

Translating Policy Guidelines: A Multiple Case Study of Disease Prevention in Sweden

Mattias Elg (✉ mattias.elg@liu.se)

Linkopings Universitet Tekniska Hogskolan <https://orcid.org/0000-0003-4730-5453>

Elin Wihlborg

Linkopings universitet

Research

Keywords: implementation, empirically

Posted Date: August 27th, 2020

DOI: <https://doi.org/10.21203/rs.3.rs-65574/v1>

License:   This work is licensed under a Creative Commons Attribution 4.0 International License.

[Read Full License](#)

Abstract

Background

There is a growing need to establish new knowledge on healthcare policy implementation that is relevant for both research and practice. Many attempts fail to deliver implemented policy initiatives effectively because of the lack of coordination between system levels and different actors own agendas. The aim of this paper is to propose and illustrate an analytical framework providing a multilevel and multi-actor perspective in order to uncover combined difficulties of policy implementation within the context of a public healthcare system.

Methods

A multiple case study approach for the implementation of disease prevention in four Swedish healthcare regions was used. The selection of cases – regions within Sweden – was made in order to reflect a broad variety of contextual factors that may influence the policy implementation effectiveness. Interviewees consisted of a strategic sample of respondents representing different system levels and logics from each region. The qualitative analysis was based on empirically identified translation strategies by building a logical chain of evidence of the whole implementation process.

Results

The translation of policy guidelines was theorized and empirically investigated as chains of steps from the evidence-based policy formulated in the national guidelines for disease prevention methods via regional administrative systems into clinical practices. The following thematic areas were investigated: the successive translation of the policy object, consequences of policy reprioritizations, the role of technology in translation and the embedding of policy in clinical practice.

Conclusions

In successful implementation chains, guidelines are translated by being received and transferred to healthcare administrative systems through various political administrative activities and are then realised in everyday clinical practice. Policy is translated into different parts of the systems successively within the context of a multi-actor, multi-logic framework. Each actor/logic may take on the policy idea, change the route, delay it or even cancel out efforts. Earlier steps in the policy translation chain thus have consequences for later activities.

Contributions To The Literature

- Successful implementation of healthcare policy has been difficult to achieve, especially when it introduces new ways of working in clinical practice.
- The analysis of disease prevention policy implementation reveals that policy is translated into different parts of the systems successively within the context of a multi-actor, multi-logic framework. Each actor/logic may take on the policy idea, change the route, delay it or even cancel out efforts. Earlier steps in the policy translation chain have consequences for later activities.
- These findings contribute to understanding of actors, processes and contexts that plays an important role in the implementation of policy.

Introduction

Recent research reviews display a growing interest in establishing new knowledge on healthcare policy implementation that is relevant for both research and practice [1–3]. This concern is motivated by the difficulty of converting policy into practice [1, 4]. A central goal of policy implementation research is to examine whether policies are implemented as conceived and to explain implementation success or failure [5]. This encompasses understanding how, why and by whom policy is put into effect and with what results [6, 7]. Previous research shows that an increasing number of attempts fail to deliver implemented policy initiatives effectively [2].

Several mechanisms for explaining difficulties in policy implementation have been suggested in previous research, most notably related to the top-down vs. bottom-up debate focusing on the multilevel structure of healthcare systems [1, 8]. More recent perspectives have included governance approaches, whereas research topics have been broadened regarding actors and interorganisational relationships as multi-actor approaches [9, 10]. There is also a need to further integrate multilevel and multi-actor perspectives within the system to uncover combined difficulties of implementation [11]. A central argument is that various institutional settings set the conditions for various actors' involvement in policy implementation at different system levels. What works for one actor in one context might not be as easy for another actor in another part of the system [12]. One consequence of this is that the object of policy implementation may take on new forms and new meanings as it unfolds in a process of translation throughout the healthcare system [11].

In the present study, we propose and illustrate an analytical framework that integrates institutional system levels with the various actors (i.e. politicians, administrators and professionals) and their logics of action in policy implementation. The case used in this article focuses on the translation of policy guidelines within the context of a multilevel public healthcare system. The purpose of the article is to contribute to process theorisation in implementation science by developing and elaborating on a theoretical model combining multi-level and multi-logic translation through an analysis of policy guideline translation. The model focuses on implementation processes regarding policy guidelines, by analysing a multiple case study of disease prevention developed nationally and translated into regional administrative systems, and subsequently to local clinical activities in meetings with patients.

Theoretical model for analysis of policy translation

The translation of policy guidelines in systems is viewed as an organised journey [13]. This metaphor of translation implies travel that may be subject to a changed route, delays or even cancellation due to extraordinary events. Thus, we may or may not reach our destination. The actors play a critical role in the translation processes. An actor functions as a translator and re-frames ideas to fit into the new context [14–16]. The process of translation assumes that its object is often modified and sometimes rejected by actors depending on their interests [14]. Each step in the process is linked to various activities, in which the actors are active to varying extents and translate their parts. All these activities take place in several different institutional settings with different interests, and where many other initiatives compete for attention and resources.

This institutional setting conditions actors' abilities to translate in and between organisational contexts. It is therefore central and plays a key role in implementation. For instance, healthcare interventions that are viewed as promising by actors at the macro and meso system levels might be deemed hard to realise by agents at the micro level. However, there are also multiple – and sometimes even competing – logics at the same system levels [17]. Policy officials and professionals at the meso level might have very different views on what will work [10]. The different combinations of system levels and actor interests provide the institutional settings governing the policy implementation. Such settings have different logics that define the rules of the game, or constraints created by actors that shape interaction. In healthcare systems, multiple and competing logics frame how various actors carry out activities in specific contexts [18]. The logics are taken-for-granted rules that guide the behaviour of “field-level actors belief systems and related practices that predominate in an organizational field” [19].

We posit that three different logics are central to understanding the translation process for healthcare system guidelines. First, the starting point for policy logic is that public healthcare is politically governed and is therefore influenced by a political logic. Even in more market-based systems, there is a strong political logic framing how, by whom and where care is given, managed and not least funded. The political norms, based on the UN's third sustainability goal aiming to “Ensure healthy lives and promote well-being for all at all ages”, advise on how healthcare should be conducted at an overall level as well as democratic decision-making processes. Second, the administrative logic consists of rational bureaucratic forms of control. This logic also emphasises hierarchical structures of authority and decision-making. Managers and administrators within the healthcare system are embedded in this logic, where they are formed by and at the same time forming the logic in relation to other logics [20]. Third, the professional logic is based on medical grounds and professional autonomy. The healthcare processes are dominated by medical competences and science, as brought into the system by doctors and other health professionals. This logic relies on collegial forms of influence and sanctions, having the power to require actors to follow rules based on evidence-based practice [21].

The three different logics are all present to some degree at different levels of the healthcare system – see Fig. 1 below.

In this model, the macro level of the system consists of aspects that have legal and regulatory status at the highest system level. The meso level concerns local health service and community factors. The micro level relates to day-to-day clinical practice. The journey of a policy translation process takes place in the interplay between several different system levels. Actors have different capacities and resources to initiate and sustain translation, depending on where and when in the level-logic context they are acting [22]. Translation is hypothesized to include both vertical processes across levels and horizontal translation between different logics.

Method

We used a multiple case study approach for the implementation of disease prevention in four Swedish healthcare regions [23]. The policy was based on national guidelines for disease prevention methods developed and adopted by the National Board of Health and Welfare in Sweden (DPMs, disease prevention methods). The DPMs were based on synthesising evidence by creating evidence-based clinical policies in four areas of healthy habits: tobacco use, alcohol use, physical activity and eating habits [24].

In this case, the method involved following the unfolding of guidelines from development at the national level and subsequent activities at the regional and local levels of the various healthcare systems, including the various logics at different system levels [14]. Through this work, we traced the motivations and rationales for actor involvement as outside and independent researchers. Our approach has the advantage of including those actors identified around the guidelines, and thereby following the guidelines across the levels and logics.

The Swedish healthcare system is publicly regulated and funded to a high degree. The organisation of the universal public healthcare system is based on a complex governance system combining national governmental control and regional management and funding. Within the national legislation, control of the profession and soft-law knowledge-based governance, the regions have large autonomy regarding governance, management and regional adoption of national policies [25]. In international comparison, the Swedish healthcare system is highly decentralised [26]. The high degree of self-governance for the regions within a universalistic national healthcare system allows for a comparative study design within one state [27].

The selection of cases – regions within Sweden – has been made in order to reflect the whole of Sweden. Variation in size has been a primary selection criterion, as has political majority in the regions, see Table 1. Furthermore, we emphasise the structures and processes that are used to control, manage and organise the region according to their opportunities for self-governance. In addition, the selection considered highlights pointing towards solutions that have been central to the regions' implementation efforts.

Table 1
Central characteristics of the four regions

	South Border Region	Capital Region	East Sweden Region	Polar Region
Population ^a	1 378 000	2 377 000	465 000	250 000
Number of primary care unit ^b	188	277	67	32
Number of full-time physicians in primary care per 1000 inhabitants	0,8	0,6	0,7	0,9
Number of hospitals ^b	10	16	3	5
Sources: a) Statistics Sweden www.scb.se , b) National health care information 1177, www.1177.se				

————— insert Table 1 about here —————

The interviewees consisted of a strategic sample of respondents representing the different system levels and logics from each region (see appendix interviewees). The interviews were thematically oriented (interview protocols are found as supplementary files). Each interview was recorded and transcribed. Also, they were anonymized in order to protect confidentiality. In a first summarising step of the analyses, each region's approach to the implementation of disease prevention was identified based on policy documents and the interviews [28]. In the next step, we empirically identified translation strategies in the cases based on the method of building a logical chain of evidence [29]. Thereafter, we focused on the identification of common and general patterns, with the results being illustrated in a report in Swedish [28]. This followed on from the strategy of identifying central elements in each case in order to construct an ordered holistic view [29]. The focus of this strategy was on interpretative synthesis through generalising from a particular empirical set of results to a broader theory. This was generated in an interactive and interdisciplinary abductive analysis. Thus, the generalisation striven for here is analytical rather than population-based [30] to propose and illustrate the analytical framing of the logic-level model. The results of the study (especially Fig. 2) have been checked and validated by the interviewees and other actors working with disease prevention in Sweden through two workshops.

Results

The Swedish National Board of Health and Welfare (SNBHW) decided in November 2011 on the national guidelines for methods to prevent disease. These guidelines focus on four areas: tobacco use, hazardous alcohol use, insufficient physical activity and unhealthy eating habits. Since the introduction of the guidelines, healthcare systems in Sweden, i.e. regions, have established efforts for the implementation of these guidelines.

The results of the four case studies is illustrated in Fig. 2 showing an overview of the various links in the process of translation and captures and summarises the complex organisation. The different

relationships and connections between levels, logics, actors, initiatives and activities in the figure illustrate connections in a way that clarifies the chain's strong and weak links. The figure should be read as activities from the initiative taken at the national level (macro), where policy guidelines are developed in the administrative logic – by the Swedish National Board of Health and Welfare – and then via managing health promotion activities at the regional level (meso), to the realisation in clinical practice at the local clinical level (micro).

----- Insert figure 2 about here -----

Participation in guideline development: path dependency

Generally, the empirical analysis shows that multiple logics are combined when guideline development begins. At the national (macro) level, the policy is initiated through regulatory initiatives and the provision of resources. Actors from both the administrative and professional logics collaborate in order to develop the guidelines. Several of these actors, working with guideline development nationally, came from the regions where they also had worked with disease prevention policies. There was a clear link – path dependence – between the different settings, in that previous work created opportunities for starting the work in the regions.

It was obvious that active actors in all parts of the healthcare system took on a role in the translation and were not randomly chosen to carry out the work. Instead, there was a clear path dependence in terms of who was given the assignment and where the translation was initiated and became an integrated part.

The earlier work has clear consequences for the design of the regional guideline work, as one senior member of the administrative management team in the South Border Region said:

“[We have]... worked on and worked with networks and development issues and so on – overall. So that is my role, and it still remains. And then when the guidelines came, it was the strategist [for health promotion] – my predecessor – who took the ball and ran with it.”

In the East Sweden Region, the tobacco cessation work, an essential part of the guidelines, is mentioned as having been particularly successful and something that they have been able to build on. Their translation strategy in relation to the guidelines was based on “... having carried out long and solid tobacco work in the East Sweden Region”, as one of the respondents explained. The strategy is perceived as a well-structured approach that has supported them in continuing with disease prevention efforts, thereby enhancing the translation. Since the new guidelines included tobacco use, they could here be incorporated into an existing governance model and the translation went smoothly, with a good outcome. The general guidelines followed the path that had been developed through the tobacco cessation work.

This shows that the key actors in the regions had a strategy of being active early in the process and preparing the regional organisation for a smooth introduction of the guidelines. They influenced the

design of the guidelines in line with the organisational structure and culture. By following the path of earlier implementation processes they prepared the region to enhance the implementation by forming networks where the nationally formed guidelines were translated into the regional setting. Since the key translators were based in the same administrative logic, the Swedish National Board of Health and Welfare at the national level and regional administrations, the translation only crossed one border in the multilevel-multilogic model – from the national to regional level, but still within the same logic. The path dependence enforced the translation here and made the guidelines an administrative and policy concern. The clinical professionals were excluded at that time. This absence was later used as a justification for medical doctors' non-participation.

What was translated? The interpretative viability of disease prevention – an opportunity for the broader scope of health promotion?

Most commonly, the implementation of the guidelines was translated to fit into the regions' public health work. The starting point for this work was a concept developed by the public health centre. A policy administrator from the Polar Region said: "... we lean completely towards what they have been working with" for this implementation.

This approach – health promotion rather than disease prevention – was also embedded at the political level. A member of the regional council in the Polar Region explained that the guidelines raised the issues surrounding public health, linking to the work that had previously been initiated:

"... I think that when the guidelines came, we got support in our work and support with public health work. Therefore, this is what we should do, this is prevention, it is not treatment. And then, how do we work with prevention in a comprehensive way?"

The regional policymakers perceived that they had discretion in making decision on how to proceed with the initiative. One central aspect was the perceived flexibility [31] of the guideline that they used to frame the implementation into structures and meanings that were already in use – public health or general health promotion work. In a similar way, a previously initiated programme on health guidance for the population in the East Sweden Region was integrated into the implementation of the guidelines. There, the public health centre was active in developing health promotion, i.e. screening for the healthy population. As in several other regions, health calls were offered to all 30-, 40-, 50- and 60-year-olds. In the early stages of the guideline work, key actors in public health worked to explain the importance of engaging with the issues and broadening the scope of the guidelines. The original intention behind the focus of disease prevention was to engage individual patients whenever they entered the healthcare system for a specific health problem, not population-based health promotion. However, this distinction was not clear for the actors at the regional level.

An analysis manager said that there was a lot of resistance from the medical profession and that those who ran the questions had to defend the work, and pointed out that they encountered resistance within the organisation:

“... Maybe it was mostly from the medical profession, who actually felt that they should do this too? On top of everything else, we will have that in 15 minutes with the patient... The health director had to go out and argue for the case, and our public health manager was out talking too.”

The translation had to be enforced by several key actors from the regional administration promoting the guidelines into the local-professional practice. Although the intention of the guidelines for disease prevention was to identify and support individual patient health issues during their episode of care, the actors at the regional level viewed it as a public health policy. Consequently, the policy changed in practice from disease prevention at individual level to health promotion at public level. The implementation of the guidelines showed a flexibility to adapt within the multilevel-multilogic structure through translation to fit several different policy agendas and practices.

Designing activities at the regional level

When managing disease prevention at the regional level, administrators started several different activities. It was, however, difficult to get everyone on board. The translation into the professional logic proved to be trickier in all regions. The main impression was that when the translation of the disease prevention guidelines gives certain groups stronger positions, it also automatically leads to other professionals playing a minor role.

In this case, we identified mandatory participation in specific activities as a starting point. The South Border Region, for example, demanded that those who worked with disease prevention should have training in professional counselling for tobacco cessation. This training gave participants the skills and recognition to contribute to the implementation and continued translation of the disease prevention methods. Problems then arose when healthcare personnel without the specific training were assigned these counselling activities. One of our interviewees, a head of health strategy in the South Border Region, pointed this out and said:

“We saw that there were many doctors who were qualified to provide counselling in connection with tobacco... However, we have clearly stated in our care programme that it is tobacco cessation, and then you should be trained. And we have not trained any physicians in tobacco cessation, virtually none.”

The interviewees highlight this as something that may be summarised as passive resistance among physicians that we could see in most regions. By not engaging in training and activities linked to the disease prevention methods, they were disqualified by the system. Despite not actively terminating the practical use of the guidelines, they passively allowed them to “die”. This was a common counter strategy among physicians resisting the implementation by translating the guidelines structure into their professional clinical practice. One of the interviewees in another region argued that there was a major problem with the medical profession not stepping in and participating actively in the guideline work:

“Healthcare is still very hierarchical and thus getting doctors who advocate preventive work or life-long work. [are]– zero.”

This points to a more general problem regarding which groups are included in the work on an issue. When actors in the administrative logic design mandatory activities, that are supposed to support the translation, these activities actually may create resistance to the process of translation.

Policy reprioritisations

Although we noted some resistance among professionals – albeit passive – there was generally strong support for disease prevention as an idea. An elected member of the regional council in the Capital Region stated that:

“We may have slightly different perceptions of what is the highest priority, but it is obvious that health promotion measures have strong support.”

The policymakers provide legitimacy for the work throughout the healthcare system by symbolically signalling importance and providing the necessary resources to do the work. The East Sweden and Polar regions both prioritised disease prevention and had relatively stable political leadership at the time of our study. By contrast, there was more turbulence in the South Border and Capital regions. Uncertainty about financial prioritisations in the South Border Region had interrupted the introduction of the disease prevention methods. A medical adviser in the South Border Region gave voice for how the administrative management perceived that the work had changed since the last election:

“After the last majority shift in the council, a lot of politicians changed... so there are a lot of new people and they have other priorities... Now the focus is on accessibility and care locations and overcrowded emergency rooms...”

The reprioritisation in the South Border Region also led to considerable financial resources being deducted from disease prevention, which in turn undermined the translation of the guidelines. Even if guidelines for disease prevention originate in a policy initiative, they are also founded in evidence-based research in the medical professional logic, which in turn must encourage the policy logic to prioritise the issue to support the implementation.

In the South Border Region, when financial support for disease prevention dissolved, resources became embedded in the ordinary budgets – mainly within their already strained financial situation. The argument was that primary care was assigned more and more tasks while the total allocation of resources remained unchanged. The disease prevention activities became secondary. Despite the ambition of supporting the translation of guidelines from the policy logic perspective, policy officials at the regional level failed to bridge the administrative logic to translate the guidelines into functional practice in the local profession level logic. A manager from the Capital Region pointed out this barrier to translation into primary care practice by reflecting:

“No, but clearly this is so, there are too many studies showing that primary care’s share of the cake has remained largely unchanged and... and it is quite clear that... primary care must take more and more follow-ups, checks, of chronic illnesses and so on, and then you do not get more resources but are

assigned bigger tasks without it being possible to change or with the same way of working, then it is clear that this part can be ironed out.”

Similarly, a general practitioner in the Capital Region reflects on the problems of how to organise the work in primary care:

“Are we the ones who have the resources for this... do we get... the... financial resources needed to be able to carry out this assignment in a good way... Because there are many actors who can really do with the primary preventative work and I do not see it as obvious that the health centres and primary care should take this into consideration.”

In this case, the policy reprioritisations had to be supported by the medical professionals with evidence proving the importance of the guidelines and structures for funding and organisation formed by the administrative logic. This indicates that despite the high policy priority of the issue, there is a need for re-assembly in all logics at regional and local levels to translate national policy into local practice.

Using guidelines in practical clinical work: The specifics of the patient meeting

The outcome of the translation process is the changes in clinical practice that help patients to live healthier lives in order to prevent disease. The impact is entirely dependent on it being realised in clinical practice. Here, the guidelines need to be translated into everyday work. The translation was hampered by uncertainties about how to use the guidelines in practice. All regions had professional healthcare strategists based in the administrative logic coordinating the implementation of the guidelines in clinical settings. One healthcare strategist in the South Border Region reflected on the usefulness of the standards in the meeting with the patient:

“... I was pretty critical of the National Board of Health’s indicators that we may not need to measure exactly how many standard glasses a person drinks to carry out an intervention... Of course, you can discuss anyway, and the patient may open up a little bit and say ‘I might drink a little too much’.”

The healthcare professions are used to making nuanced and individual-centred assessments, and these competencies are not considered in the design of the guidelines, which constrains the translation process. Things cannot only be just black or white, as one specialist physician in general medicine in the Capitol Region said:

“... I really have no problem with the legitimacy of these questions, nor do I think that many other people have, either. What was being questioned and discussed was our duty, so to speak, to address these issues in all contacts with patients, because it became a bit black or white. It was a [professional] group that was pushing this hard, and they were very specific that we should always use our precious time with patients to ask questions about living habits.”

There are several policies that must be implemented in practical daily clinical work, and the medical professions indicates a resistance towards their capacity to translate everything into their short meetings

with patients. They have a different logic of priorities that hampers this translation, even if they agree with the evidence-based core values of guidelines.

To continue the translation of the guidelines, the problems and challenges faced by the organisation need to be embedded in clinical management. Leading actors at the primary care units such as managers and dedicated employees must enforce the translation by being ambassadors for the guidelines in practice. One way to continue the realisation and thereby the translation of the guidelines into clinical work was to embed them in the ordinary organisational structures. A healthcare strategist pointed to the need to continue this work:

“... It should ideally be anchored in existing processes. And that is happening – there is a lot of process work everywhere.”

The local leadership, i.e. the care unit management’s responsibility and engagement, was crucial for keeping up translation in the implementation. A critical aspect was to clarify how the guidelines relate to other issues that simultaneously compete for attention to be translated, within the limited scope for change that exists in an organisation. When running multiple processes, or translations, it was especially important that management helps all employees to understand whether – and if so, how – different initiatives can or even should be linked together. There are different technologies that management can use to support the translation process.

Technical support for disease prevention methods

Technology played an important role in the translation process. Adapting and creating new technical solutions to support clinical practitioners in their everyday work is part of the translation process. These development efforts mostly took place at the regional level. By technology, we mean structured coding and reporting systems, web-based support systems or descriptions of work processes.

Early in the development of the guidelines, codes for disease prevention activities was developed. By measuring activities through these codes, the aim was to support task evaluation, budgeting and knowledge management. However, the codes led to uncertainty, as if professionals were uncertain which language is spoken in the organisation. An expression of this is the central activity of coding, as described by a manager at a primary care unit in the South Border Region:

“We have to work with countless codes, action codes in the journal... Physical activity consists of four different codes, simple advice, as well as more developed advice and specialist advice and... yes. And then the prescription of physical activity. You have to know which of them to click, have I done the simple tips or some more? You do not really know and so you skip the registration.”

The technology of coding was taken one step further in the East Sweden Region through a locally developed method called the Health Chart. This is a specific, integrated part of the digital patient record system. The region had invested in extensive technology development to obtain an integrated solution

that could be used continuously to document living habits, by using the codes in the guidelines. An analysis manager in the region pointed out the value of this development:

“Before, you documented... yes, a little wherever you wanted, there were questions about tobacco in many of the hundreds of templates that are in the journal system and it was not so easy to find statistics on it. Then we created a uniform template, based on the guidelines, they follow the same flow, the same questions, so that you can compare nationally and make the work visible.”

Here the technology becomes a carrier of the disease prevention methods, and in this way contributes to strengthening the translation by transferring the meanings of the guidelines into a useful tool for the medical professionals.

In addition to the technology that deals with registering the disease prevention methods, the possibilities for data analysis were also highlighted and seen as a justification for the coding. Several of the interviewees argued that there are significant difficulties in obtaining good data analyses of the disease prevention work. A medical advisor in the South Border Region said:

“... it is very difficult, almost impossible, to pick data at the aggregate level. Unfortunately, they have not delivered the output data tools we have requested. We are trying to find out how to do it and create it ourselves here centrally. We have even been given some government funding to create a system for generating quality indicators at the primary care level.”

Technologies can translate meanings across the different levels and logics. The design of such technology is critical, since it must fit into both the logic and the ambitions of the sending and receiving contexts to help actors to associate their practice with the core meaning and values of the implementation programme. The selected disease prevention technologies vary among the regions, and due to the self-governance of the regions there were no national guidelines on the technologies for translations.

Discussion

This paper draws attention to the problem of integrating ideas from policy implementation and implementation science [1]. By using theories from social science and policy[11, 32] sciences the translation of policy guidelines was theorised and empirically investigated as chains of steps from the evidence-based policy formulated in the national guidelines for disease prevention methods into clinical practices. This type of approach is by nature multi-disciplinary and a key in further theories in implementation science [5, 33]. Although there are studies addressing implementation as translation [32, 33], the notion of system levels and logics are not empirically illuminated, and certainly not integrated into a holistic model. We contribute to implementation studies by proposing and showing the potential of a multilevel-multilogic framework. In successful implementation chains, these guidelines are translated by being received and transferred to healthcare administrative systems through various political administrative activities and are then realised in everyday clinical practice, where clinical professionals

implement the policy by addressing healthy living habits together with the patient according to a structured model. This type of process analyses are found in policy sciences and organisational theories [13, 34, 35].

The guidelines are immersed and embedded into the settings that are framing actors in their choices and capabilities [20]. Each logic-level configuration has its own way of constraining or enabling certain actions. The point is that in each actor/logic setting there are aspects that independently of what is going on in other parts of the healthcare system may stall an initiative. In this case the national administrative level, where policy guidelines were developed, had an impact in how to carry out further implementation. The choices made in this setting led to a method of how to work with disease prevention that supported a broad view. At the regional level, politicians constrained by budgets and other priorities, independently of the ongoing disease prevention work, were conditioning the translation process. The case study indicates that even a small change in priorities within this setting may be highly effective in delaying or stopping further translations. The professionals working in clinical practice had varying views of the importance of the guidelines, but it was evident that the medical profession had difficulties of identify themselves with the work related to the guidelines. Interestingly, they were not so much actively engaged in stopping the translation process, but rather passively ignoring it.

The translation supporting implementation are carried out by certain key actors that translate, develop strategies and even technologies to enhance the process. These actors play a central role as they link different levels/logics. In institutional theory they are denoted hybrid professionals as they manage to overcome disputes and differences [36]. Our multiple case study showed that guideline development and implementation were translated in different ways into the professional logic at local level. The key translation role was taken on, in all studied regions, by public health actors (administrators and researchers) at the regional level within the administrative logic. As shown above, there was an emphasis on path dependence, and the implementation of the guidelines became a natural continuation of previous work based on other policies and embedded into the management within the region, however less in the South boarder region where the political support was vanished. The most successful implementation was indicated by a fully adapted and integrated translation, when the actors in clinical practice have naturalised the guidelines, that is, they are “made invisible by [their] own success” [32]. Although there seem to be unpredictable processes [37], there are paths in the translation process that actually have tendencies to be not so unpredictable.

What was discovered when applying the multilevel-multilogic framework was that effective translation is dependent on successful linkage between settings. For instance, the path dependency occurred as actors from the regional level participated in the national guideline development and then subsequently went back to the regional level to further translate the guidelines according to their own interests. Boundary spanners, or hybrid professionals, are essential in order to create a continuous process of translation. In spite of extensive regional autonomy, according to the Swedish constitutional framework, there is a clear organisational hierarchy between the levels supporting a top-down translation. The horizontal translation was more complicated. The degree of compatibility between logics and existing organizational practices

showed to be a key for successful crossing different logic-level settings. The less compatible the practices of an organization are with certain logics, the less likely it is that the organization will adhere to them. This is illustrated with the difficulties of getting the MDs onboard. However, we identified one particular between-settings factor that enabled translation, namely technology. As technology can be translated by transferring the meanings of the guidelines into clinical practice without losing much of its initial meanings. In this way, technology carrying the meanings of the guidelines became a tool for the medical professionals.

A coherent translation in implementation indicates that there are common agreements on what is being implemented. Successful implementation can be characterised by a consensus on the object, or the aim of the policy. Here, we have argued that such a process must also follow a multilevel-multilogic translation. The framework makes it possible to both zoom out at the overall system and identify critical steps in the translation process, and to zoom in in order to identify and analyse constraints and enabling factors within a specific logic-level setting. This approach shows that implementation must be supported by linking several different organisational levels and also integrating the logics of multiple actors into a sustainable multilevel-multilogic chain.

There are several limitations of the present study. First, it is carried out in a Swedish contexts with its contextual characteristics of regions having high degree of autonomy. Despite this fact, the similarities of the four cases in their implementation processes is interesting. Our interest in finding common patterns among the four cases also meant that we excluded variations between them. However we found this to be a fruitful approach as we could work with creation of a generic picture that captured the essence.

Conclusion

Policy is translated into different parts of the healthcare system successively within the context of a multi-actor, multi-logic framework. Each actor at a specific system may take on the policy idea, change the route, delay it or even cancel out efforts. Earlier steps in the policy translation chain thus have consequences for later activities. We often assume that there is a lot of complexity in policy implementation. However, if we open the black box of system levels and elicit different logics, the present study shows that there are a lot of paths that are logical, and not so complex.

Declarations

Ethics approval and consent to participate

The study does not focus on the actions or performance of individuals but on improvement efforts undertaken by the organizations and thus the study did not meet the criteria to require approval from a Swedish ethical review board. Nonetheless, the study has been carefully designed to safeguard any ethical issues, as no personal information was gathered, and the structure of the interviews followed recommendation of a respectful and inclusive language.

Consent for publication

Not applicable

Availability of data and material

The datasets used and analyzed during the current study are available from the corresponding author. The study builds on a report published in Swedish and may be downloaded from the following link: <http://liu.diva-portal.org/smash/record.jsf?pid=diva2%3A928869&dswid=2060>

Competing interests

The authors declare that they have no competing interests

Funding

The study was supported by funding from The National Board of Health and Welfare as well as the VINNOVA project HELIX Competence Centre, 2016-00418.

Acknowledgements

The authors would like to acknowledge the support from Christina Strååt and Iréne Nilsson Carlsson at The National Board of Health and Welfare for their support and feedback. The authors would also like to acknowledge the work carried out by Malin Wiger and Jan Lindmark for doing interviews and co-authoring the Swedish report Översättningar av riktlinjer (downloadable at <http://liu.diva-portal.org/smash/record.jsf?pid=diva2%3A928869&dswid=2060>)

Authors' contributions

ME and EW collected the data together with two colleagues Jan Lindmark and Malin Wiger. Both ME and EW performed the analyses, drafted the paper and completed it in collaboration. ME obtained funding for the study.

References

1. Nilsen P, Ståahl C, Roback K, Cairney P. Never the twain shall meet?-a comparison of implementation science and policy implementation research. *Implementation Science*. Springer; 2013;8:63.

2. Hudson B, Hunter D, Peckham S. Policy failure and the policy-implementation gap: can policy support programs help? *Policy Design Practice*. 2019;2:1–14.
3. Oliver K, Innvar S, Lorenc T, Woodman J, Thomas J. A systematic review of barriers to and facilitators of the use of evidence by policymakers. *BMC Health Services Research*. 2014;14:2.
4. Nutley SM, Walter I, Davies HT. *Using evidence: How research can inform public services*. Policy press; 2007.
5. Grol R. Successes and failures in the implementation of evidence-based guidelines for clinical practice. *Med Care*. 2001;39:II46–54.
6. Schofield J. Time for a revival? Public policy implementation: a review of the literature and an agenda for future research. *International Journal of Management Reviews*. 2001;3:245–63.
7. Evans BA, Snooks H, Howson H, Davies M. How hard can it be to include research evidence and evaluation in local health policy implementation? Results from a mixed methods study. *Implementation Sci*. 2013;8:17.
8. Hill M, Hupe P. *Implementing Public Policy: An Introduction to the Study of Operational Governance*. SAGE; 2014.
9. Cairney P. *Understanding public policy: theories and issues*. Macmillan International Higher Education; 2011.
10. Norman A-C, Elg M, Nordin A, Gäre BA, Algurén B. The role of professional logics in quality register use: a realist evaluation. *BMC Health Services Research*. Springer; 2020;20:107.
11. Braithwaite J, Churruca K, Long JC, Ellis LA, Herkes J. When complexity science meets implementation science: a theoretical and empirical analysis of systems change. *BMC Med*. 2018;16:63.
12. Pawson R, Greenhalgh T, Harvey G, Walshe K. Realist review - a new method of systematic review designed for complex policy interventions. *J Health Serv Res Policy SAGE Publications*. 2005;10:21–34.
13. Czarniawska-Joerges B, Sevón G. *Global ideas: how ideas, objects and practices travel in a global economy*. Copenhagen Business School Press; 2005.
14. Latour B. *Reassembling the social: An introduction to social life*. Oxford: Oxford University Press; 2005.
15. Callon M. Some elements of a sociology of translation: domestication of the scallops and the fishermen of St Brieuc Bay. *The sociological review*. 32. London: SAGE Publications Sage UK; 1984. pp. 196–233.
16. Wihlborg E, Söderholm K. Mediators in action: Organizing sociotechnical system change. *Technology in Society Elsevier*. 2013;35:267–75.
17. Reay T, Hinings CR. Managing the rivalry of competing institutional logics. *Organization studies*. 30. London: SAGE Publications Sage UK; 2009. pp. 629–52.

18. Van den Broek J, Boselie P, Paauwe J. Multiple institutional logics in health care: 'productive ward: releasing time to care.'. *Public Management Review* Taylor Francis. 2014;16:1–20.
19. Scott WR. *Institutions and Organizations*. Thousand Oak. CA: Sage; 2001.
20. Evetts J. New professionalism and new public management: Changes, continuities and consequences. *Comparative sociology* Brill. 2009;8:247–66.
21. Freidson E. *Professionalism, the third logic: On the practice of knowledge*. University of Chicago press; 2001.
22. Pawson R, Tilley N, Tilley N. *Realistic evaluation*. sage; 1997.
23. Stake RE. *Multiple case study analysis*. Guilford press; 2013.
24. Socialstyrelsen S. *Nationella riktlinjer för sjukdomsförebyggande metoder 2011*. Tobaksbruk, riskbruk av alkohol, otillräcklig fysisk aktivitet och ohälsosamma matvanor. 2011.
25. Anell A, Glenngard AH, Merkur SM. Sweden. Health system review. *Health systems in transition*. World Health Organization, on behalf of the European Observatory on Health ... 1–159.
26. Figueras J, McKee M. *Health systems, health, wealth and societal well-being*. European Observatory on Health Systems and Policies. Maidenhead: Open University Press; 2012.
27. Snyder R. *Scaling down: The subnational comparative method*. *Studies in comparative international development*. Springer. 2001;36:93–110.
28. Elg M, Lindmark J, Wiger M, Wihlborg E. *Översättning av riktlinjer: Fallstudier av sjukdomsförebyggande metoders genomslag*. Linköping University Electronic Press; 2016.
29. Miles MB, Huberman AM, Huberman MA, Huberman M. *Qualitative data analysis: An expanded sourcebook*. sage; 1994.
30. Firestone WA. *Alternative arguments for generalizing from data as applied to qualitative research*. *Educational researcher*. 22. Thousand Oaks: Sage Publications Sage CA; 1993. pp. 16–23.
31. Benders J, Van Veen K. *What's in a fashion? Interpretative viability and management fashions*. *Organization*. 8. Thousand Oaks: Sage Publications Sage CA; 2001. pp. 33–53.
32. Rapport F, Clay-Williams R, Churruca K, Shih P, Hogden A, Braithwaite J. *The struggle of translating science into action: Foundational concepts of implementation science*. *J Eval Clin Pract*. 2018;24:117–26.
33. Wensing M, Grol R. *Knowledge translation in health: how implementation science could contribute more*. *BMC Med*. 2019;17:88.
34. Røvik KA. *From fashion to virus: An alternative theory of organizations' handling of management ideas*. *Organization Studies*. 32. London: Sage Publications Sage UK; 2011. pp. 631–53.
35. Stone D. *Transfer and translation of policy*. *Policy studies*. Taylor Francis. 2012;33:483–99.
36. Blomgren M, Waks C. *Coping with contradictions: hybrid professionals managing institutional complexity*. *Journal of Professions and Organization*. Oxford University Press; 2015;2:78–102.
37. Eccles M, Grimshaw J, Walker A, Johnston M, Pitts N. *Changing the behavior of healthcare professionals: the use of theory in promoting the uptake of research findings*. *Journal of Clinical*

Figures

	Policy logic	Administrative logic	Professional logic
Macro			
Meso			
Micro			

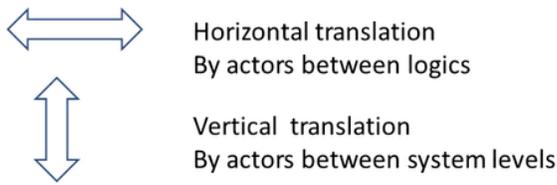


Figure 1

Multilevel-multilogic framework for the translation of policy guidelines.

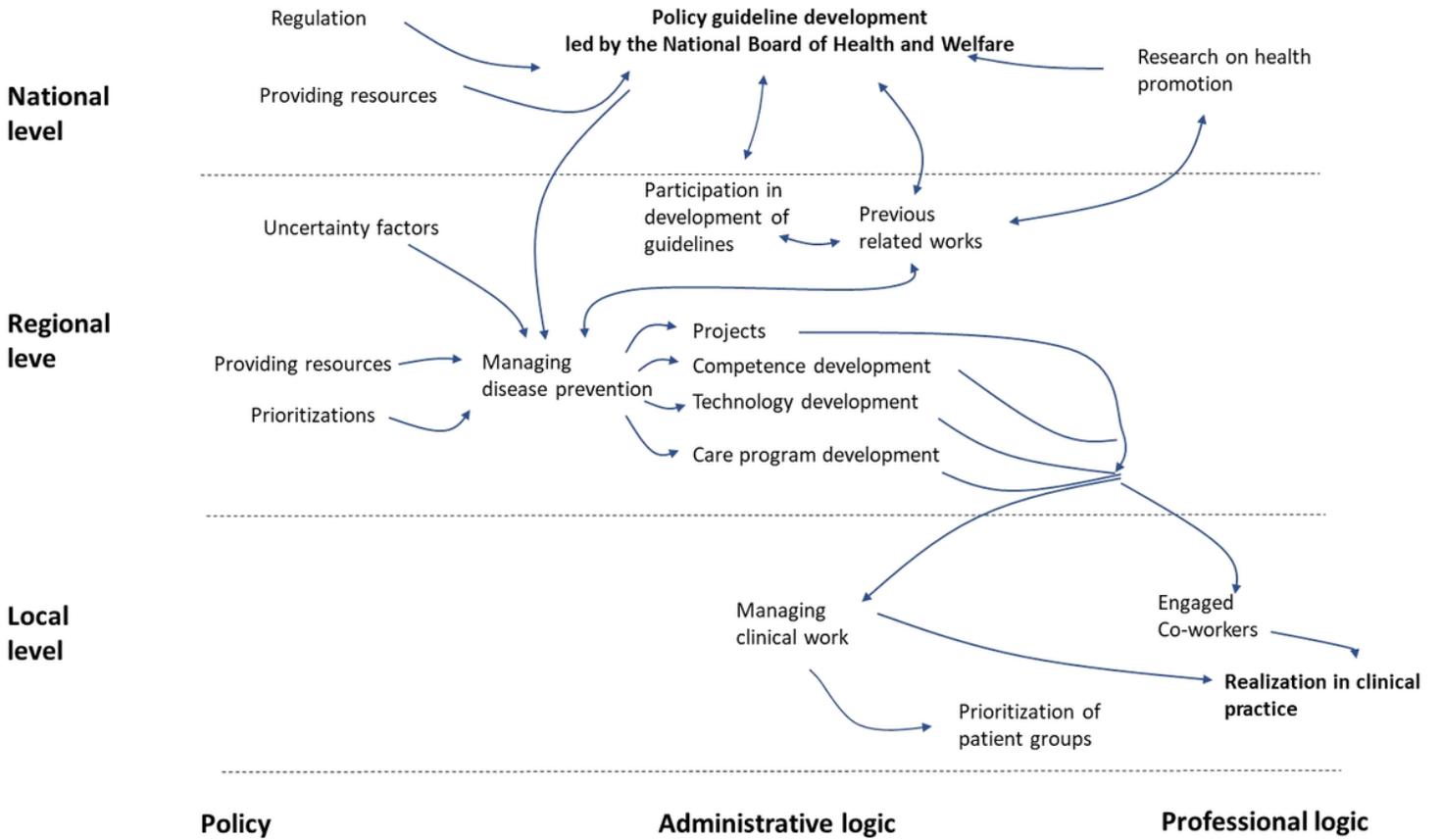


Figure 2

An overview of identified links in the translation of policy guidelines in the logic-level model.

Supplementary Files

This is a list of supplementary files associated with this preprint. Click to download.

- [Appendix.docx](#)
- [SRQRChecklist.docx](#)
- [renamed332d4.docx](#)
- [renamed76cc6.docx](#)