

Local Use of National Performance Indicators: Experiences from the Public Health Sector in Denmark

This paper reports from an evaluation that KREVI¹ has recently made of a national performance measurement system in Denmark called the National Indicator Project (NIP).² NIP is a tax-financed system and its purpose is to measure and improve the professional quality of hospitals on eight disease areas. The evaluation has included two of these areas; schizophrenia and orthopaedic surgery.

In brief, the evaluation shows that NIP has been successfully integrated on two hospital wards while to other wards have refused the system. In the paper we use the terms “adoption” and “denial” to describe these different processes of integration. Furthermore, the evaluation revealed several preconditions for successful integration of performance management systems. These preconditions include a well designed system, attention from local management and existing norms and values in the organization.

In KREVI we hope that the evaluation of NIP can be useful to for example hospital wards, the Ministry of Health, and the Danish NIP-office, which hosts and facilitates the system. We also believe that the results may be of relevance to a wider audience including researchers, evaluators and decision-makers interested in the use of performance indicators within in the public sector.

The paper has the following outline:

1. Background - why did KREVI decide to do an evaluation of NIP?
2. The NIP system - What characterizes the evaluated NIP-system?
3. Purpose and design of the evaluation
4. Results - What did we find out in the evaluation?
5. The paper ends with a short conclusion

Background

As in other countries Denmark has in recent years experienced an increasing use of performance measurement systems. The underlying assumption is that such systems can contribute significantly in improving the quality of the public welfare sector. Thus locally as

¹ KREVI is an independent governmental evaluation institute hosted by the Danish Ministry of Interior and Health. For more information: www.krevi.dk

² KREVI evaluation of the NIP-system from 2010 is written in Danish and is called “Når Nationale indikatorer bliver lokale: Læringer fra det Nationale Indikator Projekt på sundhedsområdet”. It is the first external evaluation of a Danish PM-system.

well as nationally an increasing number of systems have been developed and put to use in the attempt to make the public welfare sector better and more effective.

In spite of the faith in PM-systems there has been almost no empirical grounded research in Denmark into how performance measurement systems actually work in practice. Thus, ironically there is almost no knowledge about the performance of PM-systems in a Danish context.

Of course PM-systems have been widely discussed in the international literature. According to one perspective PM-systems are both needed and useful, provided that they are designed and used in an appropriate way (e.g. Bernstein 1999, Hatry 2002). Others state however that PM-systems are based on wrong assumptions, and that they are unable to contribute to the development of practice (e.g. Perrin 1998 & 1999). According to this view performance measurement systems can in fact be harmful if they are taken too serious by the organizations in which they are implemented. Goals will be displaced and practice will start to behave irrational.

Although this discussion is highly relevant it is often based on a generalization of the impact of performance measurement systems disregarding the specific and often very different organizations in which they are put to use.

On this background KREVI decided to carry out a qualitative, in-depth study of the National Indicator Project (NIP) in Denmark.

NIP

NIP is a national performance measurement system aimed at improving the quality of treatment within eight public health areas. It measures on both processes and results.

NIP has been in use since 2004 and today this PM-system measures and benchmarks the performance of the Danish hospitals on eight health areas including schizophrenia and orthopaedic surgery.

The PM-indicators contained in the NIP-system are knowledge-based and the number is limited to about ten sets of indicators in each health area.³ Within the area of schizophrenia three of the sixteen indicators do for example take the following form:

³ Different types of evidence (A, B, C and D) underlie the NIP standards and indicators. Thus, some indicators are grounded in evidence A (RCTs) while others are based in other softer types of evidence (e.g. professional consensus).

Indicator domain	Indicator	Type	Standard
Diagnostic process	1.d. Proportion of incident (diagnosed within 12 months of contact) patients being assessed for duration of untreated psychosis who receive treatment within six months from first showing symptoms	Outcome	≥ 50%
Psychoeducation	14. Proportion of incident (diagnosed within 12 months of contact) patients receiving psychoeducation via a manualized course within 2 years of discharge	Process	≥ 40%
Prevention of suicide	16. Proportion of hospitalized patients assessed for suicide risk (documented in patient record) at discharge	Process	≥ 90%

Source: The NIP office 2010

http://www.nip.dk/files/Subsites/NIP/Om%20NIP/About%20NIP/DNIP_Schizophrenia_adult_indicatorform_20100728.pdf⁴

Health care professionals have participated in selecting the knowledge-based indicators and standards which are contained in NIP. Standards and indicators are revised regularly. This is done by health care professionals and in consideration of the newest knowledge.

The quantitative measurements are supplemented with obligatory 'qualitative' audits where representatives from hospitals and representatives from the NIP-secretariat meet face to face to discuss the performance, evaluate the indicators and exchange experiences.

Finally, NIP is mandatory but no hard sanctions are imposed if hospitals do not meet the standards of the system.

The evaluation of NIP

The starting point of the evaluation was an interest in uncovering how NIP was used on various hospital wards and also to gain insight into the consequences of this use. We will not go into details with the whole of the evaluation but pick out, what we believe, are two important observations:

1. It showed that NIP was integrated in different ways on the wards included in the evaluation. In the following these differences are characterized in more detail.
2. By comparing the different cases a tentative list of preconditions for quality improvement through the use of NIP was established. In the following we briefly discuss these preconditions.

However, before we turn to the results just a few words about the design and method of the evaluation.

Design and method of the evaluation

The evaluation was inspired by Responsive Evaluation (e.g. Krogstrup 2006) and Grounded Theory (Strauss & Corbin 1990; see also Charmaz 2006). Among other things this entailed that

⁴ The complete set of indicators contained in the NIP-system can be found at the website hosted by the NIP office: <http://www.nip.dk/about+the+danish+national+indicator+project/indicator+sets>

no specific hypothesis was established before the study. Rather we insisted on keeping an open-mind towards the various uses and implications of NIP. Of course open-mindedness and sensitivity towards practice do not exclude rigour in the research process.

- The evaluation included four case studies of four hospital wards in different hospitals and in different parts of the country. Two of the selected wards treated schizophrenia while the two others are concerned with orthopaedic surgery.
- The study was based on 48 semi-structured interviews with employees and management. Document studies, participant observations as well as statistics and documents studies were also included.
- Furthermore, we have of course reviewed the literature on NIP and performance measurement in general. Hereby we developed a sensitivity towards both the positive and negative implications of PM-systems.
- The material gathered was analysed using coding procedures taken from Grounded Theory and the software program ATLAS TI.

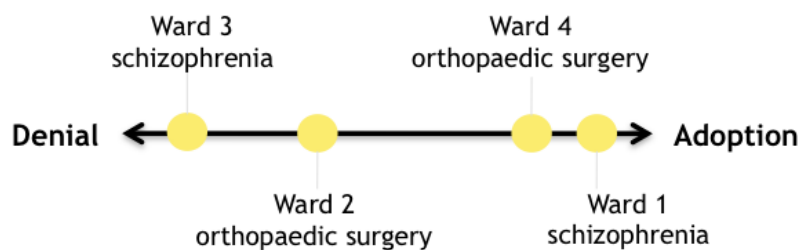
Results: Integration of NIP

Interestingly we did not encounter serious instances of “unintended consequences” such as displacement of goals or cheating. From reading the existing literature on PM-systems we were prepared to meet irrational use of the system, but this showed not to be the case.

However, the evaluation showed that NIP was integrated in different ways in the wards.

With inspiration from Michael Power (1996) we have described this variation in terms of adoption and denial. Thus the use of NIP can be placed on a scale ranging from full integration of the system to total denial:

Figure 1: Adoption or denial?



The former (*adoption*) refers to a situation where the ward has integrated NIP into the work processes and where NIP is seen as a meaningful tool. The other concept (*denial*) refers to the opposite situation in which NIP may be present, but used in a way that affects the working processes as little as possible.

In two out of the four wards the use of NIP can best be described by the term adoption. To a wide extent these wards also meet the standards of quality set forth by NIP. Here the interviewees tell about positive use of the system and provide plenty examples of how the system supports the process of improving quality. For examples an interviewee says that "one can say that NIP is about giving good treatment ... NIP describes what we must do in order to give good treatment... And we would like to give good treatment."

On the other hand the two other wards can best be described as denying NIP. One ward has improved the process of filling data into NIP, but according to the interviewees there have been only minor changes in the quality of the clinical work. At the other ward NIP is only used to an absolute minimum, and according to the interviewees the system has not helped to improve the quality of the treatment. On the contrary the system seems to further frustration because people feel burdened by unnecessary documentation work. For example a interviewee states that "in general registration systems do not take *our* reality into account." Another one says that "You fill in the form, hand it over to a secretary, and then you don't hear of it again." And a third person states that "the patients don't receive neither better nor worse treatment just because we have to (fill in a form)."

Result: Preconditions for adoption

The case studies shows that whether NIP is adopted or denied at the local level of hospital wards hinges on several things.

Importantly the NIP system seems to have certain features, which furthers adoption:

- It is health care professionals (and not politicians and administrators) who developed the limited number of indicators that are included in the system. It is also health care professionals who conduct the ongoing revision of the indicators. Apparently, this counteracts local denial of the system.
- Adoption of the system is also furthered by the ongoing revision of the indicators and the possibility of health care professionals giving feed-back on the indicators. In other terms, if staff at the local level finds that certain indicators do not make sense in the clinical practice it is possible - at least in theory - to change the indicators.

- The use of obligatory ‘qualitative’ audits, where peers and representatives from the NIP secretariat meet face to face and exchange experiences, discuss and evaluate the performances and indicators also promote adoption of the system.
- Another element in NIP is that no hard sanctions (automatically) are enforced if NIP standards are not met. This may be the reason why NIP is not integrated into the work on two of the wards that we investigated. But the lack of sanctions may also be the reason why no displacement of goals was seen in any of the four cases.

However, as demonstrated, the features of the NIP system itself have not been sufficient to secure full integration of the system in the daily workings at the wards. In fact, conditions in the local organisational context are critical if NIP is to become a success or not.

The evaluation has identified seven aspects that have been of central importance in relation to the integration of NIP:

- Attention from local management
 - To adopt a PM-system like NIP resources are needed. Therefore it is central that the local management supports and back up the system.
- External pressure
 - Political or administrative pressure can make the local management focus on the PM-system. Too much external pressure may however also further unintended behaviour and consequences such as cheating and goal displacement.
- Agreement between the ”norms” of the system and the ”norms” of local professionals
 - When the professionals at the local level perceive the standards and indicators as important and central it furthers the support of the system.
- Positive attitude towards documentation
 - A constructive attitude to documentation is important. If the organization is marked by a general negative attitude towards documentation they will very likely resist even good PM-systems.
- Of relevance to the specific unit
 - It is important that the performance measurements are perceived as usable by the people who are supposed to work with the results of the measurements.
- An effective registration practice
 - Registration of valid data is resource demanding - not least at the local level. Thus, it is crucial to make an effective registration practice, which secure that the right and valid data are collected in the most efficient way. This also entails that double registrations have to be avoided.

- Active communication and use
 - Although the performance measurements are perceived as meaningful and relevant, quality improvement does not occur automatically. Focus on how and to whom the PM-results are to be communicated, has to be in focus. Furthermore, utilization of the PM-results needs attention.

Conclusion

Our investigation of NIP shows that the same PM-system can be integrated differently and have different consequences in different local organizational contexts. In this paper we have described these consequences in terms of adoption and denial. Whether a performance measurement system is adopted or not depends on features of the system. How is it developed? On which kind of knowledge? And by whom? Can it be changed? And what are the consequences of not meeting the standards of the system?

However, and this may be the main conclusion of the paper, elements in the organizational context are of vital importance to the integration of the system. We have pointed to aspects like support from management and whether it makes sense to the people using it. The list may be longer or, in some situations, maybe shorter. The main point is however, that the development of successful performance measurement systems requires a focus on the organizational contexts in which the system is supposed to make a positive difference.

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