Coping with autonomy: Managers' responses to the pendulum between activity-based and fixed reimbursement systems in Swedish hospital care

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Governance and management in publicly funded services includes the processes that governments use to ensure that the activities of organizations involved in the delivery of public services are in line with those expected. In hospital care, the reimbursement model is viewed as an important tool to motivate providers to act in the interest of the funding body. The purpose of this study was to analyse consequences of a change from activity-based funding (ABF) to global budgeting for the governance and management of hospitals in a Swedish county council. The paper furthers previous research by illustrating how managers at different levels and in different hospital types adopt different strategies to cope with the increased autonomy inherent to the budget model. A single case study with an explorative onset was used to study different levels of management and cover different specialties in the county council Region Skåne (RS). The main source of data is semi-structured interviews with managers at different levels of the health care organisation. A key result is that shifting reimbursement system had potentially large consequences for the processes of management and governance. The results suggest that a reform aimed at increased professional autonomy may have different effects depending on the way that managers handle the change and that such differences may be attributable to type of hospital. i.e. university versus non-university hospitals. Two potential strategies for managers to cope with a change from variable ABF to fixed global budgets have been identified: One is to compensate for the low level of detail in assignments by continuing or even increasing the use of other coercive controls. Another is to adapt and align other controls with the new reimbursement model and focus on more enabling types of governance and management overall.

BACKGROUND

Governance and management in publicly funded services includes the processes that governments use to ensure that the activities of organizations involved in the delivery of public services are in line with those expected. The three fundamental stages of governance and management are priority setting, monitoring and accountability (Smith et al 2012). Given system constraints (e.g. available resources), governments set priorities based on population needs and political decisions and assign tasks to providers based on such priorities. They then compile information to evaluate provider activities against their assigned tasks, and ultimately hold providers to account for their conduct.

In hospital care, the reimbursement model is viewed as an important tool to motivate providers to act in the interest of the funding body, i.e., the government and/or health insurance agency (Baxter et al 2015). To avoid sending conflicting signals, resources should ideally be allocated to hospitals in a way that reflects current priorities and targeted areas. Ever-changing priorities and target areas implies that reimbursement models are subject to recurring change in most public health systems. A general trend is the movement from an emphasis on models stimulating increased efficiency in the 1980s and 1990s, to a greater focus on models stimulating quality improvements since the early 2000s (Cutler 2002).

Swedish hospital care is a case in point. In the late 1980s, key policy concerns in Swedish health care were long waiting times, a lack of cost control and poor efficiency. The perceived problems paved the way for reforms in the 1990s onwards. Up until then, resources were allocated to hospitals via annual budgets based on the previous year's allocations. As this reimbursement model was believed not to stimulate productivity and to even encourage long waiting lists, several of the Swedish county councils – the local governments responsible for the financing and organisation of health care – later replaced the budgeting model by activity-based financing (ABF) models (Serdén and Heurgren 2011). ABF implies that the reimbursement increases as the volumes of care increase, with pre-specified per-episode reimbursement rates varying across groups of patients with approximately equal resource needs, so called Diagnosis Related Group (DRG). Similar models have been introduced in many other health systems during the past decades (Palmer et al, 2014).

ABF gives incentives to expand care volumes and improve efficiency. Accordingly, studies of the introduction of ABF in the Swedish county council of Stockholm in the early 1990s indicate that ABF induced short-run increases in care volumes and efficiency (Kastberg and Siverbo, 2007). On the negative side, ABF embodies implicit incentives to avoid costly patients and discharge patients too early, and diverts effort from care to administration (Chalkley and Malcomson, 1998; Eggleston, 2000; Ellis and McGuire, 1986). Another concern is that the stronger external incentives embodied in a ABF system may crowd out medical professionals' internal motivation for their job. One reason for such crowding out is that external incentives undermine professionals' sense of autonomy (Bénabou and Tirole, 2003; Deci and Ryan, 1985; Frey et al., 2013). Indeed, surveys of physicians working in Stockholm at the time of the introduction of ABF showed that they experienced a greater loss of autonomy compared to physicians in counties not using ABF (Forsberg et al., 2000, 2001). The reduced degrees of freedom for medical professionals and anecdotal evidence of unethical behaviour has later received much attention due to criticism from medical professionals and the media (Frostegård, 2014; Zaremba, 2013). Policy interest in Sweden, both in the hospital sector and other publicly funded services, has turned towards governance approaches allowing for a higher degree of professional autonomy. Illustratively, the government appointed a "Trust delegation" in 2016, with the purpose of promoting management and governance practices taking advantage of rather than undermining professionals' own source of motivation. This can also be connected to the widespread critique from academia against New Public Management and the "audit society" (Lapsley, 2009; Power, 2000), where public administration has become characterized by mistrust in professionals.

As of late 2010s, many Swedish county councils have returned to annual budgeting to allocate resources to hospitals. A similar movement has taken place in Denmark, with certain regions abandoning ABF in hospital care and giving health care professionals greater influence over indicators for monitoring (Burau et al 2018, Søgaard et al 2018). A naïve expectation may be that the effects of ABF are simply reversed when going back to budgeting. From a theoretical perspective, budgets give health care professionals greater autonomy to use allocated resources as they see fit. The return to budgeting may thus be perceived by hospital staff as a signal of trust from the funding body. In practice, the question is how this signal competes with other, simultaneous signals in the management control system. The effect of a given reimbursement model depends on the overall management control system in place, and the context in which it is situated (Malmi and Brown 2008). Controls should be carefully chosen, aligned and adapted to fit the context in which they are implemented. If the structures and processes of monitoring and accountability related to the earlier ABF model have been cemented, professionals may not take advantage of the greater room for autonomy associated with the change back to budgeting.

Adler and Borys (1996) discuss how management controls can be classified according to their degree of formalization on one hand, and according to whether they are enabling or coercive on the other hand. Whereas coercive types of control refer to procedures aimed to force compliance, enabling types of control involve employees in decisions and foster organizational knowledge about lessons learned from experience (Adler and Borys 1996; Wouters and Wilderom 2002). By degree of formalization, Adler and Borys refer to the prevalence of structured formal rules, procedures and instructions (Adler and Borys 1996). By alluding to the agents' internal motivations, enabling types of control are likely more appropriate than coercive types to enhance benevolence towards the principal, and thus to build trust. Going from an ABF model to budgeting can be described as movement towards less formalized management control, as budgeting requires much lower level of detail in reporting. However, simply because the reimbursement model becomes less formalized, it does not mean that the control system becomes more enabling.

The implications of moving from ABF back to global budgeting is a largely unexplored area. Søgaard et al (2018) analyse Danish hospitals that returned from ABF to budgeting and involved professionals in the development of new monitoring indicators. They find no indications that the shift has improved performance in the new indicators, neither has it worsened traditional measures of productivity etc. Similarly, an interview study with mid-level managers in hospitals a Swedish county council that returned from ABF to budgeting (Glenngård and Ellegård 2018) indicates that the change in the reimbursement system had limited consequences for the provision of services. Partly, this was due to a resistance to change among managers. Similar to studies from other settings (Korlén et al 2017; Cho and Ringquist 2011), the interview study with mid-level managers in Swedish hospital care suggest that managers may develop strategies to cope with reoccurring changes in the external control, in order to give co-workers a feeling of stability in the organization and not to interfere with their daily work. For instance, mid-level managers in health care tend to translate and adapt incentive schemes to better fit health care professionals' values (Korlén et al., 2017). Another reason for the limited consequences was that the purchasing body did not accompany the new model for resource allocation by a corresponding shift in other controls. The performance measurement system was still perceived as coercive, counteracting the greater autonomy of the budget model. Thus, the new reimbursement model was not well-aligned with other structures and processes for governance and management.

In a systematic review of managers' experiences of introducing reimbursement models in hospital care, Baxter et al (2015 p 1108) conclude that "it is clear that the implementation of any funding model is a complex process (…) requiring deep commitment from all those involved. In order for the successful implementation of hospital funding models the necessary infrastructure must be present". A change of the reimbursement model may not have drastic consequences for the processes of governance and management unless measures are taken to ensure that 1) managers at all levels are committed to the change and 2) different management control tools are aligned to support the change (e.g., Malmi and Brown 2008; Simons 1995; Adler and Borys 1996).

Purpose

The purpose of this study is to analyse consequences of the change from ABF to global budgeting for the governance and management of hospitals in a Swedish county council. The paper furthers previous research by illustrating how managers at different levels and in different hospital types adopt different strategies to cope with the increased autonomy inherent to the budget model.

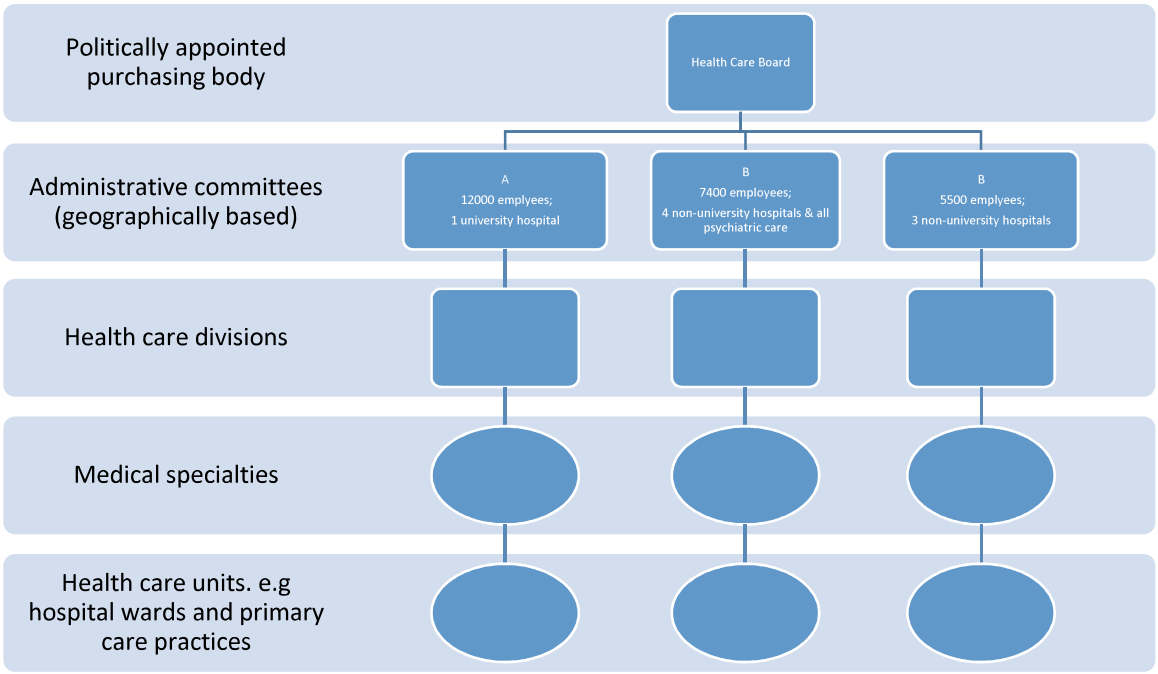
DATA AND METHODS

The Case

A single case study with an explorative onset was used to study different levels of management and cover different specialties in the county council Region Skåne (RS). RS is responsible for the care of the 1.3 million inhabitants in Skåne. The bulk of specialized care is provided by eight publicly owned hospitals, of which one is a university hospital. The council uses a purchaser-provider organization in

which a politically appointed purchasing body, the Health Care Board (HCB), contracts with the health care providers. The hospitals are organized under three geographically based administrative committees, of which the university hospital, which accounts for almost half of the region's health care spending, constitutes one.

FIGURE 1
ORGANIZATIONAL CHART FOR HOSPITAL CARE IN RS



RS moved from annual budgeting based on historical costs to ABF in 2006, and returned from ABF to budgeting in 2012. The ABF model in place in 2006-2011 was based on the Nordic DRG system (Nord-DRG, Serdén and Heurgren, 2011) for somatic care and on internally set prices for care episodes lacking a DRG classification (e.g., psychiatric care and treatments by nurses). During 2006-2011, 40-60% of the providers' revenues were activity-based up to a cap, specific for each provider organization. Medical advisors to the Health Care Board developed a detailed production plan specifying the care volumes corresponding to the maximum payment for each provider organization. Notably, individual hospitals or clinics could claim compensation over and above the cap by taking on others' patients (thus receiving the compensation that would otherwise have gone to these hospitals/clinics). Thus, the degree of variable payment was larger for individual hospitals or clinics.

In 2012, RS returned to global budgeting based on the 2011 cost level. According to administrators that were involved in the change,[1] the intended consequence with the shift from ABF to budgeting was to increase the room for flexibility and promote a more effective use of resources. A particular concern with the ABF model was that providers lacked incentives to choose less resource-demanding treatment options that would place patients in lower-paying DRGs. For instance, there was an economic incentive to choose to treat patients in inpatient settings (i.e., to let patients stay overnight) rather than in outpatient care (i.e., to admit and discharge patients on the same day), because inpatient DRGs were more lucrative.

The administrators had been aware that the abolishment of ABF might lead to a fall in production. To mitigate this risk, RS initially aimed to retain the system with pre-specified care volume requirements. The volume specification for 2011 was used as a basis, and was only slightly modified to reflect medical developments. In 2015, the specification was perceived as outdated and the region completely abandoned

the system with volume requirements. Since then, providers are jointly responsible for 'meeting the care needs of the whole population in the region'.

TABLE 1
TIMELINES OF THE REIMBURSEMENT MODELS IN RS

Time period	Proportion of variable DRG-based payment	Responsibility of providers	Determination of reimbursement
-2005	0	Satisfy care needs of population in uptake area	Last year's budget
2006-2011	40-60%	Produce pre-specified care volume	Care volume specification + weight lists
2012-	0	Produce pre-specified care volume (2012-14) Satisfy care needs of population in whole region (2015-)	Budget for 2011 with adjustments for price changes and demography

Source: interviews with administrators and review of budget documents.

Collection of Data

An inductive approach was used to collect, structure and interpret qualitative data about consequences of replacing variable ABF by traditional fixed budgets in hospitals. The main source of data is semi-structured interviews with managers at different levels of the health care organisation. The purpose of the interviews was to collect data about how and why managers at different levels of the health care system perceive a change from variable ABF to traditional fixed budgets for the provision of services on an overall level and for the processes of management and governance (Interview guide in appendix A):

- We cover the views of a sample of mid-level managers at the medical specialty level (Table 2). We selected six specialties (Table 1) based on the following criteria: i) mid-level managers with experience of both ABF and fixed budgets; ii) similar *level* of resources allocated to the specialty before and after change in reimbursement system; iii) different characteristics of specialties, e.g. chronic/non-chronic illness and somatic/psychiatric care; iv) all administrative committees should be represented.
- We cover the views of all administrative committees directly below the Health Care Board through interviews with the head (senior manager A-C) and chief financial officers (CFO A-C) of each committee. Senior managers A and B and CFO A started working in RS after the change in reimbursement models. Hence, they can only be expected to reflect upon recent developments and to share their own views on the processes of governance given the current reimbursement model.

Both authors participated in all interviews. All interviews were recorded and transcribed. We also reviewed budget documents for the period 2012-2016. The review was used to generate an overall understanding of the reasons for changing the reimbursements system and also to be able to describe the design of ABF and fixed budgets in RS during the study period.

TABLE 2
INTERVIEW RESPONDENTS

Respondent	Administrative committee	Professional background	Date (length of interview)
Senior manager	A	Clinical (physician)	31 May 2018 (31 min)
Senior manager	B	Clinical (physician)	16 May 2018 (47 min)
Senior manager	C	Clinical (nurse)	4 June 2018 (49 min)
CFO	A	Management	20 Sept 2017 (64 min)
CFO	B	Management	19 Sept 2017 (72 min)
CFO	C	Management	22 Sept 2017 (53 min)
Mid-level manager, adult psychiatry	B	Clinical (nurse)	16 June 2017 (66 min)
Mid-level manager, orthopedics	A	Clinical (physician)	8 June 2017 (75 min)
Mid-level manager, surgery	C	Clinical (physician)	15 June 2017 (62 min)
Mid-level manager, neurology	A	Clinical (physician)	25 April 2018 (81 min)
Mid-level manager, nephrology	A	Clinical (nurse)	26 April 2018 (75 min)
Mid-level manger, general medicine	C	Clinical (physician)	25 April 2018 (41 min)

Analysis of Data

Conventional content analysis was used to analyze the collected data (Silverman 2000). Both researchers participated in the analysis and interpretation of all empirical findings. We initially reviewed the transcribed interviews to get an overall picture of the empirical findings with regard to how and why managers perceive replacing variable ABF by traditional fixed budgets in hospitals. Thereafter, a more thorough analysis was done in which the data was categorized into 1) perceptions about effects of the changed reimbursement system for manager at different levels and 2) strategies to cope with the increased autonomy inherent to a budget regime for managers at different levels and across different hospital types. When all empirical material had been compiled, the preliminary results were sent to the interviewees for validation (June 2018). Two came back with minor modifications and clarifications of quotations.

RESULTS

Consensus about Effects among Managers

The interviewed managers at the medical specialty level held the view that the shift back to budgeting had led to limited or no implications at all for providers, with the exception of strengthened incentives for cost containment (Glenngård and Ellegård, 2018). The perceptions among the CFOs of the administrative committees who had been working in the region under both regimes were similar to those of mid-level managers.

The shift to budgeting implied that there was no longer any uncertainty surrounding the amount of resources that would be allocated each year. In the previous ABF system, mid-level managers had had the possibility to generate increased funds through increased volumes of services. Uncertainty had increased in another respect, namely regarding the scope of assigned task of each administrative committee. The purchasing body had removed the detailed assignments to providers without replacing them by something else. In this respect, the shift led to a lower level of detail in assigned tasks coupled to allocated resources, not only in theory but also in practice.

Among mid-level managers, the lower level of detail in assignments resulted in feelings of ambiguity about what the purchasing body expected them to do with the allocated funds. Similarly, CFOs and senior managers of the administrative committees perceived an ambiguity about what expectations they should evaluate lower-level managers activities against. Related to this, the senior managers witnessed about a mismatch between the indicators that *were* monitored (which reflected the previous volume driven reimbursement model) and the indicators that they would *need* to monitor to hold providers to account in the fixed budget model (which was supposed to stimulate flexibility and effectiveness).

Strategies to Cope with the Low Level of Detail in Assignments Differed between Hospital Types

Although all respondents agreed that the budget model embodies more ambiguity regarding the expectations of the purchasing body, their opinions about the ambiguity differed. We found an interesting distinction across hospital types, i.e. between the university hospital on the one hand and the smaller non-university hospitals on the other hand, but no differences attributable to each administrative committee or type of medical specialty. The views were largely similar across different levels of management within each hospital type.

Non-university Hospitals

Managers of the non-university hospitals indicated a frustration about the low level of detail in assigned tasks coupled to allocated resources. The perception from the interviews was that they regarded the low level of detail as more of an obstacle than an opportunity. Overall, the three mid-level managers at the medical specialty and the two CFOs of the non-university hospitals preferred formalized links between resource allocation and assignments in terms of actual levels of care delivered.

Among mid-level managers, the ambiguity about expectations from the purchasing body resulted in uncertainty rather than a feeling of higher degree of autonomy in being able to decide how to use allocated resources themselves.

> *"To me I also find pride in being able to prove that I am actually reaching the targets" (Mid-level manager, adult psychiatry)*

The mid-level managers at the medical specialty level also expressed that they perceived the new system as unfair due to the missing link between level of resources allocated and actual volumes of care delivered. They expressed a frustration in less formalized assignments and not being able to get paid based on what they had actually achieved.

> *"I actually think that if you overshoot the target you should get paid extra for that extra volume of care" (Mid-level manager, general medicine)*

The senior managers recognized this view among mid-level managers. One senior manager of an administrative committee explained that it is easier to create slack through expansion rather than through cutting costs.

> *"Providers used to solve budget problems through expansion. [After the change] my task was to keep costs within the given budget constraints. This led to conflicts with mid-level managers who preferred variable payment, with the possibility to generate more payment with greater volumes. The DRG-based model favored those who produced more: they got praise because they were the best." (Senior manager C)*

The CFOs also expressed a frustration about unclear assignments to providers from the HCB in the budget regime. They regarded the lack of a clear assignment as an obstacle for holding providers to account for their activities. They tended to continue monitoring similar indicators as before the shift to fixed budgets but lacked clear targets to compare performance with.

Resources should be allocated to those who actually produce care. (...) A governance model should ideally enable us to do more for the patients and give co-workers a sense of stability at the same time. To get there, we have to plan production, logistics etcetera. (CFO C)

At the same time, they said that a high level of micro management does not belong in a modern leadership. To tackle the information gap while taking the modern leadership into account, there was an ongoing process to develop new ways of measuring provider activities. Focus was not only – or even primarily – on volumes of care but rather on indicators related to staff and quality of care.

They also expressed a view that smaller and more specialized hospitals (like the non-university hospitals in RS) perhaps navigate easier in a system with a high level of formalization and variable payment compared to the large university hospital. Some managers referred to this as different parts of healthcare following different logics. As an illustration of different logics, trauma and highly specialized care units face heterogeneous and unpredictable demand that calls for a large room for flexibility, whereas hospitals specialized in elective treatments to a greater extent may rely on standardized processes. Managers suggested that it might be better to adapt the set of controls to each unit's logic, rather than to make all hospitals subject to the same controls.

University Hospital

The picture is different when it comes to the large university hospital. The perception from the interviews was that a change implying less formalization is more easily adopted in an organization with more heterogeneous missions in combination with highly specialized services, in line with the reasoning about health care being subject to different logics. The ambiguity about expectations from the purchasing body was generally perceived as an opportunity rather than an obstacle among the interviewed managers of the university hospital. There was a consensus among managers at different levels and across different medical specialties at the university hospital that a low level of top-down formalization of assignments is preferable. This was reflected by the three mid-level managers at the medical specialty level, who called for transparent priorities and clear objectives at an overall level, but a low level of details in how those objectives should be reached.

"It is such a complex reality we operate in so I am rather skeptical towards collogues who ask for more clear assignments. I say that you do not want clear assignments, you have no idea what you are asking for. During my career, clear assignments by engaged senior managers has mainly been an obstacle for me to put it nicely. It tends to miss the point not being adjusted to your medical specialty" (Mid-level manager, neurology)

The CFO and senior manager of the university hospital had been recruited after the return to budgeting, and thus could not comment on the change. However, they both strongly preferred budgeting over ABF in principle, as they thought that budgeting presents a more flexible way to tackle the hospital's challenges. They described that they took advantage of the low level of detail of the current reimbursement model by developing participatory processes and introducing enabling types of control. The work with implementing more enabling type of controls had been started a few years after the change in reimbursement model rather than in direct connection to it and was in fact ongoing at the time of the interviews. One example is to involve mid-level managers in the development of target areas and performance indicators.

"Yes, a budget system may be perceived as unclear. The assignment is never clear really. I build our organization around the medical specialties and mid-level managers but also see the importance of involving lower level managers. (...) I let the mid-level managers decide on their own targeted areas and specify three targets for the coming year. Monitoring of their activities is then based upon those three targets" (Senior manager A)

The purpose of the participatory process was described as twofold: One aim was to give mid-level and lower level managers the autonomy to develop their own targeted areas and formulate assignments for their medical specialty. The other aim was to align the targeted areas and goals of each medical specialty with the overall targeted areas of the administrative committee. Mid-level managers were positive towards the ongoing implementation of more enabling type of controls.

"We do need to have a systematic monitoring of measures that we have agreed upon together. (...) In the past there was an aim to control us without using dialogue. But I want to have a discussion about that [what to do and how to do it and how to monitor it]. We are getting there now." (Mid-level manager nephrology)

DISCUSSION

In this study, we have examined the consequences for governance and management of replacing ABF by a model more compatible with professional autonomy; namely, traditional fixed budgets in hospital care, based on a case study of a Swedish county council, Region Skåne (RS). The main finding is that although the change of reimbursement model seems to have had limited consequences for the provision of services (Glenngård and Ellegård 2018), it has had potentially large consequences for the processes of management and governance according to interviewed managers. According to our results, the effect is dependent on how the change is received by managers at different levels.

Both clear priorities and appropriate systems for monitoring providers performance are crucial to be abe to hold providers to account for their behavior, according to Smith et al (2012). This was confirmed by the interviewed managers in our study. The lack of clear goals after the abolishment of production plans resulted in feelings of ambiguity about what the purchasing body expected from them. In turn, this had consequences for the processes of monitoring and accountability of providers. The change meant that managers could no longer use detailed assigned tasks from the purchasing body as a basis for monitoring providers and holding them to account for their activities. Opinions about how to tackle this new situation differed between managers for university and non-university hospitals in our sample. It was perceived as an opportunity by managers at the university hospital, but more as a problem among managers at the non-university hospitals. In line with this, two potential strategies for managers to cope with a change from variable DRG-based reimbursement to fixed global budgets have been identified in our study.

One strategy is to compensate for the low level of detail in assignments by continuing or even increasing the use of other coercive controls (Adler and Borys, 1996). This strategy had been used to some extent by managers at different levels of the non-university hospitals, where managers demonstrated a rather low level of commitment to the change. Some even expressed that they expected a shift back to a variable reimbursement system in the foreseeable future. A lack of clear targets from senior managers led to insecurity, and perhaps lower motivation, rather than to feelings of more autonomy at the medical specialty level.

Another strategy is to adapt and align other controls with the new reimbursement model and focus on more enabling governance and management overall. This strategy was used by managers at different levels of the university hospital. They emphasized the need to use dialogue and involve co-workers in the formulation of goals, how to reach them and how to monitor them. This participatory process is an example of enabling types of control, which involves employees in decisions and creates organizational knowledge about lessons learned from experience (Adler and Borys 1996). Using a participatory process

does not only provide co-workers with increased capacity and ability to do their task through increased knowledge about the organizations goals and how to reach them. Previous research shows that involving agents may also improve their attitude towards the assigned task (Groen et al 2012). In line with this, the managers who used this second strategy also reflected over trust in the organization and on how to build trust. These reflections can be viewed through the lens of the framework by Shoorman et al (2007). They define trust in an organisation as the "willingness to take risk", which can be expected to increase if the agent has the ability to perform the assigned task and displays benevolence towards the principal. Benevolence refers to the extent to which the agent is believed to want to do good for the principal, aside from an egocentric motive. A high degree of involvement of mid-level managers in formulating their own assignments and how to measure and follow-up on their activities could be one way of increasing their benevolence towards senior level management.

It should be noted that the work with aligning different controls at the university hospital had recently started and in fact took place at the time of our collection of empirical material. Thus, whether this strategy will be effective is still too early to tell. Another limitation is that we have not interviewed the persons who held the positions as senior and CFO manager of the university hospital right after the change. It is possible that the leadership in place during the first two years after the change did not differ from the other hospitals' leaders in terms of coping with the increased autonomy, and it is thus not possible to conclusively state that the distinction in our study reflects a general difference between university and non-university hospitals. Nonetheless, it is possible that the appointment of a senior manager with focus on enabling controls reflect the funding body's intention to develop another type of management. Thus, although not necessarily a direct consequence of the change of the reimbursement system, the two types of coping identified here illustrate different approaches to the granted autonomy.

In addition to the limitations discussed above, it should be stressed that the findings are based on experiences of a small number of individuals in one county council. Also, the interviews were conducted a few years after the change back to budgeting, which on the one hand allowed changes to take place but on the other hand may be associated with problems with selective recall.

CONCLUSION

When RS abandoned their DRG-based ABF and introduced fixed global budgets in hospital care, neither of two preconditions for a change in the reimbursement model to have drastic consequences were fulfilled: Managers at all levels were not committed to the change, and different management controls were not aligned to support the change. However, some managers were more committed to the change than others, and had also initiated work to align other management control to support the change.

Our analysis suggests that managers' commitment and efforts to align controls are closely intertwined. Managers who committed to the change, i.e. the senior manager and the CFO for the university hospital, also worked actively to ensure that other management control tools were aligned to support the change. Managers who were less committed to the change did not implement such strategies. One interesting observation is that although we identified differences between the university and non-university hospitals with respect to commitment to the change and alignment of different controls, earlier research did not indicate any differences with respect to consequences for the provision of services between the two types of hospitals (Glenngård and Ellegård 2018). A next step, beyond the scope of this paper, would be to follow-up perceptions and possible differences in performance of providers related to differences in use of controls when the development of the participatory processes in the university hospital has come further.

The observed differences between the university hospital and the non-university hospitals suggest that no reimbursement model is likely to fit all types of hospitals. The overall suggestion for payers and policy makers is perhaps to keep it simple and use a model that enables long-term commitment and allows for variation in the use of other controls. In this respect, the use of a fixed prospective model with a low level of detail seems more appropriate than an activity-based one. Then managers can then use other controls that are adapted to the specific context in which they operate.

Our study suggests that a reform aimed to increased professional autonomy may have different effects depending on the way that managers handle the change. The specific strategies observed in our study may be context-specific and are not necessarily generalizable to other contexts. However, a rather general conclusion that can be drawn from our analysis is that increased autonomy may lead to more variation in observed governance and management strategies.

ENDNOTES

1. Interviews with Lotta Karbassi and Göran Ingvarsson, administrators at the purchasing body at the time of the reform.

REFERENCES

Adler, P.S., & Borys, B. (1996). Two types of bureaucracy: Enabling and coercive. *Administrative Science Quarterly*, 41(1), 61-89.

Baxter, P.E., Hewko, S., Pfaff, K.A., Cleghorna, L., Cunningham, B.J., Elstona, D. & Cummings, G.C. (2015). Leaders' experiences and perceptions implementing activity-based funding and pay-for-performance hospital funding models: A systematic review. *Health Policy*, 119, 1096–1110.

Bénabou, R., & Tirole, J. (2003) Intrinsic and Extrinsic Motivation. *The Review of Economic Studies*, 70, 489–520.

Besley, T., & Ghatak, M. (2005). Competition and incentives with motivated agents. *American Economic Review*, (9), 616–636.

Blomqvist, A. (1991). The Doctor as Double Agent: Information Asymmetry, Health Insurance, and Medical Care. *Journal of Health Economics,* (4), 411–32.

Brunsson, N. (1989). Administrative reforms as routines. *Scandinavian Journal of Management,* (5), 219–228.

Burau, V., Dahl, H.M., Jensen, L.G., & Lou, S. (2018). Beyond Activity Based Funding. An experiment in Denmark. *Health Policy*, April.

Cho, Y.J., & Ringquist, E.J. (2011). Managerial Trustworthiness and Organizational Outcomes. *Journal of Public Administration Research and Theory*, 21, 53–86.

Chalkley, M., & Malcomson, J.M. (1998) Contracting for health services when patient demand does not reflect quality. *Journal of Health Economics*, (17), 1–19.

Cutler, D. (2002) Equality, efficiency and market fundamentals: The dynamics of international medical-care reform. *Journal of Economic Literature,* 40, (3), 881-906.

Deci, E.L. & Ryan, R.M. (1985). *Intrinsic motivation and self-determination in human behaviour*. New York: Plenum.

Dranove, D., & White, W.D. (1987). Agency and the organization of health care delivery. *Inquiry,* 24, 405–415.

Eggleston, K. (2000). Risk Selection and Optimal Health Insurance-Provider Payment Systems. *Journal of Risk and Insurance*, 67, 173.

Ellis, R.P., & McGuire, T.G. (1986). Provider behavior under prospective reimbursement: Cost sharing and supply. *Journal of Health Economics*, 5, 129–151.

Forsberg, E., Axelsson, R., & Arnetz, B. (2000). Effects of activity-based financing in health care. *Scandinavian Journal of Public Health*, 28, 102–110.

Forsberg, E., Axelsson, R., & Arnetz, B. (2001). Effects of activity-based financing on the professional autonomy and power of physicians and the quality of care. International Journal of Health Planning and Management, 16, 297–310.

Frostegård, J. (2014). *Den ekonomiska människans fall.* Stockholm: Karolinska Institutet University Press.

Franco, L.M., Bennett, S. & Kanfer, R. (2002) Health sector reform and public sector health worker motivation: a conceptual framework. *Social Science and Medicine*, 54, 1255–66.

Frey, B.S., Homberg, F., & Osterloh, M. (2013). Organizational Control Systems and Pay-for-Performance in the Public Service. *Organizational Studies*, 34, 949–972.
Glenngård, A.H., & Ellegård, L. (2018). There and back again. The pendulum between activity-based and fixed reimbursement systems in Swedish hospital care. Paper presented at the 10th international EIASM public sector conference, Lund.
Groen, B.A.C., Wouters, M.J.F., & Wilderom, C.P.M. (2012). Why do employees take more initiatives to improve their performance after co-developing performance measures? A field study. *Management Accounting Research*, 23, 120-141.
Jegers, M., Kesteloot, K., De Graeve, D., & Gilles, W. (2002). A typology for provider payment systems in health care. *Health Policy,* 60, 255–273.
Kastberg, G., & Siverbo, S. (2007). Activity-based financing of health care - experiences from Sweden. *International Journal of Health Planning and Management,* 22, 25–44.
Korlén, S., Essén, A., Lindgren, P., Amer-Wahlin, I., & von Thiele Schwartz, U. (2017) Managerial strategies to make incentives meaningful and motivating. *Journal of Health Organization and Management,* 31, 126–141.
Lapsley, I. (2009). New Public Management: The Cruellest Invention of the Human Spirit? *Abacus*, 45, 1–21.
Malmi, T., & Brown, D.A. (2008). Management control systems as a package—Opportunities, challenges and research directions. *Management Accounting Research*, 19, (4), 287-300.
Mannion, R., & Davies, H.T. (2008) Payment for performance in health care. *British Medical Journal,* 336, 306–308.
Palmer, K.S., et al. (2014). Activity-Based Funding of Hospitals and Its Impact on Mortality, Readmission, Discharge Destination, Severity of Illness, and Volume of Care: A Systematic Review and Meta-Analysis. *PLOS ONE,* 9, (10).
Pollitt, C., & Bouckaert, G. (2004). *Public Management Reform: A Comparative Analysis, 2nd ed.* Oxford: Oxford University Press.
Power, M. (2000). The audit society - second thoughts. *International Journal of Auditing*, 4, 111–119.
Ryan A, Blustein J. (2012). Making the best of hospital pay for performance. *The New England Journal of Medicine*, 366, 1557–9.
Schoorman, F.D., Mayer, R.C., & Davis, J.H. (2007). An integrative model of organizational trust: Past, present and future. *Academy of Management Review*, 32(2), 344–354.
Serdén, L., & Heurgren, M. (2011). Sweden: The history, development and current use of DRGs. In: Busse R, Geissler A, Quentin W, Wiley M, eds. *Diagnosis-Related Groups in Europe. Moving towards Transparency, Efficiency and Quality in Hospitals.* European Observatory on Health Systems and Policies. McGrawHill Open University Press.
Serdén, L., Lindqvist, R., & Rosén, M. (2003). Have DRG-based prospective payment systems influenced the number of secondary diagnoses in health care administrative data? *Health Policy*, 65, 101–107.
Simons, R. (1995). *Levers of control: how managers use innovative control systems to drive strategic renewal*. Boston, Harvard Business School Press.
Smith, P.C., et al. (2012) Leadership and Governance in Seven Developed Health Systems. *Health Policy,* 106(1), 37-49.
Søgaard, R., Kristensen, S.R., & Bech, M. (2015). Incentivising Effort in Governance of Public Hospitals: Development of a Delegation-Based Alternative to Activity-Based Remuneration. *Health Policy*, 119(8), 1076–85.
Wouters, M., & Wilderom, C. (2008) Developing performance-measurement systems as enabling formalization: A longitudinal field study of a logistics department. *Accounting, Organizations and Society*, 33(4-5), 488-516.
Zaremba, M. (2013). *Patientens pris: ett reportage om den svenska sjukvården och marknaden.* Stockholm: Weyler Förlag.

APPENDIX: INTERVIEW GUIDE

- What is your role in the organization?
- Describe the previous DRG-based ABF model and the new budget model
- Describe the process when the new budget model was introduced (why, how, dialogue/trust in process)
- Describe pros and cons with the two models
- What are the consequences of changing model …
    - For you (what is controlled, degree of being controlled, trust)
    - For the planning and provision of care (administrative burden, flexibility/room for innovations, cost containment, productivity and quality of care)
    - For professionals at the floor (what is controlled, degree of being controlled, motivation, trust)
    - For patients (with respect to overarching goals of care)
- Are you well-informed about the components of the overall management control package in the region?
- How do economic incentives compare to other parts of the management control package?
- Describe the components of the overall control package (esp. monitoring). Changes over time in degree of monitoring and administrative burden?
- Except for the reimbursement system, what other components of the MCP have been changed during this period?