



**Invest4Health**



**Innovative financial and non-financial social investment in health promotion and disease prevention: A rapid scoping review protocol**

**November 2023**

[www.invest4health.eu](http://www.invest4health.eu)

## AUTHORS

Professor Maureen Rutten-van Molken, Erasmus University Rotterdam

Dr Lucas Goossens, Erasmus University Rotterdam

Professor Rhiannon Tudor Edwards, Bangor University

Dr Holly Whiteley, Bangor University

Jacob Davies, Bangor University

Dr Balázs Babarczy, Syreon Research Institute

Dr Balázs Nagy, Syreon Research Institute

Lina Papartyte, EuroHealthNet

Alison Maassen, EuroHealthNet

Caroline Costongs, EuroHealthNet

This project has received funding from the European Union's Horizon Europe Research and Innovation Programme under Grant Agreement 101095522

The participation of UK partner Bangor University in this project is supported by UKRI grant number 10065737

The participation of UK partner University of Oxford in this project is supported by UKRI grant number 10061251

The participation of UK partner Hywel Dda University Health Board is supported by UKRI grant number 10063637

## DISCLAIMER

Funded by the European Union and UKRI. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union or HADEA or UKRI. Neither the European Union nor the granting authorities can be held responsible for them.

This publication was produced [month and year of publishing] as part of the Invest4Health project. The work associated with this report has been carried out in accordance with the highest technical standards, and Invest4Health partners have endeavored to achieve the degree of accuracy and reliability appropriate to the work in question. However, since the partners have no control over the use to which the information contained within the report is put by any other party, any other such party shall be deemed to have satisfied itself as to the suitability and reliability of the information in relation to any particular use, purpose, or application.

Under no circumstances will any of the partners, their servants, employees, or agents accept any liability whatsoever arising out of any error or inaccuracy contained in this report (or any further consolidation, summary, publication, or dissemination of the information contained within this report) and/or the connected work and disclaim all liability for any loss, damage, expenses, claims, or infringement of third-party rights.

# Table of Contents

AUTHORS.....	2
DISCLAIMER.....	3
Table of Contents .....	4
1 Introduction.....	5
1.1 Financing health promotion and disease promotion .....	5
1.2 The Invest4Health project .....	8
1.3 Aim.....	8
1.4 Exploring the term “Smart Capacitating Investment” .....	9
2 Methods .....	10
2.1 Review approach .....	10
2.2 Scope and eligibility criteria .....	11
2.3 Search strategy .....	13
2.3.1 Evidence sources .....	13
2.3.2 Search terms .....	14
2.4 Publication screening and selection .....	15
2.5 Data extraction .....	16
2.6 Quality assessment.....	17
2.7 Synthesis.....	17
2.8 Reporting.....	17
3 References.....	18
4 Additional information .....	21
4.1 Contact details.....	21
4.2 Contributors .....	21
4.3 Conflicts of interest .....	22
ANNEXES.....	23
Annex 1: Grey literature website evidence sources .....	23
Annex 2: Search terms for published literature databases .....	24
Annex 3: Data extraction table (V1, 27/06/2023) .....	26

# 1 Introduction

## 1.1 Financing health promotion and disease promotion

Globally, 48% of the disease burden is attributed to environmental, occupational, metabolic, and behavioural risk factors (GBD, 2017), and the record for reducing exposure to preventable harmful risks over the last three decades is poor (GBD, 2019).

A recent OECD report calls for an increased proportion of the OECD's average GDP of around 1.4 percent to be directed towards health promotion and disease prevention, over and above the total health expenditure of around 9% of GDP across OECD countries in 2019 (Morgan & James, 2022). This would help address the high proportion of chronic health problems, such as heart disease, stroke, and diabetes, that are recognised to be largely preventable (WHO, 2020), as well as improve population resilience against potential future pandemics (Morgan & James, 2022).

Prevention through risk-reduction or risk-modification is an important part of health promotion and, but health promotion goes far beyond that. Health promotion is a broad term and encompasses a 'combination of educational, organisational, economic, and political actions' (Howat et al. 2003), to enable individuals and communities to increase control over and improve their health (WHO, 1998). The Centers for Disease Control and Prevention (CDC), for example, distinguishes 10 public health services that are essential to protect and promote the health of all people in all communities (Figure 1). This approach involves community participation through attitudinal, behavioural, social, and environmental changes (Howat et al. 2003), and embodies the idea of "well-becoming" as a policy focus to improve the "health opportunity architecture" of society for this and following generations (Edwards, 2022).

Disease prevention differs to health promotion in that it focuses more on specific, population-based and individual-based interventions that aim to minimize the burden of diseases and associated risk factors (WHO, 2023). Figure 2 presents a prevention pyramid summarizing our understanding of public health in terms of primary, secondary, and tertiary prevention. On the right-hand side, examples of preventive interventions are listed to indicate that we do not only consider interventions in the health sector. We consider interventions in other sectors, such as fiscal interventions, housing, education, transportation, and planetary health to have potential impact on human health. These could include intersectoral interventions where two or more sectors work together to deliver multi-sectoral outcomes, which include health benefits (e.g., community-based elderly care programs to support ageing in place).

Both health promotion and disease prevention focus on preventing the root causes of ill health. These root causes include socio-economic inequalities, environmental impact, genetics, and behaviour. Investments in education and other income-leveiling measures, social networks, housing, a greener and safer living environment, transportation, and measures to combat climate change may have an impact on health that is greater than the more commonly considered factors such as access to and use of health care services.

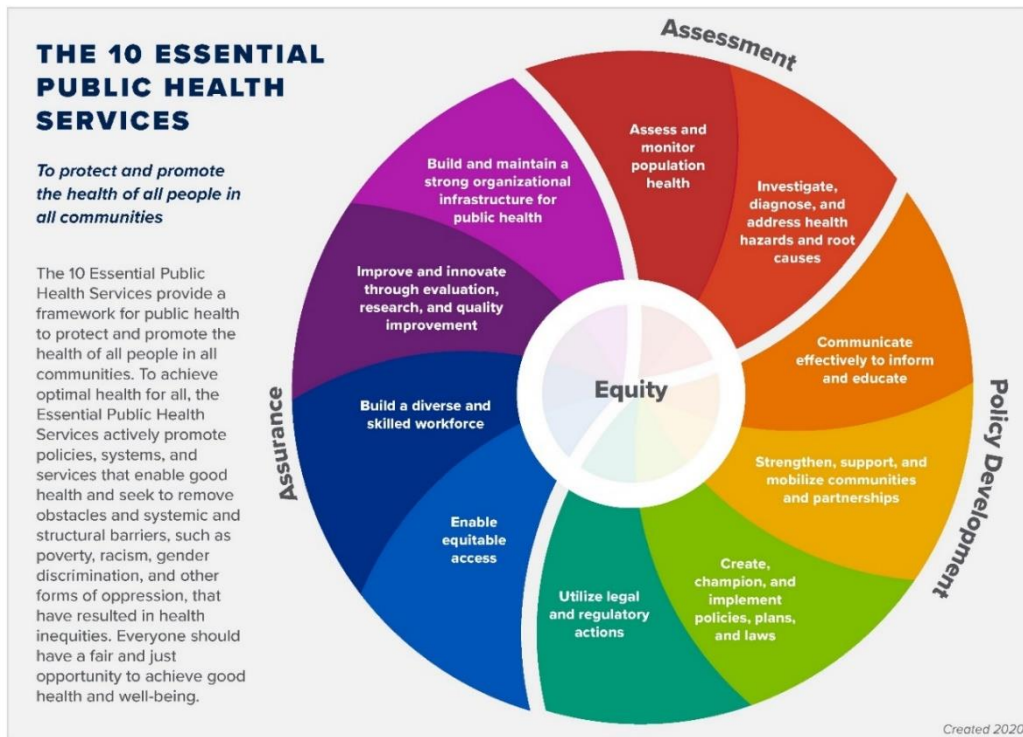


Figure 1. The 10 essential public health services, Centers for Disease Control and Prevention (2020).

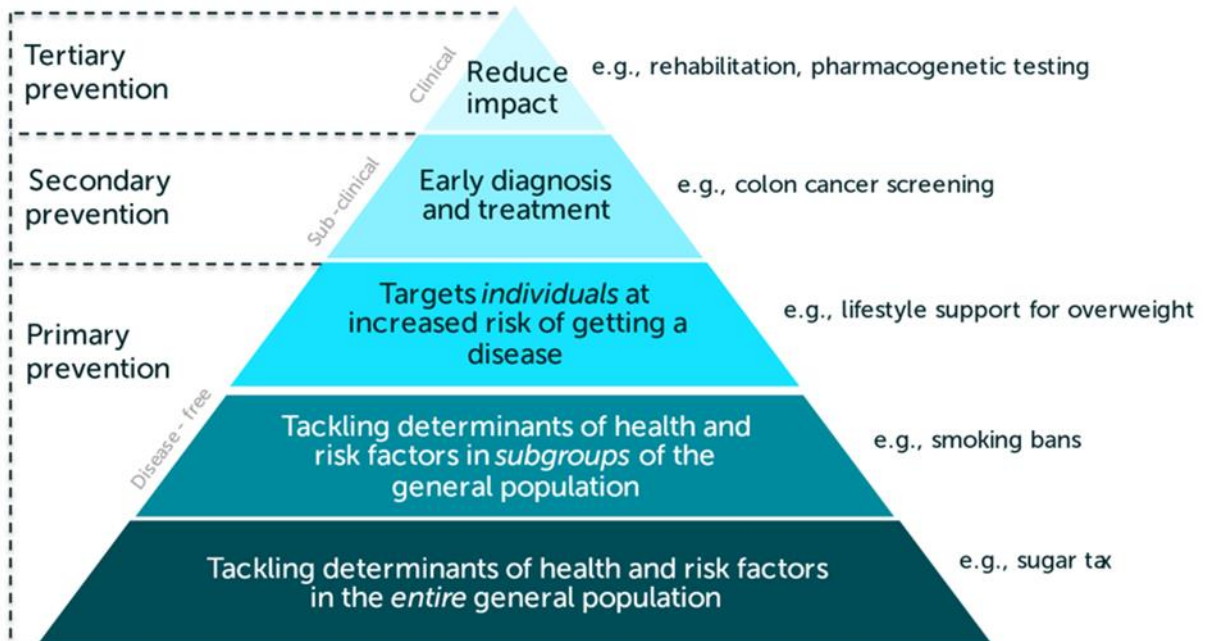


Figure 2. Prevention pyramid describing different levels of prevention; primary, secondary and tertiary prevention.

All levels of government therefore have an important role in health promotion and disease prevention, but policy makers and service commissioners can find it difficult to prioritise them and shift resources from the immediate challenges faced by health and social care services. This might be related to the fact that some preventive and health promotion interventions take many years to materialize into health benefits (Edwards & McIntosh, 2019; Barnfield, Papartyte, & Costongs, 2019). In the long run, some preventive health interventions are cost saving, but others are not (Van der Vliet et al., 2020). For example, some effective preventive interventions may lead to higher lifetime healthcare costs because people’s healthcare consumption is postponed to the later years of life (Van Baal et al, 2008). From a health economics perspective, the question whether prevention leads to net savings is the wrong question to ask (Newhouse, 2021). A more appropriate question to ask would be whether prevention leads to net benefits, i.e., whether the monetary value of the health gains of prevention outweighs the opportunity costs of interventions that need to be displaced to release resources for prevention (or similar, whether the health gains minus the health-equivalents of the opportunity costs are positive) (Newhouse, 2021; Edwards & Lawrence, 2021; Weatherly et al., 2009).

Public investment in health promotion and disease prevention has been under downward pressure ever since the 2008 economic crisis, both at national and sub-national level, and significant investment gaps remain (OECD, 2019; Barnfield, Papartyte, & Costongs, 2019), despite an increase in investment during the COVID-19 crisis. To fill these gaps, we need to shift existing resources around and/or bring new investors into the public health ecosystem. Besides national governments, sub-national governments play a pivotal role in filling these gaps as they invest in areas critical for health and wellbeing. The OECD calls for an integrated approach and reinforced co-ordination of effective public investments across multiple levels of government (OECD, 2019). Investments could also come from less conventional sources such as bottom-up initiatives in society, (venture-)philanthropy and social-impact investors. This often leads to some form of public-private or public-private-people partnership. Such partnerships may not only innovate financing but also lead to innovations in the design and implementation of the health promotion and disease prevention initiatives themselves.

Any investor, however, requires a clear idea of return on investment in the short and long run. It is not likely that investors are interested in the ‘present value of the net benefits’ to society, which is the most relevant metric from a health economic perspective. We therefore need to understand what return on investment incentivizes potential investors to invest in public health and prevention. Identifying and quantifying the potential indirect, socio-economic benefits of improved individual, community, and population health, such as improved productivity, could further support this understanding and accelerate efforts to encourage investment.

## 1.2 The Invest4Health project

This rapid scoping review is part of Task 2.1 of work package two (WP2) of the Invest4Health project. Invest4Health (I4H) is a Horizon Europe-funded collaboration across eight countries that has been funded as one of the four large research programmes on the HORIZON-HLTH-2022-CARE-08-04 — *Better financing models for health systems* call. At the core of this collaboration is a commitment to explore what is meant by Smart Capacitating Investment (SCI) in health promotion and disease promotion, across the public, private and voluntary sectors at macro, meso and micro scales, and explore its potential for providing sustainable funding for preventive public health in the post-COVID-19 landscape. The Invest4Health project will go on to develop and test SCI models and associated business and finance models in practical settings and create a roadmap for large-scale implementation, with a view to transform public health financing for better health and well-being.

## 1.3 Aim

The aim of this rapid scoping review is to clarify the concept of ‘Smart Capacitating Investment (SCI)’ in public health, including key defining characteristics, in the context of individual, community and population health. This will be undertaken by scoping the literature relating to existing innovative financial and non-financial investments for health promotion and disease prevention.

The review will explore examples of innovative forms of investment that actively support and contribute to individual, community and/or population health to support the development of a conceptual framework for systematically describing SCIs, including the possible variation in SCI models and their key defining characteristics (Task 2.1, WP2).

Once SCI models have been defined through this rapid scoping review, a realist synthesis will be undertaken to explore each model in further detail, to better understand what works, for whom, in what context. The inclusion criteria and search strategy for the realist synthesis review will be informed by the findings of this initial rapid scoping review. It is also expected that publications identified in the scoping review will feed directly into the realist synthesis review where defined realist synthesis quality appraisal criteria of relevance, richness and rigour are met.



## 1.4 Exploring the term “Smart Capacitating Investment”

The term “Smart Capacitating Investment” consists of three words that will be explored in more detail through this review.

### **Smart**

In business, the term “smart” is used as an acronym as shown in Figure 3. In the context of SCI, the term “smart” could refer to investments aiming to achieve SMART goals, i.e., goals that are Specific, Measurable, Acceptable, Realistic and Time-bound. In this review we will investigate the extent to which goals of existing SCI in public health are formulated in a SMART way.

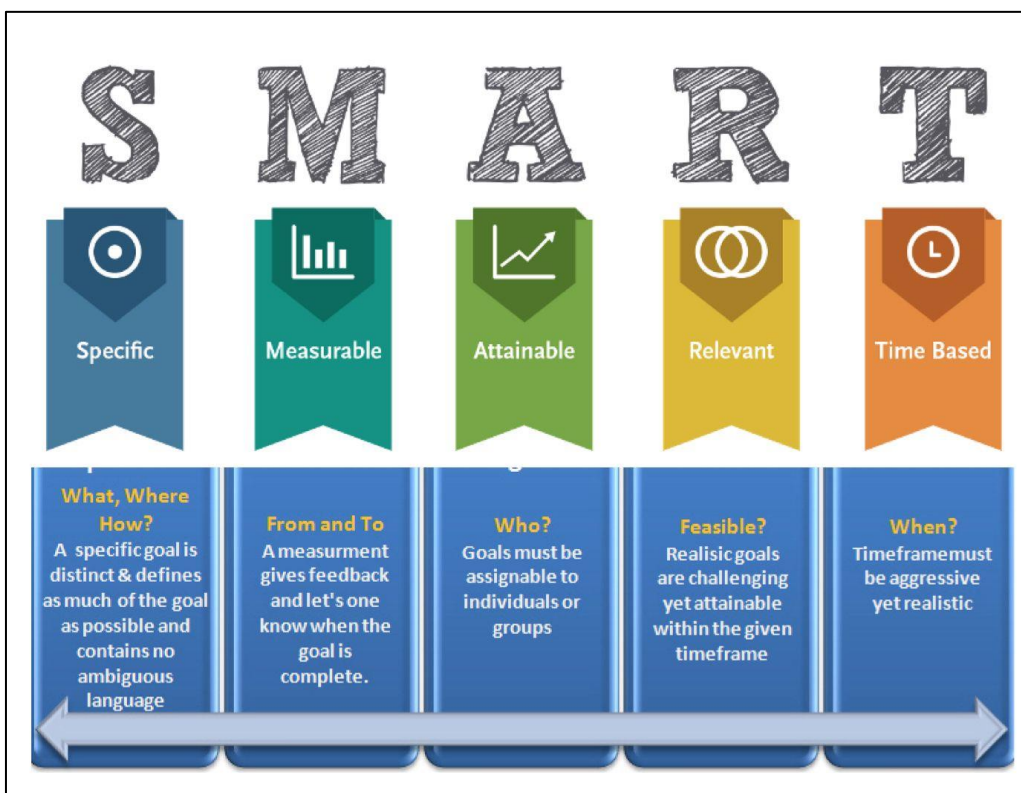


Figure 3. The acronym SMART.

As WP2 progresses we may choose to adapt the term “smart” to SCI, depending on the results of this scoping review. For example, the S could stand for “Sustainable” and the T for “Technology-supported”. More generally, “smart” can refer to intelligent and innovative, and/or can describe tools or processes that enable adaptability and versatility (Merriam-Webster, 2023).

### **Investment**

We define “investment” as an increase in a particular stock of resources, often funds. Stocks can also be non-financial or intangible resources, such as space, technology, knowledge, and other

human resources. SCI could therefore include both financial and non-financial investment in health promotion and disease prevention.

“Financing” refers to the source of funds for investment and operations. We do not expect the terms investment and financing to be used consistently in the literature, where the term investing might be used more generally to indicate “spending now to generate gains later” and financing to indicate the funding sources dedicated to the sustainable provision of services in daily practice. We acknowledge that investments may transform into routine financing over time.

### ***Capacitating investment***

The term “capacitating investment” has been associated with a shift in social welfare policy from the palliation of harm to the prevention of harm across the life-course (Sabel et al., 2017). Crucial to this paradigm shift is the provision of capacitating social services. Within this paradigm, investments are justified by their returns. Returns are calculated by comparing the cost now against returns in the future. Social investment in this context is an investment in a public good. It might be difficult to base transformative reforms on precise calculations of cost and benefits or detailed specifications of causal mechanisms, as in traditional business investments, because they are often based on a longer-term political perspective that goes beyond the next political circle (Jacobs, 2011). However, this motivates us to try to approximate them.

Public and/or private or social investment into social capital may be one route for improving population health, particularly at a local level. In the sociological literature the domain covered by the term “social capital” has been highly elastic (Lynch et al. 2000). In some instances, social capital has been defined beneficial or “good” in some way, while in others, the idea that one group's social capital can be another group's oppression has been accepted. Social capital has also been used to refer to both formal and informal reciprocal links or social networks among people (Lin, 1999), including family, friendship, business, and community networks, most of which will be trust-based (Igarashi et al., 2008). Where social capital resides, i.e., in the persons or groups linked by these networks, in the networks themselves, or in the communities within which these networks exist, is unclear (Lynch et al., 2000).

## 2 Methods

### 2.1 Review approach

We will use scoping review methodology and a rapid review approach with narrative synthesis.

Scoping reviews follow a systematic approach to identifying and mapping evidence on a topic and are often used to scope broad bodies of literature, clarify concepts, and identify knowledge gaps (Tricco et al., 2016, 2018). Scoping reviews can be precursors to more focused, systematic reviews, helping to confirm the relevance of inclusion criteria and refine research questions (Munn et al., 2018).

A rapid review approach is a variation of the systematic review approach where some methodological components are simplified or streamlined to deliver information and evidence in a timely manner whilst maintaining rigor and transparency (Tricco et al., 2022). The rapid review approach in this protocol aligns with Cochrane Rapid Review Methods Group methodological recommendations set out by Garritty et al. (2021), where appropriate, tailored to suit the broad nature of the review topic and aim.

One of the key characteristics of a rapid review, for example, is that a single reviewer, as opposed to two reviewers, conducts the majority of the review processes (i.e. single-screening instead of double-screening), following pilot exercises with all members of the review team to calibrate and test review processes plus at least 20% double-screening to ensure a consistent approach. Further details on the rapid review methodology used is included in Sections 8 to 11.

The combination of scoping and rapid review methodologies employed here will accommodate the broad aim of the review to clarify the concept of SCIs and inform a second, more focused review on topic (Munn et al., 2018), whilst enabling the review to be completed in a timely manner (Tricco et al., 2022).

The protocol will be registered on the Open Science Framework (OSF) as recommended by Garritty et al. (2021). The review will be reported following the PRISMA Extension for Scoping Reviews (PRISMA-ScR) guidance (Tricco et al., 2018).

## 2.2 Scope and eligibility criteria

The proposed scope and eligibility criteria for this review are presented in Table 1, based on the Population, Intervention, Comparison and Outcome (PICO) framework for systematic reviews (Schardt et al., 2007).

In this early stage of scoping the concept of SCIs, we consider SCIs to broadly be financial and non-financial investments (e.g., space, technology, and human resources) in health promotion and/or disease prevention that involve at least one 'external' investor. By external we mean private 'for profit', public, and third sector investors beyond the usual funders of public health (e.g., a governmental or private funder that funds a new prevention activity that it wouldn't normally do). Third sector is a term used to describe a range of organisations that are neither public sector nor private 'for profit' sector, i.e., charities, social enterprises, voluntary groups, community organisations, think tanks and non-for-profit private research groups.

To help identify this broad type of innovative (social) investments within the literature, we will use specific inclusion and exclusion criteria we believe represent this type of innovation (outlined in Table 1), and groups of search terms that reflect these criteria (see 2.3.2 Search terms).

Table 1. Review scope and eligibility criteria.

Criteria category	Inclusion	Exclusion
Population	All target populations (people/ citizens/inhabitants) will be considered, irrespective of life course stage or characteristics, such as vulnerability.	Not applicable
Intervention	Financial and/or non-financial investments that actively support or contribute to health promotion and/or disease prevention, and; i) involve at least one ‘external investor’ beyond the usual funders of public health, potentially from non-health sectors, and, ii) have a primary aim to improve individual, community, or population health and/or wellbeing.  N.B. Investments irrespective of disease(s), condition(s) or outcome(s) will be considered and investments in non-health sectors that impact health and wellbeing will be included.	Financial and/ or non-financial investments that do not actively support or contribute to health promotion and/or disease prevention
Comparator	Either the public health intervention as funded in the usual way (which is mostly by public spending) or the absence of the public health intervention in case the absence of funding prevented the intervention from being delivered.  N.B. included publications will not be restricted to those that explicitly mention these comparators.	Not applicable
Outcome(s)	All and any intended or unintended health and wellbeing-related outcomes.  N.B. Any intended or unintended broader societal and environmental outcomes of the included investments will be captured in the data extraction stage alongside health and wellbeing outcomes.	Not applicable
Setting/ context	All settings and contexts, regardless of healthcare system and market or sector, will be considered.	Not applicable
Countries	EU and OECD countries	Non-EU and non-OECD countries
Language of publication	Publication in English language	Publications not in English language
Publication date	Published Literature: Publications from the last 5 years (2018 to 2023)  Grey Literature: Publications from the last 10 years (2013 to 2023)	Publications published before 2013
Publication type	Published and grey literature	Not applicable

## 2.3 Search strategy

### 2.3.1 Evidence sources

#### ***Published literature databases***

We will search the following three databases and identify which databases generate the most results, and which databases generate a significant number of duplicate publications:

- PubMed Ovid SP;
- Embase Ovid SP;
- Applied Social Sciences Index & Abstracts (ASSIA).

#### ***Grey literature***

It is expected that a significant amount of information relevant to this review, such as investment models and incentive strategies, may be found in the grey literature. The rapid scoping review protocol will therefore be tailored to ‘cast a wide net’ to capture grey literature information, taking into account the limitations and challenges of conducting rigorous and robust grey literature reviews. The grey literature protocol takes inspiration from a published account of applying systematic review search methods to grey literature (Godin et al, 2015).

For the purposes of this review, grey literature is defined using the ‘Luxembourg definition’: ‘that which is produced on all levels of government, academics, business and industry in print and electronic formats, but which is not controlled by commercial publishers, i.e., where publishing is not the primary activity of the producing body’ (Farace et al, 2005).

The overall search plan will be carefully documented, including the names of the persons conducting searches, the dates searches are performed, and a full search strategy of at least one website including all search terms and combinations (the process that will be followed thereafter). Overall, three search strategies will be used to conduct the grey literature review: (1) targeted websites, (2) Google Advanced Search, and (3) consultation with content experts.

#### 1. Targeted websites

the webpages of key EU and non-EU OECD country organisations and bodies involved in or contributing to public health, well-being or social affairs (e.g., European Commission, European Investment Bank, European Long-Term Investors Association (ELTI)) will be part of the targeted websites search. Brief secondary searches of webpages of key international organisations, societies, networks and bodies (e.g., World Bank, United Nations (including WHO), International Federation of Health Plans (IFHP)), will be undertaken to ensure key publications are not missed. That also applies to key investment companies, social banks, venture capitalists, venture philanthropists, foundations, cooperatives, platforms, crowdfunding initiatives, charity organisations etc. See

Annex 1 for a non-exhaustive list of websites identified in the first instance. The development of Annex 1 was supported by consultation with the Invest4Health consortium partners.

Searches on targeted websites will be undertaken using combinations of the most relevant search terms from across search term strands 1-to-4 (see Section 2.3.2 Search terms). Selection of specific search terms for the targeted websites will be informed by the results of the search strategy applied to published literature databases. When the search bar or search features of the targeted website(s) are too limited in scope or not available at all, Google Advanced Search specifying the targeted website (see search strategy 2 for more information) or hand-searching will complement the structured search approach. Results obtained by Google Advanced Search of a targeted website and/or hand-searching will be documented in the search plan. A selection of targeted websites (20%) will be double-screened to ensure coherence.

## 2. Google Advanced Search

Google's [Advanced Search](#) will be used to complement the searching of targeted websites. Search terms from search term strands 1-to-4 will be combined with Boolean operators in order to capture the greatest number of possibly relevant results. As with the searches on targeted websites, priority search terms will be informed by the results of the search strategy applied to the Embase database for published literature. All search results will be tracked in an additional file.

Due to the expected high volume of results, initial searches per search terms will be restricted to the first 100 hits. Within these 100 hits, results will be pre-screened and possibly relevant results will be systematically bookmarked using the Google Chrome bookmarking tool, in order to track the results to be entered into Microsoft Excel and to avoid duplications (as the URLs of previously bookmarked pages are starred). A total of five searches using different search terms will be run. One of these searches (20%) will be double-screened.

## 3. Consultation with content experts

The final search technique for grey literature will be contacting content experts to identify additional possibly-relevant results. The first level of contacts will be the partners of the Invest4Health consortium, who will then be invited to forward on our request to other experts they may have in their networks (snowball sampling). One email will be sent to all partners with a reminder message being sent to those who have not replied after a 7-day period. All items identified by content experts must be received by a pre-specified date to be considered for screening and possible inclusion.

### 2.3.2 Search terms

The search strategy will include free-text keywords related to financial and non-financial investments in health promotion and disease prevention that have a primary aim to improve individual, community, or population health and/or wellbeing. Where possible we will search in the title and abstract fields. Search filters related to studies involving only humans and articles published in the English language will be applied where available.

The search term 'strands' that we aim to combine are as follows:

**Strand 1: Terms with a focus on ‘social investment’**

E.g. “social investment”, “social impact bond”, “social prescribing”, “social return on investment”, “social procurement”, etc. See Section 16: Appendix 2 for full list of proposed search terms and examples papers found during initial scoping searches in PubMed.

**Strand 2: Terms with a focus on type of investors and type of investments**

E.g. third sector", "social bank", "venture capitalist", "venture philanthropist", "investment company", “cooperative”, “foundation”, "crowd funding", “platform”, “charity” etc. See Section 16: Appendix 2 for full list of proposed search terms and examples papers found during initial scoping searches in PubMed.

**Strand 3: Terms with a focus on collaboration**

E.g. “commons”, “mutuals”, co-creation”, "cooperative platforms", "public-private partnership", “neighborhoods”, "social coherence", "risk sharing", “cross-sectoral public investment”, “multi-level public investment”. Section 16: Appendix 2 for full list of proposed search terms and examples papers found during initial scoping searches in PubMed.

**Strand 4: Terms with a focus on ‘health promotion and disease prevention’**

E.g. “health promotion”, “public health”, “prevention”, “lifestyle”, “risk factor\*”, “health\*equality”, “determinants of health”, “life course”, “equality”, “equity” etc. See Section 16: Appendix 2 for full list of proposed search terms and examples papers found during initial scoping searches in PubMed.

We aim to combine these strands with Boolean operators into: (Strand 1 OR Strand 2 OR Strand 3) AND (Strand 4).

## 2.4 Publication screening and selection

Database searches will be conducted by members of the review team from Bangor University (BU), Erasmus University Rotterdam (EUR), Syreon Research Institute (SRI). Database search results will be exported to Endnote, de-duplicated, and split equally between the BU, EUR and SRI review teams (consisting of two to three people per team) for title and abstract screening. Grey literature searches will be undertaken by members of the review team from EuroHealthNet (EHNet).

Due to the time constraints of a rapid review, full double-screening will not be possible. Following Cochrane Rapid Review Methods Group methodological recommendations to assure agreement and consistency in the study selection process between review team members, the title and abstract screening process will be piloted and an initial 20% double-screening of database and grey literature search results within each review team (Garritty et al. 2021). Following the pilot exercise and 20% double-screening, all review teams will meet to discuss results, identify any potential disagreement or inconsistency in the selection process, and refine the inclusion/ exclusion criteria if required. Once the whole review team is happy that all members are applying a consistent

approach, the remaining 80% of search results will single-screened. A similar pilot exercise and 20% double-screening selection process will be applied at the stage of full text screening.

During the title and abstract screening reasons for exclusion will not be recorded. During the full text screening reasons for exclusion will be recorded. Any queries regarding inclusion/ exclusion will be resolved by discussion with the wider review team.

## 2.5 Data extraction

The total number of selected full text publications will be split equally between the BU, EUR, SRI and EHNet teams for data extraction using a bespoke data extraction table developed in Excel (Annex 3). Following Cochrane Rapid Review Methods Group methodological recommendations to assure agreement and consistency in the data extraction process, the data extraction table will be piloted by BU, EUR, SRI and EHNet review teams for the first 10-20% of included publications. Following the pilot exercise all review teams will meet to discuss results, identify any potential disagreement or inconsistency in the data extraction process, and refine the data extraction table if required. Following the pilot exercise, a single reviewer within each review team will extract data and a second reviewer within the same team will check the extracted data for correctness and completeness (Garritty et al. 2021). Disagreements in data extraction will be resolved by discussion with the wider review team.

References and citations of included publications will be crosschecked for additional relevant publications by implementing snowballing and reverse snowballing processes (Sayers, 2007).

A draft data extraction table for piloting with the review team has been made in Excel (Annex 3). Extracted data will include the following information, where appropriate and relevant:

- Publication author, year, full citation, type of publication, and online access link.
- SCI context and general description, including the intervention country, scale, setting, time horizon, and stage of development, target population(s), the health/ wellbeing concern(s) being addressed, and whether the intervention represents primary, secondary, or tertiary prevention.
- SCI intervention goals, success indicators and outcomes measures (including both health/ wellbeing and broader societal, equity-related or environmental indicators and outcomes), whether the intervention was formally evaluated, and whether any barriers or facilitators to achieving outcomes are noted.
- Information about any financial or non-financial investments, including:
  - The actors involved, including investors, commissioners/ outcome payers, managing/ intermediary organisations, and service providers.
  - The method and unit of investment, including details of the investment and payment models, resources contributed, assets invested in, and investment timescales.
  - The expected or estimated return on investment for the actors and stakeholders involved.
  - Barriers and/ or facilitators (e.g., disinvestment or decommissioning) to investment.



- Information about governance, co-production/ co-creation or use of digital platforms relating to the SCI.
- Whether the realist synthesis quality appraisal criteria of relevance, richness and rigour are met, to help filter out publications for inclusion in the realist review and synthesis that will follow the initial rapid scoping review.
- Any references for inclusion in snowball searches.

## 2.6 Quality assessment

Quality assessments are not deemed as critical for scoping reviews compared to other forms of review (Tricco et al. 2018). It is acknowledged, however, that there is a risk of cultural bias relating to social context. This risk will be monitored and managed by the review team via regular discussion between review team members throughout the review process.

## 2.7 Synthesis

Findings from the included publications identified by this rapid scoping review will be presented and synthesised narratively (Garritty et al. 2021; Mishler, 1995). We will use key themes identified in the evidence to structure the summary, and where possible or appropriate, types of investments may be grouped with respect to financial, non-financial, life course stage, sector etc.

## 2.8 Reporting

The reporting of this review will follow the guidance of the PRISMA Extension for Scoping Reviews (PRISMA-ScR) (Tricco et al. 2018).

Initial findings may be presented at appropriate health economics and public health meetings and the full results of the rapid scoping review will be published in a suitable journal.

### 3 References

- Barnfield, A., Papartyte, L., & Costongs, C. (2019) Financing Health Promoting Services: An information guide. Brussels: EuroHealthNet.
- Centers for Disease Control and Prevention (2023). 10 essential public health services. <https://www.cdc.gov/publichealthgateway/publichealthservices/essentialhealthservices.html>
- Edwards, R.T. (2022). Well-being and well-becoming through the life-course in public health economics research and policy: A new infographic. *Frontiers in Public Health*, 10.
- Edwards, R.T., & Lawrence, C. L. (2021). ‘What You See is All There is’: the importance of heuristics in cost-benefit analysis (CBA) and social return on investment (SROI) in the evaluation of public health interventions. *Applied Health Economics and Health Policy*, 19(5), 653-664.
- Edwards, R.T., & McIntosh, E. (Eds.). (2019). Applied health economics for public health practice and research. Oxford University Press.
- Edwards, R.T., Bryning, L., & Williams, H.L. (2016). [Transforming Young Lives across Wales: The Economic Argument for Investing in Early Years](#). Bangor University.
- Farace DJ, Frantzen J, editors. Sixth international conference on grey literature: work on grey in progress. grey literature 2004 conference proceedings; Dec. 6–7, 2004. Amsterdam: TextRelease; 2005.
- Garritty, C., Gartlehner, G., Nussbaumer-Streit, B., King, V.J. <sup>e</sup>, Hamel, C., Kamel, C., <sup>f</sup>, Lisa Affengruber, L. & Stevens, A. (2021) Cochrane Rapid Reviews Methods Group offers evidence-informed guidance to conduct rapid reviews. *Journal of Clinical Epidemiology*, 130: 13-22.
- GBD (2017). Risk Factors Collaborators. Global, regional, and national comparative risk assessment of 84 behavioural, environmental and occupational, and metabolic risks or clusters of risks for 195 countries and territories, 1990–2017: a systematic analysis for the Global Burden of Disease Study 2017. *The Lancet* 2018, 392, 1923–1994.
- GBD (2019). Risk Factors Collaborators. Global burden of 87 risk factors in 204 countries and territories, 1990-2019: a systematic analysis for the Global Burden of Disease Study 2019. *The Lancet* 2020; 396:1223-1249
- Godin, K., Stapleton, J., Kirkpatrick, S.I. et al. Applying systematic review search methods to the grey literature: a case study examining guidelines for school-based breakfast programs in Canada. *Syst Rev* 4, 138 (2015).
- Howat, P., Maycock, B., Cross, D., Collins, J., Jackson, L., Burns, S., and James, R. (2003). ‘Towards a more unified definition of health promotion’, *Health Promotion Journal of Australia*, 14(2):82–85.

- Igarashi, T., Kashima, Y., Kashima, E. S., Farsides, T., Kim, U., Strack, F., Werth, L., & Yuki, M. (2008). Culture, trust, and social networks. *Asian Journal of Social Psychology*, 11(1), 88–101.
- Jacobs, A.M. (2011). *Governing for the Long Term: Democracy and the Politics of Investment*. Cambridge: Cambridge University Press.
- Lin, N. (1999). Building a network theory of social capital. *Connections*, 22,28–51.
- Lynch J., Due P., Muntaner C. & Smith, G.D. (2000). Social capital - Is it a good investment strategy for public health? *J Epidemiol Community Health*, 54:404–408.
- Merriam-Webster. (2023). Dictionary definition: Smart. <https://www.merriam-webster.com/dictionary/smart>
- Mishler, E. G. (1995). Models of narrative analysis: A typology. *Journal of Narrative & Life History*, 5(2), 87–123.
- Morgan, D., & James, C. (2022). Investing in health systems to protect society and boost the economy: Priority investments and order-of-magnitude cost estimates. [OECD Policy Responses to Coronavirus \(COVID-19\)](#)
- Munn, Z., Peters, M.D.J., Stern, C., Tufanaru, C., McArthur, A., Aromataris, E., (2018). Systematic review or scoping review? Guidance for authors when choosing between a systematic or scoping review approach. *BMC Med Res Methodol*, 18(1):143.
- Newhouse, J. P. (2021). An Ounce of Prevention. *Journal of Economic Perspectives*, 35(2): 101–118
- OECD (2019). Effective Multi-level Public Investment. OECD Multi-level Governance Studies. OECD Principles in Action. [https://www.oecd.org/effective-public-investment-toolkit/Full\\_report\\_Effective\\_Public\\_Investment.pdf](https://www.oecd.org/effective-public-investment-toolkit/Full_report_Effective_Public_Investment.pdf)
- Sabel, C., Zeitlin, J., & Quack, S. (2017). Capacitating services and the bottom-up approach to social investment. *The uses of social investment*, 140-9.
- Sayers, A. (2007). Tips and tricks in performing a systematic review. *Br J Gen Pract*, 57(538):425.
- Schardt, C., Adams, M.B., Owens, T., Keitz, S. & Fontelo, P. (2007). Utilization of the PICO framework to improve searching PubMed for clinical questions. *BMC Med Inform Decis Mak*, 15:7-16.
- Tricco, A. C., Lillie, E., Zarin, W., O'Brien, K., Colquhoun, H., Kastner, M., ... & Straus, S. E. (2016). A scoping review on the conduct and reporting of scoping reviews. *BMC medical research methodology*, 16, 1-10.
- Tricco, A. C., Lillie, E., Zarin, W., O'Brien, K. K., Colquhoun, H., Levac, D., ... & Straus, S. E. (2018). PRISMA extension for scoping reviews (PRISMA-ScR): checklist and explanation. *Annals of internal medicine*, 169(7), 467-473.

Tricco, A. C., Khalil, H., Holly, C., Feyissa, G., Godfrey, C., Evans, C., ... & Munn, X. (2022). Rapid reviews and the methodological rigor of evidence synthesis: a JBI position statement. *JBI Evidence Synthesis*, 20(4): 944-949.

Van Baal, P.H.M., Polder, J.J., de Wit, G.A., Hoogenveen, R.T., Feenstra, T.L., Boshuizen, H.C., Engelfriet, P.M., Brouwer, W.B.F. (2008). Lifetime Medical Costs of Obesity: Prevention No Cure for Increasing Health Expenditure. *PLoS Med*, 5(2):e29.

Van der Vliet, N., Suijkerbuijk, A.W.M., de Blaeij, A.T., de Wit, G.A., van Gils, P.F., Staatsen, B.A.M., Maas, R., Polder, J.J. (2020). Ranking Preventive Interventions from Different Policy Domains: What Are the Most Cost-Effective Ways to Improve Public Health? *Int. J. Environ. Res. Public Health*, 17, 2160.

Weatherly, H., Drummond, M., Claxton, K., Cookson, R., Ferguson, B., Godfrey, C., ... & Sowden, A. (2009). Methods for assessing the cost-effectiveness of public health interventions: key challenges and recommendations. *Health policy*, 93(2-3), 85-92.

WHO. (1998). [https://www.who.int/health-topics/health-promotion#tab=tab\\_1](https://www.who.int/health-topics/health-promotion#tab=tab_1)

WHO. (2020). Overview - Preventing chronic diseases: a vital investment  
[https://www.who.int/chp/chronic\\_disease\\_report/part1/en/index11.html](https://www.who.int/chp/chronic_disease_report/part1/en/index11.html).

WHO. (2023). <https://www.emro.who.int/about-who/public-health-functions/health-promotion-disease-prevention.html>. Accessed 08/11/23

## 4 Additional information

### 4.1 Contact details

**Professor Maureen Rutten-van Molken**

Erasmus School of Health Policy and Management (ESHPM),  
Erasmus University Rotterdam  
[m.rutten@eshpm.eur.nl](mailto:m.rutten@eshpm.eur.nl)

**Professor Rhiannon Tudor Edwards**

Centre for Health Economics and Medicines Evaluation (CHEME),  
Bangor University  
[r.t.edwards@bangor.ac.uk](mailto:r.t.edwards@bangor.ac.uk)

**Dr Lucas Goossens**

Erasmus School of Health Policy and Management (ESHPM),  
Erasmus University Rotterdam  
[goossens@eshpm.eur.nl](mailto:goossens@eshpm.eur.nl)

**Dr Holly Whiteley**

Centre for Health Economics and Medicines Evaluation (CHEME)  
Bangor University  
[h.whiteley@bangor.ac.uk](mailto:h.whiteley@bangor.ac.uk)

### 4.2 Contributors

We thank the following contributors for their input into the development of this rapid scoping review protocol.

**Tomas Bokström**

Social and Health Impact Center (SHIC),  
RISE Research Institutes of Sweden

**Dr Vidya Oruganti**

Digital Innovation for Growth Research Centre (DIG),  
Norwegian School of Economics (NHH)

**Nicoline Tamsma**

Dutch National Institute for Public Health and the Environment

**Dr Apostolos Tsiachristas**

Health Economics Research Centre (HERC),  
University of Oxford

**Professor Sarah Wordsworth**

Health Economics Research Centre (HERC),  
University of Oxford

**Steve Wright**

Health ClusterNET (HCN)

### 4.3 Conflicts of interest

The authors and contributors declare they have no conflicts of interest to report.

## ANNEXES

### Annex 1: Grey literature website evidence sources

Primary searches (Scope: EU and non-EU OECD countries)

1. Relevant past and present EU funded projects and reports - <https://cordis.europa.eu/>
2. European Institutions websites (e.g., European Commission, European Investment Bank)
3. A selection of relevant national and sub-national and EU health authorities, health funds and service commissioning bodies
4. [European Long-Term Investors Association \(ELTI\)](#)
5. [European Federation of Ethical Banks and Alternative Financiers \(FEBEA\)](#)
6. [Philanthropy Europe Association](#)
7. [World Health Organisation \(WHO\) Regional Office for Europe / WHO IRIS](#)
8. [Government Outcomes Lab](#)
9. [European Observatory of Health Systems and Policies](#)
10. [Organisation for Economic Co-operation and Development \(OECD\) European Bank for Reconstruction and Development](#)
11. World Bank
12. [Council of Europe Development Bank CEB](#)

Secondary searches (Scope: International)

1. [SITRA](#)
2. [Social & Health Impact Center \(SHIC\) at RISE](#)
3. [Foundation for European Progressive Studies \(FEPS\)](#)
4. [Social Value UK](#)
5. [What Works Network \(UK\)](#)
6. [Impact Investing Institute](#)
7. [Global Impact Investing Network](#)
8. [TONIIC](#)
9. [IRIS+](#)
10. [UCSF Institute for Global Health Sciences](#)
11. [Medicus Mundi International – Network Health for All](#)
12. [The Global Steering Group for Impact Investment \(GSG\)](#)
13. [United Nations](#)
14. [International Federation of Health Plans \(IFHP\)](#)
15. [Wellbeing Economy Alliance](#)
16. [Green Climate Fund](#)
17. [Ashoka](#)
18. [KOIS caring finance](#)
19. Impact Capital Partners
20. Think-Tank for Action on Social Change

21. Patriotic Millionaires UK
22. Snowball Impact Management Limited
23. Impact Finance Belgium

## Annex 2: Search terms for published literature databases

### Search term strand 1: Social Investments

"social investment"[Title/Abstract] OR "social contract"[Title/Abstract] OR "social commissioning"[Title/Abstract:~1] OR "social procurement"[Title/Abstract:~1] OR "social prescribing"[Title/Abstract] OR "social impact financing"[Title/Abstract:~1] OR "social impact investment"[Title/Abstract:~1] OR "social return on investment"[Title/Abstract] OR "social rate of return"[Title/Abstract] OR "social innovation"[Title/Abstract] OR "social economy"[Title/Abstract] OR "social impact bond"[Title/Abstract] OR "social performance"[Title/Abstract] OR "social pay for performance"[Title/Abstract:~1] Filters: in the last 5 years, Humans, English

#### Example papers

- Global developments in social prescribing. Morse DF, Sandhu S, Mulligan K, Tierney S, Polley M, Chiva Giurca B, Slade S, Dias S, Mahtani KR, Wells L, Wang H, Zhao B, De Figueiredo CEM, Meijs JJ, Nam HK, Lee KH, Wallace C, Elliott M, Mendive JM, Robinson D, Palo M, Herrmann W, Østergaard Nielsen R, Husk K. *BMJ Glob Health*. 2022 May;7(5):e008524. doi: 10.1136/bmjgh-2022-008524.
- Financing Approaches to Social Prescribing Programs in England and the United States. Sandhu S, Alderwick H, Gottlieb LM. *Milbank Q*. 2022 Jun;100(2):393-423. doi: 10.1111/1468-0009.12562. Epub 2022 Mar 29. PMID: 35348249
- A Social-Return-On-Investment Analysis Of Bon Secours Hospital's 'Housing For Health' Affordable Housing Program. Drabo EF, Eckel G, Ross SL, Brozic M, Carlton CG, Warren TY, Kleb G, Laird A, Pollack Porter KM, Pollack CE. *Health Aff (Millwood)*. 2021 Mar;40(3):513-520. doi: 10.1377/hlthaff.2020.00998. PMID: 33646873
- Dissecting the "do good and do well" phenomenon: The case of the UK's market for social investment. Dagers J. *Br J Sociol*. 2022 Jun;73(3):623-642. doi: 10.1111/1468-4446.12936. Epub 2022 Mar 25. PMID: 35332545

### Search terms strand 2: Type of investors and type of investments

"third sector"[Title/Abstract] OR social bank\*[Title/Abstract] OR social investor[Title/Abstract] OR "venture capitalist" [Title/Abstract] OR "venture philanthropist"[Title/Abstract:~1] OR "investment bank\*" [Title/Abstract] OR "investment company"[Title/Abstract] OR investment firm[Title/Abstract] OR price\*[Title/Abstract] OR accelerator\*[Title/Abstract] OR cooperative\*[Title/Abstract] OR community shares[Title/Abstract] OR foundation\*[Title/Abstract] OR "crowd funding"[Title/Abstract] OR platform\*[Title/Abstract] OR charity[Title/Abstract] OR donation\*[Title/Abstract] OR gift\*[Title/Abstract] OR loan[Title/Abstract] OR mortgage[Title/Abstract] OR "private equity"[Title/Abstract] OR shares[Title/Abstract] OR stock[Title/Abstract] OR "integrated budget"[Title/Abstract] OR "pooled budget"[Title/Abstract]



OR "bundled payment"[Title/Abstract] OR "blended payment"[Title/Abstract] Filters: in the last 5 years, Humans, English

### Example papers

- How private equity achieves return on investment in ophthalmology. Shah CP, Wolfe JD. *Curr Opin Ophthalmol.* 2022 Sep 1;33(5):362-367. doi: 10.1097/ICU.0000000000000879. Epub 2022 Jul 12. PMID: 35819901
- The future of digital donation crowdfunding. Sirisawat S, Chatjuthamard P, Kiattisin S, Treepongkaruna S. *PLoS One.* 2022 Nov 11;17(11):e0275898. doi: 10.1371/journal.pone.0275898. eCollection 2022. PMID: 36367868
- Care co-ordination for older people in the third sector: scoping the evidence. Abendstern M, Hughes J, Jasper R, Sutcliffe C, Challis D. *Health Soc Care Community.* 2018 May;26(3):314-329. doi: 10.1111/hsc.12420. Epub 2017 Jan 24. PMID: 28118683

### Search terms strand 3: Collaboration

commons[Title/Abstract] OR mutuals[Title/Abstract] OR co-creat\*[Title/Abstract] OR co-product\*[Title/Abstract] OR collaborat\*[Title/Abstract] OR "cooperative platforms"[Title/Abstract:~1] OR cooperati\*[Title/Abstract] OR "public-private partner\*" [Title/Abstract] OR "public-public partner\*" [Title/Abstract] OR "collective action" [Title/Abstract] OR neighborhoods[Title/Abstract] OR "social coherence" [Title/Abstract] OR "social cohesion" [Title/Abstract] OR "risk sharing" [Title/Abstract] OR "collective decision\*" [Title/Abstract] OR embedded\* [Title/Abstract] OR cross-sectoral public investment [Title/Abstract] OR multi-level public investment [Title/Abstract] OR "public procurement" Filters: in the last 5 years, Humans, English

### Example papers:

- Implementing Adolescent Wellbeing and Health Programs in Schools: Insights from a Mixed Methods and Multiple Informant Study. Dariotis JK, Mabisi K, Jackson-Gordon R, Yang N, Rose EJ, Mendelson T, Fishbein DH. *Prev Sci.* 2023 May;24(4):663-675. doi: 10.1007/s11121-022-01481-2. Epub 2023 Jan 11.
- Human-built environment interactions: the relationship between subjective well-being and perceived neighborhood environment characteristics. Sadeghi AR, Ebadi M, Shams F, Jangjoo S. *Sci Rep.* 2022 Dec 17;12(1):21844. doi: 10.1038/s41598-022-25414-9.

### Search term strand 4: Public Health

"health promotion"[Title/Abstract] OR "public health"[Title/Abstract] OR prevent\*[Title/Abstract] OR lifestyle[Title/Abstract] OR "determinants health"[Title/Abstract:~1] OR "risk factor\*" [Title/Abstract] OR "health education" [Title/Abstract] OR "life course" [Title/Abstract] OR "family health" [Title/Abstract] OR "living environment" [Title/Abstract] OR "working environment" [Title/Abstract] OR "health \*equality" [Title/Abstract] OR "health \*equity" [Title/Abstract] OR "health literacy" [Title/Abstract]

### Example papers:

- Addressing Health Equity in Public Health Practice: Frameworks, Promising Strategies, and Measurement Considerations. Liburd LC, Hall JE, Mpofu JJ, Williams SM, Bouye K, Penman-Aguilar A. *Annu Rev Public Health*. 2020 Apr 2;41:417-432. doi: 10.1146/annurev-publhealth-040119-094119. Epub 2020 Jan 3. PMID: 31900101
- The Effectiveness of an Active Learning Program in Promoting a Healthy Lifestyle among Older Adults with Low Health Literacy: A Randomized Controlled Trial. Uemura K, Yamada M, Okamoto H. *Gerontology*. 2021;67(1):25-35. doi: 10.1159/000511357. Epub 2020 Dec 3. PMID: 33271536
- Family Health Development in Life Course Research: A Scoping Review of Family Functioning Measures. Ramaswami SB, Jensen T, Berghaus M, De-Oliveira S, Russ SA, Weiss-Laxer N, Verbiest S, Barkin S. *Pediatrics*. 2022 May 1;149(Suppl 5):e2021053509J. doi: 10.1542/peds.2021-053509J. PMID: 35503321

### Annex 3: Data extraction table (V1, 27/06/2023)

<https://osf.io/bvcnw/files/osfstorage/654cbed0c9ac3f07ca2f7a2a>



This project has received funding from the European Union's Horizon Europe Research and Innovation Programme under Grant Agreement 101095522