

Implementation of Physical Activity and Nutrition Policies

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What is already known on this topic

To address health risks, a growing number of public policies have been introduced in recent years to promote physical activity and healthy diet and to reduce sedentary behaviour.

The implementation of a policy can be considered successful if it creates a supportive context to reduce health risks and empowers individuals to adopt and maintain healthy behaviours.

Implementation outcomes can be described as changes relating to the implementation process and are indicators for success³, whereby factors that can influence these outcomes are referred to as implementation determinants, or barriers and facilitators.⁴

When conducting policy implementation evaluation, evaluation principles and methods should be applied that go beyond the concepts of 'success' or 'failure' and take into account policy actors, organisations, institutions and subsystems.⁵

Explanation of terms

According to the Policy Cycle (figure 1) **Policy implementation** is the stage where decisions are transferred into practice.¹

Policy implementation evaluation is the assessment of "how" the policy was translated into practice. It can have multiple aims, such as: identifying determinants of implementation, identifying differences between planned and actual implementation²

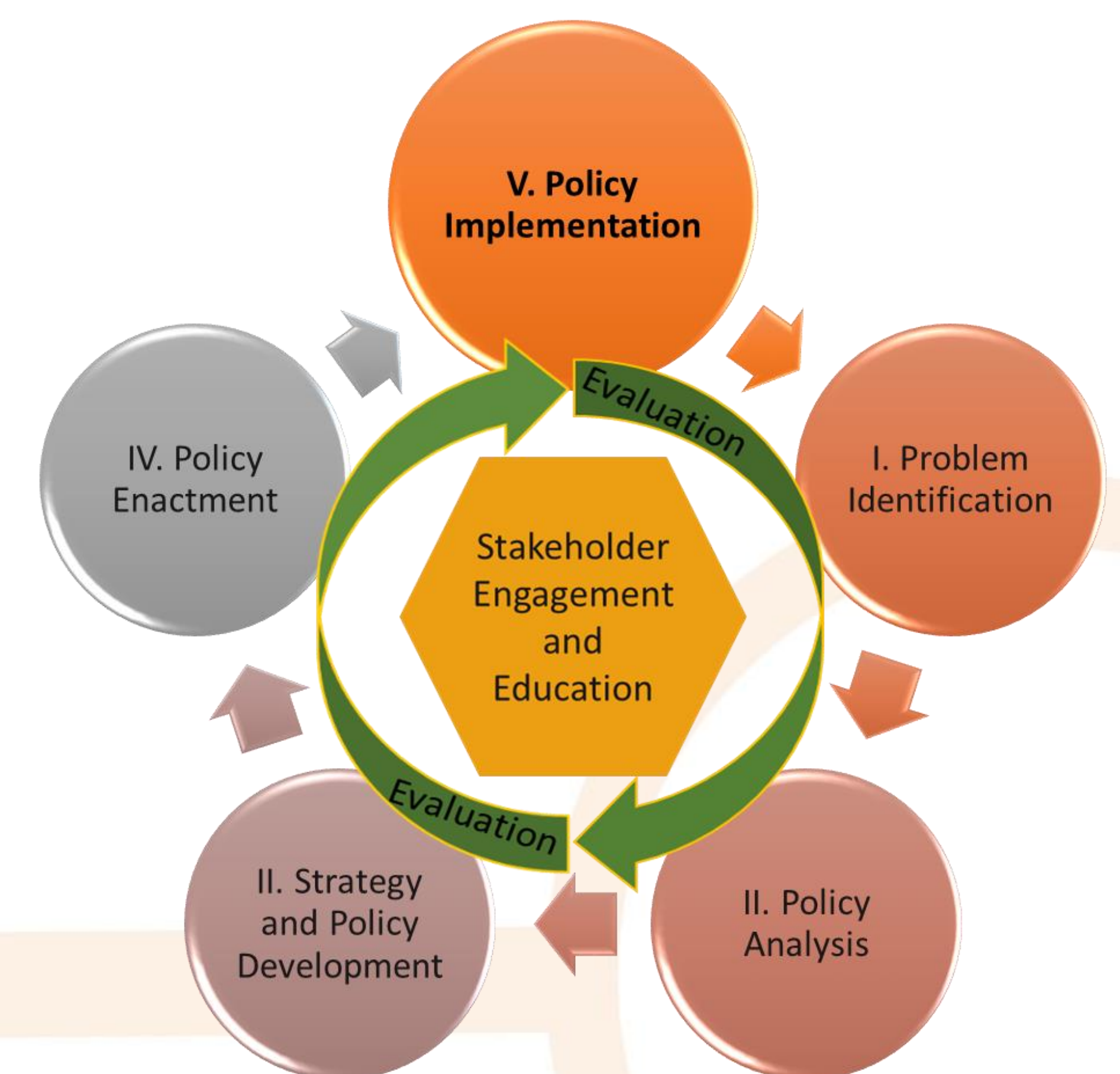


Fig 1. Policy Cycle: Adapted from Centers for Disease Control & Prevention, Office of the Assoc. Director for Policy & Strategy

<https://www.cdc.gov/policy/polaris/policyprocess/index.html>

What our studies add

Case study on determinants associated with physical activity policy adoption in primary schools in south-west Germany

- Aim: to identify determinants of policy adoption
- Cross-sectional study from 4 May to 20 June 2021
- N=121 (4%) primary schools and special needs schools in Baden-Wuerttemberg (BW)
- Framework based study design and analysis: Consolidated Framework for Implementation Research (CFIR)
- Results:
 - Policy adoption: yes: 49 (40.5%); no 72 (59.5%)
 - Positive associations between policy adoption and available resources, access to knowledge and information and engaging
- Strengths and limitations
 - ↑ strong theoretical background; ↓ low response rate
- Very first insight on determinants that might be associated with the adoption of a physical activity policy in BW

Most **implementation frameworks** have a complex scope with combinations of processes, determinants and/or evaluation, and they include both system-level and individual- or organisational/community-level constructs, but contain little to no equity constructs. They combine sections that are purely descriptive with sections accounting for prescriptive and/or explanatory associations.⁶

The **implementation determinants** cost, networking external policies, structural characteristics, implementation climate, readiness for implementation, and knowledge/beliefs were indicated in analysed reviews/stakeholder documents as occurring in implementation processes.⁷

Socio-cultural, economic and political contexts play a crucial role in successful policy implementation, as they can accelerate or slow down the implementation process.

Highly intrusive measures like taxation or restrictions are least likely to be **accepted** when first implemented, but confidence in relevance and effectiveness increases over time, which in turn may increase acceptance.

Scoping reviews on **implementation processes** of sugar-sweetened beverage taxation and physical activity policies revealed that there are still too few studies to draw conclusions about processes.

Policy recommendations

1. **Follow guidelines when planning policy implementation evaluation**, e.g. the 10 steps defined by Ontario Agency for Health Protection and Promotion.⁸
2. **Use implementation frameworks** to address processes, determinants and evaluation of implementation by taking into account the interplay between contextual factors as well as equity factors.
3. **Engage stakeholders** in policy implementation, including the evaluation phase. The choice of individual stakeholders from different groups and levels should be made by considering the nature of the policy (e.g. nutrition, physical activity) and the context in which the policy is implemented.
4. **More research is needed on policy implementation tools and methods** as policy implementation fulfills the characteristics for complex adaptive systems.



Literature references: ¹ Howlett et al 2009 & Consensus Definitions PEN; Derived from: CDC: <https://www.cdc.gov/policy/analysis/process/docs/UsingEvaluationtoInformCDCsPolicyProcess.pdf>; ² CDC: <https://www.cdc.gov/injury/pdfs/policy/Brief%204-a.pdf>; ³ Proctor et al. (2011): Outcomes for implementation research: conceptual distinctions, measurement challenges, and research agenda. In: Administration and policy in mental health 38 (2), S. 65–76. DOI: 10.1007/s10488-010-0319-7; ⁴ Nilsen, P.; Bernhardsson, S. (2019): Context matters in implementation science: a scoping review of determinant frameworks that describe contextual determinants for implementation outcomes. In: BMC health services research 19 (1), S. 189. DOI: 10.1186/s12913-019-4015-3; ⁵ Howlett, M.; Giest, S. (2015): Policy Cycle. In: James D. Wright (Hg.): International Encyclopedia of the Social & Behavioral Sciences. USA: Elsevier, S. 288–292; ⁶ Łobczowska et al. (2022): Frameworks for implementation of policies promoting healthy nutrition and physically active lifestyle: systematic review. In: Int J Behav Nutr Phys Act 19 (1), S. 16. DOI: 10.1186/s12966-021-01242-4; ⁷ Łobczowska et al. (2022): Meta-review of implementation determinants for policies promoting healthy diet and physically active lifestyle: application of the Consolidated Framework for Implementation Research. In: Implementation Sci 17 (1), S. 2. DOI: 10.1186/s13012-021-01176-2; ⁸ Ontario Agency for Health Protection and Promotion (2015): At A Glance: The ten steps for conducting an evaluation.; <https://www.publichealthontario.ca/-/media/documents/A/2015/at-a-glance-10step-evaluation.pdf>;

WP4 Fact sheet – Additional Text on “What our Studies add”

1. Most **implementation frameworks** have a complex scope with combinations of processes, determinants and/or evaluation of implementation. They include both system-level constructs and those at the individual or organisational/community level. Furthermore, they combine sections that are purely descriptive with sections accounting for prescriptive and/or explanatory associations. They still contain few or no equity constructs.

This statement is based on the manuscript: “Frameworks for Implementation of Policies Promoting Healthy Diet and Physically Active Lifestyle: Systematic Review”

Current status: Accepted for publication (International Journal of Behavioral Nutrition and Physical Activity); not published yet

Abstract:

Background: Policy frameworks focusing on policy implementation may vary in terms of their scope, included constructs, relationships between the constructs, and context factors. Although multiple policy implementation frameworks exist, the overarching synthesis characterizing differences between the frameworks is missing. This study investigated frameworks guiding implementation of policies aiming at healthy nutrition, physical activity promotion, and a reduction of sedentary behavior. In particular, we aimed at examining the scope of the frameworks and the content of included constructs (e.g., referring to implementation processes, determinants, or implementation evaluation), the level at which these constructs operate (e.g., individual, organizational/community), relationships between the constructs, and the inclusion of equity factors.

Methods : A systematic review (the PROSPERO registration no. CRD42019133251) was conducted using 9 databases and 8 stakeholder websites. The content of 38 policy implementation frameworks was coded and analyzed.

Results : Across the frameworks, 47.4% (18 in 38) addressed three aims: description of the process, determinants, and evaluation of implementation. The majority of frameworks (65.8%; 25 in 38) accounted for constructs from three levels: individual, organizational/community, and the system level. System-level constructs were included less often (76.3%; 29 in 38) than individual-level or organizational/community level constructs (86.8% [33 in 38 frameworks] and 94.7% [36 in 38 frameworks] respectively). The majority of frameworks (84.2%, 32 in 38) included at least some sections that were solely of descriptive character (a list of unassociated constructs); 50.0% (19 in 38) included sections of prescriptive character (general steps of implementation); 60.5% (23 in 38) accounted for explanatory sections (assuming bi- or uni-directional associations). A complex system approach was accounted for in only 21.1% (8 in 38) of frameworks. More than half (55.3%; 21 in 38) of frameworks did not account for any equity constructs (e.g., socioeconomic status, culture).

Conclusions : The majority of policy implementation frameworks have two or three aims (combining process, determinants and/or evaluation of implementation), include multi-level constructs (although the system-level determinants are less frequently included than those from the individual or organizational/community level), combine sections of purely descriptive character with sections accounting for prescriptive and/or explanatory associations, and are likely to include a little or no equity constructs.

Registration : PROSPERO, #CRD42019133251

WP4 Fact sheet – Additional Text on “What our Studies add”

2. The **implementation determinants** cost, networking external policies, structural characteristics, implementation climate, readiness for implementation, and knowledge/beliefs were indicated in analysed reviews/stakeholder documents as occurring in implementation processes.

This statement is based on the manuscript: “Meta-review of implementation determinants for policies promoting healthy diet and physically active lifestyle: application of the Consolidated Framework for Implementation Research”

Current status: Published; <https://doi.org/10.1186/s13012-021-01176-2> (Implementation Science)

Abstract:

Background: Although multiple systematic reviews indicate that various determinants (barriers and facilitators) occur in the implementation processes of policies promoting healthy diet, physical activity (PA), and sedentary behavior (SB) reduction, the overarching synthesis of such reviews is missing. Applying the Consolidated Framework for Implementation Research (CFIR), this meta-review aims to (1) identify determinants that were systematically indicated as occurring during the implementation processes and (2) identify differences in the presence of determinants across reviews versus stakeholder documents on healthy diet/PA/SB policies, reviews/stakeholder documents addressing healthy diet policies versus PA/SB policies targeting any population/setting, and healthy diet/PA/SB policies focusing on school settings.

Methods: A meta-review of published systematic scoping or realist reviews ($k = 25$) and stakeholder documents ($k = 17$) was conducted. Data from nine bibliographic databases and documentation of nine major stakeholders were systematically searched. Included reviews (72%) and stakeholder documents (100%) provided qualitative synthesis of original research on implementation determinants of policies promoting healthy diet or PA or SB reduction, and 28% of reviews provided some quantitative synthesis. Determinants were considered strongly supported if they were indicated by $\geq 60.0\%$ of included reviews/stakeholder documents.

Results: Across the 26 CFIR-based implementation determinants, seven were supported by 66.7–76.2% of reviews/stakeholder documents. These determinants were cost, networking with other organizations/communities, external policies, structural characteristics of the setting, implementation climate, readiness for implementation, and knowledge/beliefs of involved individuals. Most frequently, published reviews provided support for inner setting and individual determinants, whereas stakeholder documents supported outer and inner setting implementation determinants. Comparisons between policies promoting healthy diet with PA/SB policies revealed shared support for only three implementation determinants: cost, implementation climate, and knowledge/beliefs. In the case of healthy diet/PA/SB policies targeting school settings, 14 out of 26 implementation determinants were strongly supported.

Conclusions: The strongly supported (i.e., systematically indicated) determinants may guide policymakers and researchers who need to prioritize potential implementation determinants when planning and monitoring the implementation of respective policies. Future research should quantitatively assess the importance or role of determinants and test investigate associations between determinants and progress of implementation processes.

Trial registration: PROSPERO, #CRD42 01913 3341

WP4 Fact sheet – Additional Text on “What our Studies add”

3. **Socio-cultural, economic and political contexts** play a crucial role in successful policy implementation, as they can accelerate or slow down the implementation process.

This statement is based on the manuscript: “Social, economic, political, and geographical context that counts: Meta-review of implementation determinants for policies promoting healthy diet and physical activity.”

Current status: revision submitted to the journal (BMC Public Health);

PROSPERO, #CRD42019133341

The abstract will be made available as soon as the manuscript has been accepted.

4. **Highly intrusive measures such as taxation or restrictions** are least likely to be **accepted** when first implemented, but confidence in terms of relevance and effectiveness increases over time, which in turn may increase acceptance.

This statement is based on the manuscript: “Acceptability of policies targeting dietary behaviours and physical activity: a systematic review of tools and outcomes.”

Current status: submitted for peer review (PEN Special Issue)

Systematic review; PROSPERO: CRD42021232326

The abstract will be made available as soon as the manuscript has been accepted.

5. **The existing evidence indicates that an SSB tax implementation process** may involve existing structures, highlights potential conflicts and poses communication risks.

This statement is based on the manuscript: “What happens between sugar tax enactment and the effects observed? Sugar-sweetened beverage tax implementation: Results of a scoping map.”

Current status: major revision status (Health Research Policy and Systems)

Scoping map; Open Science Framework (OSF) (osf.io/7w84q/)

The abstract will be made available as soon as the manuscript has been accepted.

6. **Implementation processes** for active design guideline use in planning and whole-of city approaches are characterised by a coordinative approach, whereby implementation of national physical activity guidelines is a mix of different processes.

This statement is based on the manuscript: “What do we know about the actual implementation process of public physical activity policies: Results from a scoping map.”

Current status: will be submitted for peer review at the end of January (PEN Special Issue)

Scoping map; Open Science Framework (OSF) (osf.io/7w84q/)

The abstract will be made available as soon as the manuscript has been accepted.