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DRG-based prospective pricing and case-mix accounting—Exploring the mechanisms of successful implementation

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Abstract

Escalating health care expenditures have brought on the need for restructuring health care delivery. A common response to this problem has been to seek market-based solutions. In the literature, however, increasing concern has been expressed that hospital management reforms will fail or will have only a limited impact. This longitudinal case study extends our understanding of the effects of implementing DRG-based prospective pricing and case-mix accounting systems for hospital management control in a specific health care setting. Moreover, this study contributes to current knowledge by focusing on the mechanisms explaining successful implementation of new accounting and control systems in the health care sector. A deep understanding of these mechanisms may help us to design better management control systems, and thus circumvent problems in implementing these systems. Our study suggests that successful implementation in the studied context is strongly dependent on the involvement of clinicians in this process. Integrated clinical and financial accountability, assigning responsibility for implementation to clinicians, freedom in choosing appropriate control tools, and flexibility in adoption all facilitated implementation. Furthermore, we argue that this process has also been advanced by the gradual implementation of these reforms and intensifying institutional pressures.

Keywords: DRG-based prospective pricing; Case-mix accounting systems; Management control systems

1. Introduction

National health care systems have faced a dramatic increase in health care expenditures, leading many decision-makers to seek new ways for restructuring the delivery of health care services. A common

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response to this challenge has been to implement market-based solutions. In addition, there has also been a distinct trend towards an increased awareness and use of accounting information in health care settings (see Brunsson et al., 1998; Lapsley, 1994a; Hopwood, 1984; Paavilainen, 1999; Kekomäki, 1997; Häkkinen, 1995). Appeals are made to the potential benefits offered by improved costing procedures, more specific criteria for resource allocation, and improved management information systems. This ongoing process of change in the health care sector, and the role of accounting in this process, have been of increasing interest to researchers (e.g., Kurunmäki, 2004; Lapsley and Wright, 2004; Jacobs et al., 2004; Kurunmäki et al., 2003; Lowe, 2000; Lapsley, 1999; Doolin, 1999; Abernethy, 1996). However, little work has focused on studying the effects of these reform projects (Lowe and Doolin, 1999; Lapsley, 1999), and the experiences of health care professionals, managers and patients have been largely ignored until recently (Jacobs et al., 2004; Kurunmäki, 1999; Doolin, 1999; Chua and Preston, 1994).

A number of authors have noted that clinicians have had few incentives to work more efficiently, and they have had neither accountability for, nor information on the resource consumption implications of their decisions (e.g., Sanderson, 1987; Bloomfield and Coombs, 1992; Lapsley, 2001). These factors were seen to contribute to the inefficiency of hospitals, and the DRG-based prospective payment system (PPS) was therefore designed in the U.S. to change the behaviour of hospitals by altering the economic incentives facing hospital decision-makers (Preston, 1992; Guterman et al., 1991). Compared to retrospective payment systems, under which hospitals were reimbursed in full for costs expended in service provision, PPS introduced fixed pre-determined reimbursement rates for service packages determined based on Diagnosis-Related-Groups (DRGs).[1] In those cases where actual costs exceeded the pre-determined rate, the hospitals were expected to absorb the loss.

In the literature, the use of DRGs for determining hospital products has been advocated as offering hospital management the means for understanding and controlling resource usage within hospitals (e.g., Fetter and Freeman, 1986; Fetter, 1987). It is argued that by focusing on the final products, the DRG control framework – consisting of the DRG-based prospective payment and case-mix accounting systems – allows for the efficient[2] utilization of intermediate services as well as efficiency in the production of these services (Fetter and Freeman, 1986; Fetter, 1992). Individual departments could be made responsible for the efficient production and supply of the necessary intermediate services (e.g., lab tests, treatments, medication, and nursing) required for the treatment of patients, whereas the clinicians would be responsible for determining the mix of the hospital's resources and services required to diagnose and treat each type of patient. The objectives of case-mix accounting are to provide a complete financial picture of the costs of treating individual patients, and the costs of treating different patient groups. This information could then be used in the planning, controlling and pricing of services. It is, for example, believed that it would be possible to compare hospitals' efficiency[3] in providing these services (Weiner et al., 1987; Palmer et

[1] The DRGs categorize patients into distinct classes that are similar clinically and in their consumption of hospital resources (Fetter and Freeman, 1986). Each DRG is defined on the basis of the principal diagnosis, secondary diagnoses, surgical procedures, age, sex, and discharge status of the patient treated. For a detailed description of development of the DRGs, see e.g. Averill (1991).

[2] Instead of using the term 'efficient' use of intermediate services, Fetter uses the term 'effective' use of these services. According to him, those services are effectively used if they are appropriately ordered and there is no waste of resources.

[3] Several interpretations of efficiency can be found in the literature; however, according to Bartlett and Le Grand (1993), there appear to be two basic concepts that underlie most of these different interpretations. The first one refers to the cost of service provision. In this interpretation, the service is considered to be efficient if it minimizes the total cost of service delivery, i.e. a service is more efficient than another is if the total cost of the service is lower. This view can be (and has been) criticized because