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A case of standardization? Implementing health promotion guidelines in Denmark

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Summary

Guidelines are increasingly used in an effort to standardize and systematize health practices at the local level and to promote evidence-based practice. The implementation of guidelines frequently faces problems, however, and standardization processes may in general have other outcomes than the ones envisioned by the makers of standards. In 2012, the Danish National Health Authorities introduced a set of health promotion guidelines that were meant to guide the decision making and priority setting of Denmark's 98 local governments. The guidelines provided recommendations for health promotion policies and interventions and were structured according to risk factors such as alcohol, smoking and physical activity. This article examines the process of implementation of the new Danish health promotion guidelines. The article is based on qualitative interviews and participant observation, focusing on the professional practices of health promotion officers in four local governments as well as the field of Danish health promotion more generally. The analysis highlights practices and episodes related to the implementation of the guidelines and takes inspiration from Timmermans and Epstein's sociology of standards and standardization. It remains an open question whether or not the guidelines lead to more standardized policies and interventions, but we suggest that the guidelines promote a risk factor-oriented approach as the dominant frame for knowledge, reasoning, decision making and priority setting in health promotion. We describe this process as a case of epistemic standardization.

Key words: evidence-based policy, implementation of guidelines, standardization, ethnography

INTRODUCTION

The notion of evidence-based practice has gained increased influence in health promotion as well as in other areas of policy and research, most prominently social work and education (Tang *et al.*, 2003; Hansen and Rieper, 2009; Raphael, 2010). The evidence movement originated in clinical medicine, but during recent decades the basic methodological and epistemological ideas have been transferred to many other fields (Hansen and Rieper, 2009). In the health promotion literature, the standard hierarchy of evidence and the methodological orthodoxy of claiming the randomized controlled trial (RCT) to be the gold standard method have been successfully challenged (Petticrew and Roberts, 2003; Tang *et al.*, 2003). It is, by now, well established that a broad range of research methods are needed to establish knowledge and improve health promotion in practice (Green and Ottoson, 2004; Raphael, 2010), and it is generally

acknowledged that the methodological gold standard is achieved by ensuring a close match between specific research questions and the methods put to use (Petticrew and Roberts, 2003; Cartwright, 2007).

As pointed out by Timmermans and Epstein (2010), evidence-based medicine—and by implication evidence-based practice in other fields—can be characterized as a 'massive standardization movement' [(Timmermans and Epstein, 2010), p. 80]. This movement does not simply push for the increased use of a specific research method, but also promotes other types of standardization, e.g. through clinical guidelines and assessment tools. Timmermans and Epstein argue that this standardization movement faces a problem of implementation, because the guidelines tend to have little effect on clinical decision making. This has provided the impetus for studies of decision making and implementation processes where it is generally found that the use and effects of guidelines are shaped by social, political and organizational conditions (Francke *et al.*, 2008; Poland *et al.*, 2008). Nonetheless, standardization processes may have other outcomes than the ones envisioned by the makers of standards, and Timmermans and Epstein call for empirical studies that investigate the making, implementation and outcomes of various types of standards.

In this article, we examine an ongoing process of standardization in Danish health promotion. More specifically, we study the process of implementation of a set of newly developed national guidelines for health promotion. In 2012, the Danish National Health Authorities introduced a set of so-called 'health promotion packages' that were meant to guide the decision making and priority setting of local governments. The stated purpose of these guidelines was not to standardize local health promotion practices. This would violate a principle of local autonomy, meaning that the national government is not supposed to interfere with local democracy and enforce particular policies and interventions—especially not without providing the necessary funding. Nevertheless, at several meetings the guidelines were presented by the national health authorities as a means of qualifying and systematizing local practices so citizens could expect the same level of service regardless of where they lived. Further, the interest organization of local governments (Local Government Denmark) endorsed the guidelines and announced their collective commitment to fulfilling the basic recommendations.

To our knowledge, no other country has introduced similar guidelines in the field of health promotion. In health promotion, the use of guidelines has generally been limited to manuals to be used when implementing particular evidence-based interventions (Rod *et al.*, 2013) along with broader recommendations regarding particular public health topics, e.g. smoking cessation, alcohol prevention in schools and mental well-being at work (see http://www.nice.org.uk/guidance/published?type=ph, for examples). In an international perspective, the Danish health promotion guidelines are interesting due to their alleged comprehensiveness: The aim of the guidelines is not simply to strengthen the quality of individual interventions and/or policy areas, but to improve and standardize local health promotion practices as a whole. This is a remarkable example of the global tendency to expand the ideas of evidence-based medicine beyond the clinic and take them into policy-making (Rod, 2012; Rod and Jöhncke, 2015), public administration (Tenbensel, 2004) and management (Tourish, 2013). Further, the case provides an opportunity for studying how the ideals of health promotion, which build on the Ottawa Charter (WHO, 1986) and emphasize the role of social determinants, settings-based approaches and empowerment, tend to become overruled by risk factor-oriented approaches to disease prevention (Baum and Fisher, 2014; Brassolotto *et al.*, 2014).

In this article, we examine the process of implementation of the Danish health promotion guidelines. In particular, we aim to discuss the implications of the guidelines' risk factor-oriented approach for the implementation process and for local health promotion practices more generally. Our analysis is inspired by Timmermans and Epstein's (2010) sociology of standardization in the sense that we examine the social practices of the implementation of standards as well as seek to specify their outcomes, the intended as well as the unintended. Thus, while two national surveys (Friis-Holmberg *et al.*, 2013; Christiansen *et al.*, 2014) have documented the general uptake and use of the guidelines by Danish local governments in 2013 and 2014, this study aims to provide a more nuanced picture of the ways in which the guidelines serve to shape current health promotion practices in Denmark.

Background: health promotion in Denmark

Following an administrative reform in 2007, Denmark's 98 local governments (or municipalities) have been charged with the responsibility for local disease prevention and health promotion as well as primary healthcare services. Local governments are required to coordinate their activities with five regional councils which are responsible for hospitals and specialized health care, whereas general practitioners run their own clinics as private businesses. The healthcare system is primarily funded through national taxation, but local governments pay a proportion of the expenses to hospital treatment and care of their own citizens, and they have thus been given

a financial incentive to prevent disease and promote health (Vrangbæk and Sørensen, 2013). Research has indicated that local governments are eager to play a bigger role in primary health care, but they struggle to position themselves as highly qualified and efficient actors in an intersectoral landscape, where specialized medical expertise is placed at regional hospitals rather than local-level healthcare institutions (Pedersen *et al.*, 2011).

When it comes to health promotion and disease prevention, local governments are not legally required to implement particular policies or interventions. Since the 2007 reform, they have adopted different approaches and pursued different policy targets, and this may be considered problematic in the context of a healthcare sector where the ideals of standardization and evidence-based practice prevail. Even so, Danish health promotion is dominated by a risk factor-oriented approach that emphasizes the role of individual behavior and lifestyle rather than, e.g. social determinants or empowerment. This has been documented by Signild Vallgårda in comparisons of national public health programs in Scandinavia (Vallgarda, 2007, 2011), and the same tendency can be identified in local health policies (Aarestrup *et al.*, 2007). In particular, the acronym KRAM has had a tremendous impact in Danish public health planning and policy-making, evident in national legislation as well as in interventions and policies at the local government level. KRAM is an abbreviation of the Danish words for food, smoking, alcohol and exercise, but it is also a word in itself that means 'embrace' or 'hug'. The KRAM approach was introduced in a pamphlet to local governments entitled 'Giv borgerne et KRAM' which literally translates into 'EMBRACE the citizens' (Det Nationale Råd for Folkesundhed, 2006). The new health promotion guidelines mark a continuation and expansion of this approach in so far as they are divided into recommendations for 11 different risk factors (tobacco, alcohol, physical activity, mental health, sexual health, sun protection, indoor climate in schools, hygiene, healthy food and meals, obesity and drug abuse).

Table 1 provides an overview of the five first guideline publications, with examples given for each publication. Each guideline is divided into four types of recommendations: plans and policies, health promotion services, information and education and early detection (Danish Health and Medicines Authority, 2013). In total, the health promotion guidelines contain more than 300 recommendations and, according to the National Health Authorities, the best and most comprehensive practice may be achieved by working with the contents of all the guidelines [(Danish Health and Medicines Authority, 2013), p. 19]. Representatives from the National Health Authorities suggested in oral presentations to local governments that the five guidelines published first had the highest priority (tobacco, alcohol, physical activity, sexual health and mental health), but they have repeatedly emphasized that local governments should make their own priorities based on the specific health needs of their communities.

METHODS

The study was carried out from May 2012 through April 2013 in four Danish local government health promotion offices. The local governments were purposefully selected to represent different sizes (area and number of inhabitants), geographical locations, urban/ rural locations and socioeconomic characteristics. Further, the four local governments reflected diverse political constellations and administrative organizations. Table 2 provides an overview of the characteristics of the four local governments. We chose these particular local governments based on an initial round of interviews with health promotion officers in eight local governments, which allowed us to pursue a maximum variation sampling strategy while also paying attention to the practical possibilities for gaining access and participating in relevant activities.

The ethnographic fieldwork systematically used interviews and participant observation as research strategies (Hammersley and Atkinson, 1995). This methodological approach was chosen to gain an understanding of the intertwinement of local policies and practices in relation to the health challenges and concerns of local governments. The overall ambition of the fieldwork was to gain an understanding of the ways in which social inequalities in health were constructed as an object for intervention in and by local governments. Initially, we were inspired by Lakoff and Collier's notion of 'regimes of living' (Lakoff and Collier, 2004) and their methodological suggestion of studying the 'configurations of normative, technical and political elements that are brought into alignment in problematic or uncertain situations' [(Lakoff and Collier, 2004), p. 427]. During fieldwork, we thus aimed to elucidate the norms, techniques and politics inherent in health promotion practice relating to health inequalities. This article's interest in standardization and the implementation of health promotion guidelines is the result of an initial fieldwork observation that the guidelines served to shape local government practices in important ways that called for further investigation.

Key health promotion officers and politicians represented local governments in the study. Depending on the actual organization of the individual local governments with regard to health promotion, and an initial dialog

Table 1: The five first guidelines with examples (based on Danish Health and Medicines Authority, 2013)

Guideline	Examples			
	Plans and policies	**Health promotion services**	**Information and education**	**Early detection**
Tobacco	The municipality adopts a local tobacco policy, establishing its own binding goals. The tobacco policy should be based on the local health profile and the recommendations in *Ti skridt til god tobaksforebyggelse—den gode kommunale model* (ten steps to successful tobacco prevention—the good municipal model), revised edition 2012 (in Danish only)	At regular intervals, the municipality offers reactive smoking-cessation programs, which are open to everyone who wants to stop smoking. These programs should be frequent enough that people can sign up when they are motivated.	The municipality ensures that students receive systematic lessons in tobacco and smoking through grades 7–9. These lessons can begin as early as sixth grade if this is considered relevant. It is recommended to involve parents through parents' meetings.	The municipality establishes collaboration with general practitioners on counseling and referral to municipal smoking-cessation programs among newly observed chronically ill people (such as those diagnosed with chronic obstructive pulmonary disease, cardiovascular disease or diabetes) or smokers awaiting surgery.
Alcohol	The municipality adopts alcohol policies for the municipality's workplaces and institutions to focus on alcohol consumption among employees and people who use the institutions, including a policy on action if alcohol problems are detected. This applies to childcare centers, schools, recreation centers, workplaces, nursing homes, clubs, sports facilities and others.	The municipality ensures integration between alcohol treatment and the municipal social services to ensure social support for the family in following up treatment. This ensures the necessary integration and sharing of competencies between alcohol treatment centers and family therapy centers, as both institutions work with families that may have both alcohol problems and family problems and are socially disadvantaged and vulnerable.	Municipal employees working in health services, dental services, home care services, childcare centers, schools, social and employment centers, etc. provide information about the municipality's counseling and treatment services and the services for pregnant women provided by outpatient family health centers.	The municipality prepares action plans for frontline personnel, emphasizing recommended questions for the brief conversation focusing on early detection of alcohol problems and referring people to counseling and treatment. The action plan for the educational sector covers appropriate guidelines for collaboration and notifying social services and guidelines for how institutions can support children who are negatively affected by their parents' alcohol problems.
Physical activity	The municipality prepares a strategy for how to use such physical environments as recreational spaces, playgrounds and urban environments when they are established.	The municipality offers ways of engaging in physical activity for people with special conditions and needs such as overweight people, older people with impaired physical performance and weak social networks, people with mental disorders, people with disabilities, people outside the labor market and socially vulnerable people. The services can be developed and implemented in collaboration with the municipality and voluntary associations, educational associations or private companies, such as fitness centers.	The municipality maintains an easily accessible overview of the opportunities to engage in organized and unorganized physical activity that the general public, professionals, institutions and companies can use.	The municipality ensures that public health nurses and municipal physicians focus on the individual child's level of physical activity through the regular health examinations they perform throughout school attendance and through health examinations before school starts (6 years old) and when it ends (15–16 years old).

Mental health	The municipality's parks and public spaces are integrated into the intersectoral action to promote mental health. The municipality can improve the design, architecture, accessibility, air quality, the quality of the auditory environment, transport and the opportunities for activity, based on the current evidence showing that being outside and in nature positively affect mental health.	The municipality offers at least five health visits by a public health nurse (health visitor) during the child's first year of life to all families with the aim of supporting early bonding between the child and parents and supporting the child's general well-being and development [see Danish Health and Medicines Authority, www.sst.dk. *Vejledning om forebyggende sundhedsydelser til børn og unge* (Guidelines on health promotion services for children and young people)].	The municipality continually informs citizens about action to promote mental health.	The municipality supports early detection of poor mental health through job centers to refer people to municipal services that promote well-being—and if needed—to their general practitioner to screen for long-term exposure to stress, anxiety and/or depression.
Sexual health	The municipality ensures that the personnel in childcare institutions actively consider how to best relate to and support children's natural sexual development within the specific age group. For example, the personnel can discuss this topic on an ongoing basis and communicate it to new personnel and to parents, and the topic can be integrated into relevant documents, such as policies on health and well-being.	The municipal health services offer students advice and written information about sexual health and contraception when students finish lower-secondary school (at 15 or 16 years old).	The municipality ensures that people with a chronic disease receive information about how the disease might affect sexuality and intimate relationships and how to manage potential problems. Moreover, the municipality should disseminate information to older people about how aging could affect sexuality and ways to manage these changes.	The municipality can collaborate with the administrative region to plan special initiatives to detect, test and treat people who have been infected with chlamydia. Experience shows that online chlamydia testing has financial benefits and identifies more infected people. These initiatives could also be written into the health agreements between the municipality and the region.

Table 2: Characteristics of participating local governments

	Inhabitants (January 2014)	Socioeconomic index (pct.—2015)[a]	Population density (inhabitant/km^2—2013)	Type	Political leadership
A	32 534	1.12	91	Rural, fairly remote from major cities	Social democratic
B	74 282	0.68	2861	Wealthy suburb to the capital	Conservative
C	205 809	0.94	179	Major city	Social democratic
D	109 652	0.94	103	Provincial town	Liberalist

Source: http://www.noegletal.dk/.

[a]The socioeconomic index expresses the relative expenditure of the municipality, compared with other municipalities. The index is calculated on the basis of criteria such as the level of employment, education, income, etc.

with heads of local health promotion offices, key health promotion officers were identified and their everyday work of meetings, negotiations and project work were the ethnographic focus of the participant observation. In addition to this, health promotion officers, administrative leaders and politicians engaged in health promotion and prevention were interviewed.

A researcher followed the work in each of the four health promotion offices over a period of 3–6 months, depending on the ongoing projects and policy processes at the time of fieldwork. The main method was 'shadowing' (Czarniawska, 2007), i.e. we joined officers during their everyday professional practices and followed their work at their desks, at meetings, during lunch and coffee breaks as well as their informal conversations and discussions with colleagues, etc. During the same period of time, we also participated in national meetings and seminars related to health promotion and local government issues. For example, we presented our project at conferences conducted by Local Government Denmark and The Danish Society for Public Health and we talked to numerous health promotion officers at several meetings in the Danish Healthy Cities Network. At such occasions, we discussed preliminary findings from fieldwork with representatives from a broader range of local governments as well as the national health authorities. This enabled us to gain broader insights into the experiences of Danish health promotion officers and it provided us with opportunities for refining our findings and testing their applicability beyond the four specific field sites. In line with recent developments in social anthropology, we constructed the field not solely as a bounded place or organization (i.e. the four local governments), but as a more dynamic entity that emerged through our interaction with a broader set of actors in Danish health promotion (cf. Amit, 2000).

For formal interviews, we developed a template interview guide which was structured according to the study's main analytical interests. Prior to specific interviews, we adapted the template to ensure its fit with local conditions and to allow us to cover topics and questions that came up during fieldwork.

The head of the health promotion office in each of the participating local governments signed an agreement of collaboration with the researchers. Verbal consent was obtained from all individual persons participating in the study. Data management and security with regard to this study were approved by the Danish Data Protection Agency.

The empirical material consisted of field notes, interview transcripts and documents (meeting minutes, public health policy documents, policy drafts). We began the analytical process by collating all material related to the new health promotion guidelines and by organizing the material into empirical descriptions of specific episodes and practices related to the implementation of the guidelines. In this process, we combined different data sources in order to create holistic accounts of the ways in which the local governments worked with the guidelines. As Mason points out, such 'contextual' or 'holistic' data organization is useful as an alternative to the more traditional analytical approach of coding or cross-sectional indexing, when wishing to understand 'intricately interwoven' parts of a data set relating to complex social processes [(Mason, 2002), p. 166]. For the same reason, we have chosen to document our findings through descriptions of particular episodes and practices, rather than singular quotes.

We repeatedly read and annotated the material and discussed various analytical points and interpretations. The analytical process proceeded through an iterative dialog with different theoretical perspectives. In particular, we found inspiration in Timmermans and Epstein's work which we have used to contextualize our findings in relation to a more general trend of standardization. The 'Results' section is divided into four themes which emerged as a result of this analytical process and which were refined during the process of writing. The analysis

is concluded by a section that relates the findings to the following typology of standards which have been developed by Timmermans and Epstein (2010)

> *Design standards* set structural specifications: They define the properties and features of tools and products. Such standards are explicit and more or less detailed specifications of individual components of social and/or technical systems, ensuring their uniformity and their mutual compatibility. *Terminological standards*, such as the International Classification of Diseases, ensure stability of meaning over different sites and times and are essential to the aggregation of individual elements into larger wholes. *Performance standards* set outcome specifications. For example, a performance standard can specify the maximum level of complication rates deemed acceptable for specific surgical operations. The last category is *procedural standards*, which specify how processes are to be performed. Such standards delineate the steps that are to be taken when specified conditions are met.
> [Timmermans and Epstein (2010), p. 72; emphasis added]

In the final part of our analysis, we discuss how the health promotion guidelines relate to this typology and we thus identify certain inherent tensions in the implementation process. The aim of this part of the analysis is not to determine the exact type of the guidelines, but rather to explore different aspects of their implementation and thus to address the overall results of the implementation process.

RESULTS

From guidelines to assessment tool

When the guidelines were first published, health promotion officers in local governments began discussing how they could be implemented. As a first step in the implementation process, many local government health promotion offices developed tools which were used to assess the extent to which their existing practices conformed to the recommendations. This was the case in all of the four local governments participating in this study, and in a recent national survey it has been reported that up to 89% of Danish municipalities have assessed their existing practices vis-à-vis the guidelines (Christiansen *et al.*, 2014).

In our engagement with the field, we witnessed how different versions of a so-called 'traffic light model' spread rapidly among local governments. Typically, the model consisted of an Excel spreadsheet in which each of the recommendations was listed and rated according to three colors: green for 'yes, we comply', yellow for 'we partly comply' and red for 'no, we do not'. Versions of the model were presented and exchanged at national meetings for local government officers, and Local Government Denmark also promoted this approach.

This exemplifies the tendency identified by Timmermans and Epstein (2010) that standards often breed other standards. If there has been one standardizing effect of the health promotion guidelines, it has probably been in this respect: most local governments have thoroughly assessed their existing practices, and attempted to create an overview of the extent to which they comply with the guideline recommendations, by using some version of the traffic light coding scheme. Importantly, however, this process of standardization turned out to be highly complicated and entangled with ongoing organizational processes. For example, in one local government the assessment process was repeatedly postponed and redesigned due to an unexpected organizational restructuring with accompanying layoffs at the managerial level.

Hence, the assessment processes were shaped by ongoing organizational issues of local governments and the ways in which they had allocated the responsibility for health promotion. Some local governments were structured in organizational silos, reflecting a classic bureaucratic functional specialization where the responsibility for health promotion was assigned to a separate department. Other governments had created so-called 'cross-cutting' units with the particular aim of integrating health in all policy areas and thus creating interdepartmental collaboration.

In one local government participating in our study, the assessment of specific recommendations was first performed by a health promotion officer and then discussed in the interdepartmental health board, consisting of managers from different departments, e.g. education and eldercare. In another local government, it was the team of health promotion officers that performed the assessment themselves, even if some of the recommendations concerned initiatives belonging in other departments. The implications and, indeed, complications of this interdepartmental assessment process are discussed in more detail below.

Interdepartmental complications

The traffic light model appeared to be a deceptively simple assessment tool. Creating a fit between existing practices and the color-coding scheme of red, yellow and green required much work and discussion among local government officers. For example, at a meeting in the abovementioned interdepartmental health board, some of the color-coding assessments performed by the health promotion office were questioned by the other departments. At this meeting, which we recorded in our field notes, health promotion officers discussed with their colleagues from the Education Department whether or not they complied with the recommended 'strategy for physical activity

in schools'. The education officers pointed to a strategy for implementing a particular approach in physical education (PE) classes which was being developed at the time. The health promotion officers wished a 'strategy for physical activity' to have a broader scope than PE. 'What is a "strategy"'?, the education officers asked. This question pointed to the difficulties involved in interpreting the wording of the recommendations in order to assess their fit with existing practices in various departments.

Generally, the color coding of red, yellow and green was complicated by two things: (i) the process of interpreting specific recommendations and deciding on criteria for each of the colors—how much of a strategy is required in order to say 'yes, we comply'? And (ii) the implicit politics of the color-coding process: specific departments and officers had differing interests in the assessments. In some cases, the color red could signify a need for further resources to a particular area. In other cases, red could indicate that somebody did not fulfill their responsibilities or needed to take on new tasks. Thus, we witnessed how local government officers in some cases changed an assessment from red to yellow, because they expected that a red mark would not be accepted by local politicians.

Timmermans and Epstein suggest that standards may work as a soft form of regulation [(Timmermans and Epstein, 2010), p. 84]. In the relationship between the National Health Authorities and local governments, this is very much the case. As mentioned, no legislation exists that makes specific requirements of local governments in the field of health promotion. Nevertheless, the guidelines served to regulate the activities of local governments in a more subtle manner. The guidelines have become integrated in local governments as a structuring device for interdepartmental interaction. We spoke to many health promotion officers who said that the guidelines have provided a valuable tool for 'facilitating dialog' with their colleagues in other departments and for placing health promotion on the local, political agenda.

Nevertheless, we noticed during fieldwork how the legitimacy of the guidelines was questioned by officers outside the health sector, where recommendations from the National Health Authorities were seen as less authoritative than, say, recommendations from national education authorities.

It remains to be seen whether or not the health promotion guidelines will lead to an actual standardization of local-level policies and interventions. Nevertheless, the guidelines have—via the traffic light model—served to reconfigure the interaction between local government departments and they have provided a frame for asking questions about the existing health promotion practices. Even if this process is fraught with discussion, and sometimes even resistance, it has become structured according to the division of the guidelines into risk factor-specific recommendations.

Vague words, hard evidence

The education officers' question 'what is a "strategy"'? hints at an important characteristic of the guidelines: Many of the recommendations are phrased in rather vague and abstract terms. For example, in the Alcohol Guideline some of the recommendations are worded as follows: 'the municipality facilitates dialogue between the upper-secondary educational institutions to ensure uniform policies on alcohol' [(Danish Health and Medicines Authority, 2013), p. 14]; 'the municipality ensures integration between alcohol treatment and the municipal social services to ensure social support for the family in following up treatment' [(Danish Health and Medicines Authority, 2013), p. 16] and 'municipal employees working in health services, dental services, home care services, childcare centres, schools, social and employment centres, etc. provide information about the municipality's counselling and treatment services [. . .]' [(Danish Health and Medicines Authority, 2013), p. 17].

One of our informants, the head of a health promotion department, told us in an interview that this type of recommendations made him 'really tired'. To him, the recommendations reflected that the National Health Authorities had little 'sense of reality'. He commented specifically on the recommendation that frontline workers were supposed to inform citizens about alcohol treatment services: 'this raises a number of questions', he said, concerning the quality of information, the capacities of frontline workers, whether it would suffice to hand out flyers, put up a poster or if they should take a more active role.

In general, the vague and unspecific nature of many recommendations contributed to the interdepartmental complications, discussed above, and the difficulties in reaching an agreement on the appropriate color code. It also created some resistance among health promotion officers who considered the national authorities to be aloof from the everyday concerns of local governments.

However, somewhat paradoxically, this resistance and the vagueness of the recommendations contrasted starkly with another widespread attitude which we encountered among our informants in the four local government as well as many other health promotion officers: the recommendations were taken as evidence-based and thus, in some sense, to be beyond discussion.

In the making of the guidelines as well as in their written and oral communication to local governments, the National Health Authorities adopted a pragmatic attitude toward evidence. They stated that the recommendations

were based on the 'best available knowledge' and they used the adverb 'knowledge based' rather than 'evidence based'. Further, they stressed the temporary nature of such recommendations and assured that the guidelines would be updated continuously. Nevertheless, the guidelines were, to some extent, received and treated by local governments as rock-solid evidence. For example, several health promotion officers told us that the guidelines freed them from the need to evaluate their activities because, now at last, they knew 'what works'.

What is one to make of the apparent tension between the vague and abstract recommendations and their being interpreted as evidence-based facts? The answer may lie in the bidirectionality of the guidelines: on the one hand, the guidelines are directed at improving health promotion at the local level and they do so by pointing to a very large number of policies and interventions to be implemented by local governments. They do not, however, offer much specific guidance for each of the recommendations and are thus easily perceived as overly vague and abstract. On the other hand, the guidelines are directed at a more general level of policy-making where they are intended to provide health promotion with greater legitimacy.

As Rod has described elsewhere (Rod, 2015), health promotion officers in local governments have struggled with a perceived 'knowledge gap' in their field (cf. also Larsen *et al.*, 2012). The guidelines have been received, thus, as a welcome opportunity for claiming evidence to be an ally of health promotion. This signaling function of the guidelines should not be underestimated even if individual recommendations are too vague to implement in a standardized manner (cf. [(Timmermans and Epstein, 2010), p. 82]).

Framing priority making

According to our informants, the traffic light model's color-coding process was a valuable, even if laborious, exercise because it enabled them to visualize some blind spots in their existing practices. Based on their color-coded spreadsheets, the health promotion officers could produce graphs and tables and hence create overviews that could be used to convince local politicians that more needed to be done with respect to a particular risk factor. In this sense, the guidelines in combination with the traffic light model proved to be the tool for local priority making that was envisioned by the National Health Authorities.

Owing to the division of guidelines into risk factors, the frame and scope for priority making was pushed in a particular direction: the politicians were first of all asked to make priorities among risk factors: Is tobacco more important than physical activity? Can we accept a 'red' mark in alcohol? They were rarely presented with opportunities for making priorities within the vast number of individual recommendations. It can hardly be claimed that each of these recommendations is equally important and, yet, in the guidelines they were presented side by side. This leveling in importance was somewhat furthered by the traffic light model and the subsequent presentation of the assessment in tables and figures where each recommendation was treated as a singular variable.

A few health promotion officers among our informants questioned the wisdom of the risk factor approach. They did so in interviews with us, but also in their own internal discussions at meetings and when they worked with the traffic light model. They considered their own work as dealing with several risk factors at the same time, or simply health in a more general sense, e.g. through a focus on 'healthy settings' (Dooris, 2006) or the approach known as 'health in all policies' (Ståhl *et al.*, 2006). Both of these approaches are based on the rationale of the Ottawa Charter which aims at promoting health and well-being, rather than preventing disease via risk factor-specific interventions (WHO, 1986). Also, this type of work tends to emphasize the importance of the social determinants of health (i.e. income inequality, education, living conditions, etc.) whose influence cut across behavioral risk factors (Scambler, 2012; Baum and Fisher, 2014).

Before the publication of the guidelines, the National Health Authorities had published reports and arranged conferences which stressed the importance of social determinants, particularly when dealing with health inequalities (Diderichsen *et al.*, 2011), and they had pointed to the potentials of working with health in all policies (Sundhedsstyrelsen, 2010). However, unlike the risk factor-oriented guidelines these reports have not been–nor were they proposed to be—used as tools for decision making and priority setting. Based on our fieldwork experiences, we do not take this difference to indicate a preference for risk factor-oriented approaches among health promotion officers. Rather, we suggest that it points to the power of the guideline format. While a normal report may or may not be read and used in practice, it seems that it is much more difficult to ignore a publication framed as a guideline. As indicated by the findings reported above, we witnessed health promotion officers spend much time and energy on implementing and discussing the guidelines. Further, representatives from the National Health Authorities told us, during informal conversations, that they were very satisfied and indeed impressed with the general uptake of the guidelines.

A case of standardization?

Earlier, we presented a typology of standards which has been developed by Timmermans and Epstein

(2010). The typology distinguishes between four types of standards:

- Design standards (e.g. standards specifying the characteristics of individual components that may be combined in various ways)
- Terminological standards (e.g. classification of diseases such as ICD-10)
- Performance standards (e.g. standards adopted in audit or assessment procedures)
- Procedural standards (e.g. clinical guidelines specifying concrete steps in the treatment of particular diseases)

The Danish health promotion guidelines seem to be a curious mixture of these categories. In general, procedural standards work by specifying steps of action that need to be taken in order to achieve a certain goal. Our analysis indicates that the guidelines fail as procedural standards, because they are phrased in fairly vague terms and do not offer exact guidance on specific steps that need to be taken in a given situation. In that respect, they can hardly be compared with the clinical guidelines of evidence-based medicine. Even if the National Health Authorities did not expect the guidelines to serve as procedural tools, some of the problems encountered in their implementation may be explained by the expectation of local governments that, if they follow the guidelines, they can claim to do 'what works'. Similarly, the frustration of some health promotion officers concerning the vague and abstract recommendations may come from a reading of the guidelines as procedural standards.

In the employment of the traffic light model—and in the subsequent processes of priority making—the guidelines were put to work as performance standards. Performance standards are used in general to measure and evaluate the quality and progress of certain types of practices. The guidelines have been used, thus, to assess the existing practices of local governments. How are we doing on tobacco? Do we need to do more work on sexual health? and so on. In order to make the guidelines work in this way, local governments have developed their own assessment tools which turned out surprisingly similar even if the actual assessments were shaped by ongoing organizational processes.

According to the official rationale of the National Health Authorities, the guidelines may be conceptualized as a set of design standards. Design standards serve to specify and delineate elements that may be incorporated and combined in various ways, depending on contextual conditions. Hence, the guidelines specify a number of separate and well-ordered elements from which local governments can choose when they design their local initiatives. The guidelines ensure the uniformity and mutual compatibility of the social system of health promotion by specifying the shape of individual components and placing these within the overarching frame of the risk factor approach. Finally, through their definitions of categories such as policies, services, information and education and early detection, the guidelines might also serve as terminological standards that harmonize the ways in which particular types of interventions are described and categorized.

In order to describe the results of the implementation of the health promotion guidelines, it would be unfair to treat them as falling into a single category of standards. Instead, we would like to suggest that the guidelines have had their greatest effects by contributing to a process of epistemic standardization. Most importantly, the guidelines have reinforced the dominance of the risk factor approach in Danish health promotion by presenting this as the most important frame for knowledge, reasoning, decision making and priority setting: local governments are now assessing and measuring their own work by dividing it into risk factor-specific policies and interventions. Likewise, interdepartmental collaborations have become structured according to the divisions and categories of the guidelines, and health promotion officers may claim to have evidence for their activities as long as they stick to the recommendations (notwithstanding their vague and temporary character). Finally, even if the guidelines strike a precarious balance in order not to politicize and violate local democracy, politicians are asked to make their health-related priorities in terms of risk factors. Alternative perspectives, such as initiatives addressing the social determinants of health or empowerment, may thus become marginalized.

By proposing the term *epistemic standardization*, we do not intend to expand Timmermans and Epstein's classification by another category of standards. The four basic types of standards make sense as long as one deals with the intentions of standard-makers whereas the term epistemic standardization refers to a particular type of outcome of standardization processes. Our analysis suggests that standards intended to be one subtype might be used as a different type of standard, while being interpreted as yet another subtype. In our case, what might have been intended to be a design standard was actually used as a performance standard, while being read by some users as a procedural standard. If nothing else, the result of this process was epistemic standardization because the guidelines had their most important outcome in the domain of knowledge and reasoning.

CONCLUSIONS

This study shows that the introduction of health promotion guidelines in Denmark appears to have had other

consequences than the actual implementation of more uniform policies and interventions. First and foremost, the guidelines have prompted an assessment process where local government officers evaluate whether or not local policies and practices conform to the recommendations. These assessments have been performed according to a color-coding scheme which proved deceptively simple, in particular because of the interdepartmental and political complications of deciding whether or not a recommendation has been met.

The recommendations are phrased in rather vague and abstract terms and yet they have been interpreted as evidence-based facts that provide local governments with a more or less solid foundation for their work. This interpretation may be stimulated by a general wish among health promotion officers to gain the legitimacy associated with evidence-based practice and thus to strengthen their own position in the health sector. At the same time, the guidelines have been used to frame political priority making in accordance with the risk factor-specific division of recommendations. As such, the guidelines have turned out to be forceful 'epistemic standards' that reinforce the dominance of the risk factor perspective in Danish health promotion.

Generally, the call for more evidence-based practice in health promotion enjoys widespread support among public health researchers, but few empirical studies have addressed the processes through which policy-makers and practitioners seek to develop and adopt evidence-based recommendations and guidelines in the context of health promotion. This study points to some of the organizational and political problems that are associated with the uptake of guidelines in and for health promotion. Most importantly, it shows that guidelines may have their most important effects in the domain of knowledge and reasoning in the sense that they frame the ways in which health promotion practices are assessed and prioritized.

Further, the study highlights the tension between the theoretical and political inclinations of many health promotion professionals, who would like their work to focus on social determinants and empowerment, and the mode of reasoning that is associated with evidence-based practice and which tends to lend support to risk factor-oriented approaches. As our analysis suggests, the guidelines promote and reinforce the compartmentalization of health promotion into distinct domains sorted by different types of behavioral risk. Indeed, it might be argued that the standardization movement associated with evidence-based practice simply fits better with behavioral interventions targeting specific risk factors, compared with structural and empowerment approaches which tend to have longer and more complicated causal pathways toward health outcomes (Blackman *et al.*, 2006) and which may be less suitable for standardization.

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