NHS
Humber and
North Yorkshire
Integrated Care Board (ICB)

Primary Care
Link Workers
Social Prescribing in York

Midpoint process evaluation of York Proactive Social Prescribing (PSP)

- understanding outcomes and impact

November 2024

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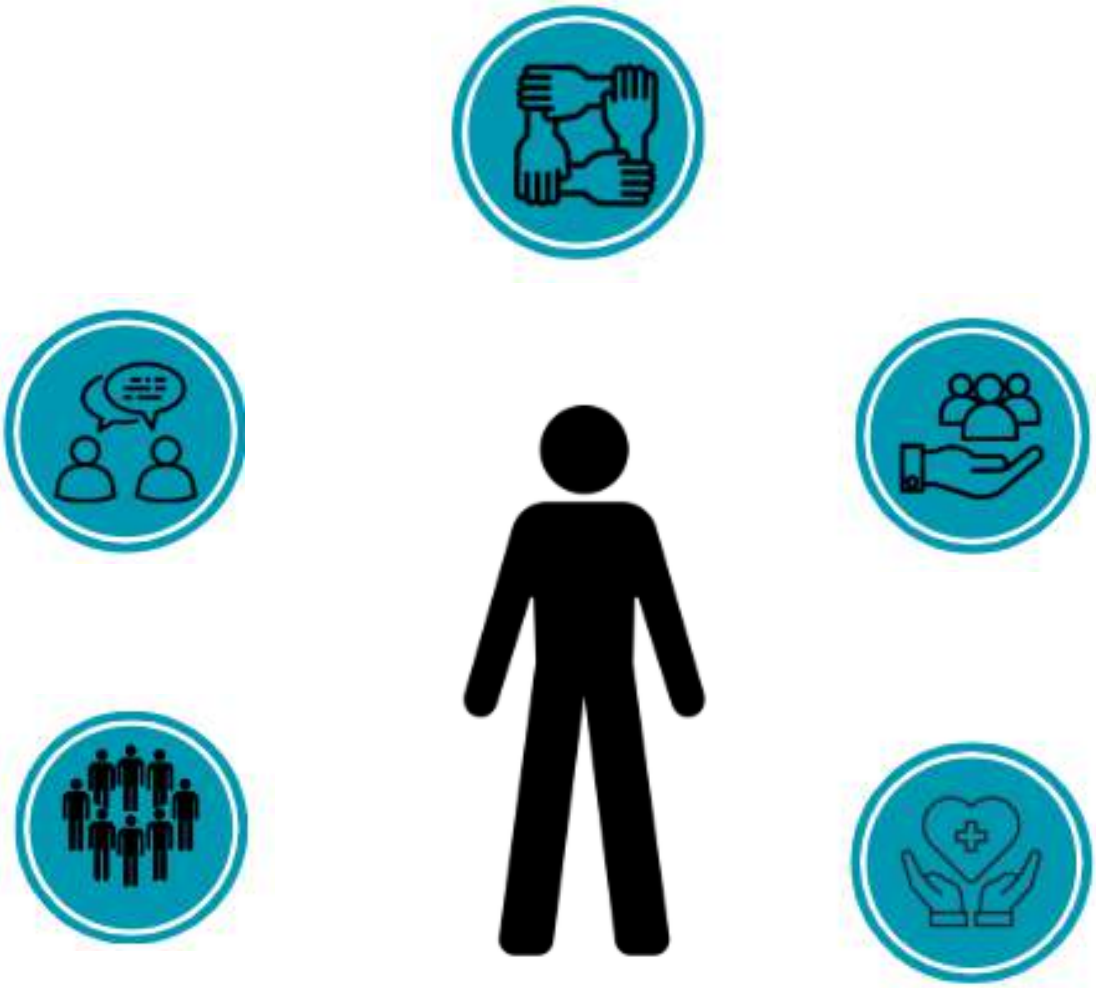


Contents

1 Introduction

The Proactive Social Prescribing (PSP) initiative represents a transformative approach in community-based healthcare interventions, particularly targeting individuals facing multiple social and health challenges. This programme is designed to improve the well-being of individuals, especially those with respiratory conditions, by addressing broader social determinants of health. The initiative is particularly focused on populations that are vulnerable to the impacts of the cost-of-living crisis, such as those living in cold homes or at risk of non-elective hospital admissions.

The overarching goal of the PSP is to reduce the risk of hospital admissions, enhance disease management, and improve the overall quality of life for individuals by connecting them with community-based resources and services. These services provide essential support in areas such as healthcare, housing, and financial assistance, fostering a holistic approach to well-being. This midpoint evaluation assesses the effectiveness of the PSP in achieving these objectives, identifying both its successes and areas for improvement, and offering insights to guide future developments.

By focusing on the intersection of social factors and health outcomes, the PSP aims to create long-lasting benefits, ultimately reducing strain on the healthcare system while improving the lives of those who need it the most. This evaluation is critical for determining the impact of the PSP and informing potential scalability and refinement of the initiative.

2 The rationale for the implementation of the PSP

2.1 National picture.

The Public Health England has identified cold as a major contributing factor to a range of health problems:

Cold homes are associated with a range of poor health outcomes. Cold can increase the risk of respiratory problems, such as asthma and bronchitis; circulatory problems, such as CVD and stroke; and exacerbate existing health conditions, including asthma, diabetes and recovery following hospital discharge. Home temperatures also have implications for mental health: cold is linked with increased risk of conditions such as depression and anxiety (1. Public Health England 2014).

Most excess winter deaths and illnesses are not caused by hypothermia or extremes of cold. Rather, they are usually caused by respiratory and cardiovascular problems during normal winter temperatures – when the mean outdoor temperature drops below 5°C to 8°C (Department of Health's Making the case). The risk of death and illness increases as the temperature falls further. However, because there are many more relatively 'warm' winter days than days of extreme cold, most cold-related ill health and death occurs during these milder periods. (2. NICE guideline, 2015)

Hypothermia is a known risk factor in the absence of adequate heating and is related to a range of other health conditions (3. NHS 2017) Public Health England indicates that fuel poverty and a range of cardiac events are more specifically related:

Research suggests that deaths from cardiovascular disease in England were 22.9% higher in winter months than the average for other times for the year. Studies have found that cold affects circulatory health where temperatures fall below 12°C, which results in raised blood pressure, caused by the narrowing of the blood vessels, which can lead to increases in blood thickness as fluid is lost from circulation. Increased blood pressure, and increased blood viscosity, can increase the risk of strokes and heart attacks (1. Public Health England 2014).

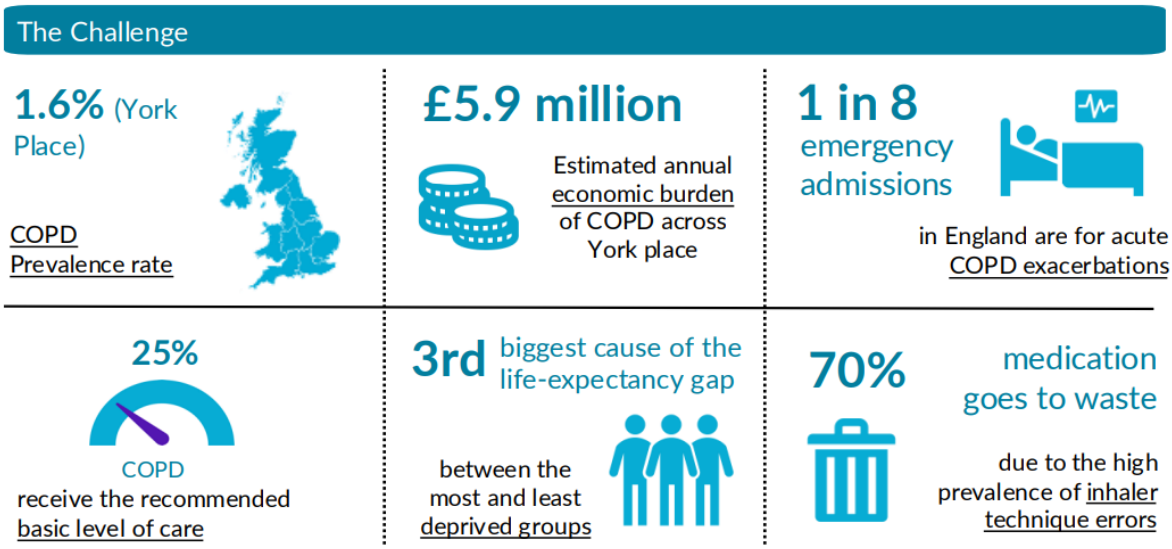
Older people are more vulnerable to cold temperatures due to reduced body temperature and less effective thermoregulation. Cold conditions can raise blood pressure, increasing the risk of strokes and circulatory issues. A study in Newham linked hospital admissions for respiratory issues in those over 65 to poor housing

energy efficiency and fuel poverty. Cold homes are also associated with reduced strength, worsened arthritis symptoms, and a higher risk of falls and injuries. [1]

Chronic Obstructive Pulmonary Disease (COPD) is the fifth leading cause of death in the UK, responsible for nearly 30,000 deaths annually in England, with a quarter of these deaths preventable through best practices. COPD outcomes vary based on socioeconomic factors, with mortality rates seven times higher in the most deprived areas. The disease imposes a significant burden on healthcare, being the second largest cause of emergency hospital admissions and costing the NHS £1.9 billion annually.[2]

As part of the NHS's long-term strategy to manage chronic conditions, the role of social prescribing link workers is being expanded. Social prescribing seeks to tackle the broader factors affecting health by connecting individuals with long-term conditions to appropriate community resources aiming to meet a variety of individual needs.

2.2 Local - York picture



Source: MyM Health (2024)

• GBD study shows that in 2019, for Asthma York saw:

- A loss of 786 Disability adjusted life years (DALYs)
- 1.64 deaths per 100,000 population

[1] https://www.instituteofhealthequity.org/resources-reports/fuel-poverty-cold-homes-and-health-inequalities-in-the-uk/read-the-report.pdf
[2] https://www.pcrs-uk.org/sites/default/files/National-COPD-Policy-Action-Plan.pdf

• There are multiple risk factors for people living with asthma including smoking and BMIs of over 30.

• Certain areas of the city have higher emergency attendances and admission rates for respiratory conditions than others:

- Clifton North had the highest respiratory ED attendance and emergency admission rates by LSOA.
- Heworth had significantly higher emergency admission rates for Asthma than other wards in the city.

• In York, QOF achievement for COPD and Asthma reviews has increased but there is variation across practices.

Emergency Department Attendance Rates for Respiratory Conditions by Geography

	LSOA	MSOA	Main Road	DSR per 1,000
Significantly Higher	E01013347	Clifton North	Kingsway North	37.0
	E01013349	Clifton North	Burdyke Avenue	33.8
	E01013443	Westfield, Chapelfields & Foxwood	Kingsway West/ Gale Lane	31.7
	E01013416	York City Centre	Scarcroft Road	25.1
	E01013399	Tang Hall	Burlington Avenue	25.0
	E01013366	York City Centre	Gillygate/ Lord Mayor's Walk	22.8
	E01013386	Heworth South & The Groves	Huntington Road	22.7
	E01013444	Westfield, Chapelfields & Foxwood	Chapelfields Road	21.7
	E01013383	Heworth South & The Groves	Fith & Fourth Avenue	21.5
	E01013341	Bishopthorpe & Copmanthorpe	Acaster Lane	21.4
	E01013335	Acomb	Ostman Road	21.2
	E01013398	Tang Hall	Tang Hall Lane	20.6
	E01013393	Holgate West	Poppleton Road	20.3
	E01013435	Clifton Without & Skelton	Rawcliffe Lane / Green Lane	19.7
	E01013336	Acomb	Carr Lane	18.8
	E01013350	Clifton North	Burton Green/ Rowntree Ave	18.6
	E01013359	Woodthorpe & Acomb Park	Hob Moor/ Thanet Road	18.6
CYC				11.8
Significantly Lower	E01013417	Holgate East	Albemarle Road	3.6
	E01013361	Fulford Road & Clementhorpe	Fulford Road	3.2
	E01013344	Rawcliffe & Clifton South	Bootham	2.9
	E01013423	Bishopthorpe & Copmanthorpe	Top Lane	2.7
	E01013427	Poppleton, Rufforth & Askham	Millfield Lane	1.6

• This table shows the respiratory ED attendance rates by LSOA in York from Apr-19 to Mar-22.

• The rates are sorted from highest to lowest.

• The top part of the table (pink) shows LSOAs with a rate significantly higher than the CYC rate (green).

• The bottom part of the table (blue) shows a selection of LSOAs with the lowest rates.

• The MSOA and 'Main Road' give an indication of geography.

Source: City of York CYP Asthma Information Pack, Jan 2023

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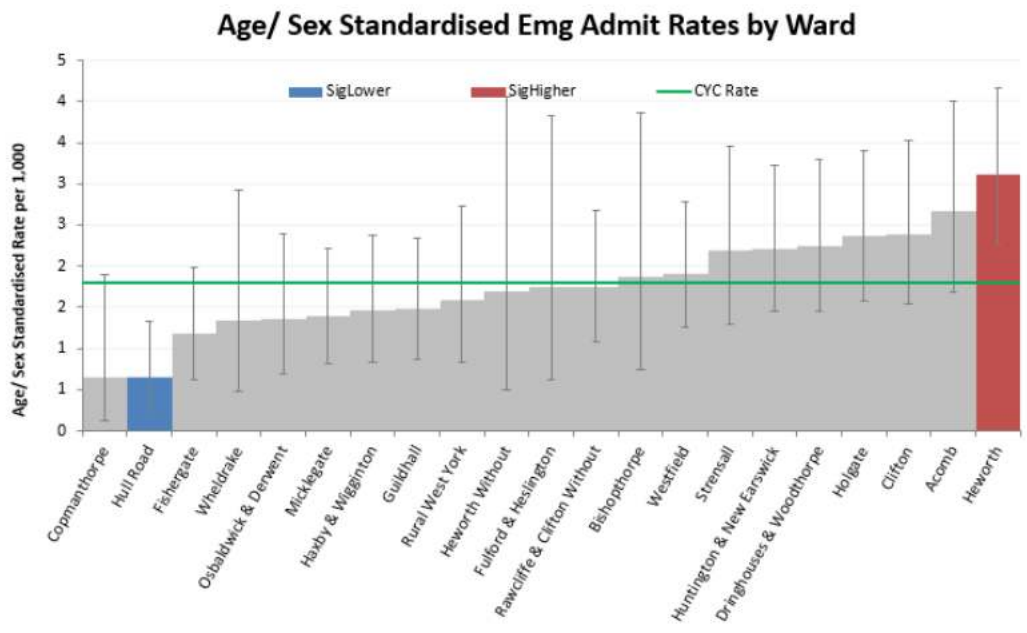
Source: City of York CYP Asthma Information Pack, Jan 2023

Asthma Emergency Admissions Methodology



- This graph shows the emergency admission rates for Asthma by Ward in York from Apr-19 to Mar-22.
- Heworth had significantly higher emergency admission rates for Asthma than other wards in the city.

Source: City of York CYP Asthma Information Pack, Jan 2023

High Priority City Wards for Action

Ward	Concerns
Heworth	• Significantly higher respiratory emergency hospital admissions • In top four areas of universal credit claimant rates • Ward with one of the highest proportion of households in fuel poverty (19.5%) • Higher numbers of households with overcrowding based on overall room occupancy levels than the national average • Low number of housing with EPC certificates of C and above (17%)
Westfield	• Significantly higher respiratory emergency hospital admissions • Area with highest universal credit claimant rates • Ward with one of the highest proportion of households in fuel poverty (16.9%)
Clifton	• Significantly higher respiratory emergency hospital admissions • In top four areas of universal credit claimant rates • Ward with one of the highest proportion of households in fuel poverty (20.3%)

Source: City of York CYP Asthma Information Pack, Jan 2023

3

An overview of the Social Prescribing Service

The York Centre for Voluntary Services (CVS) provides social prescribing as one of 6 key components of the NHS Comprehensive Model for Personalised Care. Social prescribing is a way for local agencies to refer people to a link worker. Link workers give people time, finding out 'what matters to me' and taking a holistic approach to people's health and wellbeing. They then connect people to community groups and statutory services for practical and emotional support.

The project funding enables a skilled social prescribing link worker to devote time to the design and project management aspects integral to the approach, leaving a legacy process and learning, as well as delivering the structured intervention. The target population for the PSP project includes individuals who are most vulnerable to the impacts of the cost-of-living crisis and winter pressures**,** particularly those with respiratory conditions.

This approach has already been tested through two proof of concept pilots in 2021/22:

• Early intervention in Diabetes project, with more than 100 patients identified using a PHM-driven process supported through the CVS to better manage diabetes risk

• Serious Mental Illness (SMI) health checks, where social prescribing link workers used an innovative digital-fist solution and follow up conversations leading to a large rise (20% to 70%) in the proportion of people with an SMI in York receiving their health check in Q4 221/22.

3.1How the PSP approach is different to traditional referral based social prescribing.

Proactive Social Prescribing distinguishes itself from traditional referral-based social prescribing through several key aspects[3]:

1. **Proactive Engagement**: PSP actively identifies individuals within the community who may benefit from social interventions, rather than waiting for referrals from healthcare professionals.

2. **Data-Driven Identification**: Applying population health management records PSP pinpoints groups with unmet needs to ensure equitable access to support services.

3. **Preventive Focus**: By addressing social determinants of health early, PSP aims to prevent the decline of mental health and well-being

4. **Community Collaboration**: PSP involves forming local outreach teams that work collaboratively with local partners to co-produce and inform service design for accessible and sustainable provision for the patient cohorts.

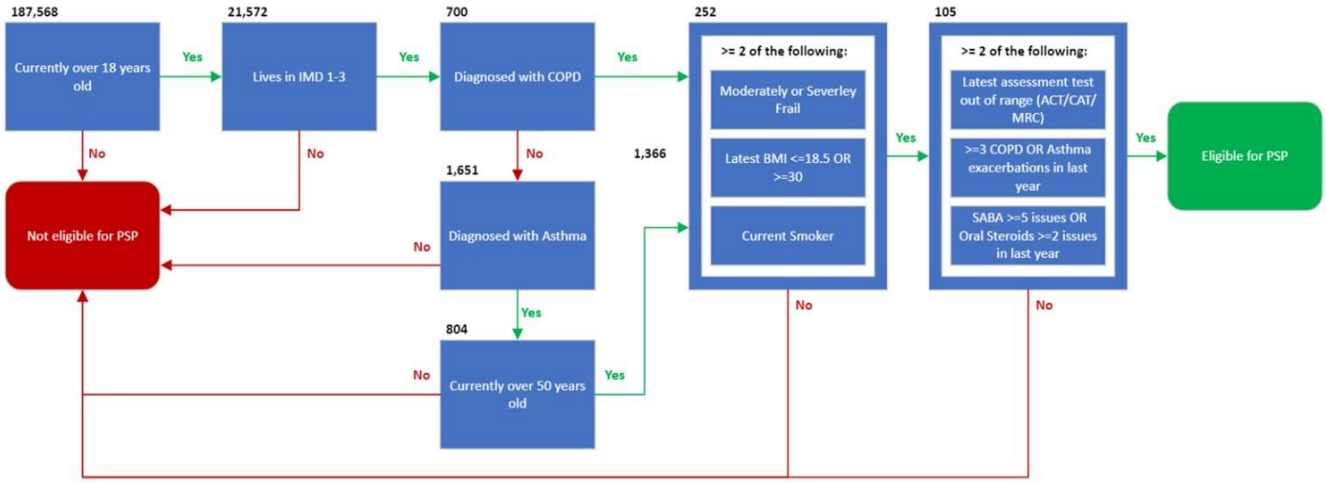
Project Approach

- To improve health and wellbeing outcomes for those most vulnerable to winter pressures and the cost-of-living crisis
- Proactive social prescribing project focussed on a cohort of people with respiratory conditions who are likely to be affected by the cost-of-living crisis (risk of harm from winter / cold homes) and people at risk of non-elective admission.

Target population: focus on the below cohort of the population to improve health and wellbeing outcomes for those most vulnerable to winter pressures and the cost-of-living crisis. This would support the city-wide response to the cost-of-living crisis and winter pressures work.

- People likely to be affected by the rising cost of living
- People at risk of non-elective admission
- People with respiratory conditions (risk of harm from winter / cold homes)

[3] Proactive Social Prescribing And Its Benefits Explained



Eligibility criteria diagram

Project Outputs and Activities

The structured intervention would lead to:

- Support for improved health literacy - better understanding long-term health conditions, and ability to make informed choices
- Engagement with preventative programmes
- Support with planning for, and better management of, health and wellbeing needs
- Reduction in: ED attendances, respiratory admissions, respiratory exacerbations
- Improvements in: respiratory control (ACT, CAT, MRC scores), life satisfaction (ONS4 scores)

Increased uptake of:

- Primary care – 12-months asthma and COPD review, inhaler technique
- Referral to City of York Council Home Upgrade Grant

3.2 The service context

What is the Respiratory Proactive Social Prescribing (PSP)

The PSP is primarily community focused and incorporates health and social care models to ensure a holistic approach when implementing support. It identifies and explores areas of need and works collaboratively with organisations to challenge or remove physical and socio-economic barriers.

The PSP role is multi-faceted and acts as a direct link between the patient and the primary care, encouraging patients to attend their appointments for example for long term condition (LTC) reviews and improving confidence in healthcare provision. The key to the PSP role is developing positive working relationships with people and exploring what matters to them. The person-centred approach adopted by the PSP promotes choice and control, leading to increased confidence when managing their own health. This has led to an improvement in outcomes, as demonstrated in the quantitative and qualitive research data.

The PSP works closely with Voluntary, Community and Social Enterprise (VCSE) and health and social care sectors, to encourage the person to access and engage in local services. This approach supports the development of positive relationships, so people feel connected and invested in their local community.

What does the Respiratory Health PSP offer?

Direct offer from PSP:

- Development of personalised care support plan
- Access to community support and interest groups
- Support with loneliness and isolation
- Support with completion of applications
- Identifying gaps in services

Referrals to other services:

- Mental health support and referrals (mild-moderate conditions)
- Referrals for Long term condition (LTC) reviews
- Occupational Therapists (OT), Physiotherapy referrals
- Physical health and exercise groups
- Support for people with complex social needs
- Smoking Cessation, Alcohol and Weight management
- Supported employment and return to work
- Local authority and DWP benefits support
- CYC housing applications and repairs
- Budgeting, debt, and financial support
- Volunteering opportunities

What is the respiratory health PSP approach (Model)?

- A cohort identified through the NHS Integrated Care Board -York place team
- Access to PSP surgery waiting lists
- Initial text for introductions
- Initial introductory call - What's most important to you, right now?
- PSP summary and arrange first visit at a location of their choice

- Referrals if required (usually respiratory review) by sending a direct request to the respiratory nurse
- Book in 2nd call and/or visit (allowing a few days to think about it if not already engaged)
- 2nd call or visit - reassurance given around changing priorities and any support remaining flexible
- ONS4
- Developing a personalised plan
- Referrals
- Informally review work as support continues
- Agree to end our work together - support typically comes to a natural conclusion
- Final visits or call - complete ONS4 and feedback forms
- Following discharge 12 - 36 week call back

An integral part of the approach is to connect to and develop successful working relationships across all surgeries with other healthcare professionals such as Mental Health Practitioners (MHP) and the wider clinical team. As the project developed, PSP began to liaise with the Respiratory Nurses, via direct tasking or Teams meetings regarding referrals and caseload discussions for more complex individual cases.

Funding:

The funding has been secured from NHS Humber and North Yorkshire personal care budget. The original grant was £72,000 with an additional £17,214 k from CVS due to an underspend on the PSP Diabetes project which allowed the project to run for 2 years.

total funding £17,214 + £72,000 = £ 89,214 (over 2 years)

4

The purpose of the evaluation - why?

The purpose of the evaluation of the Proactive Social Prescribing (PSP) intervention is to assess its effectiveness in addressing the needs of individuals with respiratory conditions who are vulnerable due to the cost-of-living crisis, particularly those at risk of harm from cold homes and non-elective hospital admissions.

The evaluation aims to understand how well the intervention is working, identify areas for improvement, and ensure that the project is achieving its intended outcomes.

Evaluation aims to gather evidence on the impact of the intervention, justify the investment, and inform future decision-making for similar initiatives.

What the evaluation aims to explore

The evaluation aims to explore how the PSP intervention supports individuals with respiratory conditions in reducing their risk of harm from cold homes and lowering the likelihood of non-elective hospital admissions.

It seeks to understand the extent to which the intervention improves participants' health and well-being, strengthens their ability to manage their conditions, and alleviates the adverse effects of the cost-of-living crisis.

Additionally, the evaluation will examine whether the PSP approach is a practical and effective strategy for addressing social determinants of health in vulnerable populations, contributing to long-term solutions for health inequalities.

Stakeholders feedback:

PSP currently lacks formal stakeholder feedback only communicating with practices primarily through task-based communication via System One primary care patient's database. Since PSP operates remotely and does not work directly within the surgeries, obtaining feedback can be challenging, as communication with practices is also conducted via task.

Moving forward, an adjustment to the model could include more networking with surgeries and relevant professionals to strengthen stakeholder relationships and communication.

5

Approaches to evaluation

There are two main approaches to evaluation: the logic model and realistic evaluation:

- The **logic model** focuses on establishing clear, logical connections between inputs, activities, outputs, and outcomes, providing a structured framework to understand how and why a program works.
- In contrast, **realistic evaluation** emphasizes understanding the mechanisms that make an intervention work in specific contexts, considering how different factors interact to produce outcomes.

While the logic model is often more theoretical and prescriptive, realistic evaluation is more flexible, focusing on real-world application and the variability of outcomes across different setting.

Logic Model[4]	**Realistic Evaluation**[5]
Overview: • **Structure**: A Logic Model provides a clear and linear representation of the projects' inputs, activities, outputs, and intended outcomes. • **Purpose**: It helps in planning, implementing, and evaluating by showing how resources and activities are expected to lead to desired results. *Strengths:* • **Clarity**: Offers a straightforward visual representation of the programme. • **Planning**: Useful for programme planning and ensuring all components are aligned with objectives.	*Overview:* • **Structure**: Realistic Evaluation focuses on understanding the Context-Mechanism-Outcome (CMO) configurations to explain how and why outcomes occur. • **Purpose**: It aims to uncover what works, for whom, in what circumstances, and why, providing a deeper understanding of the programme's functioning. *Strengths:* • **Complexity**: Better suited for complex interventions where context and mechanisms play a crucial role.

[4] https://logicmodel.extension.wisc.edu/introduction-overview/section-6-how-good-is-my-logic-model
[5] What is realist evaluation?

• **Communication**: Easy to communicate with stakeholders about how the programme is supposed to work. *Limitations:* • **Simplicity**: May oversimplify complex interventions by not fully capturing the nuances of context and mechanisms. • **Linear Assumption**: Assumes a linear progression from inputs to outcomes, which may not reflect real-world complexities.	• **Flexibility**: Can adapt to changing conditions and unexpected findings during the evaluation. • **Depth**: Provides a more nuanced understanding of the programme's impact and effectiveness. *Limitations:* • **Complexity**: Can be more challenging to implement and communicate to stakeholders who are unfamiliar with the approach. • **Resource-Intensive**: Typically requires more time and resources to gather and analyse detailed contextual data.

Realistic Evaluation may be more suitable for this project due to the complex nature of social prescribing, which often involves varied contexts and mechanisms influencing the outcomes. This approach will allow to:

- Understand the diverse environments in which the programme operates.
- Identify the mechanisms through which the programme affects participants.
- Capture the nuanced interplay between context, mechanism, and outcomes, leading to more tailored and effective improvements.

5.1 Realistic Evaluation for Proactive Social Prescribing Project: Respiratory Conditions and Cost-of-Living Crisis[6]

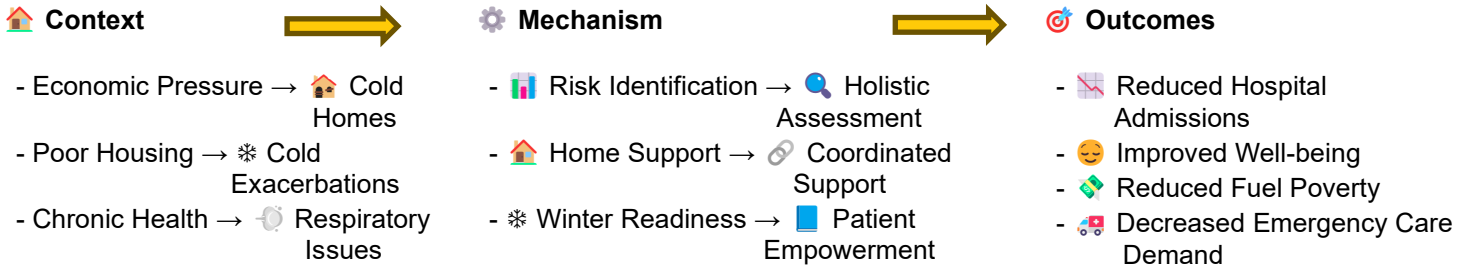
Overview

This realistic evaluation focuses on a proactive social prescribing project targeting individuals with respiratory conditions who are vulnerable to the cost-of-living crisis, particularly those at risk of harm from cold homes during winter and those at risk of non-elective hospital admissions.

This realistic evaluation will provide a comprehensive understanding of how a proactive social prescribing project can effectively support individuals with respiratory conditions who are vulnerable due to the cost-of-living crisis. By identifying what works, for whom, in what contexts, and how, the evaluation will guide the optimisation

[6] Exploring how and why social prescribing evaluations work: a realist review

and scaling of the intervention, ensuring it delivers the greatest benefit to those most in need.



Context (C):

- **Socioeconomic Factors**: The rising cost of living, particularly energy costs, which disproportionately affects vulnerable individuals, leading to cold homes and associated health risks.
- **Health Status**: Patients with chronic respiratory conditions, such as COPD or asthma, who are particularly susceptible to cold weather, which can exacerbate their condition and lead to increased hospital admissions.
- **Healthcare Environment**: The capacity of primary care and social prescribing services to identify and proactively engage this cohort. The level of integration between healthcare services, social prescribing, and community resources.
- **Community Resources**: Availability of services like home insulation programmes, fuel poverty advice, financial support, and community heating initiatives. The role of local government and third-sector organisations in addressing the cost-of-living crisis.
- **Housing Conditions**: The prevalence of poor housing conditions, including inadequate insulation and heating, among the target population.

Mechanism (M):

- **Proactive Identification**: Use of health data, such as frequent GP visits, prior admissions, and social determinants of health, to identify individuals at high risk of harm due to cold homes and respiratory complications.
- **Holistic Assessment**: Social prescribers conduct comprehensive assessments, including both medical needs and socioeconomic factors, to tailor interventions that address both health and living conditions.
- **Coordinated Support:** Linking patients to services that address both health and economic needs, such as fuel poverty programmes, benefits advice, and home improvement grants. Coordination between healthcare providers, social prescribers, and local authorities to ensure that interventions are timely and effective.

- **Empowerment and Engagement**: Educating patients on self-management of their respiratory conditions, as well as providing them with the tools and knowledge to seek and secure financial and housing support.
- **Preventive Actions**: Early intervention strategies, such as ensuring homes are warm before the onset of winter, providing respiratory care plans, and frequent check-ins to monitor health and home conditions.

Outcomes (O):

- **Health Outcomes**: Reduction in respiratory exacerbations and non-elective hospital admissions, improved management of respiratory conditions, and enhanced overall well-being during winter months.
- **Economic Outcomes:** Improved financial stability for individuals through access to benefits, energy grants, and other financial support, reducing the risk of fuel poverty.
- **Housing Outcomes**: Improved home warmth and insulation, reducing the health risks associated with cold homes.
- **System-Level Outcomes:** Reduced demand on emergency healthcare services, lower rates of hospital admissions, and cost savings for the healthcare system.
- **Social Outcomes**: Increased patient satisfaction, reduced social isolation, and improved engagement with community resources.

5.2 Evaluation methodology:

Qualitative Methods: The evaluation of the PSP initiative used several qualitative methods to understand participants' experiences and the programme's impact.

- Case Studies: detailed stories of participants
- Interviews: semi-structured interviews with participants
- Feedback Forms: surveys and open-ended questionnaires

Quantitative Methods: The evaluation also used quantitative methods to measure the PSP's outcomes:

- Health and Well-being Tools like ONS4 assessed life satisfaction pre- and post-Intervention
- Healthcare Data: GP System One database
- Referral Data: The number and type of referrals
- Cost-Effectiveness Analysis: Savings from reduced healthcare utilization were compared to programme costs to assess its financial viability.

By combining both qualitative and quantitative methods, the evaluation provides a comprehensive understanding of the PSP's effectiveness in improving health and reducing healthcare usage.

6

The Importance of Engagement in PSP

Engagement is a foundation of success in proactive social prescribing initiatives. Social prescribing, which connects patients to non-medical interventions such as community activities, support groups, and lifestyle services, relies heavily on the willingness and ability of individuals to actively participate in the offered support (Bickerdike et al., 2017)7. Without meaningful engagement, patients may miss opportunities to address underlying social determinants of health, such as isolation, mental health challenges, or physical inactivity, which are key contributors to poor health outcomes.

Evidence shows that patients who engage with social prescribing programmes experience tangible benefits, including improved mental well-being, reduced demand on primary care services, and better overall quality of life (Moffatt et al., 2017)[8]. However, the challenge arises with individuals who are hesitant or unable to engage. Factors such as lack of awareness, mistrust in services, accessibility issues, or personal circumstances (e.g., stigma, low confidence, or chaotic lifestyles) can create barriers to participation (Aughterson et al., 2020)[9]. Consequently, these individuals, often those who would benefit most, risk being left unsupported.

To overcome this, engagement strategies must address both systemic and individual barriers. Tailored approaches, such as personalised follow-ups, culturally sensitive communication, and proactive outreach by social prescribers, can help build trust and encourage participation. Moreover, identifying non-engaging individuals early and exploring the root causes of their disengagement is essential for targeted intervention (Husk et al., 2020)[10]. Further exploration of innovative strategies to reach and engage harder-to-reach groups are essential to ensure equitable access and outcomes for all.

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[7] Social prescribing: less rhetoric and more reality. A systematic review of the evidence

[8] Link Worker social prescribing to improve health and well-being for people with long-term conditions: qualitative study of service user perceptions.

[9] Social prescribing for individuals with mental health problems: a qualitative study of barriers and enablers experienced by general practitioners.

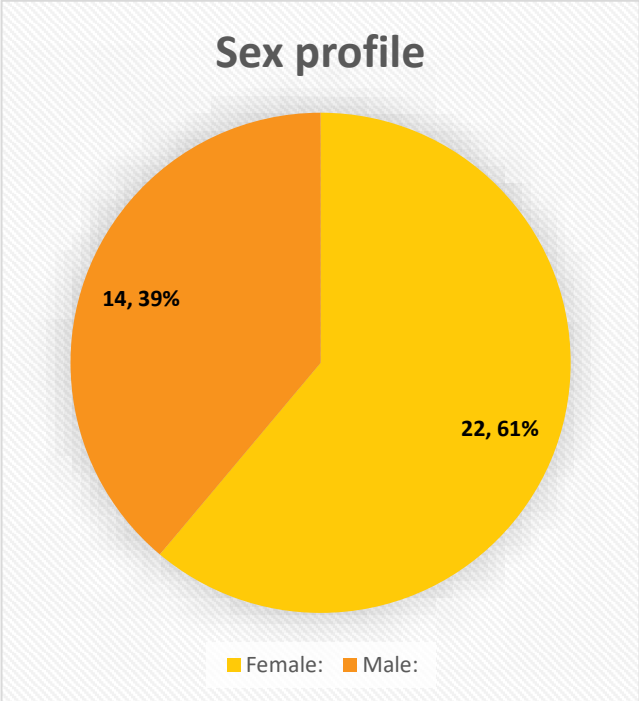
[10] What approaches to social prescribing work, for whom, and in what circumstances? A realist review.

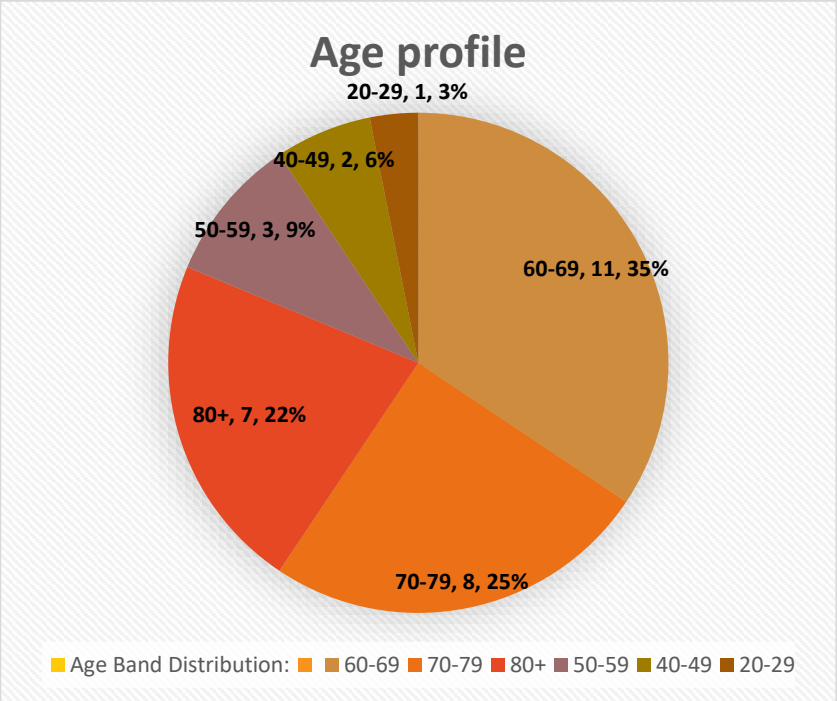
7

Findings from Year 1

What do we know about participants?

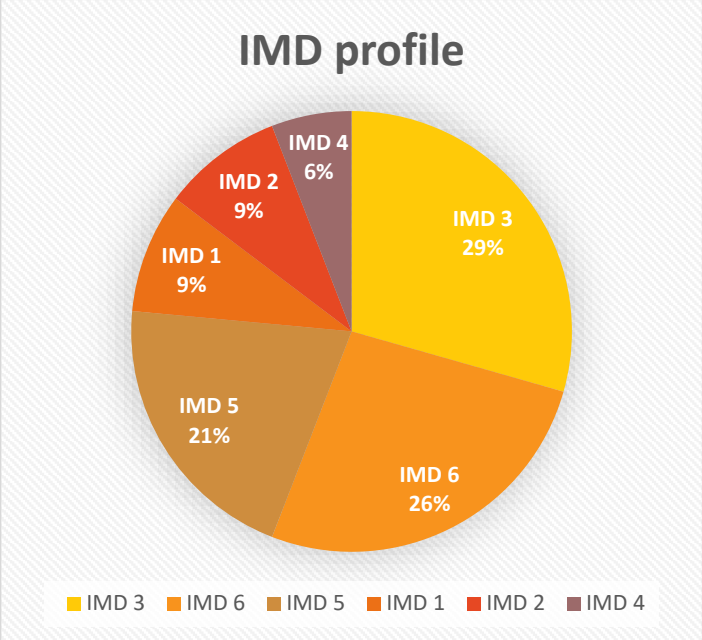
- **Age/sex profile:**

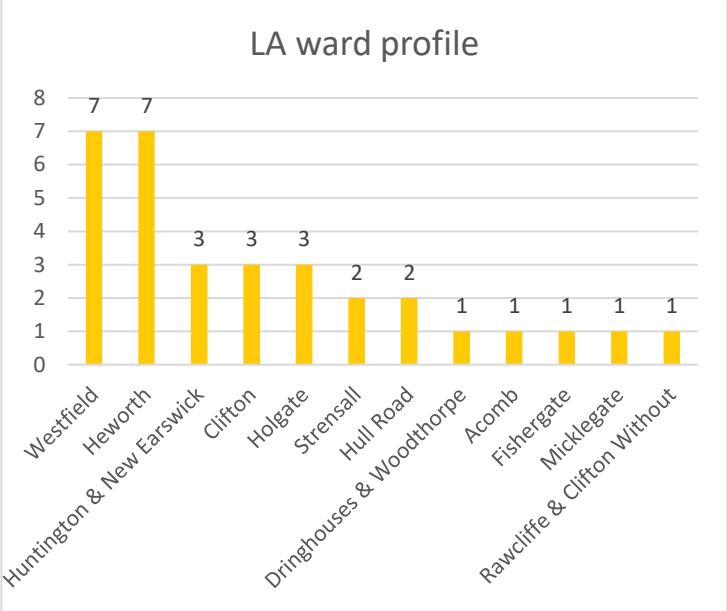




The majority of the entries are female, making up **61%** of the total population, while males represent **39%**

The largest age group is **60-69**, accounting for **35%** of entries, followed by **70-79** (25%) and **80+** (22%).





The most common IMD category is **3**, comprising **29%**, followed closely by **6** (26%).

The most frequently occurring wards are **Westfield** and **Heworth**, each representing **22%** of the total data.

Data from York place SystmOne reporting unit. 29 patients in total from 3 GP practices.

BMI Changes

- **21/29 (72%)** patients maintained their overall BMI.
- **1/29 (3.45%)** patients moved from Obese to Severely Obese.
- **2/29 (6.9%)** patients moved from Obese to Overweight.
- **2/29 (6.9%)** patients moved from Overweight to Obese.
- **1/29 (3.45%)** patients moved from Overweight to Healthy.
- **1/29 (3.45%)** patients moved from Healthy to Overweight.
- **1/29 (3.45%)** patients moved from Underweight to Healthy.
- No patients in the **Severely Obese** category reduced their BMI to a lower risk category.
- No patients in the **Healthy Weight** category increased their risk by moving to the **Underweight** category.

Conclusion: This data suggests that in Year 1, the PSP intervention had little impact on BMI.

Smoking Status

- **7/29 (24.1%)** patients maintained their smoking status (remained an Ex-Smoker or Smoker).
- **7/29 (24.1%)** patients quit smoking and became Ex-Smokers.
- **7/29 (24.1%)** patients previously classified as Ex-Smokers now identify as Smokers.
- **8/29 (27.6%)** patients previously had no smoking status recorded; post-PSP, 100% of patients now have a recorded smoking status.

Conclusion: The PSP intervention had little impact on smoking cessation; however, it may have positively contributed to improved smoking status recording.

GP Events (Pre: 01/12/22-01/05/23, Post: 01/12/23-01/05/24)

GP Event – Any recorded activity at practice. This could include appointments, as well as prescription request and record reviews.

- **17/29 (58.6%)** patients had fewer GP events recorded post-PSP intervention.
- **2/29 (6.9%)** patients had no recorded GP events in both pre- and post-intervention periods.
- **10/29 (34.5%)** patients had more GP events recorded post-PSP intervention.
- **Overall Impact:**
    - **Pre-intervention:** 980 GP events recorded.
    - **Post-intervention:** 914 GP events recorded.
    - **Reduction of 66 GP events (6.73%).**

Emergency Department (ED) Attendance (Pre: 01/12/22-01/05/23, Post: 01/12/23-01/05/24)

- **Prior to PSP: 7/29 (24.1%)** patients had an ED attendance, totalling **11 attendances**.
- **Post-PSP: 4/29 (13.8%)** patients had an ED attendance, totalling **8 attendances**.
- **Overall Reduction:** 3 fewer attendances, representing a **27.27% decrease**.

COVID-19 Vaccination

- **23/29 (79.3%)** patients received a COVID-19 vaccine post-Year 1 of the PSP intervention.

Conclusion: While the majority of patients have been vaccinated, there is room for improvement in vaccination rates.

Summary of Findings

The Year 1 PSP intervention showed minimal impact on BMI and smoking cessation but may have contributed to improved smoking status recording. There was a moderate reduction in GP events and a notable reduction in ED attendances. Additionally, a high percentage of patients received a COVID-19 vaccine, though there remains an opportunity to improve vaccination rates further. Further assessment is recommended to determine long-term effects and potential areas for improvement.

8

Types of referrals and providers

8.1 Surgery referrals through direct tasking

From the commencement of the project, 82 people were provided from the ICB algorithm in year 1. From these original 82 people, 52 people were successfully onboarded and actively engaged in the service across the PCNs.

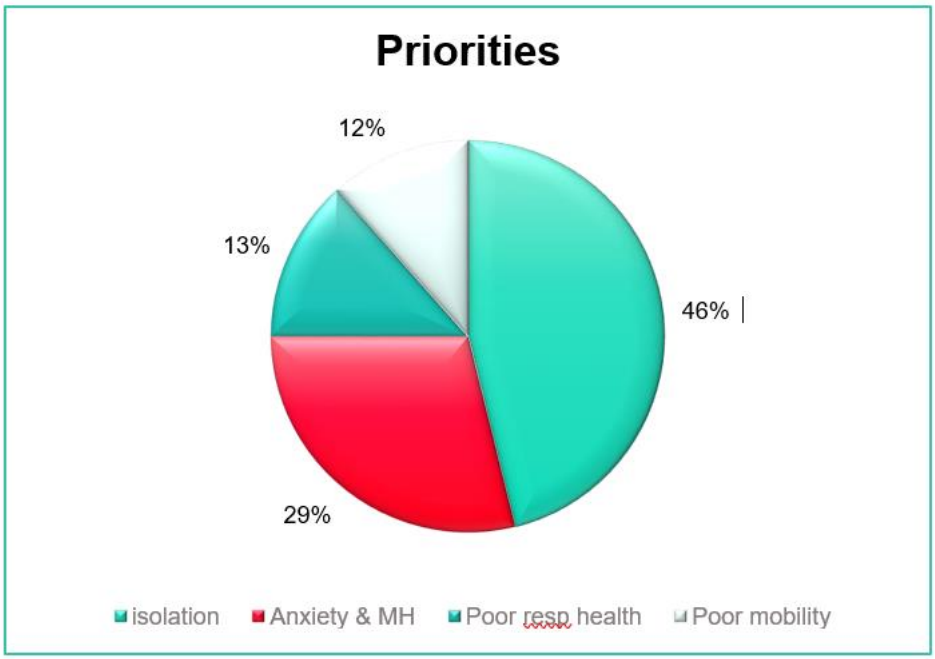
The remaining people did not engage for the following reasons:

- Deceased
- Declined due to having full support in place (FSIP)
- Already had established relationship with another social prescribing Link Worker
- Inappropriate referrals (i.e. no respiratory condition).

During year 1 the PSP made the following referrals via direct tasking on System 1:

Type of referral	**Number**	**%**
Respiratory (COPD) Reviews by Respiratory Nurses	**36**	**43%**
Respiratory Medication Reviews by Nurse	**22**	**26%**
Health Trainer Referrals for smoking cessation, alcohol misuse, and weight reduction	**19**	**23%**
Direct mental health referrals to Mental Health Practitioners (MHP)	**7**	**8%**

Of the 52 people who were engaged the graph shows the priorities identified with the individual before agreeing to personalised plan and referrals



Community referrals

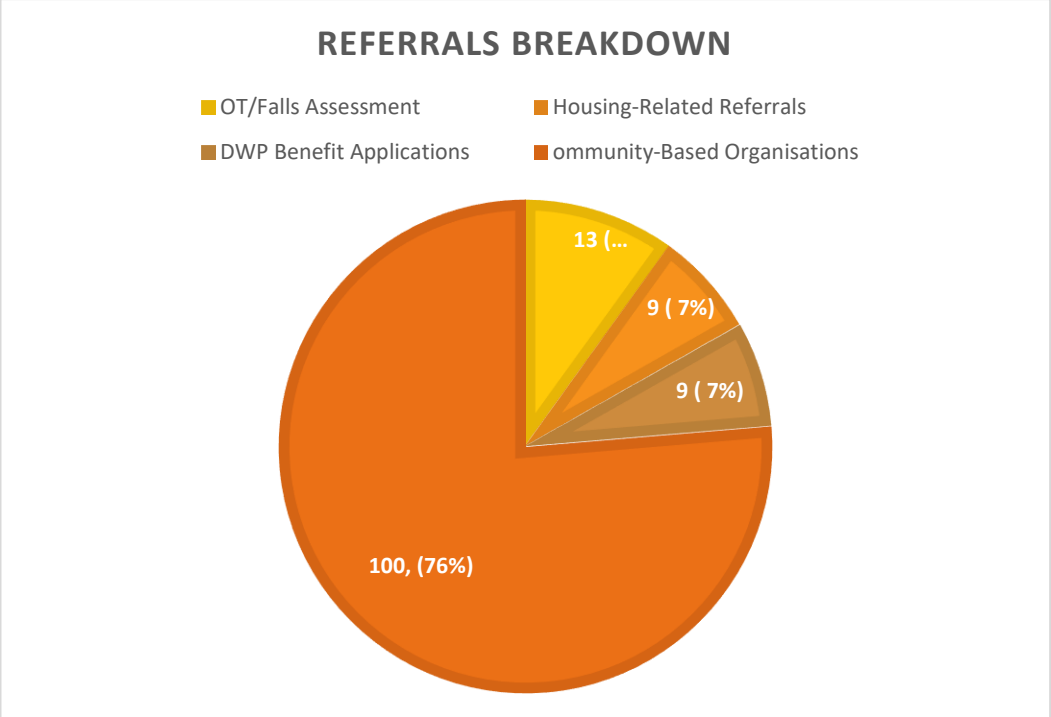
The PSP collaborates with community-based organisations across the health and social care and VCSE sectors, examples include in:

- City of York Council
- York Carers Centre
- York in Recovery
- Changing Lives
- YSJ Converge
- KYRA
- Local Area Coordinators
- Mental Health Recovery Service (30CS)

In year 1 the PSP made the following:

8.2 External supported referrals:

Type of referral	Number	%
Occupational therapist /Falls assessment	13	10%
Housing related referrals (damp, repairs and house moves to more appropriate accommodation)	9	7%
Applications to the DWP for benefits including PIP and Attendance Allowance AA).	9	7%
Community-based organisations across the health, social and VCSE sectors.	100	76%



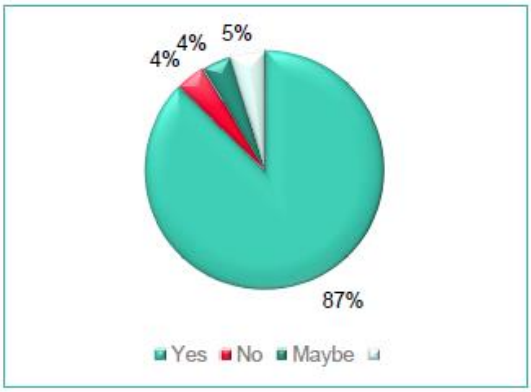
9 Participants Feedback

The following feedback was collected by the end of Year 1 (March 2024).

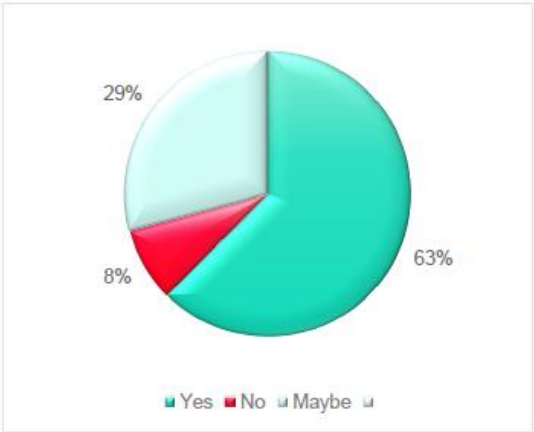
9.1 Questionnaire

Of 24 completed feedback forms following discharge from the PSP, the following results were collected.

Q1. 87% of patients stated the PSP helped them to set goals that were important to them



Q2. 79% of patients felt more in control of their health and wellbeing following support from the PSP.

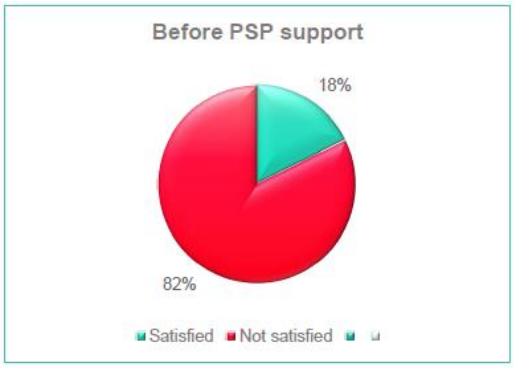


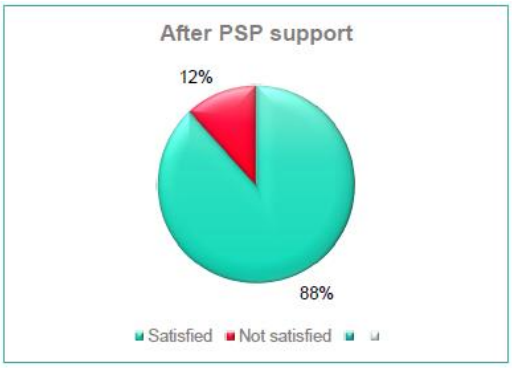
9.2 ONS4 scores

The following ONS4 data was collected from 17 patients prior to working with the PSP and following discharge from PSP support at the end of year 1.

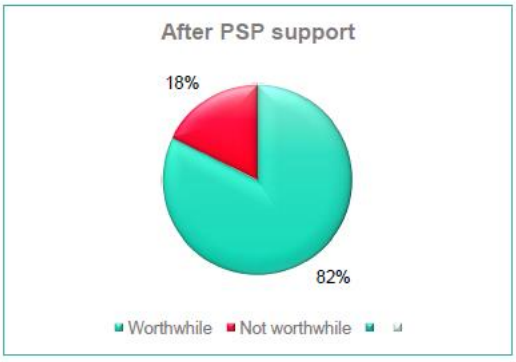
Not satisfied 0 - Satisfied 10
Not worthwhile 0 - Worthwhile 10
Not happy 0 - Very happy 10
Not anxious 0 - Very anxious 10

Patients who reported that overall, they were satisfied with their life:



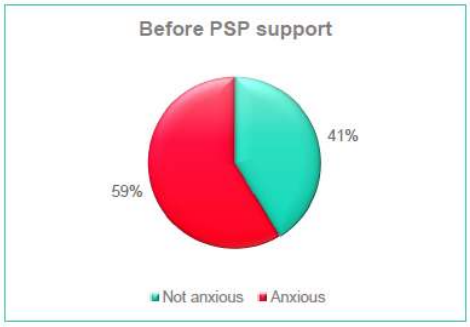


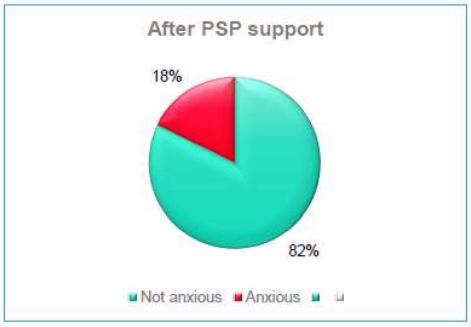
Patients who reported that overall, they felt things they did in their life were worthwhile:



Patients who reported that overall, they did not feel happy yesterday:

Patients who reported that overall, they felt anxious yesterday:





Observation: these are massive changes in ratings of feelings, well-known problems of positivity bias. Positivity bias refers to the tendency for people to evaluate experiences, including health services, more favourably than they may objectively deserve. What is more**,** people may feel obligated to give positive feedback, especially if they perceive a personal connection to the healthcare provider, or out of gratitude for receiving care, regardless of the outcomes. This can be particularly true in smaller or community-based services where patients may feel more personally involved.[11]

However, in this pilot the qualitative data described below do support positive change.

9.3 Qualitative data-case studies

Feedback from participants

Here are the narratives of five patients organised into themes that demonstrate the impact of the PSP on individuals with long-term respiratory conditions, including relevant quotes:

1. Overcoming Isolation and Building Relationships

- **Mr. E (60y)**: After years of isolation due to social anxiety and mental health struggles, Mr. E began to reconnect with his family. His engagement in the PSP allowed him to express, “I feel like I can do the other things too... it’s amazing,” indicating a renewed sense of hope and connection.

- **Mrs. B (60y)**: Initially reluctant to engage, she found comfort in familiar community spaces. She noted, “I don’t feel anxious now, because you asked me where I want to go... I feel confident, excited and I am looking forward to a new chapter beginning,” showcasing how supportive relationships can foster confidence and participation.

[11] **Crow, R., et al. (2002)**. "The measurement of patient satisfaction: A review of methods and their application." *International Journal for Quality in Health Care*

2. Mental Health Support and Holistic Care

- **Mr. E (60y)**: The PSP facilitated connections to mental health support that addressed his PTSD and depression. His statement, "I need a push," reflects his recognition of the support he required to initiate change, illustrating the PSP role in motivating him to seek help.

- **Mrs. J (70y)**: Facing chronic depression and anxiety, Mrs. J received personalised support that addressed both her mental health and housing issues. After the PSP's intervention, she expressed relief and empowerment, indicating the project success in addressing her holistic needs.

3. Practical Support and Health Management

- **Mrs. E (70+)**: She had been struggling with mobility and health issues until the PSP connected her with resources for benefits and a new walker. "He is my little fairy... it has changed my life," she stated, highlighting the practical impacts of the support she received.

- **Mr. J (61y)**: Engaging with the PSP helped him reduce his work hours and smoking, leading to better health outcomes. He shared, "Things have been a lot better since working with Simon (the PSP)…. he's been brilliant," which illustrates the project's effectiveness in managing chronic conditions through practical support

4. Empowerment Through Education and Resources

- **Mrs. E (70+)**: After receiving assistance with benefits applications, she remarked on her newfound financial stability, saying, "I couldn't believe how quick it all happened... it has made such a difference." This highlights the PSP's role in empowering individuals through education and access to resources.

- **Mr. J (61y)**: By participating in the PSP, Mr. J learned about smoking cessation and applied for Personal Independence Payment, which helped improve his financial situation and health. His experience of "significantly improved breathing" demonstrates how informed support can lead to tangible health benefits.

The narratives illustrate the profound impact of the PSP project on individuals with long-term respiratory conditions. Through building relationships, providing holistic mental and physical health support, addressing practical needs, and empowering patients with education. The PSP has shown to facilitate positive change and improve overall well-being that significantly improves the quality of life for individuals managing long-term respiratory conditions. The themes reflect a holistic approach to healthcare, emphasizing the importance of personalised care and the role of social determinants in health outcomes.

9.4 Understanding how change happens

The earlier sections have underscored important statistical information regarding the Social Prescribing Service, emphasizing the various benefits it offers to patients in terms of their health and wellbeing. This prompts the question: how does change occur? What aspects of the service enable these benefits? The most effective way to explore this question is by examining case studies of social prescribing patients and their experiences with the service.

Case Example: Mr. E, early 60s

Mr. E faces significant physical and mental health challenges, including a hernia, chronic alcoholism, COPD, asthma, and early-stage liver and kidney disease. He also struggles daily with mental health issues, having been diagnosed with PTSD, severe anxiety, and depression. For the past five years, he has isolated himself at home due to social anxiety, which has contributed to his depressive symptoms. Despite having several siblings, he has no contact with them and has been out of work for years, leading to substantial debt.

Mr. E describes his typical day as marked by sleeplessness due to coughing, feelings of guilt about his son, worries about debt, and rumination on past trauma. He resorts to drinking shortly after waking up and has become increasingly isolated, engaging only through phone conversations. His alcohol consumption has escalated due to his isolation, and he currently smokes over 40 cigarettes a day and consumes approximately 46 units of alcohol daily. A previous attempt to attend a support group ended tragically when he was stabbed by another member, which further deepened his mistrust in services.

Mr. E expresses a profound sense of hopelessness, stating, "I drink to forget," and fears that he "will be dead in a year because of it." He recognizes that his mental health and drinking have isolated him from his family, exacerbating his problems.

Protective Factors

Despite his challenges, Mr. E has some protective factors that can be leveraged for recovery:

- He is an accomplished musician who enjoyed performing in pubs and clubs.
- He remarried in the early 2000s and has a 14-year-old son with whom he lives.

Supported Referrals

To address his situation, the following referrals were made:

- **StepChange:** To assist with debt management.
- **Health Trainers:** For smoking cessation support.
- **QWELL:** For mental health support.
- **York in Recovery (YIR):** For alcohol-related assistance.
- **Changing Lives:** For comprehensive support.

- **Council Tax Support:** To address financial issues.
- **Respiratory Team:** To manage respiratory health

9.5 Engagement and Support Approach

Initially, Mr. E was reluctant to engage, displaying chaotic behaviour and often missing calls due to alcohol consumption. To build rapport, the social prescriber adjusted his approach by starting conversations about Mr. E's family and interests, which served as motivational factors. Gradually, a positive relationship was established, and Mr. E expressed a desire for change, acknowledging he needed a "push."

A personalised plan was created to address his issues one at a time, prioritising as follows:

- Phone calls scheduled earlier in the day.
- Appointment reminder texts sent the morning of the meeting.
- Safe, familiar locations for in-person meetings.

The plan focused on:

1. Respiratory issues
2. Debt management
3. Alcohol support
4. Mental health assistance
5. Smoking cessation

As Mr. E became more engaged and retained information better, he identified priorities for support, which included a safe, non-judgmental meeting place close to his community.

9.6 Progress and Positive Outcomes

Mr. E agreed to meet for a respiratory and medication review at a local surgery. During this visit, he reported having reduced his alcohol intake that morning and engaged well with the respiratory nurse. The safe space and established rapport encouraged him to consent to a referral to a mental health practitioner.

Following these interventions, Mr. E reported feeling better with the new medication, experiencing less coughing, improved sleep, and increased motivation. Notably, he re-engaged with his son, helping him fix his bike for the first time in over two years, marking a significant step towards rebuilding their relationship.

Mr. E continued to receive support from StepChange, which helped him manage his debt, particularly concerning unpaid council tax. He attended a face-to-face meeting for a review, agreed to a manageable monthly payment plan, and received backdated entitlement for a Severe Mental Impairment (SMI) reduction, significantly alleviating his financial burden.

In ongoing conversations, Mr. E expressed a brighter mood, spoke positively about his interactions with the mental health practitioner, and remained engaged with regular calls from Changing Lives. Together, they planned strategies to support his continued engagement with services.

Mr. E's reflection on his progress was profound: "*Thank you for all of this. I can't believe the difference already. You are right; one thing at a time I can manage. I feel like I can do the other things too; thank you again, it's amazing.*"

This case highlights the importance of personalised support, building trust, and addressing both physical and mental health needs in a holistic manner.

9.7 Case Example: Mrs. J, Age 70

Mrs. J is a 70-year-old woman living alone in social housing provided by CYC. She has multiple long-term health conditions, including angina, osteoarthritis, diverticulitis, chronic kidney disease, and COPD, for which she requires ambulatory and long-term oxygen therapy. In addition to her physical health issues, she has a significant history of mental health challenges, including chronic depression, anxiety, and insomnia.

Initial Challenges

Initial phone calls with Mrs. J were difficult due to her anxiety levels and a lack of confidence in local services, particularly the local authority. For several years, she has lived in social housing plagued by significant damp issues and outstanding repairs, which she believed were exacerbating both her mental and physical health conditions. Despite making numerous calls to address these repair issues, she reported receiving no response. As a result, her son has moved in to support her over the past 18 months.

Personalised Support Plan

After several conversations, a personalised support plan was developed that prioritised her urgent housing issues, along with mental health support and a respiratory review. The plan included:

- Establishing a 2-weekly call schedule on Thursdays to provide structure.
- Engaging in grounding conversations during calls to help alleviate her anxiety and improve her ability to engage effectively.

Collaboration with Local Authority

To address the housing issues, collaboration with the local authority was initiated. A surveyor was arranged to visit and assess the damp problems in her home. Mrs. J also engaged in mental health support and respiratory reviews. After a visit to the surgery, a GP provided a letter detailing the significant damp issue and its negative impact on her physical health, particularly her respiratory condition.

Positive Outcomes

Through successful communication and correspondence with the local authority, an agreement was reached to address the damp problems in Mrs. J's home, with a commencement date set for August. The support team, including a tenant support officer and the caseworker, developed a plan to facilitate Mrs. J's temporary relocation during the necessary repairs.

This case highlights the importance of structured support, proactive communication with service providers, and addressing both physical and mental health needs. By creating a supportive environment and addressing her immediate concerns, Mrs. J was able to gain the assistance she needed to improve her living conditions, ultimately contributing to better mental and physical health outcomes.

10

Cost-Effectiveness

Social prescribing utilizes existing public resources provided by the Voluntary, Community, and Social Enterprise (VCSE) sector, but this can entail hidden costs that are not easily identified. Economic evaluations should consider the entire ecosystem of social prescribing rather than just individual activities like walking groups or swimming, as the focus is on the personalised impact for individuals.

The outcomes of social prescribing are diverse and depend on the specific activities, the individuals involved, and the host organisations. Evaluating cost-effectiveness and social return on investment (SROI) is complex and requires new methodologies beyond traditional health economics, as highlighted by Wildman and Wildman in 2019.[12]

Referrals made:

Referral Type	Number of Referrals	Estimated Savings per Referral (£)	Total Estimated Savings (£)
1. GP visits	29 patients = 66 fewer GP visits	£56	£3,696
2. OT/Falls Assessments	13 (referrals) × 30% (fall risk reduction)	£3,000	11,700
3.Housing-Related Referrals	9 (referrals) × 39% (risk reduction)	£2,000	7,020
4.DWP Benefits Applications (PIP/AA)	9 referrals (assuming 1 patient will avoid care home placement)	£29,000	£29,000
5.Community-Based Referrals	over 100 referrals cost reduction of 27%	£350	£9,450
		Total Estimated Savings	**60,866**

[12] Building the economic case for social prescribing report

1. GP Appointment:

A recent study estimated that in 2022/23:

- the average 10-minute face-to-face GP consultation in the NHS is estimated to cost £56[13]

Impact of Social Prescribing:

There is a growing body of evidence that social prescribing reduces pressure on the NHS by directing people to more appropriate services and groups – an evidence summary published by the University of Westminster suggests that where an individual has support through social prescribing, their GP consultations reduce by an average of 28% and A&E attendances by 24% [14]

Evidence suggests social prescribing can reduce pressure on primary care and save costs, potentially protecting the NHS. Evidence also suggests that people experiencing the highest burden of social determinants of health and inequalities stand to gain the most from social prescribing[15]

For example:

• Statistically significant reductions in visits to GPs were found in one study looking at participants who were referred to the social prescribing service in Shropshire due to their risk of cardiovascular disease. This study reported a reduction in the number of visits to the GP of 0.76 per person over the study period (when comparing a 3-month pre and 3-month post social prescribing intervention period). A retrospective case-matched control group showed no change in number of GP visits.[16]

Cost Calculation Based on £56 per GP Visit:

- Data from York place SystmOne reporting unit. 29 patients in total from 3 GP practices.
    - **Pre-intervention:** 980 GP events recorded.
    - **Post-intervention:** 914 GP events recorded.
    - **Reduction of 66 GP events (6.73%).**

[13] https://www.kingsfund.org.uk/
[14] https://www.gov.uk/government/publications/
[15] https://socialprescribingacademy.org.uk/media/wemjbqtw/building-the-economic-case-for-social-prescribing-report.pdf
[16] The economic impact of social prescribing.

Cost Savings Calculation:

- With the GP appointment cost of £56:
- **66 fewer GP visits × £56 per visit = £3,696 saved per year**.

2. OT/Falls Assessments

Falls in older adults are a significant burden on healthcare costs. According to NHS estimates:

- One in three people aged over 65, and half of those aged over 80, fall at least once a year. Falls cost the NHS more than £2 billion per year. With the number of people aged 65 and over predicted to increase by 2 million by 2021, these costs are set to rise further.[17]

In relation to falls that happen in people's homes, the UK Government found that unaddressed fall hazards are estimated to cost the NHS £435 million each year, which is an incredibly significant amount for something that can typically be resolved very simply.[18]

Falls in older people are common and can have serious consequences. Approximately:[19]

- 30% of people over the age of 65 years living in the community will have a fall each year.
- Around 85% of falls occur in the home.
- One-fifth of all falls are serious and require medical attention with 5% leading to a fracture.
- Fall-related fractures are a serious cause of morbidity and cost to society.

There is reasonable evidence to suggest OT delivered home hazard assessment and modification can lead to a reduction in falls:

- **Cost of a fall requiring medical attention** The King's Fund published the results of a study of the system-wide costs associated with falls in older people (Torbay) in 2013. The study found that total costs associated with a fall itself were averaged at **£2850**[20]

[17] https://www.kingsfund.org.uk/insight-and-analysis/reports/system-wide-costs-falls-older-people-torbay#:~:text=Falls%20cost%20the%20NHS%20more,are%20set%20to%20rise%20further.
[18] https://www.felgains.com/blog/how-much-do-falls-cost-the-nhs/
[19] https://bmjopen.bmj.com/content/bmjopen/8/9/e022488.full.pdf
[20] https://www.somersetintelligence.org.uk/files/Falls%20Health%20Needs%20Assessment.pdf

- Proactive **falls prevention interventions** (e.g., OT assessments and adjustments) can reduce fall rates by approximately 30%.[21]
- The efficacy of environmental interventions in falls prevention was the subject of a systematic review by Clemson et al (2008). This review focused on people aged 65 years and over living in the community, with an analysis of six trials that provided home environmental interventions as a single intervention (n=3,298). Analysis identified there was a significant reduction in the risk of falls (21%) across all studies, with a greater reduction (39%) where the population was at high risk of falls.
- Home safety interventions appear to be more effective when delivered by an occupational therapist.[22]

With an average cost of **£252 just for an ambulance to attend** a call-out, the costs very quickly add up, especially if the faller has been waiting for a long time for the ambulance and needs to be admitted to hospital as a result.[23]

Cost Savings Calculation:
- **Number of referrals:** 13
- **Assumed reduction in falls risk:** 30% reduction.
- **Estimated savings per fall prevented:** Assume £3,000 average saving per fall.

Total savings = 13 (referrals) × 0.30 (fall risk reduction) × £3,000 = **£11,700**

3. Housing-Related Referrals

Poor housing conditions (e.g., damp, cold homes, poor ventilation) are known to exacerbate respiratory conditions such as COPD and asthma, leading to increased hospitalisations. Improvements in housing can lead to reductions in health service utilisation.

Research suggests:

- **Poor housing conditions** contribute an estimated **£1.4 billion** annually to NHS costs.[24]

[21] https://socialprescribingacademy.org.uk

[22] https://www.cochranelibrary.com/cdsr/

[23] https://www.felgains.com/blog/how-much-do-falls-cost-the-nhs/

24 Health inequalities: Cold or damp homes

- Proactive interventions (like those related to damp and repairs) can reduce hospital admissions, particularly for respiratory conditions, by around 39%.[25]

Hospital admissions due to asthma range from **£1516 to £2473 per night**[26] **(**with an average cost of approximately **£2000**)

Cost Savings Calculation:

- **Number of housing referrals:** 9
- **Assumed savings per case addressed:** Estimate £2,000 per patient (based on reduced hospital admissions due to respiratory illness).
- **Risk reduction estimate:** 39% reduction in hospitalisations due to respiratory triggers.

Total savings = 9 (referrals) × 0.39 (risk reduction) × £2000 = **£7,020**

4.DWP Benefits Applications (PIP and Attendance Allowance)

Helping individuals access disability-related benefits like PIP and Attendance Allowance provides financial support, which indirectly impacts healthcare. Access to benefits allows patients to afford care, nutrition, heating, and necessary home adjustments, potentially reducing pressure on the NHS.

Research shows that low-cost home modifications can lead to a 26% reduction in falls that need medical treatment and savings of £500 million each year to the NHS and social care services in the UK. Adapting homes could also offset the need for residential care for many, the average Disabled Facilities Grant (used to adapt homes) is £7,000 (one-off payment) compared to the average residential care cost per person of £29,000 per year [27].

While direct savings to the NHS are harder to quantify, it is estimated that:

- **Attendance Allowance** helps people stay in their homes longer, reducing hospital admissions and care home placements.

[25] https://phwwhocc.co.uk/wp-content/uploads/2020/07/PHW-Making-a-Difference-Housing-and-Health-A-Case-for-Investment.pdf
[26] https://www.england.nhs.uk/ourwork/prevention/secondary-prevention/respiratory-high-impact-interventions/

[27] Room to improve The role of home adaptations in improving later life

- Estimates suggest that **preventing care home admission** saves approximately **£29,000 per person per year**.

For this calculation, assume that 1 out of the 9 patients benefits significantly from this and avoids care home admission.

Cost Savings Calculation: Total savings = **£29,000** (for 1 patient avoiding care home placement).

5. Community-Based Referrals

Community-based organisations provide non-medical support, such as mental health services, social isolation interventions, and lifestyle change programmes. These can reduce hospitalisations, improve mental health, and enhance chronic disease management, leading to NHS cost savings.

Social prescribing, which involves referring patients to community-based services to address non-medical needs, has shown potential in reducing healthcare costs. While specific savings can vary based on the programme and population, several studies provide insights into the economic impact of such interventions[28]:

- **Calderdale Study**: An evaluation in Calderdale reported an average reduction of £350 in hospital costs per patient per year following social prescribing interventions. Patients who had been receiving social prescribing for over a year had average annual costs of £861, compared to £1,211 for those just starting, indicating cost savings associated with sustained engagement.

- **Newcastle's 'Ways to Wellness' Initiative**: This programme observed a 9.4% reduction in secondary care costs compared to a matched control group. For patients actively engaging with social prescribing, the cost reduction was estimated to be as high as 27% per individual.

Potential Cost Savings Calculation:

- **Number of community-based referrals:** 100
- **Assumed savings per referral:** Estimate £350 per patient based on Calderdale Study and Newcastle initiative cost reduction of 27%

Total savings = 100 (referrals) × £350 x 0.27= **£9,450**

[28] Social Prescribing Academy-The impact of social prescribing

Surgery referrals through direct tasking

Estimated savings for the healthcare referrals made through the PSP project based on average NHS cost savings for below interventions:

Referral Type	Number of Referrals	Estimated Savings per Referral (£)	Total Estimated Savings (£)
1.Respiratory (COPD) Reviews by Respiratory Nurses	36 (referrals) x 5% (risk reduction)	£1,500	**£2,700**
2. Referrals for meds reviews made by the nurses, following the respiratory review	22	£250	**£5,500**
3.Health Trainer Referrals for smoking cessation, alcohol misuse, and weight reduction	19 (referrals) x 40% (risk reduction)	£1,000	**£7,600**
4.Direct mental health referrals to Mental Health Practitioners (MHP)	7 referrals	£304	**£2,128**
		Total savings	**£17,928**

1.Respiratory (COPD) Reviews by Respiratory Nurses

Regular COPD reviews conducted by respiratory nurses can lead to significant cost savings for the NHS by preventing exacerbations, reducing hospital admissions, and improving disease management. While precise figures may vary depending on the healthcare setting and patient population, several studies provide insights into the potential savings:

Hospital Admission Costs: The average cost of a hospital admission for a COPD exacerbation is estimated to be around £1,500 per patient. By preventing such admissions through regular reviews and proactive management, these costs can be avoided. Conducting yearly reviews and complying with NICE guidance is estimated to reduce hospital admissions by 5%. [29]

[29] Management of COPD in primary care: an audit of NICE guidance and cost effectiveness

- **Number of referrals:** 36
- **Risk reduction estimate:** 5%

Estimated savings per COPD review: £1,500 per patient (due to prevention of exacerbations, reduced hospital admissions, and improved disease management).

Total savings = 36 referrals × 0.05 x £1,500 = £2,700

2. Respiratory Medication Reviews

Medication reviews, particularly those conducted by nurses or other healthcare professionals, are a key strategy in improving medication management, preventing medication errors, and enhancing disease outcomes, especially for chronic conditions such as asthma, COPD, and diabetes. Respiratory medication reviews have been shown to improve patient outcomes and generate cost savings for healthcare systems. While specific savings per review can vary, studies provide insights into the potential financial benefits:

- **Pharmacist-Led Respiratory Clinics**: A study published in *The Pharmaceutical Journal* reported that pharmacist-led asthma and COPD clinics in general practice resulted in annual drug cost savings of £75,000. Additionally, exacerbations were significantly reduced from 1.7 to 0.36 per year in asthma patients and from 3.0 to 0.19 per year in COPD patients, with no admissions or accident and emergency department attendances[30].

While exact savings per respiratory medication review can vary depending on the healthcare setting and patient population, it is reasonable to estimate that each review could save approximately £250.

- **Number of referrals:** 22
- **Estimated savings per medication review:** £250 per review (due to optimised medication use, reduced adverse drug events, and prevention of exacerbations).

Total savings = 22 referrals × £250 = £5,5000

3.Health Trainer Referrals

Health trainer interventions focusing on smoking cessation, alcohol misuse, and weight reduction can lead to significant cost savings for the NHS, particularly for

[30] Impact of a pharmacist-led asthma and COPD respiratory clinic in general practice

patients with chronic respiratory conditions like Chronic Obstructive Pulmonary Disease (COPD).

Smoking Cessation is a primary cause of COPD, and cessation is crucial in managing the disease. Evidence suggests that assisting patients with COPD in quitting smoking can reduce emergency admissions by 40%, with an average cost saving of £1,576 per admission. [31]

Considering the substantial costs associated with hospital admissions for COPD exacerbations and the effectiveness of health trainer interventions in mitigating risk factors, an estimated average saving of £1,000 per patient is a reasonable approximation.

Calculation for 19 Referrals

- **Number of Referrals**: 19
- **Estimated Savings per Intervention**: £1,000
- **Assumed reduction:** 40% reduction.

Total Estimated Savings: 19 × £1,000 x 0.40 (reduction) = **£7,600**

4.Direct mental health referrals to Mental Health Practitioners (MHP)

Proactive social prescribing, particularly direct referrals to Mental Health Practitioners for patients with COPD, can lead to significant cost savings for the NHS. Addressing mental health issues in COPD patients is crucial, as comorbid mental health conditions can exacerbate physical health problems, leading to increased healthcare utilisation and costs.

While specific savings per patient can vary, integrating mental health support into COPD care has demonstrated cost-effectiveness:

Reduction in Hospital Admissions: Treating anxiety in COPD patients has been shown to reduce hospital visits. For instance, a study by Newcastle Hospitals NHS Foundation Trust found that addressing anxiety in COPD patients led to fewer hospital visits, indicating potential cost savings[32].

Overall Healthcare Cost Reduction: Comorbid mental health problems in patients with long-term conditions like COPD can increase healthcare costs by 45–75%.

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31 Chronic Obstructive Pulmonary Disease

32 https://careers.nuth.nhs.uk/news-and-events/news/treating-copd-patients-anxiety-reduces-visits-hospital?

Addressing these mental health issues can mitigate additional costs, leading to significant savings.[33]

Cost of Mental Health Services: The total value of mental health services in the financial year 2018/19 was £7.5 billion, with an average cost per patient assessed at £304 for initial assessments and £19 per cluster day for ongoing care.[34]

Calculation for 7 Referrals

- **Number of Referrals**: 7
- **Estimated Savings per Patient**: £304 for initial assessment.

Total Estimated Savings: 7 × £304 = £2128

Cost-Effectiveness Ratio for PSP Project

An estimated total saving from the 1st year:

Surgery referrals through direct tasking	**£17,928**
External supported referrals	**£60,866**
Total savings	**£78,794**

Funding for the project: **£ 89,214 (over 2 years) = £44,607 per year**

These savings highlight the potential of proactive social prescribing interventions to significantly reduce NHS costs by addressing both clinical and non-clinical needs, improving patient outcomes, and decreasing healthcare utilisation.

Data:

- **Estimated Total Savings from 1st Year**: £78,794
  (This includes savings from surgery referrals and external supported referrals)
- **Funding for the Project (Per Year)**: £44,607
  (This is calculated as the total 2-year funding of £89,214 divided by 2)

[33] Long-term conditions and mental health The cost of co-morbidities
[34] National Cost Collection 2019

Cost-Effectiveness Ratio Formula:

$$\text{Cost-Effectiveness Ratio} = \frac{\text{£78,794 (estimated saving from year one)}}{\text{£44,607 (funding per year)}} = 1{,}76$$

The cost-effectiveness ratio is **1,76**, meaning that for every **£1** invested in the PSP project, the NHS saves approximately **£1,76**. This demonstrates a positive return on investment for the project.

Net Benefit Calculation

Net Benefit = £78,794 (Estimated Savings) − £44,607 (Total Funding per year) = £34,187

The net benefit of the programme is **£34,187** meaning that the savings generated exceed the programme's costs by this amount.

Summary of Cost-Benefit Analysis:

- **Total Cost:** ££44,607
- **Estimated Savings:** £78,794
- **Net Benefit:** £34,187
- **Benefit-Cost Ratio:** 1.76

The evidence demonstrated a favourable social return on investment (SROI) in most cases where a range of outcomes and costs were considered. Evaluations of social prescribing consistently found positive outcomes, across a range of methodologies. SROI values in the included studies ranged from 1:1.09 to 1:8.56. For example, [35]:

- One study used a pre-post analysis of over 10,000 users of a national social prescribing service over 30 months up to December 2019. The final net value of the service incorporated the subjective wellbeing value with missed healthcare appointments, volunteer wellbeing, and service delivery costs. The SROI was valued at £3.42 per £1 invested, with an investment of £4.7m leading to outcomes worth £11.5m.
- Simpler return on investment (ROI) studies that do not take into account the wider social impact of social prescribing has a wide range of results, but with smaller returns than SROI studies, ranging from 1:1.011 to 1:1.43

[35] https://socialprescribingacademy.org.uk/media/bnjcszbz/nasp-briefing-economic-

11 Conclusions

The PSP initiative has shown promise in addressing the needs of individuals, particularly those with respiratory conditions, who are vulnerable due to socio-economic pressures such as the cost-of-living crisis and cold homes. The key aim of PSP is to reduce the risk of hospital admissions, improve disease management, and enhance the overall quality of life for participants.

Key findings from Year 1 of the initiative indicate that while the programme has not made a significant impact on certain health metrics like BMI or smoking cessation, it has led to reductions in GP events and emergency department (ED) attendances. Specifically, there was a 6.73% reduction in GP events and a 27.27% decrease in ED attendances. Additionally, the majority of participants reported improvements in their health and well-being, with many feeling more in control of their health after engaging with the programme.

The cost-effectiveness analysis has demonstrated a positive return on investment, with an estimated saving of £78,794 in Year 1 from reduced GP visits, falls prevention, housing-related referrals, and other community-based services. The programme's net benefit is calculated at £34,187, indicating that the savings generated by the initiative outweigh the costs of delivery.

Future Recommendations:

Enhanced Stakeholder Engagement: Given the challenges with obtaining formal feedback from healthcare professionals, it is recommended that PSP increase collaboration with GP surgeries and other stakeholders.

Expansion of Support Services: Expanding the range of services available through referrals, particularly in mental health support, housing improvements, and financial assistance, would provide more holistic support for participants.

By addressing these areas, the PSP initiative can continue to enhance its impact on vulnerable populations, improve health outcomes, and contribute to the sustainability of the NHS.