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Assessing the feasibility of evaluating the economic impact of the BS3 Community Webs programme

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PRO BONO ECONOMICS

BS3 Community

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Executive Summary

BS3 Community commissioned Pro Bono Economics to assess the feasibility of evaluating the economic impact of their Community Webs programme, a social prescribing intervention, based within local GP surgeries, aimed at supporting patients to access social activities and non-medical support services available in their community.

Background

The Community Webs programme is a referral or signposting service operated by link workers who are based within a cluster of GP practices in Bristol. They receive referrals directly from GPs and practice staff to help tackle social isolation and loneliness in the local community.

The outcomes of the programme were evaluated in 2018, demonstrating that patients referred for support experienced statistically significant improvements in standardised outcome measures for loneliness, social isolation and mental wellbeing.[1]

Scope of this study

This study explores the potential to build on the earlier evaluation by estimating the economic impacts of the Community Webs programme. Specifically, we examine the availability and quality of evidence that could help link the outcomes of the programme to reduced demand for the National Health Service, including reduced demand for GP appointments and reduced primary care usage.

Key findings

In our view it would not be feasible at present to estimate the economic impact of BS3 Community Webs given the extent of data currently captured on the project, particularly around outcomes related to health service usage and availability of wider evidence. To assess the project's economic impact would therefore require some significant assumptions that we believe would undermine the credibility of the analysis.

However, we have reviewed available evidence/literature and found that:

- The evidence suggests that there is a positive correlation between receiving social prescribing services and positive effects on an individual's health, wellbeing and level of loneliness.
- The existing literature indicates GP service usage tends to decline for social prescribing beneficiaries with one review finding a wide range of estimated reductions in demand for GP services following referral, from 2% to 70%, with an average 28% reduction.
- There also seems to be a reduction in the demand for primary care due to the reduction in A&E attendances. One review found average reduction in A&E attendance of 24% post-referral. Although, conflicting evidence does exist, as one study found that patients are more likely to be referred to secondary mental health facilities.
- If we apply these kinds of reductions to typical costs for GP visits and A&E attendances, then it might imply a cost reduction of around £100 per individual supported through a social prescribing service.
- Studies assessing the Social Return on Investment for broadly similar social prescribing interventions tend to find positive impacts, with estimates ranging from £1.40 - £2.70 of benefits for every £1 spent.
- However, most of the available evidence on social prescribing is qualitative and relies on self-reported outcomes which could be unreliable. Robust and systematic evidence on the effect of social prescribing is very limited.

Implications

Given the lack of available evidence, if BS3 Community wish to assess the economic impact of the Community Webs programme then they will need to strengthen and broaden data gathering processes by:

- Engaging with GPs to gather data on the health services their patients utilise both before and after they are involved in the Community Webs service. This is to better understand the effect of the service on the health of its patients. Specifically, the number of GP appointments, number of referrals on to primary care services and,

[1] Brown C, Hammond J, Jones M, Kimberlee R, and BAB Community Researchers (2018): *Community Webs Final Evaluation Report*, Southmead Development Trust, Bristol CCG, Bristol City Council, Bristol Ageing Better, and the University of the West of England: Bristol.

if possible, the number of hospital visits. This could provide data for any future evaluations of the monetary impact of Community Webs.

- Considering aligning data gathered before and after data support with national measures of well-being and loneliness used by the Office of National Statistics. This could support an improved ability to construct a control group based on general trends in the local population.

1. Introduction

This report, commissioned by BS3 Community, assesses the feasibility of completing an economic analysis of the benefits from the Community Webs project. Community Webs is a social prescribing intervention, based within local GP surgeries, aimed at supporting patients to access social activities and non-medical support services available in their community.

Scope of the study

This study aims to assess whether there is sufficient evidence available to support a quantified analysis of the likely impact of Community Webs on local healthcare services. To support this brief, we review the evidence available in two key areas:

- The overall evidence of the effectiveness of similar social prescribing interventions, Including assessing the specific impacts identified and how they were measured.
- The evidence linking changes in specific outcomes relating to loneliness, social isolation and wellbeing to monetise impacts on the health services including demand for GP appointments and reduced primary care usage.

The intention is for our report to build on an earlier evaluation of the clinical outcomes of Community Webs for loneliness, social isolation and wellbeing – exploring the potential of providing an extra link that allows these impacts to be expressed in quantified, monetised effects on local health services. This would provide valuable evidence for BS3 Community to use with those local healthcare providers who commission their services.

Structure of the report

This report is structured as follows:

- Section 2 provides background on social prescribing and the Community Webs intervention.
- Section 3 reviews evidence relevant to our report.
- Section 4 draws an overall conclusion on the feasibility or assessing the economic impact of Community Webs as well as some key implications of our findings.

2. Background

This section sets out the background to our study. Section 2.1 outlines some of the key features of social prescribing approaches in general and Section 2.2 reviews the Community Webs programme more specifically.

2.1 Social Prescribing

Social prescribing enables GPs, nurses and other primary care professionals to refer people to a range of local, non-clinical services.[2] It targets non-physical factors that affect people's health, such as social, economic and environmental factors. It aims to recognise issues in a patient's life that are negatively affecting their health and combat these issues by offering or referring patients to activities such as volunteering, cookery, sports and gardening. The overarching aim of any social prescribing programme is to support individuals in taking control over their own health.[3]

In addition to supporting individuals, a primary aim of social prescribing is to reduce the level of GP resource used up by patients experiencing psychosocial problems. Patients presenting with such symptoms often visit their GP frequently and/or are prescribed medication such as antidepressants. It is estimated that around 20% of patients consult their general practitioner (GP) for what is primarily a social problem.[4]

Services offered by social prescribing programmes can cater to the needs of patients that cannot be met by GP visits or prescribed medication. This subsequently lightens the burden on the NHS by lessening a patient's need to visit their GP and/or need to use prescribed medication.

The Social Prescribing Model

Most social prescribing models involve patients being referred by their GP to a link worker who works with others to access local support services and activities. The link worker would typically meet with the patient over several sessions and try to engage them in local support services or activities that they believe would be of benefit to the individual based on the issues they have presented with.

This is in line with the standard model of social prescribing that has been developed by NHS England, which includes key elements that must be in place for a programme to be effective. These key elements are:

- A link worker employed to give time,
- Easy referral from local agencies,
- Workforce development,
- A common outcomes framework,
- Personalised patient plan,
- Support for community groups, and
- Collaborative commissioning and partnership working.[5]

NHS England have committed to an ambitious long-term plan to build social prescribing infrastructure, aiming to increase the number of link workers in place, alongside the number of patients who will be referred to social prescribing.

NHS England plan for the social prescribing link workers to become an integral part of the multi-disciplinary teams which are part of primary care networks. Additionally, link workers will form one of five additional roles in the five-year framework for GP contract reform with 100% reimbursement for the salary costs of the link workers. As such, this plan is the biggest investment in social prescribing by any national health system and legitimises community-based activities and support alongside medical treatment as part of personalised care

2.2 Community Webs

BS3's '*Community Webs*' programme follows this type of social prescribing model in which patients are referred by their GP to a link worker for up to four sessions. In these sessions the link worker and patient take part in a conversation

[2] The King's Fund, *What is social prescribing?*

[3] Primary care one, *Social Prescribing*, 2017

[4] Low Commission. (2015) The role of advice services in health outcomes: evidence review and mapping study.

[5] NHS England, *Social Prescribing*

guided around the patient's barriers and needs, evaluation scales are completed, practical needs are identified, and an action plan of support is constructed.[6]

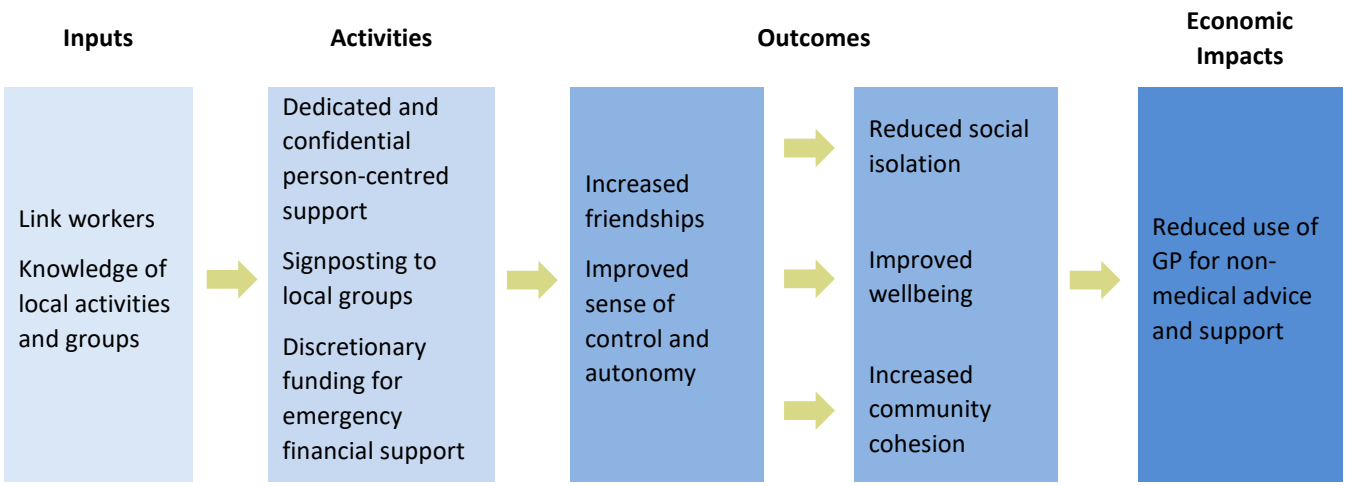
The '*Community Webs*' project "has been set up to test the idea of primary care services working with community assets at a neighbourhood level to best support adults, particularly with regard to their non-medical social needs".[7]

The previous *Community* Webs Final evaluation report state the aims of the service are:

> *"To provide patients with appropriate support to deal with non-medical issues through coaching and referrals to organisations in the local community (or beyond, as appropriate) and to reduce their use of GP time for non-medical issues."*[8]

Figure 1, below, provides a simple summary of the logic model for the intervention:

Figure 1. **Logic Model for Community Webs Support**



The previous evaluation compared clinical outcome measures before and after the Community Webs intervention to assess the change over time. It concluded that there were statistically significant improvements in the De Jong Gierveld Loneliness Scale, UCLA Social Isolation Scale and the Short Warwick and Edinburgh Mental Wellbeing Scale. The research provides valuable evidence that Community Webs has a positive impact on its beneficiaries, although it should be noted that outcomes were not compared against a control group so there remains some uncertainty over the extent to which improvements can be attributed to Community Webs, as opposed to other factors. This appears to be a particular problem for social prescribing interventions where there have been significant differences in measured impacts for those studies using control groups compared to those using before/after comparisons.[9]

Additionally, the evaluation did not monitor outcomes related to usage of healthcare services. Therefore, in order to assess Community Web's economic impact it is necessary to draw on other evidence to link the changes in outcomes observed through to reduced use of healthcare services. In Section 3 we review the evidence relating to the impacts of social prescribing services in order to assess whether it is of sufficient quality to enable these links to be quantified.

[6] *Brown* et al. (2018)
[7] *Brown* et al. (2018)
[8] *Brown* et al. (2018)
[9] See for example the differences between Grant C, Goodenough T, Harvey I, Hine C (2000): *A randomised controlled trial and economic evaluation of a referrals facilitator between primary care and the voluntary sector,* British Medical Journal, 320(7232):419-423 and those outlined in Polley M, Bertotti, 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

3. Evidence Review

In this section we review the evidence available to support an assessment of the economic impact of Community Webs. Section 3.1 reviews the approaches taken to evaluating social prescribing services more generally whilst Section 3.2 reviews evidence that can help to quantify a link between the measures of loneliness, social isolation and wellbeing used in the previous evaluation of Community Webs and health service usage.

3.1 Impact of social prescribing

There are numerous anticipated benefits of social prescribing, including: [10]

- The strengthening of social networks
- A reduction in social isolation and feelings of loneliness
- A reduction in psychosocial problems
- An increase in employment
- An increase in healthy behaviours
- Improvements in mental well-being
- Improvements in self-management of long-term conditions.

Our evidence review will focus on the impact of social prescribing on the usage of healthcare services, social impact and wellbeing.

Overall, we find that most of the evidence available on social prescribing is qualitative and relies on self-reported outcomes. Quantitative evidence on the effectiveness of social prescribing is very limited. The King's Fund published a review of social prescribing and concluded robust and systematic evidence on the effectiveness is limited. They find that many studies are of a small scale, do not have a control group, focus on progress rather than outcomes, or relate to individual interventions rather than the social prescribing model.[11] Both reviews highlighted the need for stronger evidence quality and that currently, a firm conclusion on the efficacy of social prescribing on reducing healthcare demand and return on investment was premature.

There have been two systematic reviews of the literature of the social prescribing model, (Polley et al, 2017) and (Bickerdike et al, 2016). Both reviews found that most studies found positive conclusions on the benefits of social prescribing on a range of outcomes for patients such as lower GP and A&E attendance. Additionally, Polley et al (2017) found evidence indicating that social prescribing provided benefits that outweighed associated costs.

In the remainder of this section we review the key findings from the evidence on the link between social prescribing and healthcare usage, social returns and wellbeing. Full details of the papers reviewed are provided in Annex A.

Evidence on healthcare usage

Polley et al (2017) reviewed literature on the effect of social prescribing on demand for healthcare. The authors found seven papers which looked at the effect on demand for GPs, reporting on average a 28% reduction in demand for GP services following referral. "Results ranged from 2% (Kimberlee et al, 2014) to 70% (Longwill, 2014)", although we note caution should be taken when referring to this figure as Longwill's reduction only refers to results from an unclear sample size.[12]

Five studies (Kimberlee, 2016; Dayson and Bashir, 2014; Bertotti et al, 2015; Farenden et al, 2015; Kimberlee et al, 2014) looked at the effect on Accident and Emergency (A&E) attendances and reported an average reduction of 24% in A&E attendance following referral. Results ranged from 8% (Kimberlee et al, 2014) to 26.8% (Farenden et al, 2015).

Regarding the effect on demand for secondary care services, the evidence pointed toward fewer referrals to secondary care (Brandling et al, 2011 and Grant et al, 2000) and prescription drugs (Grant et al 2000). There was also a reduction in emergency hospital admissions: 6% (Kimberlee, 2016), 7% (Dayson and Bashir, 2014) and 33.6% (Farenden et al, 2015).

[10] NHS Wales (2017): *Social presc ribing evidence map: summary report*, summary report

[11] The King's Fund (2017): *What is social prescribing?*

[12] (Longwill, 2014) found a 70% reduction in unnecessary GP visits in "one patient sample". However, the size of this patient sample is unclear.

Additionally, one study showed that the likelihood of referral to secondary mental health care more than doubled after referral (Grayer et al, 2008). The Randomised Control Trial (RCT) reported that the number of primary care contacts were similar between intervention and control groups.

Evidence on social return

Return on investment (ROI) tries to directly measure the amount of return on a particular investment, relative to the investment's cost. In this context, the ROI is the calculated by considering the reduction in healthcare spending as a result of the social prescribing model. Social return on investment (SROI) also includes the sum of all benefits accruing to all stakeholders such as improved mental wellbeing outcomes and higher rates of employment.[13]

SROI puts an estimated monetary value on the sum of these total benefits and therefore allows charities to make the case for either joint funding or subsidy of a project to realise maximum positive benefits for stakeholders.

For this reason, a growing proportion of social prescribing projects are now jointly developed and funded between Clinical Commissioning Groups and local government. This arrangement recognises the unique place that social prescribing has, sitting at the true interface of health and social care.

Studies looking at SROI varied in the combination of stakeholders and benefits selected for inclusion in SROI calculations. For example, patients, Local Authorities (LAs) and the Department of Work and Pensions (DWP) were commonly cited stakeholders.

Weld et al (2015) find that for every £1 spent on Healthy Connections, there is £2.73 of social value created in the first year.[14] Kimberlee (2016) finds that in the first year there is a £1.36 social return on investment for every £1 spent by GCCG on the social prescribing service.[15]

Estimates on ROI, which looked at the effect of social prescribing on reducing healthcare spending in the first year of operations, vary widely from 0.11 (Dayson and Bashir, 2014) to 0.43 (Kimberlee, 2016).

Evidence on well-being indicators

Five studies using validated measures of well-being all found positive outcomes for social prescribing participants. Grant et al (2000), conducted a randomised control trial which found an improvement in the intervention group compared to the control group 4 months post intervention.

Additional studies with positive outcomes include the following:

- Friedli et al (2012) found a statistically significant improvement in mental wellbeing post intervention,[16]
- ERS (2013) found that 69% of patients experienced an increase in the mean SWEMWBS score from 22 to 26.[17] The average UK SWEMWBS score is 23.6;[18] and
- A descriptive report, (Brandling, 2011) found a general positive trend in wellbeing post-intervention but owing to a low number of participants completing the questionnaires, Brandling made no further conclusions.

Therefore, as is evident, the literature on the relationship between social prescribing and well-being indicators contains broadly positive results, indicating that there is a positive association between such programmes and wellbeing. However, many authors concluded that given the small sample sizes, a lack of controlling variables and a lack of comparison in the form of control groups, it is difficult to draw firm conclusions. We also consider that the literature lacks robust evidence to draw a firm conclusion.

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[13] A positive externality refers to a benefit that is enjoyed by someone not directly involved in the social prescribing model. In this case it could include stakeholders such as family and friends of the patient or the local community the social prescribing model operates in.

[14] Weld et al (2015): *Healthy Connections: Final evaluation report and SROI analysis.* This piece of analysis is conducted based on a social prescribing model in Weston-Supermare.

[15] Kimberlee (2016): *Gloucestershire Clinical Commissioning Group's Social Prescribing Service: Evaluation Report*. This piece of analysis is based on a social prescribing model in Gloucestershire which operates out of six hubs.

[16] Friedli et al (2012): *Evaluation of Dundee Equally Well Sources of Support: Social Prescribing in Maryfield*

[17] Short Warwick-Edinburgh Mental Wellbeing Scale is a shortened version of the 14-point Warwick-Edinburgh Mental Wellbeing Scales developed to enable the measuring of mental wellbeing in the general population and the evaluation of projects, programmes and policies which aim to improve mental wellbeing.

[18] *Brown* et al. (2018)

3.2 Evidence linking loneliness and social isolation to health service usage

We have found extremely limited evidence on the link between measures of loneliness, social isolation and health service usage.

We identified a single study from the UK that examines loneliness as a factor associated with the number of consultations a patient attends. Data was collected from face-to-face interviews with 2 cohorts of 40 and 60-year-olds in Glasgow in 1992.[19] Levels of loneliness were measured on 5 point self-assessed single item scale. They found that those who classed themselves as feeling lonely "most of the time / often" were associated with around twice as many GP appointments as others, after controlling for a range of other factors.

Another report links social isolation to the incidence of depression and the associated health service costs.[20] This study draws on other evidence to conclude that a one standard deviation reduction in the UCLA scale resulting from a "befriending" intervention is associated with a £38 annual saving to the NHS through reduced health service usage.

Box 1: Scenario analysis for economic impact of social prescribing services.

Our review has established that there is limited evidence available to support a robust economic analysis of the potential benefits from the Community Webs service. However, as outlined above, evaluations of other social prescribing interventions typically find reductions in GP service usage of 2% to 70% and an average reduction in A&E visits of around 24%. It may be informative to explore the scale of savings this could imply.

We know that an average GP consultation costs around £33 and the average A&E visit costs £166. Furthermore, the average person attends 4-5 GP appointments per year and around 0.3 visits to A&E per year.*

On this basis it might be reasonable to expect a that a social prescribing service will save, on average, around 2.5 GP visits and 0.1 A&E visits per year. This is the equivalent to close to £100 per year in reduced health service costs per individual referred.

*See Curtis L, Burns A (2019): *Unit Costs of Health and Social Care 2019,* PSSRU tables 10.3b and NHS Digital (2019): *National Schedule of NHS Costs,* NHS Digital for cost information and "NHS forward view" for volumes information.

Overall this evidence appears to be relatively dated, based on highly localised studies and using different (although similar) measures of loneliness and social isolation to the Community Webs evaluation. For these reasons we do not believe it is sufficiently strong for use in developing a robust economic analysis.

[19] Ellaway A, Wood S, McIntyre S (1999): *Someone to talk to? The role of loneliness as a factor in the frequency of GP consultations,* British Journal of General Practice, 49(442), 363-367

[20] Knapp M (2012): *Building community capital in socal care: is there an economic case?,* LSE Research Online

4. Conclusion

Overall, we conclude that it would not currently be feasible to robustly estimate the economic impact of the BS3 Community Webs project without making significant assumptions that would undermine the credibility of the analysis.

The evidence we have reviewed suggests that:

- There is a positive correlation between receiving social prescribing services and positive effects on an individual's health, wellbeing and level of loneliness.
- The existing literature indicates GP service usage tends to decline for social prescribing beneficiaries. There is a wide range of estimated reductions from 2% to 70%.
- There seems to be a reduction in the demand for primary care due to the reduction in A&E attendances too. One review found average reduction in A&E attendance of 24% post-referral. Although, conflicting evidence does exist, as one study found that patients are more likely to be referred to secondary mental health facilities.
- If we apply these kinds of reductions to typical costs for GP visits and A&E attendances, then it might imply a cost reduction of around £100 per individual supported through a social prescribing service.
- Studies assessing the Social Return on Investment for broadly similar social prescribing interventions tend to find positive impacts, with estimates ranging from £1.40 - £2.70 of benefits for every £1 spent.
- However, most of the available evidence on social prescribing is qualitative and relies on self-reported outcomes which could be unreliable. Robust and systematic evidence on the effect of social prescribing is very limited.

Implications

Given the lack of available evidence, if BS3 Community wish to assess the economic impact of the Community Webs programme then they will need to strengthen and broaden data gathering processes.

We recommend continuing to engage with GP surgeries to collect data on Community Webs patients' use of health services both before and after referral. Specifically, the number of GP appointments, number of referrals on to primary care services and, if possible, the number of hospital visits. This could provide data for any future evaluations of the monetary impact of Community Webs. It is unlikely that self-reported frequency of GP or A&E visits would be sufficiently reliable and as such gathering data directly from GP surgeries would be the best option for improving the availability of evidence. We recommend considering aligning data gathered before and after support with national measures of well-being and loneliness used by the Office of National Statistics. [21] This could support an improved ability to construct a control group to compare Community Webs outcomes against based on trends for similar groups in the local population.

We recognise that gathering additional data is often challenging for charitable organisations and that a focus on health service usage alone does not capture the full range of impacts that the Community Webs programme is intended to achieve. However, the measures outlined here are those best suited to support a future evaluation of the intervention's economic impact if that is required. [22]

[21] ONS (2018) "Measuring loneliness: guidenace for use of the national indicators on surveys" Seciton 4, Table 1. and https://www.ons.gov.uk/peoplepopulationandcommunity/wellbeing/methodologies/surveysusingthe4officefornationalstatisticspersonalwellbeingquestions

[22] We also note that it may be possible to further streamline the process for gathering this data – reducing the burden on both BS3 Community and its beneficiaries. An example has been provided using Google Forms.

5. Annex A

Table 1 **Table 1: Summary of evidence on social prescribing**

Social Prescribing Study	What did they do?	What did they find?	How reliable are the results?
Polley et al (2017) "A review of the evidence assessing impact of social prescribing on healthcare demand and cost implications"	A systematic search for papers was conducted on major online databases and further evaluations were assimilated from key opinion leaders. The criteria for inclusion were to: a) be UK-based, b) describe a social prescribing service that involved referral of a patient from primary care to a 'link worker' who would connect the patient with relevant non-medical interventions in the third sector; and c) report either i) quantitative data on demand for healthcare services and/or ii) evaluation of social and economic impact of social prescribing.	The evidence for social prescribing is broadly supportive of the potential to reduce demand on primary and secondary care. Results for the effect on demand for GP reported an average reduction of 28%, however results ranged from 2% to 70%. The effect on A&E attendances fell 24% (on average). Results ranged from 8% to 26.8%. A fall in emergency hospital admissions following a referral. There were mixed results for the demand in secondary care following referral. There were mixed results reported for the value for money of social prescribing, however no studies used traditional cost-effectiveness or full cost-utility analysis. Results from SROI calculations were positive, with the mean SROI being £2.30 per £1 invested in the first year.	They conclude that the quality of evidence is weak and without further evaluation, it would be premature to conclude that proof of a concept for demand reduction had been established. Similarly, they conclude that the evidence that social prescribing delivers cost savings to the health service over and above operating costs is encouraging but by no means proven or fully quantified.
Bickerdike et al (2016) "Social prescribing: less rhetoric and more reality. A systematic review of the evidence"	Searched nine databases from 2000 to January 2016 for studies conducted in the UK. All the searches were restricted to English language only. They identified 15 evaluations.	Most evaluations presented positive conclusions. The authors concluded that current evidence fails to provide sufficient detail to judge either success or value for money. If social prescribing is to realise its potential, future evaluations must be comparative by design and consider when, by whom, for whom, how well and at what cost.	The authors conclude that most of the evaluations reviewed were small scale and limited by poor design and reporting. All were rated as a having a high risk of bias. Common design issues included a lack of comparative controls, short follow-up durations, a lack of standardised and validated measuring tools, missing data

			and a failure to consider potential confounding factors.
Kimberlee et al (2014) "Proving Our Value: Measuring the economic impact of Wellspring Healthy Living Centre's Social Prescribing Wellbeing Programme for low level mental health issues encountered by GP services."	This research evaluates the impacts of the holistic social prescribing, Wellbeing Programme delivered by the Wellspring Healthy Living Centre. The authors measured SROI to prove the value of the programme as well as a variety of wellbeing measures.	Statically significant reduction in depression, anxiety and social isolation among patients. Also, statistically significant improvement in the ONS wellbeing measure, perceived economic wellbeing and the International Physical Activity Questionnaire. 60% of beneficiaries reduced their GP attendance rates in the 12 months post-intervention. SROI of £2.90 for every £1 spent.	
Longwill (2014) "Independent evaluation of Hackney WellFamily service"	The author reviewed the 'WellFamily' Service model, its impacts on the patient and the model's cost-effectiveness.	Significant positive impact on the health and social care economy – SROI of £5.79 per £1 of cost. 70% reduction in unnecessary GP visits for one patient sample. Significant impact on clients' wellbeing in terms of anxiety, depressive symptoms, improved social adjustment and recovery in a number of factors.	The SROI calculations assumed a unit GP appointment cost of £300, which contradicts other sources.[23] The reduction in unnecessary GP visits is only for one patient sample. It is unclear what the size of this patient sample was.
Dayson and Bashir (2014) "The social and economic impact of the Rotherham Social Prescribing Pilot: Main evaluation report	The authors evaluated social prescribing in the Rotherham area and the impact on the demand for hospital care, social impact and economic and social benefits.	Inpatients admissions reduced by as much as 21%. A&E attendances reduced as much as 20%. Outpatient appointments reduced as much as 21%. Improved wellbeing and progress towards better self-management of the patient's own condition after being referred to social prescribing.	

[23] https://www.england.nhs.uk/2019/01/missed-gp-appointments-costing-nhs-millions/ reports the average cost of an appointment is £30

		Estimated total NHS cost reductions of £552,000 by the end of the pilot. This indicated a ROI of £0.50 per £1 spent.	
Bertotti et al (2015) "Shine 2014 final report Social Prescribing: integrating GP and Community Assets for Health"	The authors evaluated: The general health and wellbeing of participants over the intervention period; and The average cost per patient of social prescribing. They made a number of recommendations, such as the need for national collaboration to share learning, outcome measures and ensure the potential for social prescribing to meet the needs of the NHS.	25% decrease in mean A&E visits for the intervention group compared to a 66% increase in the mean A&E visits by the control group. Higher GP consultation rates after intervention. No statistically significant change in health, well-being, anxiety, depression, or A&E visits due to the intervention, even after controlling for age, gender, ethnicity, living arrangement and work status	GP consultation rates may include appointments with social prescribing co-ordinators. Additionally, the economic evaluation does not currently consider other potential benefits generated by the intervention such as clients volunteering, returning to work (contributing as taxpayers and with reduced welfare state support). The follow-up sample size for the intervention is small (n=65). There is limited information about the type and number of activities people attended.
Kimberlee (2016) "Gloucestershire Clinical Commissioning Group Social Prescribing Service: Evaluation Report"	Evaluates the social prescribing model in the Gloucestershire area. The primary outcome measure was improvement in patient wellbeing.	Mean increase in mental health score. Reduction in emergency admissions rates for referred patients. Mean cost per patient admitted to A&E increased slightly. Clear reduction in the number of patient encounters with the GP service. ROI on savings to the health service of 43p for every £1 spent on the social prescribing service. SROI £1.26 for every £1 spent on the social prescribing service.	Interpretation of hospital admission and attendance data is hard to interpret due to the small-time frame. Data is limited for GP appointments.
Farenden et al (2015) "Community Navigation in Brighton & Hove. Evaluation	The evaluation has five main aims; Assess the impact of the pilot; for patients, volunteers and GP practices	Increased patients' health and wellbeing after intervention – 84% experienced improvements in their sense of wellbeing.	The net savings in Primary Care is based on the model used in Penwith and Cornwall – they extrapolated and

of a social prescribing pilot, carried out by Impetus"	Analyse costs-benefits and social value Outline key lessons, challenges and successes Discuss opportunities and risks Present a business case with options for a future model	89% satisfaction from GPs and Practice staff with the model. £1.36 million per year of GP time could be put to more effective use by providing the social prescribing service as part of the Primary Care offer in their region.	assumed comparable effects in Brighton and Hove.
Grant et al (2000) "A randomised controlled trial and economic evaluation of a referrals facilitator between primary care and the voluntary sector"	This paper evaluated a randomised control trial (RCT) where the primary outcomes of interest were psychological wellbeing and social support. The secondary outcome the paper focused on was the patient's quality of life. The study's objective was to compare outcome and resource utilisation among patients referred to the Amalthea Project.	After intervention, the patients showed significantly greater improvements in anxiety, other emotional feelings, their ability to carry out everyday activities, feelings about general health and their quality of life. No difference was detected in depression or perceived social support. The mean cost was significantly greater for patients under the social prescribing model than in the GP care model (£20 difference).	Voluntary sector and patients' costs were not included; therefore, it is difficult to determine the extent to which the success of the intervention was due to the contact the patients had with the project as opposed to the voluntary agencies suggested to them. There was a 32% loss to the intervention's 4-month follow-up although this was similar in both arms of the RCT. GPs recruited were not a random sample – participating GPs were likely to be more interested in the research question and may have manged psychosocial problems more actively. Patients that were illiterate or could not speak English were excluded from the study (although their numbers are unknown). This may limit the generalisability of the findings.
Weld et al (2015) "For all healthy living centre (FAHLC) healthy connections project: Final evaluation report and	This paper evaluates the impact of the Big Lottery funded FAHLC project on the mental wellbeing of its participants in Weston-Super-Mare. It also estimates its impact on various other outcomes and	94% of participants reported improved mental well-being, 50% reported reduced GP attendance, and SROI analysis estimated that for every £1 spent on the project, there is £2.73 of social value created.	The financial proxies used to estimate the SROI for some outcomes were based on people's willingness to pay for a hypothetical thing, therefore these values are not accurate.

social return on investment (SROI) analysis"	uses financial proxies to estimate the SROI of the project.		Outcome data was recorded at 3 months post intervention, at which time follow-up responses were small.
Friedlli et al (2012) "Evaluation of Dundee Equally well sources of support: Social prescribing in Maryfield. Evaluation Report Four"	This paper evaluates a social prescribing model in Dundee, Scotland. The overall outcome of the model was to improve the mental wellbeing of patients referred to the scheme.	Patients showed a significant improvement in mental wellbeing and functional ability.	There is a small sample size of patients who completed the intervention (16 patients in total), 57% of the participants disengaged after one or two consultations. Patients experiencing acute episodes of psychosis and with primary issues of drug
ERS (2013)	The ERS were commissioned to evaluate a social prescribing project in Newcastle, with an aim to assess its impact, achievements and document lessons learned to inform future practice. Researchers collected interviews from the patients, link workers and members of the project.	Overall there was an increase in mean SWEMWB score from 22 to 26, indicating patients experienced higher positive mental well-being at the end of the intervention.	Only 16 completed records made up the SWEMWB score. Authors note due to the small sample, it is not possible to draw any firm conclusions. Authors noted that factors affecting this completion rate included: patient reluctance to complete scale and perception that questions in the scale are too emotive.