



**Performance management and audit & feedback  
to support learning and innovation –  
Theoretical review and implications  
for Swedish primary care**

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**Keywords:** health care; audit & feedback; learning; innovation; incentives; motivation; transparency; trust

**JEL:** D91; I18; L84; M12; O32

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# Performance management and audit & feedback to support learning and innovation – Theoretical review and implications for Swedish primary care

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## Abstract

Health care professionals frequently describe performance management and monitoring of efficiency and quality measures for external accountability as an administrative burden with limited benefits. Professionals argue that they are subject to too tight control that signals distrust, limits professional autonomy and ultimately decreases their motivation to perform. At worst, poorly incentivized indicators influence the behavior of providers in directions that undermine patient benefits. Against this background, policy interest has recently turned towards new governance and managerial approaches in Swedish health care services, allowing for a higher degree of professional autonomy, participatory processes and use of non-financial incentives. This change will undoubtedly have implications for performance management. Inspired by current changes in Swedish primary care, this article explores the design of audit & feedback elements through a review of the empirical evidence and theories about motivation and incentives. Audit & feedback interventions have so far taken a “diffusion of innovation” perspective focusing on implementation of evidence and targets into practice. More complex changes in the delivery of services is likely to require experience-based DUI (Doing, Using, Interacting) modes of innovation, which in turn calls for a more formative and enabling approach to performance management and audit & feedback. A key question is how an appeal to social determinants of professional identity and reputation mechanisms can motivate professionals to change their behavior. Practical implications and research opportunities that follow from the theoretical propositions are discussed using Swedish primary care as an illustrative case.

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## 1. Introduction

Performance measurement is the regular collection and feedback of data concerning resources, activities and results for an individual, team or organization (Neely et al 2005). Collection and feedback of data can support different purposes and different forms of control (Franco-Santos et al 2012). The usual recommendation in the management literature is to link rewards and sanctions to deviations between performance and targets (e.g. Ferreira & Otley 2009). Targets should be aligned with key performance indicators and the vision and mission of the organization (Ittner & Larcker 2003). In health care, monitoring of quality measures has existed for a long time, the purpose being to support internal quality improvement work rather than external accountability (Braspenning et al 2003). Internal quality improvement work here refers to the intra-professional use of measures to monitor the outcome of interventions and identify best practice. This is in contrast to monitoring of measures for management and governance purposes, i.e. to enforce external accountability across providers.

The National Quality Measures Clearinghouse in the US have identified more than 2,500 process and outcomes measures (MacLean et al 2018), which means that there is no lack of measures that can potentially be used for performance management. The possibilities to collect and feedback data have also improved greatly due to digitalization technology and increased transparency. Data is retrieved from health records and medical quality registers but also refers to assessment of experiences and health outcomes collected directly from patients (Basch 2017). The pay-off of these investments will depend on how data is used.

From the perspective of professionals, performance measurement for external accountability constitute a paradigm shift in the use of data. This shift was inspired by New Public Management (NPM) reforms initiated in the late 1970s and since then introduced in almost every public sector and supported by all major parties in Anglo-Saxon and European countries (Diefenbach 2009; Arnaboldi et al 2015). A parallel trend towards a more frequent use of standards in public administration (Pollit & Bouckaert 2011) have also contributed to developments. In health care, standards referring to e.g. evidence-based medicine and acceptable waiting times have gradually become more important in the governance and management of services.

While the early NPM reforms focused on efficiency in a more narrow sense, e.g. cost per doctor-visit or cost per discharge from hospitals, trends in the new millennium supported a greater focus on quality measures, health outcomes and value-for-money. A pivotal report for developments in the US and globally was “Crossing the quality chasm: A new health system for the twenty-first century” (Institute of Medicine 2001). This report highlighted existing variation in quality across providers and that payment systems tended to incentivize a larger volume of care rather than improvements in quality and health outcomes. This and similar reports initiated support for policy changes such as quality-based competition and pay-for-performance (P4P) schemes focusing health outcomes measures (Porter & Teisberg 2006; Porter 2009). However, empirical studies suggest that the impact of patient choice initiatives and P4P-schemes is rather limited. Choice reforms have so far had a limited effect on

development of quality of care (Fotaki 2019; Ewout van Ginneken 2019). Systematic reviews conclude that P4P schemes often have limited effects on process measures, and usually no effect on outcome measures (Van Herck et al 2010, Scott et al 2011, Eijkenaar et al 2013, Ogundeje et al 2016, Ellegård et al 2018). Moreover, several P4P studies report unintended effects, e.g. that providers manipulate data and that changes in behavior are not always to the benefit of patients (e.g. Bevan & Hood 2006).

This article was initiated by changes in Swedish primary care and a new system for performance measurement intended to be used for intra-professional learning and support of quality improvement work (“Primärvårdskvalitet”). The realization of these intentions will depend on actions from 21 regional governments responsible for financing and provision of health care services in Sweden, including contracting and funding of primary care practices. Regional governments act as principals with the ability to monitor services, implement audit & feedback policies and hold both private and public practices to account for their actions. The unit being monitored by regions are usually the practice. Practice managers are in turn responsible for monitoring of individual physicians and staff members. Although variation exist, Swedish primary care is characterized by team-based practices commissioned to provide services to registered individuals through capitated payment (Anell et al 2012; Anell 2015).

The main contribution of this article is developments of theoretical propositions and associated practical implications, starting from a narrative review of evidence related to audit & feedback interventions and general theories about motivation and incentives. As will be presented, audit & feedback interventions usually departs from an “implementation” or “diffusion of innovation” perspective. This approach assumes that exogenous targets exists, usually in the form of evidence-based medicine, and that providers are to comply with standards. This follows the dominant Science, Technology and Innovation (STI) mode of learning and innovation in health care services. At the provider level, not least in primary care where local conditions and health needs vary, these innovations need to be adapted to the local context and may initiate a need for complex changes of the delivery of services. Such adaptations and changes are best supported through experience based learning and a Doing, Using and Interacting (DUI) mode of innovation. If the purpose of audit & feedback is to support learning and DUI mode of innovation, there is reason to challenge the “implementation” and “diffusion of innovation” logic commonly applied. The expected behavior is rather that providers themselves should define the need for relevant changes in the delivery of services, based on their own assessment of the available data combined with conditions and priorities. A strict compliance towards general targets and action plans would then be less relevant as a component of audit & feedback policies. Measures and comparisons with others should have a formative rather than a summative approach. This also means that it will be important to take experience based and qualitative information into account.

While the assumption in P4P-scheme is that providers need financial incentives to change their behavior, audit & feedback interventions are rather silent when it comes to why providers should comply with targets and standards without such extrinsic incentives. Turning to general theories and about motivation and incentives, one possible reason is that

professionals are intrinsically motivated and care about their identity and reputation even if not associated with financial rewards. As will be discussed, it is possible to take the motivational and disciplinary mechanisms of intrinsic motivation and professionalism into explicit account when designing audit & feedback policies. It would for example be important to facilitate transparent comparisons across providers and choose a trustful source responsible for audit & feedback activities that providers perceive as informative and relevant to their professional identity.

The following section summarizes the available empirical evidence related to audit & feedback interventions in health care. In section three and four, this evidence is discussed from the perspective of different modes of innovation and theories about motivation and incentives respectively. Data about different forms of audit & feedback in Swedish primary care in section five was collected from available reports and key informant interviews (Kumar et al 1993; Marshall 1996). The final section addresses practical implications and research opportunities that follows from findings and theoretical propositions.

## 2. A short review of empirical studies of audit & feedback interventions in health care services

According to a review of empirical studies by Colquhoun et al (2017), the most common form of audit & feedback has been mail-outs to individual physicians focusing on process measures in comparison with peers and against targets, frequently combined with face-to-face meetings and seminars. This practice of a multimodal form of feedback, comparison with others and use of targets, is also moderately supported by the available evidence. Elaborating on a previous Cochrane review of 140 randomized trials years 1982-2011 (Ivers et al 2012), leading researchers in the field (Ivers et al 2014; Brehaut et al 2016) more broadly suggest that audit & feedback should:

- use validated and up-to-date data concerning the individual or team in focus
- be provided regularly in multimodal forms using both text-based feedback visualization aids and face-to-face meetings
- be provided by a trusted and legitimate source, a supervisor or colleague
- include comparison with other relevant practices
- be linked to SMART targets and action plans.

Although slightly different versions exist, the SMART criteria usually refers to targets being Specific, Measurable, Accepted, Realistic and Time based (Doran 1981).

The impact on behavior is however far from certain even when the design of audit & feedback elements follows this advice. A previous meta-analysis also concluded that recent trials (after 2003) have provided little progress in the field (Ivers et al 2014).

One problem when it comes to progress is that audit & feedback elements can be designed in many different ways. The review by Colquhoun et al (2017) identified 17 modifiable design elements in six categories. Categories included who the information was delivered to (individual, group or both), what information was delivered (process and/or outcome measures; individual or group level; comparison with others or not), when information was delivered (time-lag between data collection and feedback), why information was delivered (rationale for feedback, assumptions regarding behavioral change), how information was delivered (modality of feedback; text based, visualization aids, face-to-face meetings) and how much information was delivered (frequency of feedback). For practical reasons, it can be difficult to design interventions to explore all possible linkages between individual elements and impact.

A second problem is that audit & feedback can be applied in several different contexts. A number of contextual factors have consistently been found to influence effects. In short, the impact of audit & feedback are generally more visible:

- among providers with poor performance,
- if the required change is simple rather than complex,
- if change means that something can be reduced rather than increased,
- among non-physicians compared to physicians.

In addition to contextual factors, controllable factors such as parallel measures to influence a certain behavior, but also more general managerial practices and the overall organizational culture, can make a difference. One example is general campaigns to reduce inadequate use of antibiotics in addition to feedback of prescription data that includes comparison with peers. Here, both Ivers et al (2012) and Brehaut et al (2016) comment that research in the area of audit & feedback have tended to focus on single interventions.

A third problem is the lack of theory to explain the logic behind the audit & feedback interventions studied. As noted by Colquhoun et al (2017), more clarity regarding the expected behavioral change and an explicit use of theory when developing interventions may provide a stepping-stone towards development of new evidence. Colquhoun et al (2013) previously found that only 14 percent of the 140 studies covered in the 2012 Cochrane review reported use of theory to support either study design, measurement, implementation or interpretation of effects. Only 9 percent reported use of theory to support design of the intervention.

### 3. Design of audit & feedback elements when the purpose is to support learning and DUI mode of innovation

Most audit & feedback studies depart from an “implementation” or “diffusion of innovation” framework (Colquhoun et al 2013). Audit & feedback is seen as an intervention to decrease the gap between evidence and practice. It is assumed that targets reflecting what should be done exist, usually in the form of process measures. The key problem is to change the behavior across providers and align actual performance with targets.

Two approaches towards innovation have previously been referred to as the Science, Technology and Innovation (STI) mode and the Doing, Using and Interaction (DUI) mode (Jensen et al 2007). The linear STI mode of innovation is the predominant perspective on innovation, not least in health care, and is consistent with the use of audit & feedback as described above. Innovations, or new evidence, are developed by someone else, frequently by committee's and HTA agencies when it comes to guidelines and by university hospitals and the pharmaceutical, biotech and medical device industries when it comes to new knowledge and products. The role of performance management and audit & feedback is to support implementation of innovations more widely. In contrast, the DUI approach emphasizes practical experiences and is oriented towards improvements in a local service delivery context. The two modes of innovation are not antagonistic (Jensen et al 2007). The DUI approach does not exclude that providers are recipients of STI innovations. More often than not, STI innovations need to be adapted to a local service delivery context. It is the combination between the two modes that improves the innovation capacity and competitiveness of a firm (Isaksen, Nilsson 2013).

If the purpose of audit & feedback is to support learning and DUI mode of innovation, there is reason to reconsider the appropriate design of audit & feedback elements. Providers themselves should define the most relevant changes and quality improvement initiatives, based on an assessment of problems and conditions locally. Compliance towards evidence based targets and other standards may be overruled if and when appropriate. If providers need to define their own problems and solutions, audit & feedback elements should encourage providers to formulate their own targets and actions plans and have a formative approach to performance measurement. Measures are “indicators” and should be complemented with qualitative and experience based information. This is in sharp contrast to a summative approach in which values are final answers that determine the distribution of rewards and sanctions across providers (Davies 2005). The formative approach requires internal and external communication, which in itself facilitates innovation in health care settings (Greenhalgh et al 2004). Besides the usual external comparison, audit & feedback should support interactions among staff members. More broadly, audit & feedback elements should support an enabling rather than a coercive form of control (Adler & Borys 1997).

In principle, audit & feedback to support learning and DUI type of innovations would be more important if evidence does not exist or if local conditions vary making it more difficult to rely on standards. Additional arguments would be if demand for compliance towards general targets of process measures would engage providers in a “box-ticking” behavior (Maisey et al



2008; Campbell et al 2008). Such behavior of “reaching the target but missing the point” is less likely to benefit all patients. Use of outcome measures can theoretically avoid such problems but require risk-adjustment and may contain high levels of uncertainty in estimates due to randomness (Lilford et al 2004, Petersen et al 2006). All of these concerns are particularly valid for primary care services, with a small number of patients registered at each practice. Moreover, a strict compliance towards guidelines are not always in the best interest of patients with multiple chronic illnesses. Priorities and the appropriate delivery of services depend on the location, socioeconomic conditions and other non-controllable factors influencing local conditions and problems.

#### 4. The design of audit & feedback elements and motivation to change

Previous audit & feedback studies are rather silent about why providers should comply with targets and standards. This question about motivation is even more relevant if the purpose of audit & feedback is to support more complex DUI mode of innovations. In the standard principal agent model it is usually assumed that agents need to be motivated by monetary rewards. This assumption is also reasonable in contexts involving economic transactions. However, findings from empirical studies suggest that there is a “dark side” of financial incentives. Human motivation have many determinants and a complex relationship with incentives that may backfire (Fehr & Falk 2002; Gneezy et al 2011). Findings are presented using informative notions such as “crowding out” (Deci et al 1999; Frey & Jegen 2001), “hidden cost of reward” (Gneezy & Rustichini 2000), “hidden cost of control” (Falk & Kosfeld 2006) and pay for performance being a Pandoras Box (Bevilacqua & Sing 2009). Studies also suggest that if the task is complex, difficult to measure and requires professional autonomy - as would be the case for health care services - the risk of unintended effects such as ignorance of non-incentivized tasks, lower motivation and unintended changes in norms will increase (Holmström & Milgram 1991; Cerasoli et al 2014). This is in sharp contrast to studies of audit & feedback interventions. Although such policies may sometimes have limited or no effects, there are no references to unexpected side effects in existing reviews.

To understand how and why audit & feedback can influence behavior the complexity of human motivation need to be recognized. First, reward may come from the activity itself, i.e. motivation can be intrinsic (Ryan & Deci 2000; Frey 1997). Intrinsic rewards are more important in professional service firms involving complex tasks (Cerasoli et al 2014) and can be facilitated through development of competence and support of autonomy. Here, the perceived locus of control (i.e. if behavior is perceived to be self-controlled or not) is heavily influenced by the design of incentives. Use of direct financial incentives, e.g. P4P schemes using process measures, will have a negative effect on the perceived locus of control compared to indirect incentives in the form of ex post rewards or P4P focusing outcomes measures. To avoid crowding out of intrinsic motivation, incentives and rewards should not be contingent on certain task behavior (Frey & Jegen 2001). Additional determinants of motivation is social preferences and norms. Individuals in general have a desire to seek

approval and avoid disapproval in relations to others, in particular from individuals that they identify with (Fehr & Falk 2002). Individuals also care about their self-image and what they think about themselves, and can act in unselfish ways even if not observed by others. Social acceptance and self-approval is in turn linked to feelings of pride and shame (Elingsen & Johansson 2007). Individuals may feel pride when performing altruistic actions and when being fair to others. Individuals also have a tendency to punish other individuals who act in a selfish way and they want to be treated with respect. This reciprocity includes skimping on performance if faced with disrespectful managers perceived to have exploitative intentions (Carpenter & Dolifka 2017). Social processes of approval are also associated with intrinsic motivation. It is easier to develop social approval and admiration from others and to feel self-esteem and pride for complex tasks, especially if these are important to society. Motivation from social approval links directly to the general importance of recognition and feedback. The individual's tendency to reciprocate and to desire attention and recognition from someone that they themselves admire have important implications for the source of audit & feedback.

There is reason to believe that both intrinsic motivation and motivation caused by social preferences are especially relevant in health care services. Health care professionals are likely to be intrinsically motivated due to the complex nature of the task performed requiring both competence and autonomy. Social preferences and development of self-esteem are themselves strong motivational determinants for health professionals. These processes also support development of a professional identity, i.e. norms and social codes that reflect how people think of themselves and who they are. Such identities function as basic motivators (Akerlof & Kranton 2000, 2008). In organizations that function well employees will identify (and feel pride) with their work and organizations. Deviations between actual performance and what can be expected according to norms will create a cognitive dissonance (and feelings of shame) and a motive to act. In organization that function less well, and without a trustful relationship with managers, employees are more likely to create a distance towards the organization, develop an identity of their own and resist managerial interventions. A trustful relationship is more likely to develop if employees understand actions by managers, which in turn requires some form of continuous interaction (Frey 1997).

The importance of identity as a basic motivator relates to theories of professionalism as a disciplinary mechanism (Fournier 1999). Several empirical studies suggest that health care professionals care about their reputation and social acceptance even if not associated with financial rewards. Studies of the effects of transparent report cards confirm that a perceived dissonance related to the professional identity can incentivize professionals to change their behavior (Bevan et al 2019). Professionals who experience that they are perhaps not as good as they thought they were are more likely to take actions to improve their services - they need to defend their identity and gain acceptance from others and themselves. This motivation can be even stronger than financial incentives, possibly because it relates to deeper feelings of pride and shame. A study of the impact of report cards across heart surgeons in the US were able to separate between extrinsic incentives (choice of patients and thereby revenues) and intrinsic/social motivation (comparison with peers only) and found the latter motivation to be significantly stronger (Kolstad 2013). Against this background, it is also possible to explain

why audit & feedback interventions usually have a stronger effect among providers with poor performance – they experience more dissonance (and shame) related to their professional identity.

Reviewing theories related to motivation and incentives provides possible social clues to why audit & feedback seem to work, at least more often than not. More importantly for this article, the review also provides valuable ideas when it comes to the design of audit & feedback elements when the purpose is to support learning and DUI type of innovations. First of all, practices should determine their own targets and actions plans since this facilitates a locus of control that is in line with support of intrinsic motivation. This does not mean that available evidence and comparison with others are of less importance. On the contrary, such transparent comparison with others and the available evidence is important to initiate action and behavior change through social approval processes and by supporting development of competence. Some discretion is probably needed when it comes to the level of transparency. For novel tasks, there is usually a large gap between actual and ideal performance. A high level of transparency can result in significant levels of unpleasantness (Elingsen & Johansson 2007). For tasks that are well learned, a higher transparency can be accepted. Motivational theory also suggests that the source of audit & feedback is important. This is not fully recognized in previous audit & feedback reviews and not mentioned as a separate design element by e.g. Colquhoun et al (2017). Individuals care more about feedback and respect from someone that they identify as a role model (Ellingsen & Johansson 2008). In health care, this would mean audit & feedback from senior health care professionals that fully understand the work and its contingencies. The importance of a fully trusted source is likely to be even more important in case audit & feedback is not associated with direct rewards. Audit & feedback from senior professionals will not have access to direct financial rewards and sanctions, but this will have little significance if the logic of behavioral change is to facilitate intrinsic motivation and an appeal to professionalism through social processes.

## 5. Audit & feedback practices in Swedish primary care

There is limited knowledge regarding how individual practices in Swedish primary care use available measures for improvement work, as well as potential relationships with variations in the design of audit & feedback elements across the 21 regions. Although it would be important to fill this knowledge gap, the scope and ambition of this article is limited to a discussion of practical implications of the developed theoretical propositions.

According to available reports and six key informants at the national level and in three regions, the design of audit & feedback elements vary both across and within the 21 regions. From the perspective of primary care practices up to four different audit & feedback sources could be identified:

- from the region as payer & regulator,
- from owners (private or public) of those practices that are not stand-alone units,

- from committees focusing on use of prescription medicines,
- from regional primary care research units.

The first three sources exist in all regions. The region has an obligation to monitor activities of contracted primary care practices, irrespective of their ownership. As most practices are owned by private chains or by regions themselves, practices also get feedback from senior management levels within their respective organizations. Senior managers representing the region as owners are then internally separated from the region as a payer & regulator according to a purchaser-provider split principle. By national law, the region as payer & regulator have to give both public and private providers similar and non-discriminating conditions. On average, about one-third of practices are privately owned, with a significant variation between urban (more private) and rural regions. A third source of audit & feedback comes from regional pharmaceutical committees issuing prescription drug recommendations and/or committees focusing on use of antibiotics. Audit & feedback organized by primary care research units is less common, but exists in at least one region.

Audit & feedback from the region as a payer & regulator focus on contracted requirements regarding facilities, competencies, opening hours, participation in medical quality registers (e.g. diabetes care register), collaboration agreements, maximum waiting times, compliance to clinical guidelines, recommendations etc. These requirements are determined by each region and vary. Some variation also exist when it comes to recommended drugs by pharmaceutical committees, although guidelines when it comes to use of e.g. antibiotics are made by national experts. Audit & feedback from the research unit have a medical and evidence based approach, more similar to the pharmaceutical committees than the regions as payer & regulator.

Regions as payer & regulators usually conduct site visits to practices, although the frequency of visits vary (Glenngård 2015). The teams involved in meetings with practices usually consist of individuals with a clinical and managerial background. The focus of the site meetings vary. Control of performance against contractual agreements is always on the agenda, although additional support of learning and innovation seems to have gained in importance over time (Glenngård 2015). Site visits also provide the region as a payer & regulator with information about perceived problems at the practice level. This information can potentially be used to initiate changes in regulations and/or payments. If contractual obligations are not fulfilled, the regions can demand actions plans and issue sanctions in the form of reduced payment.

Site visits are also conducted by a majority of the pharmaceutical committees. These visits are frequently combined and in some regions replaced by educational seminars and larger meetings focusing on information exchange. Similar to audit & feedback provided by the research unit, the team responsible for such visits consists mainly of doctors. In contrast to audit & feedback from regions as the payer & regulator, feedback from pharmaceutical committees and research units are not linked to sanctions. In at least some regions, the pharmaceutical committee have a more or less formal obligation to report practices from a patient safety perspective to the region as payer & regulator.

Table 1 summarizes the main characteristics of the four identified audit & feedback processes. As noted, audit & feedback that explicitly supports learning and DUI types of innovation were less common, but was identified to some extent for pharmaceutical committees and more visible in the case of the research unit. However, a dual purpose of audit & feedback could be noted in audit & feedback provided from the region as payer & regulator.

**Table 1** Summary of characteristics of existing audit & feedback processes.

	Purpose	Measures	Use of targets	Modality
Region as payer & regulator	Control of compliance to contractual obligations. In combination with some support of learning and innovation at both practice and regional levels through dialogue and information exchange.	Combination of measures. Structural requirements regarding facilities, staff, compliance towards opening hours, collaboration agreements etc. Use of quality measures vary.	Yes. Linked to contractual obligations. Some targets related to quality measures such as waiting-times and as described in contracts.	Varies. Multimodal with face-to-face meetings in several regions, usually with practice managers and key staff. Frequency of site visits vary, usually annual or bi-annual.
Pharmaceutical committee; Committee focusing use of antibiotics	Control of compliance to regional recommendations and evidence based national targets. In combination with some support of learning and innovation through educational seminars, dialogue and exchange of information.	Process measures related to prescriptions and use of medicines.	Yes. Linked to clinical guidelines, recommended drugs and restrictive use of antibiotics.	Usually multimodal. Face-to-face meetings (sometimes using Skype), usually on an annual basis with practice manager and prescribers (general practitioners).
Owners (private or public)	Control of compliance to contractual obligations in combination with focus on efficiency measures.	Combination of measures. Often focus on costs, outputs and measures linked to existing financial incentives (e.g P4P schemes).	Yes. Often focusing on costs and output in terms of visits, waiting times and quality indicators used in P4P.	Varies. Face-to-face meetings with practice managers.
Regional primary care research unit	Focus on learning and innovation through stimulation of local improvement activities.	Combination of available measures, with a focus on medical quality.	No.	Multimodal. Annual face-to-face meetings with practice managers and key staff.

Respondents had different views about the best approach to audit & feedback and the need for external accountability. The limited support for more complex changes and initiation of local

improvement initiative was generally recognized. Respondents also agreed that such changes required not only development of supportive audit & feedback elements. Additional contextual factors mentioned was payment systems that did not prevent changes in the delivery of service, support from managers at all levels and time to reflect among employees. A development towards use of more quality measures in audit & feedback activities was associated with a need for more medical competence in the audit teams in order to reach legitimacy and to enable a meaningful dialogue with practice managers and key staff. Respondents had different opinions when it came to the issue of motivation. Most respondents thought that trust should be the default option, but that the possibility to enforce accountability should be within reach if needed. One respondent referred to this possibility as creating fairness among practices. Several respondents also mentioned that regions have a responsibility to take actions if needed from a patient safety perspective.

## 6. Practical implications and research opportunities

A dual purpose of audit & feedback activities, as practices in Swedish primary care, is consistent with findings elsewhere (Benjamin 2008; Capelli et al 2012; Burgess 2011; Funck 2015). Still, it remains an open question to what extent it is possible to combine purposes of control and support of learning and innovation. A key issue is why providers should care about changing their behavior. When audit & feedback focus control the answer is that otherwise providers may face economic sanctions, i.e. motivation is extrinsic and monetary. When audit & feedback have an enabling approach, professionals are assumed to be motivated by social determinants associated with their identity. Similar to other forms of government, such an appeal to professionalism will be an imperfect form of governance (Fournier 1999). The impact will depend on the orientation of recipients. Even if tasks are complex, inherently interesting and important for society, the motivation to perform and develop may vary.

Bevan & Hood (2006) suggest four categories that distinguish between the motivation of health care providers more generally: saints, honest triers, reactive gamers and rational maniacs. Leaving the rare occasions of rational maniacs aside, the remaining categories is an extension of Le Grands (2003) distinction between knights and knaves. Saints (as well as Knights) have a strong public service ethos and voluntary driving force. For these providers, measurement and provision of data is usually enough to create a motivation to develop and change – they have a learning goal orientation (Groysberg, Abrahams 2015). Honest triers are less capable and need more support but are at least not inclined to manipulate data or their practices in order to report good performance. Reactive gamers, on the other hand, will look for opportunities to game the system. This category would be more difficult to handle when audit & feedback supports learning and DUI type of innovations. Reactive gamers may say that they are committed to quality improvement initiatives but act with less ambition. Previous reviews suggest that systematic quality improvement work is generally accepted but seldom practiced as intended. Taylor et al (2014) found that only 7 of 47 interventions

reviewed used monthly or more frequent feedback of quantitative data to support quality improvement work. Reactive gamers are on the other hand even more problematic if performance management focus coercive forms of control. Providers can then easily play the game of “reaching the target but missing (or not caring about) the point”.

Variations when it comes to the motivation of recipients call for a balanced approach when designing performance management and audit & feedback elements. Providers with a strong professional orientation have a strong identity. A dissonance in self-assessed performance compared to the ideal will probably in itself initiate significant actions in terms of improvement work. Feedback that is not recognized as relevant by professionals is on the other hand likely to be ignored or to initiate defensive actions. Ignoring such targets determined by “outsiders” (e.g. payers or politicians) may even strengthen the (professional) group identity. For providers with a strong professional orientation it will be important that performance measures and targets are seen as valid and that a trusted and legitimate source deliver the audit & feedback. The former proposition suggest that performance measures used should be co-developed with professionals to increase understanding and motivation (Groen et al 2012, 2017). The latter proposition suggests that senior professionals perceived as role models should be the preferred source of audit & feedback.

Since a learning goal orientation cannot be expected from all of the providers all of the time, policies need to include a readiness to demand external accountability. Bevan et al (2019) refers to this as a reciprocal form of governance. Possible ways to prevent misuse of self-governance by opportunistic providers and reactive gamers include a commitment to transparent comparison of data and face-to-face meetings using professional audit teams that practices would like to impress. The possibility to enforce targets, action plans and use of sanctions sends an important message to practices in general, even if never used in practice. For the majority of professionals such a reciprocal policy may be welcomed and seen as a contribution to fairness. Opportunism from individual practices can be considered a form of free-riding that threatens self-governance in general. If the professional team responsible for audit & feedback have a responsibility to report back to the region as payer & regulator, the use of sanctions will come from a third party, rather than from the audit & feedback team directly. Such a principle may avoid development of distrust. However, as has been suggested more generally, “trusting a bit is likely to be interpreted as not trusting at all” (Falk & Kosfeld 2006, p. 1629). This would imply that it is very difficult to combine coercive control with an enabling approach. Most individuals on the other hand have a strong preference for fairness and may accept control to reach that end.

The theoretical propositions developed in this article need to be contested in empirical studies. Some progress have been made when it comes to the impact of transparency in health care more generally (e.g. Kolstad 2013; Bevan et al 2019). More research is needed when it comes to the importance of transparency in the context of audit & feedback. An important question is if more transparency is always good or whether “it depends”. Based on the ideas of social approval mechanisms, transparency within the professional community may be good enough. There is also arguments to accept a more limited transparency for new and complex tasks. Another area that needs more research is difference in behavior depending on the source of

audit & feedback. Theoretically, someone that professionals look up to and admire should be used as a source. It would then be of interest to study if costly site-visits and physical meetings can be replaced with digital video meetings. A further question is how the perceived intention of audit & feedback influences behavior. This question also includes studies of reciprocity in case intentions are perceived as exploitative or in conflict with professional norms. To have intentions that are perceived as “good” is probably more important than to have a perfect design of audit & feedback elements. Without perceptions of “good” intentions behind audit & feedback activities, it will not be possible to appeal to social determinants of motivation, which means that coercive control is the only remaining option.

A shift towards performance management and audit & feedback to support learning and innovation also have implications for managers. This is an additional area for research. There is reason to assume that managers should have a positive attitude towards decentralized decision-making, an emphasis on internal and external communication and be supportive of a development and change culture. The crucial thing is how performance measures and targets are used. Rather than “final answers”, measures and indicators should be the starting point of a development process which includes complementary qualitative and experience based data. The importance of “good” intentions is also valid for managers.

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