



SP-EU

**Social Prescribing to promote and improve access to health and care services
for people in vulnerable situations in Europe**
Horizon Europe – 101155873

D13.1 – Theory of Change Model

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Abbreviations

BUW	Bergische Universität Wuppertal
CCA	Cost-consequence analysis
CFIR	Consolidated Framework for Implementation Research
CMOC	Context-mechanism-outcome configuration
GA	General Assembly
HADEA	European Health and Digital Executive Agency
KPI	Key Performance Indicator
LGBTIQ+	Lesbian, Gay, Bisexual, Trans, Inter, Queer, and others
LW	Link Worker
MRC	Medical Research Council
PT-I	Programme theory for social prescribing as an intervention
PT-Impl	Programme theory for social prescribing as implemented
QALY	Quality-adjusted life year
RAMESES	Realist And Meta-narrative Evidence Syntheses: Evolving Standards
RCCP	Realist Comparative Causal Pathway
REE	Realist Economic Evaluation
REEM	Realist Economic Evaluation Methods
SP	Social Prescribing
ToC	Theory of Change
WP	Work Package

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Executive Summary

SP-EU is a Horizon Europe project that evaluates social prescribing as a way to improve access to health and care for people in vulnerable situations. Within the project Social prescribing is understood as a pathway in which a family doctor connects a patient who has social rather than purely medical needs with community-based support through a link worker. Work Package 13 of the project (the Health Economics Assessment), led by Bergische Universität Wuppertal, carries out the economic evaluation.

Social prescribing is a complex intervention whose effects depend heavily on context. Its economic results are therefore expected to vary from one setting to another rather than to show a single, uniform effect. Such results cannot be read from a simple verdict on whether the intervention "worked". They need a frame that explains the variation. The purpose of the work reported here was to develop a Theory of Change to provide that frame, that is, an account of for whom, under which conditions, and through which mechanisms social prescribing produces its effects.

The Theory of Change was developed through a realist synthesis of the existing evidence on social prescribing. A realist approach asks not only whether an intervention works, but how, for whom, and under which conditions. The Theory of Change was refined across three steps. The first was an initial version discussed with project partners in February 2026. The second was a revised version, prepared for a dedicated workshop, which reworked the first through a focused analysis of the evidence and recast it from a linear logic model into a configurational pathway model. The third was a final version that integrated partners' input from that workshop in May 2026.

The final Theory of Change is a conditional account of how social prescribing produces change. A person with complex psychosocial needs is referred to a link worker, and the work proceeds through four steps that are the same for everyone: trust forms, needs are identified together, the person is connected to an offer that fits, and the link worker provides sustained accompaniment. After this, the pathway branches into two trajectories. In Trajectory A, the person builds their own capacity and the relationship ends well. In Trajectory B, the relationship does not end. Trajectory B is further distinguished into two forms. B1 is a temporary, readiness-activating phase that can lead back towards Trajectory A. B2 is a situation in which the person remains dependent only because there is nowhere else to go. Which trajectory predominates is shaped by four conditions, by the person's own readiness, by a band of wider system conditions, and by two self-reinforcing feedback loops. The four conditions are whether next-step services exist, whether the link worker is supported and equipped, whether the programme is designed to reach those who need it most, and what the system measures the link worker on. The wider system conditions are funding stability, commissioning culture, policy mandate, and the state of specialist services. The central claim is that the same competent practice can produce opposite outcomes when the conditions differ. This reframes the evaluation question from "did social prescribing work?" to "under which conditions did which trajectory predominate, and what does that imply for scaling, financing and commissioning?"

Therewith, the Theory of Change is a working hypothesis, grounded in the synthesis of the literature and tested against the experience of practitioners at the workshop. For the purposes of Work Package 13 it provides the interpretive instrument the economic evaluation requires. It feeds the cost-consequence analysis (T13.3), where it allows cost and outcome patterns that look alike to be told apart, such as a genuine reduction of need as against an apparent one where unmet need has shifted onto the link worker. In addition it will inform the sustainable financing framework (T13.4), which sets out to establish for whom and through which mechanisms the intervention is efficient. Finally the Theory of Change will also foster general recommendations for supporting implementation (T13.2).

1. Introduction

SP-EU is a Horizon Europe project funded under the call *Access to health and care services for people in vulnerable situations* (HORIZON-HLTH-2024-CARE-04-04). It evaluates social prescribing (SP) as a way to improve access to health and care for people in vulnerable situations. Within the project, social prescribing is understood as a pathway in which a family doctor connects a patient whose needs are social rather than purely medical with community-based support through a link worker (LW). The groups the project focuses on include LGBTIQ persons, refugees and first-generation immigrants, and older adults living alone. Within the project, the economic evaluation is the responsibility of Work Package 13 (WP13), the Health Economics Assessment, led by Bergische Universität Wuppertal (BUW).

Social prescribing is a complex intervention, and its effects depend heavily on the context in which it is delivered. The same way of working can produce different results for different people in different places. As a result, the health economic findings from the trial are expected to be heterogeneous, that is, to vary across contexts, rather than to point to a single, uniform effect. Figures on costs and outcomes therefore cannot be read off a simple verdict on whether social prescribing "worked". They need a frame that explains the variation.

The aim of the Theory of Change (ToC) developed in this work is to provide that frame. It is intended to support the later interpretation of the health economic results, in particular the heterogeneity that the many different contexts of social prescribing lead one to expect. It does this by setting out for whom, under which conditions, and through which mechanisms the intervention produces its effects. This report documents that Theory of Change, the method used to develop it, and the result.

The Theory of Change was developed through a realist synthesis of the existing evidence on social prescribing. It was refined across three steps: an initial version discussed with project partners in February 2026, a revised pathway model prepared for a dedicated workshop, and a final version that integrated the partners' input from that workshop. The remainder of the report is structured accordingly. Section 2 sets out the conceptual grounding for using a Theory of Change rather than a linear logic model and explains the role of the ToC within WP13 as well as its connection to the realist economic-evaluation framework that the economic work follows. Section 3 sets out the objectives and tasks of WP13 and locates the ToC within them. Section 4 describes the method and the three-step development process. Section 5 presents the results, ending with the final post-workshop ToC. Section 6 draws out what the ToC contributes to interpreting the Health Economics Assessment results and the planned next steps.

2. Theoretical framework

2.1 Logic models, Theory of Change and their potential for evaluating complex interventions and implementation

Social prescribing is a *complex intervention*. By this we mean an intervention made up of several interacting parts, whose effects depend heavily on the setting in which it is delivered, and which produces its effects along long and sometimes indirect causal chains (Skivington et al., 2021; Craig et al., 2008). For interventions of this kind, knowing whether an effect occurred is necessary but not sufficient. Decision-makers also need to understand how the effect is produced, for whom, under which conditions, and through which mechanisms (Moore et al., 2015; Rogers, 2008). This is what

motivates the use of an explicit *programme theory*, a stated account of how and why a programme is expected to bring about change, alongside the measurement of outcomes.

The simplest such account is a logic model. A logic model represents a programme as a sequence that runs from the inputs it requires, through its activities and outputs, to its short-term, intermediate and longer-term outcomes. It is genuinely useful for clarifying what a programme does and for building a shared understanding among the people involved. It is also the form in which much UK and international evaluation guidance recommends setting out a programme's logic (HM Treasury, 2020; W.K. Kellogg Foundation, 2004). Its limitation is a consequence of its linear shape. By laying the programme out as a straight line from inputs to impact, it tends to leave the underlying causal assumptions implicit, and to under-specify the contexts and mechanisms on which the outcomes actually depend (Funnell & Rogers, 2011).

A Theory of Change extends the logic model. Rather than only listing what a programme does in sequence, it makes the causal pathways, the preconditions, and the assumptions explicit. It sets out not only what a programme does but why change is expected to follow from it (Weiss & Connell, 1995; Vogel, 2012). In health research specifically, De Silva et al. (2014) proposed the Theory of Change as a way to strengthen the Medical Research Council's widely used framework for developing and evaluating complex interventions. It does so because it brings the assumptions and intermediate steps of a complex intervention into view where a linear model leaves them unstated.

Even so, a Theory of Change written in general terms can still under-theorise the two things that most determine outcomes in a complex intervention: mechanism and context. This is the gap that realist approaches address. *Realist evaluation* treats an outcome as the product of a mechanism that is triggered in a particular context, rather than as a direct effect of the intervention itself. It expresses this as a context-mechanism-outcome configuration, a statement that, in a given context, a particular mechanism produces a particular outcome, and it orients the whole analysis to the question of what works, for whom, in what circumstances, and how (Pawson & Tilley, 1997; Wong et al., 2016).

On the implementation side, the Consolidated Framework for Implementation Research (CFIR) provides a complementary set of conditions (Damschroder et al., 2009, 2022). CFIR is a widely used account of the organisational and system conditions that help or hinder putting an intervention into practice. A Theory of Change built on these foundations, and expressed in configurational form rather than as a single straight line, therefore offers more interpretive purchase on a context-sensitive intervention than a linear logic model can.

2.2 The role of the Theory of Change in SP-EU

WP13's Health Economics Assessment sets out to measure the costs and outcomes of social prescribing. It does so through two pieces of work: a cost-consequence analysis of the trial results (Task 13.3), which reports the full range of costs and outcomes side by side rather than as a single summary figure, and a sustainable financing framework (Task 13.4). On their own, however, cost and outcome figures do not interpret themselves. Social prescribing is a complex intervention whose effects depend heavily on context. As Section 2.1 sets out, the same competent practice can lead to very different results in different circumstances. A figure showing, for instance, fewer family-doctor visits, or a particular change in quality of life, can therefore mean more than one thing. Reading such results well

requires more than a verdict on whether the intervention "worked". It requires an account of for whom, under which conditions, and through which mechanisms the results came about.

The Theory of Change provides that account and forms the interpretive foundation for the Health Economics Assessment. It reframes the evaluation question from "did social prescribing work?" to "for whom, under which conditions, through which mechanisms, and at what cost?" In practical terms, the ToC will be used to interpret economic and outcome patterns in relation to observable trial and process data. For example, a reduction in health or social care use will not be interpreted in isolation. It will be considered alongside indicators of participant readiness, engagement with the link worker, uptake of community or voluntary-sector support, changes in wellbeing, loneliness or self-management, and the local availability and accessibility of suitable community assets. Where reduced service use is accompanied by improved outcomes and evidence of sustained engagement, this pattern is more consistent with a genuine capacity-building trajectory. Where reduced service use occurs without corresponding improvements, or in settings with weak referral pathways, limited community provision or low participant readiness, the same cost pattern may instead indicate unmet need becoming less visible. The ToC therefore provides the analytic bridge between the trial data, the process evaluation and the economic assessment: it does not mechanically assign participants or sites to trajectories, but it specifies the contextual and behavioural signatures that will guide interpretation of apparently similar cost and outcome patterns. This is why the ToC is developed first, as the foundational task of the work package, and then used to structure the interpretation of the cost-consequence analysis rather than treating economic outcomes as self-explanatory.

Developing the ToC in this way aligns WP13's economic work with an established framework for realist economic evaluation (REE), set out in the REEM guidance (Realist Economic Evaluation Methods; Dalkin et al., 2024). This framework builds economic evaluation on realist programme theory and asks, comparatively, what works for whom, in which circumstances, and with what costs and benefits. Within it, the stage at which a realist "theory of change" for the intervention is developed is Stage 2 (*Identify and Theorise*), and the ToC corresponds to this stage. The framework places several steps after it. These are bringing the intervention together with a comparator to build realist comparative causal pathways (RCCPs), expanding the mapping of where resources are used and where consequences arise, and the subsequent economic calibration and testing. They are downstream steps that the ToC makes possible but does not itself carry out. Because the SP-EU trial is already designed, this is a retrospective application: the ToC brings realist logic to an existing trial rather than shaping its design from the outset.

3. Objectives and tasks of WP13

Work Package 13 (WP13), *Health Economics Assessment*, is led by Bergische Universität Wuppertal (BUW). Its objective is to assess the health economic impacts of social prescribing for people in vulnerable situations. Within the wider SP-EU project, WP13 contributes to Objective 2 (KPI2.6) and Objective 4 (KPI4.4). In practice, "assessing the health economic impacts" means examining not only what the intervention costs and what outcomes follow, but how those costs and outcomes relate to one another across different settings and groups. That is the question the rest of this report addresses.

WP13 is organised into four tasks that run in sequence across the project timeline (see figure 1):

The first, **T13.1: Develop a theory of change** (months 5 to 18), produces a Theory of Change (ToC), a structured account of how and why social prescribing is expected to lead to change. This is the foundational task of the work package and the subject of the present report.

The second, **T13.2: Support implementation** (months 13 to 39), supports the partners who deliver the intervention at the trial sites. Alongside this delivery support, the task enables the detailed documentation of implementation costs that the later economic analysis draws on.

The third, **T13.3: Conduct health economic analysis of trial results** (months 40 to 50), carries out the economic analysis proper. It uses a cost-consequence analysis (CCA). This approach reports the full range of costs and outcomes side by side, rather than collapsing them into a single summary ratio. The analysis covers the costs of providing and running the intervention, the implementation costs, and resource use both inside and outside the health-care sector, set against the trial's measured outcomes.

The fourth, **T13.4: Develop a sustainable financing framework** (months 47 to 60), draws on realist methodology to set out the overall picture of how the intervention was implemented, at what cost, under which contextual conditions, for whom it was efficient, and through which mechanisms. This includes how benefits and costs are distributed across the different stakeholders involved.

These tasks are connected. The results of T13.1 directly inform T13.2, T13.3 and T13.4. The ToC is therefore not a free-standing deliverable but the starting point of the work package, built first and then carried forward into implementation support, the economic analysis, and the financing framework. This places the ToC at the head of WP13. It is developed earliest, and it sits upstream of every subsequent task. Its function within the work package is interpretive. It provides the frame through which the cost and outcome results of T13.3, and the financing framework of T13.4, can be read in terms of *for whom*, *under which conditions*, and *through which mechanisms* social prescribing produces its effects, rather than only whether the intervention worked overall.

WP13 task timeline

Health Economics Assessment, months 1 to 60. T13.1 produces the Theory of Change, which feeds the three later tasks.

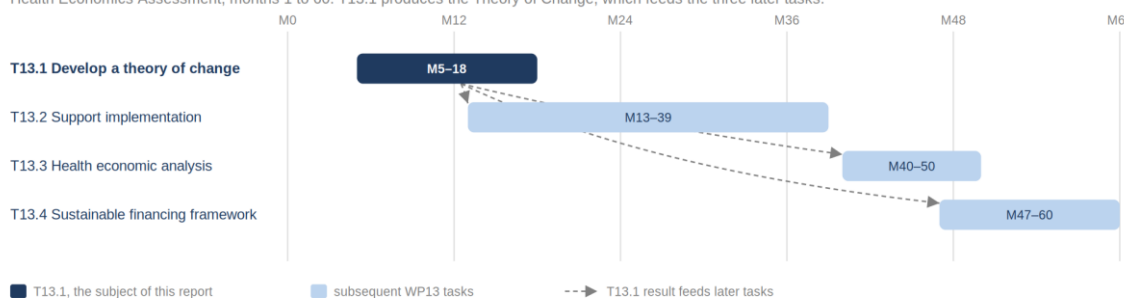


Figure 1: WP13 task timeline

4. Methods

This section describes the realist synthesis approach used as a basis to develop the Theory of Change (ToC). It also describes the transparent, three-step process through which the ToC was derived from the realist synthesis and refined. The full audit trail of the realist synthesis, including the development, refinement and linking of programme theories, is documented in the study's separate analytic documentation.

4.1 The synthesis method in brief

The ToC was developed through a realist synthesis of the existing evidence on social prescribing (Pawson & Tilley, 1997; Wong et al., 2013). A *realist* approach asks not simply whether an intervention works, but how it works, for whom, and under which conditions. Its central idea is that outcomes are not produced by an intervention directly. They are produced by the way people respond to what the intervention offers them in a given setting. The same programme can therefore produce different results in different circumstances. The basic unit of analysis is the context-mechanism-outcome configuration (CMOC). This is a short causal proposition stating that, in a particular context, a particular mechanism produces a particular outcome. Following established realist work (Dalkin et al., 2015), the "mechanism" is understood in two parts. The first is the resource the programme makes available, for example a link worker's time, or access to a community activity. The second is the response that resource triggers in the people involved, for example feeling listened to, or gaining the confidence to attend. This distinction matters for the economic work that follows, because the resource side is where costs arise, while the response side leads to the outcomes that the economic analysis values.

The synthesis was organised around two linked programme theories, which provide structured accounts of how change is expected to occur. The first, the programme theory for social prescribing as an intervention (PT-I), explains how the intervention produces outcomes for participants. The second, the programme theory for social prescribing as implemented (PT-Impl), explains how the surrounding implementation context enables, constrains or reshapes delivery. This context includes the organisations, workforce, funding and referral arrangements. This side of the synthesis was organised using the implementation-science framework CFIR (Damschroder et al., 2009, 2022). The two programme theories are connected by cross-level links, following the realist principle that an outcome at one level can become a condition for a mechanism at another (Westhorp, 2012). For example, an outcome on the implementation side, such as a trained and supported link worker, becomes a necessary condition for a mechanism on the participant side, such as building a trusting relationship. The ToC is the communicative product derived from these two programme theories. It expresses their combined logic in a form that partners and decision-makers can read and discuss, with each pathway traceable back to the underlying configurations.

4.2 Development of the Theory of Change

The ToC was derived from the realist synthesis and refined in three steps. The first step produced an initial version in February 2026 from the organised evidence base (results of the realist synthesis) and a first round of discussion with project partners. The second reworked that version, through a focused thematic analysis of selected evidence, into a revised and reduced pathway model that served as the basis for discussion at the final ToC-workshop. The third integrated the partners' input from that workshop into a post-workshop version of the ToC. Figure 2 shows this sequence.

The three-step development of the Theory of Change

From the evidence base to the final version. Steps 1 and 3 involved the consortium. Step 2 was a focused analysis.

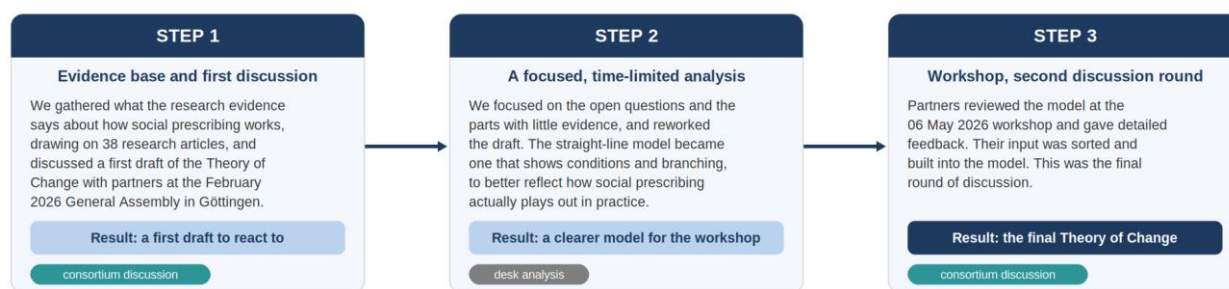


Figure 2: The three-step development of the Theory of Change

4.2.1 Step 1: from the evidence base to a first draft

The starting point was the organised evidence base assembled in the realist review (Section 4.1). This involved extracting the causal configurations described in the social prescribing literature and sorting them into the two-programme-theory structure described above. The literature underpinning this evidence base was identified through a systematic search. The design of that search drew on consortium input at the 1st SP-EU General Assembly meeting in Berlin in March 2025. Attendees set out the pathways through which they understood social prescribing to work, and this helped refine the search terms used to identify the realist literature on social prescribing for inclusion.

In total, 2,039 configurations were extracted from 38 articles and organised by programme theory and by stage of the social prescribing journey or area of implementation. A second analytical step mapped the connections between configurations across levels, for example where an organisational outcome becomes a condition for an individual-level mechanism. This work produced three resources that fed the ToC. The first was a set of 188 recurring patterns, known as demi-regularities, which are recurring context-mechanism-outcome patterns observed across several studies. The second was a table of 23 verified cross-level links between the implementation side and the participant side. The third was an inventory of "spillover" effects, where benefits extend beyond the individual participant to family members, carers or the wider community.

This evidence base was first discussed with the consortium at the 2nd SP-EU General Assembly meeting in Göttingen on 18 to 20 February 2026, the first occasion on which the ToC itself was discussed. A keynote presentation set out the first rough ToC. At this stage it was deliberately presented in a simple, linear form, as a sequence from inputs through activities to outcomes, even though the underlying logic is not linear. The linear form was used to make the emerging picture easy to follow. The presentation introduced two features that became central to later versions. The first was a set of feedback loops. One example is the way that "holding" a patient with the same link worker, when an onward referral does not happen in good time, can feed a cycle of link-worker burnout. Another is the way that meeting a patient's emotional needs well can make later GP consultations more focused. The second feature was four "tension zones" where the evidence pulls in competing directions: equity against efficiency, a care logic against a choice logic, the demand paradox, and whether "holding" is a deliberate design feature or an adaptation to gaps elsewhere. Partners then worked in three groups,

one for each level (micro, meso and macro), on the outcomes that matter at each level. The input from this first round of discussion of the ToC fed directly into the second step.

The result of Step 1 was the February 2026 version of the ToC. It was explicitly a working hypothesis. The causal mechanisms had not yet been consolidated, the conditions it listed were drawn from the evidence rather than established as deeper necessary conditions, and several tensions were left open. It was intended to make the emerging causal picture visible and discussable, not to stand as a finished account.

4.2.2 Step 2: a rapid, thematically focused analysis

The second step reworked the February version in preparation for the 06 May 2026 workshop (step 3). This analysis did not revisit the whole evidence base. Instead it focused on the parts of the evidence most relevant to the questions the February version had left open.

We used three filters to select the evidence most appropriate for this rapid analysis. The first filter selected the configurations underlying the five feedback loops (holding and sustainability, link-worker capacity, gap-filling for missing services, target and throughput pressures, and GP-time savings). The second selected configurations underlying the outcomes that were only thinly evidenced in the literature (community cohesion, social value, inequality reduction, family and carer wellbeing, and the transition of participants into helping roles) and the third filter added configurations bearing on the unresolved tensions that the first two filters had not already captured. Together the filters selected approximately 221 of the 2,039 configurations. This material was further organised into twelve thematic bundles. Five came from the first filter (holding mechanisms, link-worker capacity and burnout, gap-filling and missing specialist services, throughput pressure and target-linked metrics, and GP burden relief), another five came from the second (community cohesion, social value, inequality reduction, family and carer wellbeing, and helper transition) and two came from the third filter (structural prerequisites in deprived contexts, and demand dynamics).

Each bundle was worked through in the same way. The configurations in the bundle were first laid out with their context-mechanism-outcome structure. Comparison pairs were then formed between configurations that appeared to describe the same thing. Each pair was tested against four questions in turn.

- Do they describe the *same mechanism*, that is, the same kind of resource prompting the same kind of response in the same kind of actor? If not, they were kept separate.
- Do they operate in the *same context*? The same context allowed a simple merger. A different context with the same outcome pointed to a context-sensitive configuration.
- How do their *outcomes* compare? Differences of measurement could be merged. Differences of level were kept separate. Opposing directions were referred to the fourth question.
- Where configurations appeared to *contradict* one another, could the contradiction be resolved by identifying a context condition that determines which way the outcome goes? Or did it reflect a genuine competition between explanations?

Where configurations were combined, a check confirmed that the combined result still held together as a complete context-mechanism-outcome account (configurational-integrity check). Configurations that did not fit any combined result were kept as they were and recorded as standalone findings rather than forced together. A short written synthesis was produced for each bundle.

Two principles governed the work throughout. The first was conservative. Where there was any doubt about whether two configurations described the same mechanism, they were kept separate rather than merged. The second was that configurations were never combined across bundle boundaries, so that each bundle's analysis remained self-contained. The result of Step 2 was a revised and reduced pathway model. A central change was one of form. The linear sequence used in February was reconceived as a configurational pathway, that is, a model that shows conditions, branching points and feedback rather than a single straight line from inputs to impact. This revised model was the version presented to partners at the workshop.

4.2.3 Step 3: second discussion round

The third step gathered and integrated partner input on the revised pathway model. At the workshop on 06 May 2026, partners commented on the model. Their contributions were captured as notes across four boards, each board covering a different part of the model (see figure 3).

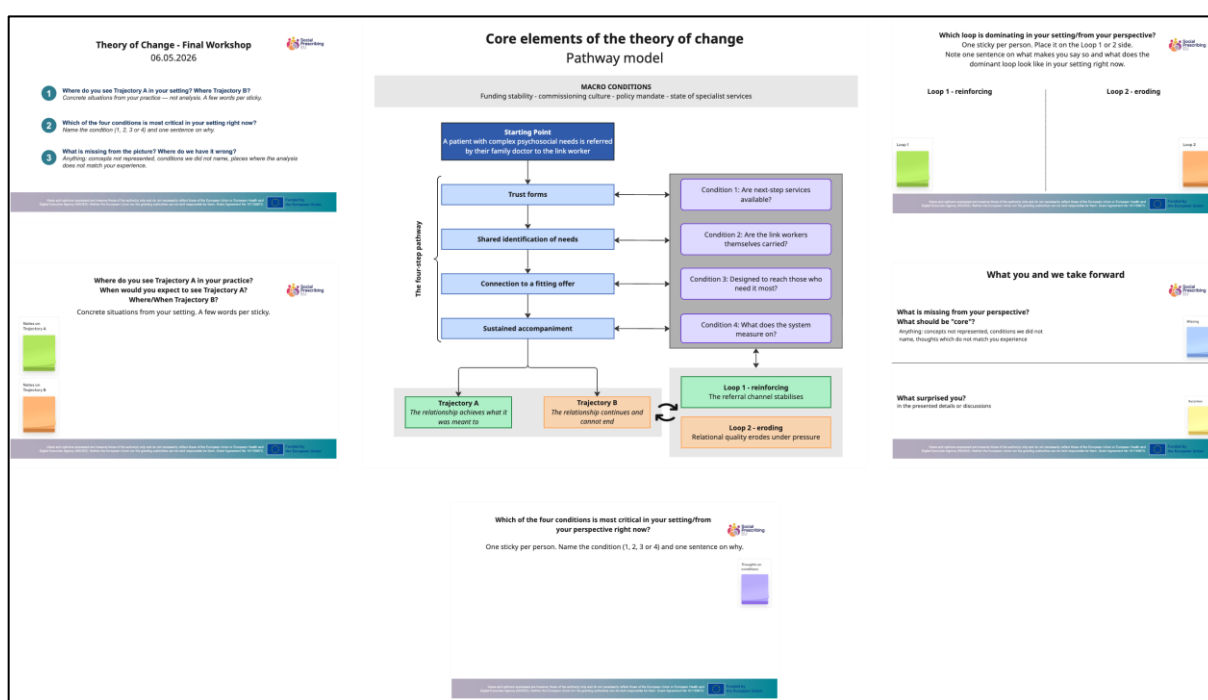


Figure 3: Miro feedback board during the workshop

The input was then processed in a transparent sequence. Each note was attached to the specific element of the ToC it spoke to and classified by what it implied. The categories were confirming an existing element, sharpening it, challenging it, adding something new, or falling outside the scope of the ToC (for example, points specific to the administration of the trial). From this coding, a set of revision candidates was derived, each one grounded in the particular notes that motivated it. The analyst then decided each candidate, and the adopted revisions were integrated into the ToC.

Throughout this step, two kinds of evidence were kept distinct. *Analytic evidence* comes from the synthesis of the research literature. *Practitioner corroboration* comes from the workshop testimony of experienced partners. Practitioner corroboration can confirm or challenge the analytic picture, and it is valuable for that, but on its own it does not raise the analytic confidence in a finding. Where a revision rested on practitioner corroboration of a point that is only thinly evidenced in the literature, this was noted. The work was again conservative. Where partner input was insufficient or ambiguous,

the existing version was retained rather than changed, and study-specific or administrative input was set aside. The result of Step 3 is the post-workshop version of the ToC. This is the central result of this report and is presented in Section 5.

Each of the three steps was documented so that the result can be traced back to its sources. The pathways in the ToC are traceable through the bundle syntheses and the analytical records to the individual configurations in the evidence base. The post-workshop revisions are traceable through the input coding and the recorded revision candidates back to the specific partner notes that prompted them.

5. Key results

This section presents the result at each of the three development steps and then sets out the final post-workshop Theory of Change (ToC). The final ToC is the central result of this report and the instrument through which the Health Economics Assessment results are to be interpreted.

5.1 Synthesis results

The synthesis produced two linked programme theories and, derived from them, a single Theory of Change. The first programme theory describes how social prescribing produces outcomes for participants. The second describes how the implementation context enables or constrains delivery, where that context is the workforce, organisations, funding and referral arrangements. The ToC expresses the combined logic of the two in a single, readable account. The three step-results below are successive versions of that ToC: the initial (February) version (Step 1), the revised pathway model prepared for the workshop (Step 2), and the final post-workshop version (Step 3).

5.2 Step 1 result: the initial Theory of Change

The February 2026 version organised the evidence into two parallel causal streams, one for participant outcomes and one for implementation. These ran across three zones of the social prescribing journey: a Gateway zone (recognition, referral and first contact), a Matching zone (needs assessment and connection to activities), and a Sustainability zone (sustained engagement and integration). It identified five feedback loops (four that can undermine the programme and one that can reinforce it), four unresolved tensions in the evidence, and eighteen critical assumptions on which the positive pathway depends. Each assumption was traceable to a cross-level link in the underlying programme theories. The version also carried an overview of how densely each part was evidenced.

Figure 4 presents this February 2026 version in a simplified linear logic-model form. It shows the main pathway from inputs through activities to short-term, intermediate and long-term outcomes, but it does not reproduce every feedback loop, tension or critical assumption. This simplified presentation was chosen to make the emerging causal structure accessible and discussable, while the fuller analytical version retained the more complex non-linear logic underneath. The February version was therefore treated as a working hypothesis: a baseline representation of the causal architecture that made the initial assumptions visible and open to subsequent revision.

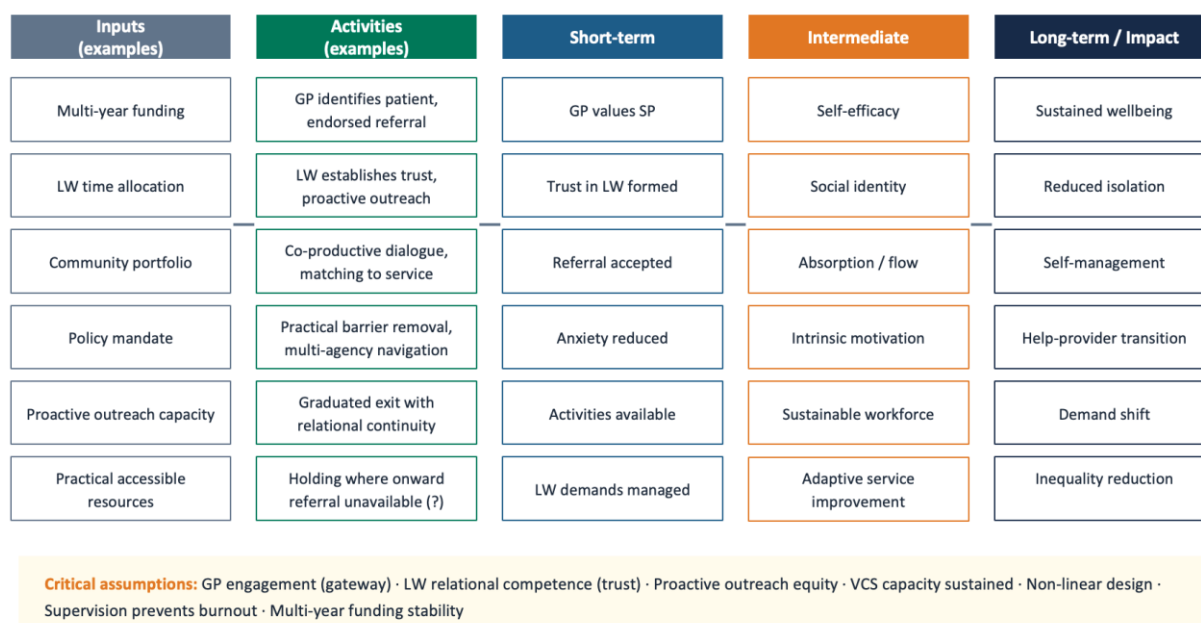


Figure 4: Step 1 – Initial linear logic-model form of the ToC

5.3 Step 2 result: the revised and reduced pathway model

The focused thematic analysis carried out in preparation for the final ToC-workshop changed the picture in four main areas as well as changed the form in which the ToC is expressed.

First, whether social prescribing reduces health inequality emerged as a property of programme **design** rather than an automatic outcome. The same intervention can narrow or widen inequalities depending on how access to it is designed. Second, **what happens at the end of the link-worker relationship** emerged as one of the most consequential parts of the whole picture, and as something that can go in two very different directions. Third, whether social prescribing reduces **healthcare demand** emerged as more conditional than the simple "it relieves pressure on family doctors" account suggests. Fourth, the **wider conditions of the health and social-care system** were brought to the surface as visible, structuring conditions, rather than left implicit as background.

The change of form was equally important. The linear logic model of February was reconceived as a **configurational pathway model**, that is, a model that shows conditions, a branching point, and feedback, rather than a single straight line from inputs to impact (see figure 5). In outline, the revised model runs as follows. A band of wider system conditions sits across the top. A person with complex psychosocial needs is referred to a link worker. The work then proceeds through four steps that are the same for everyone: trust forms, needs are identified together, the person is connected to a fitting offer, and the link worker provides sustained accompaniment. After the fourth step the pathway branches into two trajectories. Which trajectory predominates is shaped by four conditions and by two system-level feedback loops. This revised and reduced model was the version presented to partners at the workshop.

Core elements of the theory of change

Pathway model

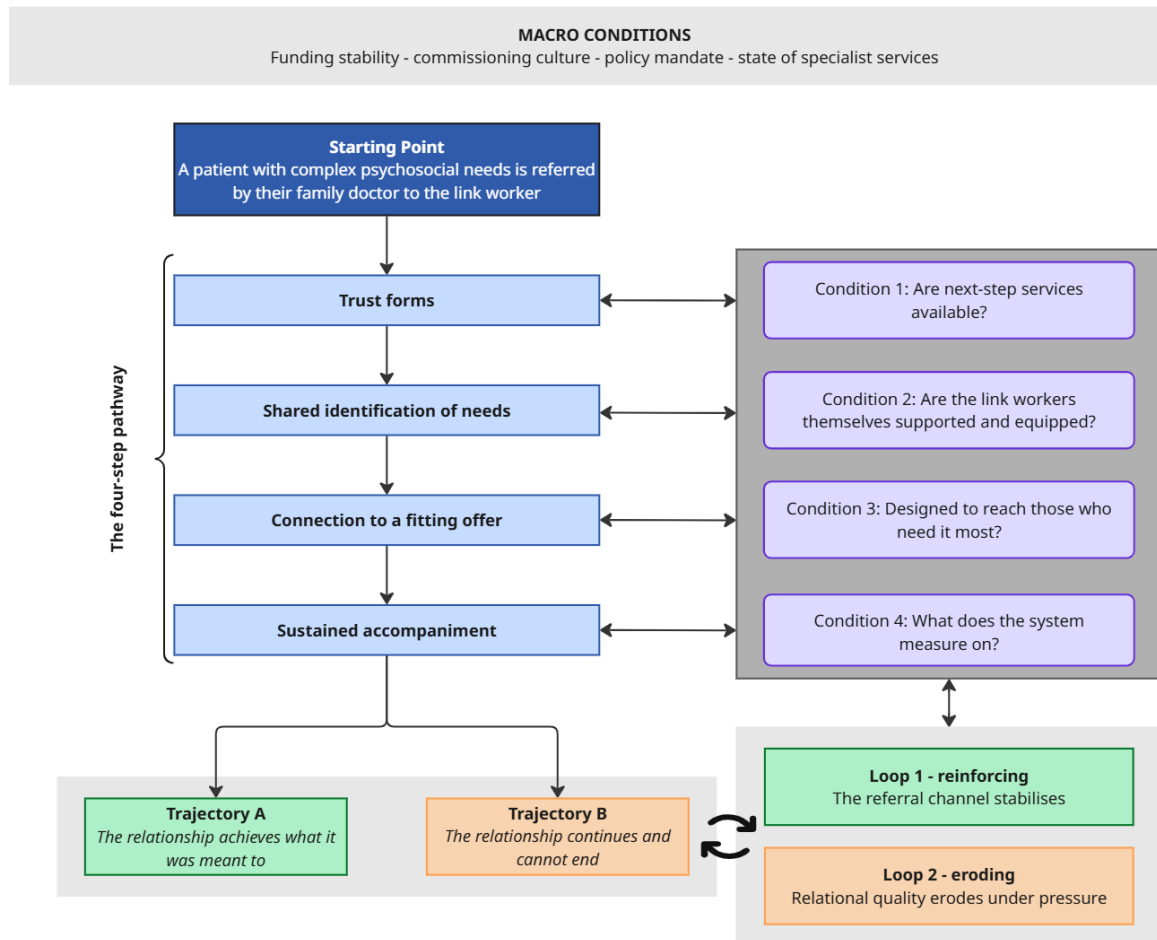


Figure 5: Step 2 – Configurational pathway model

5.4 Step 3 result: the final post-workshop Theory of Change

5.4.1 Revised core elements of the Theory of Change (pathway model)

The workshop on 06 May 2026 tested the revised model against partners' practice experience. Most of the model was confirmed, and the substantive changes concentrated in a few areas. The final post-workshop ToC is shown in Figure 6.

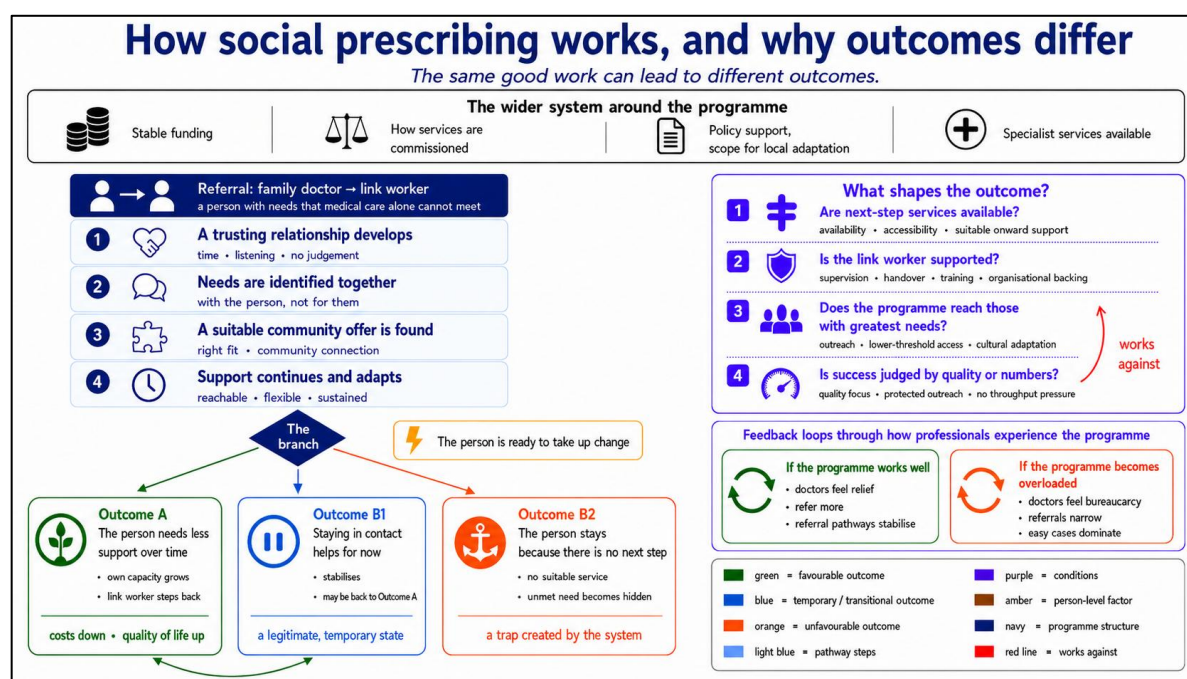


Figure 6: Step 3 – Final Theory of Change (pathway model)

The starting point and the four-step pathway. A family doctor refers a person whose needs cannot be met by medical care alone. These needs include loneliness, housing precarity, debt, bereavement, low mood compounded by isolation, and chronic conditions interacting with social circumstances. The work then proceeds through four steps, each conditional on the one before. In Step 1 a trusting relationship forms. This is the most densely evidenced part of the model and also the most fragile, since a rushed or impersonal first contact can damage it beyond easy repair. In Step 2 the person and the link worker identify needs **together**. This is the feature that distinguishes social prescribing from a referral system, where judgement is applied to a person rather than worked out *with* them. In Step 3 the person is connected to a community offer that **fits**. This step can fail in two ways: through an inappropriate offer and, as the workshop added, through **choice overload**, where too many poorly matched options become a barrier rather than a help. In Step 4 the link worker provides sustained accompaniment, staying reachable, adapting the offer, and catching setbacks. It is here that the trajectory begins to be determined.

The branching point – two trajectories and a person-level mediator. After Step 4 the pathway diverges. The central claim of the model is that **the same competent practice can produce opposite outcomes when conditions differ**. In **Trajectory A**, the person builds their own resources, the link worker steps back gradually, and the relationship ends. Sometimes the former participant becomes a peer supporter or volunteer. In **Trajectory B**, the relationship does not end. The workshop's largest revision was to recognise that Trajectory B is not uniformly unfavourable, and to split it in two. **B1, holding as a phase**, is where remaining with the link worker stabilises the person and activates their own readiness to change, so that holding is a legitimate, temporary state and a route back toward Trajectory A. **B2, holding as a trap**, is where the person stays in contact only because there is nowhere else to go: no suitable next-step service exists, independent capacity is not built, and unmet need becomes invisible rather than resolved. The workshop also established two further points. First, **readiness**, meaning whether the person is at this point in their life ready to take up and consolidate

change, is a person-level factor that helps determine the trajectory and is distinct from the system conditions. Second, the trajectories are **not terminal states**. A person may move between them and may step away from the link worker for a time and return later.

The four conditions. Which trajectory predominates is shaped by four conditions, none sufficient on its own. In the final ToC, these four conditions and the macro-conditions band operationalise the critical assumptions identified in the February version

- *Condition 1: Are next-step services available?* Where specialist services for needs beyond social prescribing's scope do not exist or are inaccessible, the link worker becomes the only available presence and Trajectory B2 follows by default.
- *Condition 2: Is the link worker supported and equipped?* The role requires supervision, handover capacity, organisational backing, and adequate training. Without these the workforce burns out and the relationship, which depends on continuity, breaks.
- *Condition 3: Is the programme designed to reach those who need it most?* This is where equity is decided. Equity-conscious design, meaning active outreach, low-threshold access, and cultural adaptation, is what determines whether the programme reaches the people with the highest needs or quietly serves the already-reachable and widens the gap. The workshop enriched this condition with three additions. The first is the **referral filter**: a key equity failure occurs *before* the pathway begins, when well-organised patients are referred while those with the greatest needs never enter. The second is **stigma and non-recognition** as a mechanism in their own right, for example among refugees, asylum seekers and LGBTIQ people. The third is an explicit "**what works for whom**" differentiation, so that conditions and trajectories are read as varying by group rather than as uniform.
- *Condition 4: What does the system measure the link worker on?* Measuring quality of individual cases supports the model. Measuring throughput undermines it, turning trust-building into a luxury and accompaniment into early discharge. The workshop sharpened a coupling here: **Condition 4 can disable Condition 3**, because throughput and output measurement actively suppresses the outreach that equity depends on.

The two feedback loops. Each trajectory feeds back into the system that produced it, and both loops run through the same shared variable, namely how family doctors and other professionals experience the programme. The five feedback loops analysed in the earlier programme theories are consolidated here into two system-level loops: those that weaken trust, referral quality, relational continuity and equity of access are represented within the eroding loop, while the loop in which successful outcomes increase professional confidence and stabilise referrals is represented within the reinforcing loop. In the **reinforcing loop**, frequent Trajectory A outcomes lead doctors to experience the link worker as relief. Acceptance grows and the referral channel stabilises. In the **eroding loop**, throughput-only measurement leads doctors to experience the link worker as added bureaucracy. Relational quality erodes, referrals narrow to easy cases, and Trajectory B becomes the default. The two loops cannot both be dominant at once, and redesigning what is measured will not flip the system unless the wider commissioning culture shifts.

The macro-conditions band. Four wider conditions sit beneath everything else and set the room within which the pathway operates: funding stability (whether workforces have funding horizons long enough to build relationships), commissioning culture (whether monitoring values relational quality or only

volume), policy mandate and local-design room, and the state of specialist services. The workshop annotated this band with two specific points. Case-based or flat-rate funding can erode relational quality even where intentions are sound. And the local system's openness to psychosocial care is itself a precondition for good implementation.

Duration. Partners appeared to disagree on whether a clearly limited scope or a longer provision better supports Trajectory A. This was resolved by recognising that the operative variable is not the *number* of sessions, but the clarity of scope at the outset together with a flexible time horizon. Rigid throughput caps force premature discharge and push toward B2. A clear-but-flexible frame supports A.

5.4.2 Further revised elements: The four tensions

The four tensions identified in February are the narrative spine of the model. The workshop engaged three of them and left one untouched. **Tension 1 (equity versus efficiency)** was engaged and corroborated. Partners independently confirmed that empowerment depends on structural prerequisites often absent where social prescribing is most needed, and the tension is addressed by treating equity as a design property within Condition 3. **Tension 2 (a care logic versus a choice logic)** was engaged. It appears both at the level of individual practice (choice overload in Step 3) and at the system level (throughput versus quality in Condition 4), and the two logics are not freely combinable. **Tension 3 (the demand paradox)** was not substantially engaged by the workshop and is carried forward unchanged. Effective social prescribing may raise healthcare demand in the short term, by surfacing hidden unmet need, before reducing it in the longer term. This is a non-monotonic pattern with consequences for the timeframe over which the economic results are read. **Tension 4 (whether holding is adaptation or design)** was reopened and is the source of the largest revision. The B1 and B2 split partly resolves it, because holding can be legitimate, and partly sharpens it, because the risk is real specifically where Condition 1 fails.

5.4.3 Evidential confidence map

The table below summarises how firmly each part of the model is held. It keeps two kinds of evidence separate. The middle column reports **analytic evidence**, meaning what the synthesis of the research literature supports. The right-hand column reports **practitioner corroboration**, meaning what partners said at the single workshop discussion round. Practitioner corroboration can confirm or challenge the analytic picture and is valuable for that, but on its own it does not raise the analytic confidence in a finding. This distinction matters most for the equity and inequality findings, where the analytic evidence is thin and partly single-source even though partners corroborated it strongly.

Table 1: Evidential confidence map

ToC component	Analytic evidence (from the literature synthesis)	Practitioner corroboration (06 May 2026 workshop)
Trust formation (Step 1)	Dense, high confidence	Confirmed. A good link-worker relationship cited as central to Trajectory A
Self-efficacy and capacity- building (Trajectory A)	Dense, high confidence	Confirmed

ToC component	Analytic evidence (from the literature synthesis)	Practitioner corroboration (06 May 2026 workshop)
Group belonging and social identity	Dense, high confidence	Not specifically raised
Link-worker workforce sustainability (Condition 2)	Dense, high confidence	Strongly confirmed, extended to caseload, ratio and training
Family-doctor engagement as gateway and reinforcing loop	Moderate, high confidence	Strongly confirmed, with the reinforcing loop read as currently dominant
Fit and matching (Step 3)	Thin to moderate, medium confidence	Extended: choice overload added as a second failure mode
Sustained integration (Step 4)	Thin to moderate, medium confidence	Confirmed, with a duration nuance added
Holding as a therapeutic phase (B1)	Moderate for the mechanism, low for its sustainability	Confirmed and sharpened: described as not always unfavourable, and readiness-activating
Holding as a system-imposed trap (B2)	Moderate, contested (Tension 4)	Confirmed as the genuine risk where Condition 1 fails
Healthcare demand reduction	Moderate, contested (the demand paradox)	Not substantially engaged
Health-inequality reduction and equity mechanisms	Largely aspirational, single-source for several of the inequality-producing mechanisms	Independently corroborated by several partners, which raises the salience of equity but not the analytic confidence. Presented with an explicit caveat
Stigma and recognition as a mechanism	Thin, single-source	Corroborated for refugees, asylum seekers and LGBTIQ people, with gender-diverse awareness noted
Community-level aggregation and spillover	Thin	Not raised

Two points should be read alongside the table. The workshop was a discussion round without any consensus techniques. Therefore, the workshop input provides corroboration rather than validation. And the inequality-producing mechanisms, meaning the ways in which poor design can widen rather than narrow inequality, rest on thin, partly single-source analytic evidence. They are analytically significant and were strongly corroborated by partners, but they are presented here with that limitation made explicit.

5.5 The Theory of Change and social prescribing as implemented in SP-EU

The Theory of Change presented above is a generic programme theory. It was synthesised from the wider social prescribing literature and refined with partners, and it serves as the overarching framework for the evaluation. Social prescribing in SP-EU operationalises that framework in a concrete

intervention model. This section places the two perspectives side by side. Rather than revising the generic model, it clarifies how the model is applied to the SP-EU intervention. The framework is therefore retained as the interpretive backbone, while the SP-EU-specific reading of the data is made explicit.

As described in the trial protocol, social prescribing in SP-EU is delivered as a brief intervention built around a small number of contacts rather than an open-ended relationship. It is explicitly person-centred, with goals and the action plan worked out together with the person. Where it has an effect, that effect is carried by three components that can act largely independently of one another: the effect of the link-working conversation, an increase in self-efficacy, and the person reaching a suitable community offer. What counts as a good result is set by what matters to the person. Self-efficacy is therefore an intended outcome of the intervention rather than a precondition for it, and a considered decision that nothing needs to change can itself be a legitimate result.

Much of the generic framework carries over directly. The early steps of the pathway describe the same active ingredients. The trusting relationship and the joint identification of needs are what give the conversation its effect, and the connection to a suitable community offer is the point at which a person reaches something that fits, which depends in turn on the availability of onward support (Condition 1). The four conditions, the two feedback loops and the band of wider system conditions are properties of the system around the programme and apply regardless of how long the intervention lasts. The three-part outcome typology also holds, so Trajectory A, B1 and B2 remain useful end-states. In particular the B2 case, in which an apparent reduction in service use masks unmet need rather than reflecting its resolution, is preserved, and in the SP-EU instantiation it arises where the components cannot land, above all where no suitable onward offer exists.

In other respects, the SP-EU intervention model gives the generic frame a more specific shape. Because the intervention is time-limited, its closing step is a handover, with a written summary to the GP, rather than indefinite accompaniment. The variation in outcomes follows from whether these few contacts achieve the conversation's effect, a gain in self-efficacy and a connection to a suitable offer, rather than from a long-running relationship. The person-level factor is expressed as what matters to the person rather than as readiness to take up change, which keeps the reading person-centred and treats no change as a valid result. Self-efficacy, implicit in the generic account of capacity-building, is named here as one of the intended outcomes. None of this displaces the generic Theory of Change. It is the form the framework takes in this study.

For the interpretation of the SP-EU data this has one main consequence. The outcome typology is read through the three components and the conditions within a brief-contact frame, so that a case or site is read in terms of which components engaged and which system conditions allowed or prevented this. On the cost side, the cost-consequence analysis reads reductions in formal or healthcare service use, and the model's distinction between a genuine and an apparent reduction is thereby sharpened. An apparent reduction is the pattern in which the components could not land, most often because no suitable onward offer was available, rather than a matter of continued dependence. Where the generic framework and the SP-EU intervention model differ, the intervention model governs the reading of the SP-EU data.

5.6 Implication for the Health Economic Assessment in SP-EU

The interpretation in this section applies the Theory of Change in the SP-EU-specific reading set out in Section 5.5. The model matters directly for reading the trial's cost and outcome figures. In Trajectory A, costs fall and quality of life rises, and the two are causally connected through the person's increased capacity. In Trajectory B, a fall in family-doctor visits taken on its own does not reveal which trajectory was at work. A reduction under B2 is an apparent reduction without substance, where unmet need has shifted onto the link worker rather than being resolved. A given pattern in the cost and quality-of-life figures, including quality-adjusted life years (QALYs), which are a standard measure combining length and quality of life, can therefore mean very different things depending on the conditions that produced it. The ToC supplies the interpretive frame for distinguishing these cases by reading costs and outcomes alongside observable signals such as engagement, changes in wellbeing and self-management, continued reliance on the link worker, and the availability of suitable next-step support.

6. Conclusion

The central contribution of the Theory of Change is a change in the question the economic assessment asks. Rather than seeking a single verdict on whether social prescribing worked, it directs attention to for whom, under which conditions, and through which mechanisms the intervention produces its effects. This conditional, configurational account is the interpretive lens for the variation that the health economic results are expected to show. It provides a structured way to read why costs and outcomes differ across contexts, rather than treating that difference as noise around an average. The Theory of Change therewith informs the three tasks that follow. In supporting implementation (T13.2), it provides the basis for general, non-site-specific recommendations on how social prescribing is best delivered, that is, which conditions need to be in place for the favourable trajectory to predominate. In the cost-consequence analysis (T13.3), the distinction between trajectories allows cost and outcome patterns that look alike to be told apart. The four conditions and the macro-conditions band, in turn, indicate where costs arise and what shapes whether the intervention is efficient. In the sustainable financing framework (T13.4), which sets out to establish for whom and through which mechanisms the intervention was efficient, the conditional account offered by the ToC is the direct input.

Beyond these specific tasks, the Theory of Change gives the consortium a shared frame for discussing where social prescribing produces value, for whom, and under which conditions. It is a common reference point against which the results of the randomised controlled trial can be read once they arrive.

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