THE ROLE OF DATA IN UNLOCKING THE POTENTIAL OF SOCIAL PRESCRIBING

02 NOVEMBER 2021
SOCIAL PRESCRIBING COULD REDUCE THE USE OF NHS SERVICES

HEALTH AND CARE SERVICES ARE UNDER PRESSURE

- There are pressures on physical and mental health services as a result of an ageing population and COVID-19 related constraints.

- Since the start of the pandemic, the number of people waiting for NHS treatment in England has grown by a fifth and is expected to rise much further.

POOR HEALTH CAN HAVE ENVIRONMENTAL ROOTS

- Health and wellbeing are influenced by a range of social and environmental factors:
  
  ![Diagram of social factors](image)

  - **Communities**
  - **Housing**
  - **Resources**
  - **Education**
  - **Good work**
  - **Surroundings**
  - **Transport**
  - **Food**

- **Social prescription** involves linking patients with non-medical community-based sources of support (eg sports or social activities). This linkage can involve dedicated link workers as well as referrals by local authorities and other organisations. The NHS Long Term Plan (2019) commits to introducing over ‘1000 new trained social prescribing link workers in primary care networks by 2020/21, rising further so that by 2023/24, over 900,000 people will be referred to social prescribing.’

- NHS England and NHS Improvement (2021 A) noted that while ‘there is a need for more robust and systematic evidence on the effectiveness of social prescribing, social prescribing schemes may lead to a reduction in the use of NHS services, including GP attendance’.
SOCIAL PRESCRIBING COULD LEAD TO SIGNIFICANT BENEFITS

1 INPUTS
- Policy inputs, monetary funds, data and time.

2 ACTIVITIES
- Referral of service users and development of understanding between the service user and the link worker.
- Prescription of specific activities and attendance at the activities by the service user.

3 OUTPUTS
- Service user wellbeing,
- Reduced NHS demand,
- Community cohesion,
- Economic productivity.

SOCIAL PRESCRIBING COULD REDUCE NON-CLINICAL GP APPOINTMENTS

- If GP appointments fall by 2-5% as a result of social prescribing operating at scale, it could lead to a diversion of between 3.2-8 million GP appointments per year. Social prescribing's actual impact on GP appointment volumes is uncertain and further research is needed. GPs could use the additional capacity to see other patients with pressing clinical needs. Further work is needed to quantify the costs of replacing GP appointments with community provision.

- As well as freeing up resources the users could receive more appropriate support provided the quality of community offerings was sufficiently high. Delivering a high-quality experience helps to ensure social prescribing is a sustainable alternative to clinical care.
DATA IS FUNDAMENTAL TO SOCIAL PRESCRIBING

HIGH-QUALITY DATA INFRASTRUCTURE IS A NECESSARY BUT NOT SUFFICIENT CONDITION FOR SOCIAL PRESCRIBING TO BE EFFECTIVE

- Social prescribing can unlock benefits if enablers are in place. One requirement for social prescribing is data infrastructure, such as standards and stewardship to ensure appropriate information is collected and shared. Other enablers must also be in place. Community providers need support to deal with extra demand and social prescribing needs to operate within an adequately funded mental and physical health system.

AN UNDERSTANDING OF DEMAND AND SUPPLY IS CRITICAL

| INDIRECT DEMAND: WHAT FACTORS CORRELATE WITH DEMAND FOR SOCIAL PRESCRIBING? | DIRECT DEMAND: WHAT NEEDS COULD SOCIAL PRESCRIBING ADDRESS? |
| SUPPLY OF RELEVANT SERVICES: WHAT INFORMATION EXISTS ON SERVICES? | LEVELS OF SOCIAL PRESCRIBING ACTIVITY: WHAT IS THE CURRENT PATTERN OF SOCIAL PRESCRIBING REFERRALS? |

WE HAVE CREATED A UNIQUE COLLECTION OF DEMAND SIDE DATA

- We have drawn together data on several topics:
  - Activity
  - Physical Health
  - Mental Health
  - Environment
  - Deprivation / Demographics
  - Crime

- These datasets provide information on the incidence of issues which could drive demand for social prescribing. We have used the combined dataset to create an open and interactive map of potential demand. This can be used to plan local services.
FURTHER INVESTMENT IS NEEDED IN DATA INFRASTRUCTURE

- There are currently significant gaps in the data infrastructure for social prescribing. Mostly notably, we have highlighted barriers to the collection and sharing of data related to the supply of relevant activities and longitudinal data on impact. These gaps are caused by a range of ‘market failures’:

1. The hyper-local nature of service provision creates a coordination problem and can lead to multiple duplicative service directories.
2. Community groups and activity providers may not have an obvious route to share information on platforms.
3. Some service providers may have little incentive to maintain and share good data on their offerings.
4. Increased focus on social prescribing in recent years means that the data ecosystem is still nascent and trust is still developing.

- Taken together, these issues may mean that link workers do not know where to signpost potential users, or rely on incomplete information. This could lead to service users being prescribed activities which are not perfectly tailored to their individual needs, which in turn may reduce the chances of the referral being successful and generating desired impacts. There are initiatives in development or currently underway that will go some way to addressing these challenges. These include Open Referral UK, the Social Prescribing Observatory, OpenActive and prescribing.social.

- However, further investment and intervention in this context is needed. We have highlighted possible interventions which could help to fill these gaps including: (1) Improving understanding of stakeholders’ roles in the development of data infrastructure. (2) Providing incentives to make information on offerings open. (3) Developing improved data infrastructure directly (eg improved IT systems and standards) which make it easier to make data open. (4) Requiring organisations to make some data in the public interest open. This investment could in some cases itself also unlock savings (eg removal of duplicated directories of services).
This project is the result of a joint piece of research carried out by [Frontier Economics](#) and [Mime](#) on behalf of the Open Data Institute (ODI).

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SOCIAL PRESCRIBING CAN ADDRESS ENVIRONMENTAL CAUSES OF ILL HEALTH

SOCIAL PRESCRIBING IS A KEY COMPONENT OF UNIVERSAL PERSONALISED CARE

- Wellbeing is influenced by environmental factors. Social prescribing can address determinants of health by linking patients with non-medical support. **Social prescribing link workers connect people to community support which helps people deal with underlying causes of ill health.** Social prescriptions include activities focused on health, physical activity and sport as well as leisure/art. The NHS Long Term Plan (2019) commits to introducing 'over 1000 new trained social prescribing link workers in primary care networks by 2020/21, rising further so that by 2023/24, over 900,000 people will be referred to social prescribing'. Social prescribing may also involve referrals by local authorities and self-referral.

- Those who could benefit from social prescription include people with complex needs, the socially isolated and those who frequently attend health care settings. Greater signposting and usage of community services could also benefit large numbers of individuals who do not fall into these groups.

- NHS England and NHS Improvement (2021 A) noted that while ‘there is a need for more robust and systematic evidence on the effectiveness of social prescribing, social prescribing schemes may lead to a reduction in the use of NHS services, including GP attendance’. More information is needed on these impacts and how they are achieved.
SOCIAL PRESCRIBING INVOLVES MULTIPLE STAKEHOLDERS

- **MANAGERS**: Responsible for strategic decisions on public health, budget setting and commissioning.
- **LINK WORKERS**: Provide individualised support and prescribe tailored activities to meet needs. Convene community groups.
- **ACTIVITY PROVIDERS**: Provide activities to meet personal needs (arts, group learning, gardening, cookery, and sports).
- **SERVICE USERS**: Decide which activities to participate in.

SOCIAL PRESCRIBING CAN OPERATE IN A NUMBER OF WAYS

- The formal social prescribing process we have described above is the core focus of this report. However, greater use of community services as an alternative to clinical treatment can also operate in more informal ways such as via greater signposting. This broader type of community referral may be relevant for large numbers of individuals as opposed to those who are most in need of community support.

Adapted from Digital Gaps and Porism (2021)

frontier economics
THE HEALTH SYSTEM IS UNDER PRESSURE

COVID-19 HAS NEGATIVELY IMPACTED PHYSICAL AND MENTAL HEALTH...

- COVID-19 has led to excess deaths and contributed to increases in mortality (ONS, 2021 A). The pandemic has also severely affected mental health (UK Parliament POST, 2021).

- Over a third of British adults’ wellbeing is still being affected by the pandemic (ONS, 2021 B). Young adults, women and those with an existing mental health condition have been particularly hard hit. In late 2020, 25% of adults reported feeling lonely in the previous two weeks (Mental Health Foundation, 2020).

AND PLACED A STRAIN ON THE HEALTH CARE SYSTEM

- Since the start of the pandemic, the number of people waiting for NHS treatment in England has grown by a fifth and is expected to rise much further (IFS, 2021).

- Median wait time for planned NHS care in England rose sharply at the start of the pandemic and remains elevated.

- A significant proportion of patients avoided booking a GP appointment in 2020 due to fear of overburdening the NHS (Ipsos MORI GP Patient Survey, 2021).

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ONS (2021 B)

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NHS England and NHS Improvement’s RTT Waiting Time Data (2021 B)
SOCIAL PRESCRIBING HAS THE POTENTIAL TO REDUCE DEMAND FOR CLINICAL PRIMARY CARE

- In the future, current pressures on GPs may increase further. If unchecked, this could lead to significant unmet need for clinical primary care. Social prescribing has the potential to help avoid this.

BEFORE SOCIAL PRESCRIBING

Patients’ clinical needs

AFTER SOCIAL PRESCRIBING

Patients’ non-clinical needs

Following rollout of effective social prescribing, non-clinical needs are dealt with via community provision. This can result in lower healthcare costs as service users utilise cheaper services. Also clinical capacity can be freed-up that can be targeted at patients who have a more pressing clinical need.
WE EXAMINED SOCIAL PRESCRIBING’S BENEFITS AND THE ROLE OF DATA

WE HAVE EMPLOYED A FOUR STAGE METHODOLOGY DURING THIS PROJECT

01 EVIDENCE GATHERING
- Literature review covering social prescribing’s impact on health conditions and healthcare resources as well as implementation of social prescribing systems.
- Stakeholder engagement with sector experts.

02 BENEFITS MAPPING
- Development of conceptual qualitative framework.
- Quantitative modelling of avoided GP appointments.

03 REVIEW OF DATA INFRASTRUCTURE
- Examination of the role of data infrastructure in social prescribing.
- Collection and processing of demand-side data.
- Highlighting barriers to development of effective data infrastructure.

04 RECOMMENDATIONS & DRAFTING
- Development of policy recommendations.
- Development of report and supporting materials.

This methodology was implemented jointly by Frontier Economics and Mime on behalf of the ODI.
In Section 2 we examine the benefits that social prescribing has the potential to help realise in the future. This includes both our qualitative theory of change and our quantitative modelling.

In Section 3 we consider the role of effective data infrastructure in facilitating social prescribing. This includes a summary of the demand-side data that we have collected and the interactive map of potential demand that we have created as part of this work.

In Section 4 we highlight policy implications arising from our work. This includes examples of initiatives currently underway to improve the data landscape in this context and potential policy levers that could further support social prescribing.
BENEFITS OF SOCIAL PRESCRIBING
OUR LOGIC MODEL SHOWS SOCIAL PRESCRIBING’S IMPACTS

WE HAVE DEVELOPED A FRAMEWORK WHICH OUTLINES HOW SOCIAL PRESCRIBING CAN LEAD TO IMPACTS

- A logic model is a way of showing the pathway of how an intervention is anticipated to lead to long-term impacts. It gives the theory of change for the intervention – showing the intermediate steps that we expect to see.

- It helps to identify potential barriers and metrics that can be used to monitor outcomes.

Inputs
Resources that are used

Activities
What is carried out with the inputs

Outputs
Direct results from the activities

Impacts
Ultimate changes that happen because of the outputs
**LOGIC MODEL (DETAILED VERSION)**

**INPUTS**

- **Monetary cost**
  - Funding for employment of link workers.
  - Funding for the delivery of social prescribing activities.

- **Data infrastructure**
  - High-quality data on the demand for social prescribing and the supply of relevant services.

- **Policy inputs**
  - Strategy and policy targets (eg NHS Long Term Plan, NHS Universal Personalised Care, DCMS Loneliness Strategy, MHCLG Levelling Up Agenda).

- **Staff/individuals’ time**
  - Time spent referring service users to link workers.
  - Time spent by link workers understanding individuals’ needs.
  - Time spent by those running social prescribing activities.

**ACTIVITIES**

- **Referral to link workers**
  - Potential service users are referred to link workers from local agencies, including GPs, pharmacies, multi-disciplinary teams, hospital discharge teams and emergency services.
  - As well as link workers, local authority staff also try to identify vulnerable people and point them to community services to address vulnerabilities. Self-referral is also encouraged.

- **Greater understanding**
  - Link workers develop holistic understanding of each service user’s health and wellbeing.
  - Service users are provided with a link to non-medical support within their own community. Community services can then influence wider set of personal, behavioural and potentially emotional factors.

**OUTPUTS**

- **Activity prescription**
  - Link workers refer people to a range of local, non-clinical services.
  - Social prescriptions can involve a range of activities that are typically provided by voluntary/community sector (eg arts activities, group learning, gardening, befriending, cookery, and sports). Referrals can also be made to job centres, social care services and housing associations for example.
  - Service users feel empowered to take greater control of their health and engage with social prescribing schemes.

- **Activity attendance**
  - Service users attend activities offered by social prescribing schemes.

**IMPACTS**

- **Improved wellbeing**
  - Social prescribing can improve service users’ wellbeing and reduce loneliness. Those who could benefit most include people with complex needs, the socially isolated and/or long-term conditions.

- **Healthcare utilisation**
  - Reductions in healthcare utilisation
  - This can include reductions in GP appointments, A&E attendances, inpatient admissions. This can free up clinical time to deal with patients with pressing clinical needs.

- **Economic benefits**
  - Service users re-enter employment or avoid unemployment which increases tax revenue and reduces welfare spend.

- **Community cohesion**
  - Social prescribing can increase togetherness within communities.
Resources that are used to facilitate the successful planning and implementation of social prescribing initiatives. This includes policy inputs, monetary funds, data and individuals’ time.

This includes referral of service users to social prescribing professionals and development of understanding between the service user and the link worker.

This includes prescription of specific activities by the link worker and attendance at the activities by the service user.

Intermediate and long-term changes that happen as a result of social prescribing. These include improved service user health and wellbeing, reduced demand for NHS services, improved community cohesion and enhanced economic productivity.
## EnABLERS ALLOW SOCIAL PRESCRIBING TO ACHIEVE ITS POTENTIAL

IN ADDITION TO THESE ENABLERS, HIGH-QUALITY DATA INFRASTRUCTURE IS NEEDED AT EVERY STAGE IN THE SOCIAL PRESCRIBING PROCESS. THIS INCLUDES DATA STANDARDS AND CLEAR STEWARDSHIP TO ENSURE INFORMATION IS COLLECTED AND SHARED.

### Logic Model stage

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<th>Logic Model stage</th>
<th>Enabler</th>
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<td>INPUTS</td>
<td>SUFFICIENT LONG-LASTING COMMITMENT TO SOCIAL PRESCRIBING BY POLICYMAKERS. SOCIAL PRESCRIBING NEEDS TO OPERATE WITHIN AN ADEQUATELY-FUNDED MENTAL AND PHYSICAL HEALTH SYSTEM.</td>
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<td>ACTIVITIES</td>
<td>WILLINGNESS TO ENGAGE BY CLINICAL STAFF. SOCIAL PRESCRIBING IS ACCEPTED AS A PART OF THE HEALTH AND CARE LANDSCAPE. POTENTIAL SERVICES USERS ENGAGE AND DO NOT REVERT BACK TO TRADITIONAL CLINICAL CARE FOR NON-CLINICAL NEED.</td>
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<tr>
<td>OUTPUTS</td>
<td>LINK WORKERS ARE GIVEN TRAINING AND RESOURCES TO UNDERSTAND HEALTH DRIVERS. SERVICE USERS ARE GIVEN ONGOING SUPPORT TO ATTEND SERVICES. COMMUNITY ACTIVITIES RECEIVE ADEQUATE SUPPORT AND FUNDING.</td>
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<tr>
<td>IMPACTS</td>
<td>SOCIAL PRESCRIBING SCHEMES ARE GIVEN SUFFICIENT TIME TO MATURR AND GENERATE IMPACTS. SOCIAL PRESCRIBING SERVICES HAVE AN IMPACT ON SERVICE USERS LIVES AND ARE EFFECTIVE IN GENERATING INTENDED HEALTH IMPROVEMENTS.</td>
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**OUR LOGIC MODEL HIGHLIGHTS HOW SOCIAL PRESCRIBING CAN WORK IN THEORY IF ALL SUPPORTING FACTORS ARE IN PLACE**
SOCIAL PRESCRIBING COULD LEAD TO A REDUCTION IN GP ATTENDANCE

OUR LOGIC MODEL INCLUDES THREE FINAL IMPACTS

- Social prescribing has the potential to increase wellbeing, reduce healthcare utilisation and lead to economic benefits.

- Our quantitative modelling work is focused on one potential benefit within the healthcare utilisation category. Specifically, we have quantified the potential savings that could occur if social prescribing leads to fewer non-clinical GP appointments.

SOCIAL PRESCRIBING CAN MEANINGFULLY REDUCE NON-CLINICAL GP APPOINTMENTS

59% Proportion of family doctors who think that social prescribing can help reduce workload

Proportion of GP appointments that might have been dealt with by Social prescribing

4% Proportion of patients who consult their GP for what is primarily a social problem

20% Reduction in non-clinical GP appointments

OUR MODELLING EXPLORES AVOIDED GP APPOINTMENTS AND THEIR POTENTIAL MONETISED BENEFIT

01 Examine historical data on national volume of GP appointments.

02 Model illustrative reduction in volume of appointments in % terms.

03 Explore how additional GP time could be deployed.

RCGP (2018)

NHS Alliance & Primary Care Foundation (2015)

University of Westminster (2017)
We have only quantified one specific aspect of social prescribing’s potential benefit. Our choice was informed by availability of underlying evidence. However, in the future, social prescribing could improve users’ wellbeing, reduce secondary care usage and lead to long-term economic benefits that we have not attempted to measure. Our limited focus will understate potential benefits. We have only modelled primary care appointments which involved engagement with a GP (rather than other practice staff).

Our modelling looks at the total ‘size of the prize’ in terms of avoidable GP appointments that social prescribing can help unlock, provided social prescribing is rolled out across the country at higher volumes than is currently the case. Achieving these benefits will therefore require substantial investment in enabling factors (eg data infrastructure) and also investment in community and voluntary groups to increase capacity to deliver specific activities. Further work is needed to quantify the costs of replacing GP appointments with community provision.

We have used available evidence to suggest a range of impact estimates which relate to social prescribing’s possible future effect on non-clinical GP appointments. However, a lack of high-quality, comprehensive, national data means that we cannot at this stage calculate a precise impact estimate. Social prescribing’s actual impact on GP appointment volumes is uncertain and further research is needed.
In 2019 there were approximately 312 million primary care appointments in England. 162 million of these appointments involved consultation with a GP (the remainder involved engagement with other practice staff).

During the first lockdown period (March 2020) appointments initially fell sharply.

Appointments during the first half of 2021 (excluding COVID-19 vaccination appointments) are comparable to the first half of 2019.
SOCIAL PRESCRIBING COULD UNLOCK GP RESOURCES

SOCIAL PRESCRIBING CAN FREE UP GP APPOINTMENTS

- If GP appointments fall by 2-5% as a result of social prescribing operating at scale, it could lead to a diversion of between 3.2-8 million GP appointments per year.

- Social prescribing’s actual impact on GP appointment volumes is uncertain and further research on this topic is needed. GPs could use the additional capacity to see other patients with pressing clinical needs (see next page). Further empirical work is needed to quantify the costs of replacing GP appointments with community provision.

- The impacted patients with non-clinical needs could receive more appropriate support, provided community offerings were sufficiently high-quality. Delivering a quality experience helps social prescribing become a sustainable alternative to clinical care.

POTENTIAL FUTURE VOLUMES

- Pressures on GPs are likely to increase further in the future. Analysis by the BMA (2021) has shown that since 2015, the average number of patients per practice has increased by 24% whilst the number of GPs has been falling. An ageing population may also raise demand for primary care services over the longer term.
THERE IS SOME EVIDENCE OF UNMET NEED FOR GP CONSULTATIONS

IF SOCIAL PRESCRIBING REDUCES THE VOLUME OF NON-CLINICAL GP APPOINTMENTS, THE RESULTING CAPACITY COULD BE TARGETED ELSEWHERE

- Evidence from the GP Patient Survey (Ipsos MORI, 2021) shows that in certain areas of the country there may be substantial unmet need for primary care. Data is available for each clinical commissioning group (CCG) area. We can see considerable variation. In some areas, over 20% of respondents reported a poor experience booking an appointment or avoided booking altogether due to fears of overburdening the NHS.

- Social prescribing can help to reduce demand for non-clinical GP appointments and therefore free up clinical time and resource which can be deployed elsewhere. If this extra capacity can be targeted at areas/social groups where unmet need may be most significant, it can help to contribute to quicker clinical diagnoses and ultimately to improvements in patients’ health. This will only be the case if social prescribing is an effective substitute for traditional primary care. Data collection and sharing is therefore essential to assess the quality and effectiveness of social prescribing.
ROLE OF DATA INFRASTRUCTURE
**EFFECTIVE DATA INFRASTRUCTURE IS NEEDED AT EACH STAGE**

IT WILL NOT BE POSSIBLE TO REALISE THE FINAL IMPACTS OF SOCIAL PRESCRIBING WITHOUT EFFECTIVE DATA INFRASTRUCTURE

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<th>ACTIVITIES</th>
<th>OUTPUTS</th>
<th>IMPACTS</th>
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<tr>
<td>▪ National managers need to be aware of patterns of need across the country.</td>
<td>▪ Clinical staff and other community groups need to be aware of link workers operating in their locality and how best to use referral pathways.</td>
<td>▪ Link workers and other frontline workers need to be aware of all local service offerings, their suitability capacity and quality.</td>
<td>▪ National managers and link workers need to have access to detailed longitudinal data which provides evidence on whether intended health improvements and other benefits have been realised.</td>
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<tr>
<td>▪ Link workers need to understand hyper-local issues that social prescribing could help with in each locality.</td>
<td>▪ National and regional managers need to understand what type of referrals are happening.</td>
<td>▪ Activity providers need to be incentivised to share data detailing their offering and keep this updated.</td>
<td>▪ In 2019 NHS England and NHS Improvement developed a Common Outcomes Framework for measuring the impact of social prescribing. This will encourage consistent data gathering and reporting of outcomes.</td>
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## AN UNDERSTANDING OF DEMAND AND SUPPLY IS CRITICAL

**Demand Side Data**

**Indirect Demand Data:** What factors correlate with demand for social prescribing in each local area?
- How could we predict likely demand/identify unmet needs (e.g., unreported mental health issues) within small geographic areas?
- To what extent are different types of social prescribing demand linked to deprivation?

**Direct Demand Data:** What needs could social prescribing address in each local area?
- How many people could benefit?
- What requirements do different groups have?
- What requirements do different localities have (e.g., urban vs. rural)?

**Types of Data Required for Social Prescribing to Be Effective**

**Supply of Relevant Services:** What information exists on services/community groups within in each locality?
- What is the capacity/level of staff training at each provider?
- What specific services are offered by each service provider?
- What type of service user do they cater for?

**Levels of Social Prescribing Activity:** What is the current pattern of social prescribing referrals?
- What is the rate of referrals to social prescribers in localities?
- What types of activities are being prescribed?
- What is the rate of take-up/satisfaction amongst users?
DEMAND AND SUPPLY DATA WILL BE NEEDED TO CALCULATE IMPACTS

01
DIRECT-DEMAND DATA HIGHLIGHTS A SPECIFIC NEED WITHIN A CERTAIN LOCALITY

02
DATA ON SUPPLY OF SERVICES HIGHLIGHTS RELEVANT ACTIVITY AND FACILITATES REFERRALS

03
DATA ON LEVELS OF SOCIAL PRESCRIBING ACTIVITY SHOWS THE RATE AT WHICH SERVICE USERS ARE ATTENDING SERVICES AND THEIR SATISFACTION

04
OVER TIME, DEMAND DATA SHOWS A REDUCED NEED FOLLOWING SUCCESSFUL SOCIAL PRESCRIPTION

INPUTS ➔ ACTIVITIES ➔ OUTPUTS ➔ IMPACTS
MANY FACTORS WILL INFLUENCE DEMAND FOR SOCIAL PRESCRIBING

DEMAND SIDE DATA

NUMEROUS LOCAL FACTORS WILL BE RELEVANT

- The last decade has seen an increasing emphasis placed on the wider determinants of health. These conditions are influenced by a huge number of factors that will all vary significantly, both between different local areas and within each specific local area.

- Social prescribing involves focusing on what matters to a specific individual. This will be related to a range of interconnected factors including mental health, housing or employment. Building up a picture of these factors within granular geographic areas can inform likely patterns of demand.

NUMEROUS POTENTIALLY RELEVANT DATASETS EXISTS

- A wide array of potentially relevant demand-side information sources exist. This includes information published by PHE, Sport England, NHS England and NHS Improvement, ONS, Defra, MHCLG, and DWP.

- All of these sources will be updated at different times and will differ in terms of their geographical scope and boundaries used.

- Existing demand-side data may not be used effectively currently as it is not always accessible or available at an appropriate level of granularity.

MANAGEMENT AND POLICYMAKERS IN THE HEALTH SYSTEM NEED TO BUILD UP A DETAILED UNDERSTANDING OF ISSUES THAT WILL CREATE DEMAND FOR SOCIAL PRESCRIBING IN DIFFERENT PARTS OF THE COUNTRY.

DEDICATED RESOURCES WILL NEED TO BE INVESTED IN ORDER TO GATHER AND STEWARD THE LOCAL AREA ‘DEMAND’ DATA THAT CAN INFORM SOCIAL PRESCRIBING REQUIREMENTS.

Managers and policymakers in the health system need to build up a detailed understanding of issues that will create demand for social prescribing in different parts of the country.

Dedicated resources will need to be invested in order to gather and steward the local area ‘demand’ data that can inform social prescribing requirements.
WE HAVE COLLECTED DEMAND-SIDE DATA FOR SOCIAL PRESCRIBING

We have drawn together datasets that provide information on the incidence of issues which could drive demand for social prescribing. The data includes demographic data for context. For example, deprivation data is included as it is correlated with negative health outcomes.

The data covers six domains. Example metrics under each domain are provided below:

<table>
<thead>
<tr>
<th>Domain</th>
<th>Examples</th>
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<tbody>
<tr>
<td>Sport / Activity</td>
<td>Volunteering, Club membership, Levels of physical activity</td>
</tr>
<tr>
<td>Participation</td>
<td>Hospital admissions, Obesity, Life expectancy, Smoking prevalence</td>
</tr>
<tr>
<td>Physical Health</td>
<td>Life satisfaction, Trust in community, Loneliness, Depression/anxiety</td>
</tr>
<tr>
<td>Mental Health</td>
<td>Children in low income families, Homelessness, Proportion of adults with learning disability in employment</td>
</tr>
<tr>
<td>Deprivation / Demographics</td>
<td>Violent crime, Children in the youth justice system</td>
</tr>
<tr>
<td>Crime</td>
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</tbody>
</table>
WE HAVE PRODUCED AN INTERACTIVE DEMAND TOOL WITH THIS DATA

We have used the combined dataset to create an interactive map of potential demand. Users can select a measure that they are interested in and the data will be mapped across England, showing geographical variation. This tool is intended to demonstrate the value of combining data related to social prescribing in one place, facilitated by existing open data.

For example, in the map on the right, we have illustrated how the tool can highlight geographic variation in loneliness across the country. At this stage the map is a proof-of-concept type tool, facilitated by existing open data, but not yet a finished product. In future, the tool could include more open demand data, more granular data and supply data.

The underlying data behind the interactive map is freely available here. In line with the ODI's mission we want others to investigate this data, highlight specific features which are most helpful and link the information provided to other datasets to facilitate the creation of new insights. This allows others to explore the data in different ways and to combine it with other data to gain additional insight.
THIS TOOL HAS A NUMBER OF USE CASES

DEMAND-SIDE DATA

THIS COLLECTION OF DATA IS UNIQUE AND OFFERS SEVERAL ADVANTAGES

- **Comprehensive coverage across the country**: the metrics collected cover all of England which means that each locality can be examined individually and compared against other benchmark areas such as local neighbours.

- **Broad range of potential factors included**: inclusion of metrics from six domains allows for the simultaneous exploration of multiple indicators. Users can identify links between factors such as deprivation, mental health and physical activity. Previously comparing these metrics in a consistent format was a challenge as different data sources adopt different geographical units of analysis. For example, NHS England and NHS Improvement data is often reported at the Clinical Commissioning Group (CCG) or Integrated Care System (ICS) level which does not map to other forms of data published at the local authority level.

- **Provides solid foundation**: in the future, this dataset could be combined with nationwide supply-side data to highlight gaps where demand for social prescribing is high, but the volume of relevant services is low.

THIS DATABASE CAN SUPPORT SEVERAL USE CASES

- **Planning services**: having this collection of data made available in an accessible format for the first time may allow central government, local authorities, charities and link workers to coordinate better in the planning and deployment of services around the country.

- **Identification of target areas for intervention**: Policymakers can identify where more social prescribing would have most impact.

- **Predicting future demand**: this data can be used to consider potential future needs and identify and highlight interesting patterns, such as localities of possible best practice.
Mapping the Availability of Local Services is Difficult

**Supply-side data**

Local data on availability of services is inconsistent

- Generating comprehensive information on supply of activities within a local authority is a major challenge. Local Authorities, health and voluntary sector organisations maintain separate directories of locally available services (there are also multiple other sources of potentially useful supply-side information from charities or learning providers). This leads to duplication of effort and creates issues with interoperability (Snook, 2019).

- Multiple community service directories exist in each local area due to a lack of trust between organisations. This limits data sharing (Digital Gaps and Porism, 2021). Local Authorities are required to run a *Family Information Service*, which provides information on children and parent services and outlines their *local offer*, which gives information on the services for young people with special educational needs. Some Local Authorities provide accessible and wide-ranging directories of services, while others are difficult to locate and/or fragmented.

- Information is not always provided on how regularly directories are updated. In some cases these types of databases are created via pilot projects and then there is no budget to maintain the information to a high standard. This in turn undermines trust.

- Link workers may be reluctant to refer potential services users to activities they are not familiar with. Currently a lack of information on attendance/user satisfaction and challenges means that link workers may have to invest time exploring the suitability of a new offering.

**Key takeaway**

Link workers might not know where to signpost potential users, or may rely on old or incomplete information. This could lead to service users being prescribed activities which are not perfectly tailored to their individual needs, which in turn may reduce the chances of the referral being successful and generating desired impacts.
RECORDING VOLUMES OF SOCIAL PRESCRIBING IS CHALLENGING

SUPPLY-SIDE DATA

DATA ON DELIVERY OF SOCIAL PRESCRIBING HAS ITS OWN CHALLENGES

- Dayson and Leather (2020) found consistency and recording issues with the data collected in GP practices, meaning it could be unsuitable for assessing social prescribing activities. PHE also highlighted issues around data collection (Mason et al. 2019), including patient difficulties with completing questionnaires, and problems with the type of data recorded by GP practices.

- Martin Bell Partnership (2021) reviewed the digital landscape for social prescribing and found that data collection is still predominantly paper-based, supplemented by local and fragmented digital databases. Jani et al. (2020b) highlighted barriers to evidence generation, including little standardisation in data collection, inadequate code lists and variation in recording by clinicians.

- Data that is currently collected and published may not always be sufficiently granular to provide nuanced insights. For example, in the future it would be helpful to break down this data on referrals and declines by including the outcome of the social prescribing intervention.

The lack of standardisation in data collection and monitoring of attendance makes it difficult to assess the effectiveness of social prescribing and/or the quality of specific activities at a large scale.

KEY TAKEAWAY
EFFORTS ARE UNDERWAY TO IMPROVE THE DATA LANDSCAPE

THERE ARE PROMISING SIGNS THAT THE DATA LANDSCAPE IS IMPROVING

- Investment has been made in recent years to address some of the data infrastructure issues we have highlighted. For example, the Professional Record Standards Body (2021) is working with a range of stakeholders including link workers, GPs, NHS project managers, counsellors, and service users to develop a social prescribing standard which will help ensure information from sessions can be shared with care providers to identify people who would benefit from social prescribing and help health services nationally improve social prescribing. Also the NHS Personalised Care Digital Programme (2021) has produced a social support pack to help commissioners considering the purchase of a social prescribing digital case management system and collated a set of accredited suppliers for social prescribing solutions. We have included other specific examples below which are not comprehensive but illustrate some of the types of data improvement efforts that exist in this space.

OPEN REFERRAL UK

- The Open Referral UK data standard is a consistent way of recording and sharing information about services.
- Open Referral UK defines a standard structure which can help to avoid some of the duplication associated with multiple competing service directories.
- This initiative brings together local councils, voluntary bodies, funders and technologists to publish and use resource directory information more easily.

SOCIAL PRESCRIBING OBSERVATORY

- The Royal College of General Practitioners, Nuffield Department of Primary Care Health Science and the University of Oxford established the Social Prescribing Observatory in collaboration with NHS England and NHS Improvement.
- The Social Prescribing Observatory provides information on social prescribing referrals and declines for each integrated care system. The same group also captures information on actual activities prescribed.

OPENACTIVE

- The ODI and Sport England are working together to improve and open up information about physical activity and sporting opportunities across England. Prior to this work much of the information about activities was inaccessible (stored on old-fashioned websites, or printed material).
- OpenActive provides open data on sports/fitness-related activities across the UK and also includes data standards, tools, and support to help people find and book activities.

PRESCRIBING.SOCIAL

- prescribing.social is a crowd-sourced resource for voluntary/community social enterprise organisations to upload information about their organisation and services. This could allow primary care staff to find information on all the different providers in the same place.
- The directory currently includes publicly available information form the Charity Commission data. VCSE organisations can complete a form to add their offering to the site.
Hyper-local nature of service provision leads to lack of central coordination and creates multiple competing service directories.

Community groups and activity providers may not have a obvious route to share information on platforms.

Information may be recorded on old systems which may not be interoperable.

Data quality is a key challenge. Some service providers may have little incentive to maintain and share good data on their offerings. Maintaining comprehensive service directories requires sustained funding.

Increased focus on social prescribing in recent years means that the data ecosystem is still nascent and trust is still developing.

WHY DOESN’T COMPREHENSIVE SUPPLY-SIDE DATA CURRENTLY EXIST?
THERE ARE SEVERAL LEVERS THAT COULD BE CONSIDERED

RECOMMENDATIONS

01
Improve understanding of stakeholders' roles in the development of data infrastructure.

02
Providing activity providers and those who maintain directories with additional incentives to make data open.

03
Reducing the cost of making data open through improved data foundations.

04
Mandating open data in some instances.
There are several levers that could be considered

**Recommended Policy Interventions**

1. Improve understanding of stakeholders' roles in the development of data infrastructure. Example: Charities, community groups and NHS England and NHS Improvement emphasise the roles of individuals/groups in ensuring information flows effectively and is maintained to a high standard. Previous work has highlighted that specific social prescribing initiatives were not widely promoted, which limited awareness (Digital Gaps and Porism, 2021).

2. Consider whether activity providers and those who compile directories could be provided with a direct incentive to make information on offerings open. In many cases, link workers struggle to find suitable activities (Digital Gaps and Porism, 2021). Example: Make local government funding for community groups/information holders contingent on up-to-date information on offerings.

3. Develop improved data infrastructure directly (eg improved IT systems and standards) which mean it is easier to make data open. This could make it easy for service providers to directly update information on their own offerings on existing platforms. Example: Provision of support for the development and adoption of open standards. For example Local Authorities and activity providers could be required to adopt the Open Referral UK standard. This would allow multiple portals to ingest information on activity providers' updated offerings. In other cases, social-prescribing standards compliance could be made a requirement in NHS procurement. Government could also work to identify a clear group of data owners and fund ongoing data stewardship.

4. Require organisations to make some data in the public interest open. Example: Local Authorities could be required to make data on their service provision open in an integrated and comprehensive format.
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