of Public Health*, 62(9): 1039–50. https://doi.org/10.1007/s00038-017-0989-y

Brown, P., Swan, W., & Chahal, S. (2014). Retrofitting social housing: Reflections by tenants on adopting and living with retrofit technology. *Energy Efficiency*, 7(4), 641-653. https://doi.org/10.1007/s12053-013-9245-3

Butler, D. & Sherriff, G. (2017) "It's normal to have damp": Using a qualitative psychological approach to analyse the lived experience of energy vulnerability among young adult households. *Indoor and Built Environment*, 26(7), 964–979.

Chatterjee, H.J., Camic, P.M., Lockyer, B., & Thomson, L.J.M. (2018). Non-clinical community interventions: A systematised review of social prescribing schemes. *Arts & Health*, 10(2), 97–123. https://doi.org/10.1080/17533015.2017.1334002

Chiva Giurca, B. & Santoni, C.M. (2019) Celebrating the world's first social prescribing day. *British Journal of General Practice*, 69(688), 558. https://doi.org/10.3399/bjgp19X706325

CSDH (2008). *Closing the gap in a generation: health equity through action on the social determinants of health. Final Report of the Commission on Social Determinants of Health*. Geneva, World Health Organization.

Dayson, C. (2017). Social prescribing "plus": A model of asset-based collaborative innovation? *People, Place and Policy Online*, 11(2), 90–104. https://doi.org/10.3351/ppp.2017.4839587343

Elston, J., Gradinger, F., Asthana, S., Lilley-Woolnough, C., Wroe, S., Harman, H., & Byng, R. (2019). Does a social prescribing 'holistic' link-worker for older people with complex, multimorbidity improve well-being and frailty and reduce health and social care use and costs? A 12-month before-and-after evaluation. *Primary Health Care Research & Development*, 20, e135. https://doi.org/10.1017/S1463423619000598

Friedli, L. (2012). 'What we've tried, hasn't worked': The politics of assets based public health. *Critical Public Health*, 23(2), 131–145. https://doi.org/10.1080/09581596.2012.748882

Friedli, L., Vincent, A., & Woodhouse, A. (2007). *Developing social prescribing and community referrals for mental health in Scotland*. Scottish Development Centre for Mental Health.

Gibbons, A., Howarth, M., & Lythgoe, A. (2019). *Social Prescribing in Greater Manchester*. SHUSU: University of Salford.

Gibson, M., Petticrew, M., Bambra, C., Sowden, A.J., Wright, K.E. & Whitehead, M., (2011). Housing and health inequalities: a synthesis of systematic reviews of interventions aimed at different pathways linking housing and health. *Health & Place*, 17(1), 175-184.

Ham, C. & Alderwick, H. (2015) Place-based systems of care: A way forward for the NHS in England. London: The King's Fund

Harris, T., Brown, G. W., & Robinson, R. (1999). Befriending as an intervention for chronic depression among women in an inner city. *British Journal of Psychiatry*. 174(3), 219-24. https://doi.org/10.1192/bjp.174.3.219

Hoffmeister, L.V., Nunes, M.F., Figueiredo, C.E.M., Coelho, A., Oliveira, M.F.F., Massano P., et al. (2021). Evaluation of the impact and implementation of social prescribing in primary healthcare units in Lisbon: a mixed-methods study protocol. *International Journal of Integrated Care*. 21(2), 26. http://doi.org/10.5334/ijic.5592

Husk, K., Elston, J., Gradinger, F., Callaghan, L., & Asthana, S. (2019). Social prescribing: Where is the evidence? *British Journal of General Practice*, 69(678), 6. https://doi.org/10.3399/bjgp19X700325

Huxley P. (1997). *Arts on Prescription*. Stockport: Stockport NHS Trust

Isherwood, B.C. & Hancock, R.M. (1979). *Household expenditure on fuel: Distributional aspects*. Economic Adviser's Office, DHSS, London.

Kellezi, B., Wakefield, J.R.H., Stevenson, C., McNamara, N., Mair, E., Bowe, M., Wilson, I., & Halder, M.M. (2019). The social cure of social prescribing: A mixed-methods study on the benefits of social connectedness on quality and effectiveness of care provision. *BMJ Open*, 9(11), e033137. https://doi.org/10.1136/bmjopen-2019-033137

Kimberlee, R. (2015). What is social prescribing? *Advances in Social Sciences Research Journal*, 2(1). https://doi.org/10.14738/assrj.21.808

Liddell, C. & Morris, C. (2010). Fuel poverty and human health: a review of recent evidence. *Energy Policy*, 38(6), 2987-2997.

Mackenzie, M., Skivington, K., & Fergie, G. (2020). "The state They're in": Unpicking fantasy paradigms of health improvement interventions as tools for addressing health inequalities. *Social Science & Medicine*, 256, 113047. https://doi.org/10.1016/j.socscimed.2020.113047

Malpas, J. (2003). Bio-medical Topoi—The dominance of space, the recalcitrance of place, and the making of persons. *Social Science & Medicine, 56*(11), 2343–2351. https://doi.org/10.1016/S0277-9536(02)00233-2

Marmot, M. (2010). *Fair Society, Healthy Lives: The Marmot Review. Strategic Review of Health Inequalities in England post-2010*.

Marmot, M., Geddes, I., Bloomer, E., Allen, J., Goldblatt, P. (2011). *The health impacts of cold homes and fuel poverty*. London: Friends of the Earth and the Marmot Review Team.

Marmot, M., Allen, J., Boyce, T., Goldblatt, P., Morrison, J. (2020). *Health Equity in England: The Marmot Review 10 Years On*. London: Institute of Health Equity.

Marmot, M. & Wilkinson, R.G. (Eds.) (2006). *Social determinants of health* (2nd ed.) Oxford University Press.

Marshall, L., Finch, D., Cairncross, L., & Bibby, J. (2019). *Mortality and life expectancy trends in the UK: stalling progress*. The Health Foundation.

McGowan, V.J., Buckner, S., Mead, R., McGill, E., Ronzi, S., Beyer, F., & Bambra C. (2021) Examining the effectiveness of place-based interventions to improve public health and reduce health inequalities: an umbrella review. *BMC Public Health*, 21, 1888. https://doi.org/10.1186/s12889-021-11852-z

Middlemiss, L. & Gillard, R. (2015). Fuel poverty from the bottom-up: Characterising household energy vulnerability through the lived experience of the fuel poor. *Energy Research & Social Science*, 6 (2015), 146–154.

Moffatt, S., Steer, M., Lawson, S., Penn, L., & O'Brien, N. (2017). Link Worker social prescribing to improve health and well-being for people with long-term conditions: Qualitative study of service user perceptions. *BMJ Open*, 7(7), e015203. https://doi.org/10.1136/bmjopen-2016-015203

NHS England (2019a). *The NHS Long Term Plan*.

NHS England (2019b). *Universal Personalised Care: Implementing the Comprehensive Mode*l.

Nowak, D.A. & Mulligan, K. (2021). Social prescribing: A call to action. *Canadian Family Physician*, 67(2), 88-91. https://doi.org/10.46747/cfp.670288

Nicol, S., Roys, M., & Garrett, H. (2010). *The cost of poor housing to the NHS*, Briefing Paper. BHE Trust. Retrieved from: https://www.bre.co.uk/filelibrary/pdf/87741-Cost-of-Poor-Housing-Briefing-Paper-v3.pdf

Outer Hebrides Community Planning Partnership. (2019). *Outer Hebrides Anti-Poverty Strategy 2019-2024 – incorporating the Local Child Poverty Strategy*, Report. Retrieved from: https://www.cne-siar.gov.uk/media/15423/outer_hebrides_anti-poverty_strategy_2019-2024.pdf

Pescheny, J.V., Pappas, Y., & Randhawa, G. (2018). Facilitators and barriers of implementing and delivering social prescribing services: A systematic review. *BMC Health Services Research*, 18, 86.

Polley, M., Bertotti, M., Kimberlee, R., Pilkington, K., & Refsum, C. (2017). *A review of the evidence assessing impact of social prescribing on healthcare demand and cost implications*. University of Westminster.

RCGP (Royal College of General Practitioners) (2018). *Spotlight on the 10 High Impact Action*s, Report. May 2018. Retrieved from: https://www.rcgp.org.uk/-/media/Files/Primary-Care-Development/RCGP-spotlight-on-the-10-high-impact-actions-may-2018.ashx

Rosenburgh, J.L. (2020). *Connecting Homes for Health, Final project report*. National Energy Action. Retrieved from: https://www.nea.org.uk/wp-content/uploads/2020/09/Connecting-Homes-for-Health-Final-Report-FINAL.pdf

Scott-Samuel, A. & Smith, K. E. (2015). Fantasy paradigms of health inequalities: Utopian thinking? *Social Theory & Health*, 13(3), 418–436. https://doi.org/10.1057/sth.2015.12

Scottish Government (2019). *Personalising Realistic Medicine: Chief Medical Officer for Scotland's Annual Report 2017–2018*. April 2019.

Solar, O. & Irwin, A. (2010). *A conceptual framework for action on the social determinants of health. Social Determinants of Health Discussion Paper 2 (Policy and Practice)*. Geneva, WHO.

Sherriff, G., Lawler, C., Martin, P., Butler, D., Probin, M., & Brown, P. (2020). *Reshaping health services and fuel poverty in the Outer Hebrides. Final report of the Gluasad Còmhla (Moving Together) project*. University of Salford. Retrieved from: http://usir.salford.ac.uk/id/eprint/57055

Thomson, H., Thomas, S., Sellstrom, E., & Petticrew, M. (2009). The health impacts of housing improvement: a systematic review of intervention studies from 1887 to 2007. *American Journal of Public Health*. 99(3), S681–S692. https://doi.org/10.2105/AJPH.2008.143909

Tudor Edwards, R., Bray, N., Burns, P., & Jones, A. (2016). *Warm Homes for Health: End of study briefing 2016. Warm Homes for Health: Exploring the costs and outcomes of improving population health through better housing*. Bangor University.

White, J.M., Cornish, F., & Kerr, S. (2017). Front-line perspectives on 'joined-up' working relationships: A qualitative study of social prescribing in the west of Scotland. *Health & Social Care in the Community*, 25(1), 194–203. https://doi.org/10.1111/hsc.12290

Wildman, J.M., Moffatt, S., Penn, L., O'Brien, N., Steer, M., & Hill, C. (2019). Link workers' perspectives on factors enabling and preventing client engagement with social prescribing. *Health & Social Care in the Community*, 27(4), 991–998. https://doi.org/10.1111/hsc.12716

Wilkinson, R.G. & Pickett, K.E. (2006). Income inequality and population health: A review and explanation of the evidence. *Social Science & Medicine*, 62(7), 1768–1784. https://doi.org/10.1016/j.socscimed.2005.08.036