A comparative study of Denmark and New Zealand's national health targets

Abstract

This paper investigates the influence of nationally imposed health targets on current management control practices in New Zealand and Denmark. It reveals how variants of New Public Management (NPM), arising from specific historical socio-political contexts, rise to national differences.

The study finds that both nations are challenged to ensure data registration procedures produce valid and comparable performance measures. Denmark's reliance on a single efficiency measure of health sector performance reflects a historic social-political context that reduces the feasibility of additional measures whereas New Zealand's context enables the government to impose a more extensive range of health targets.

Keywords: Hospitals; New Zealand; Denmark; Management control practices: Performance measures; Comparative health care

1. Introduction

There has been on-going international interest in how to improve the management of national health care services (World Health Organization, 2000). New Public Management (NPM) emerged during the 1980s and 1990s (Hood and Peters, 2004, Hood, 1991) as a potential solution. Accordingly, different countries developed national variations of this public sector modernisation philosophy (Hood, 1995) with marketiser and moderniser approaches reflecting two ends of a NPM spectrum (Pollitt and Boukaert, 2004). Management accounting and control systems, with their associated performance measures, play a vital role in shaping how public management reforms are implemented (see for example Kurunmäki (2008)). This study seeks to understand performance measurement practices in the health sector over the 2010-2012 period[1] and their impact on local management practices in two nations with different NPM approaches. It first investigates the historical trajectories of the two NPM variants - the marketiser approach of New Zealand and the moderniser approach of Denmark – to establish the context of the performance measurement and management choices made in each country. While examining these performance measurements, we further investigate whether the adopted management accounting approaches give rise to outcomes that are unintended or contrary to received beliefs (Hood and Peters, 2004, Kurunmäki, 2008), which according to Kirkpatrick et al (2013) is particularly common in non-Anglo-Saxon nations when adopting NPM. The comparative approach is especially useful in this pursuit since it can reveal similarities and differences which may otherwise be neglected in single case studies (Marmor and Wendt, 2012).

Early depictions of management accounting in the public administration literature emphasized its goal-orientation and focus on quantitative performance measures (Williams, 2009). Thus descriptions from the late 1970s to late 1990s acknowledged its usefulness for improving operational efficiency

[1] Since the study period there have been further changes to performance measurement practices in both countries

(Pollitt and Boukaert, 2004, Pollitt and Boukaert, 2011, Hood and Peters, 2004, Lapsley, 2008) and for linking performance measures to funding allocation decisions (World Health Organization, 2000). The initial NPM focus which overemphasized the costing of public services was countered by the post-NPM perspective that incorporated qualitative dimensions of performance and focused on improving integration, networks and coordination between health care providers and purchasers while downplaying the earlier emphasis on competition (Christensen and Lægreid, 2011)

Despite the post-NPM shift, substantial elements of NPM endured including a reliance on management accounting performance measures to enhance transparency and accountability (Lapsley, 2008). Performance measures, often in the form of national targets, are typically specified in public service contracts and thus a key focus of management control systems (Christensen and Lægreid, 2007). This research seeks to compare and explain the influence of national health measures in New Zealand and Denmark on local approaches to management control.

Both countries reflect an 'entrenched command-and-control state' (Marmor and Wendt, 2012) meaning the government plays a central role in planning and provision of public services. The governments set health policy, enact health care legislation, and create mechanisms to coordinate and fund health care. Therefore, we view the countries as sufficiently similar to enable comparing their health policy and performance indicators

Comparing complex structures of public systems requires a broad focus (Marmor and Wendt, 2012) and a longitudinal approach reveals the contextual backgrounds of reform developments (Hood and Peters, 2004) that influence how NPM is translated into current practices (Kirkpatrick et al., 2013). This study draws on Kirkpatrick et al (2013), Pollitt and Boukaert (2004), and Hood and Peters (2004) to trace the development of each nation's NPM positioning[2] and to contextualize current performance

[2] The broad historical overview of health service developments provided here is to provide a foundation for understanding current performance measurement practices rather than to give a detailed account of all changes.

management developments in relation to their socio-political fundamentals. From this foundation, we adopt an interpretive approach to understanding developments in management control practices as reported by elite health managers.

2. Methodology

This descriptive case study first describes the historical socio-political contexts to establish a point of departure for the interpretive case study approach (Ryan et al., 2002, p. 146) used to explain contemporary health management practices.

The data was collected from artefacts, interviews and direct observations. The *artefacts* comprise public and private documents and reports detailing national health reforms and histories. This background information suggested topics for discussion during interviews. Observations of management accounting and performance measures were made by accessing management software programs in three Danish hospitals and one New Zealand District Health Board (DHB)[3] (where one author was an intern for five months).

Semi-structured interviews were conducted in late 2011 and early 2012 with seven managers in each country to gather data about registration practices and performance measures. All interviewees are considered as professional elites since they occupy senior management positions, have a large impact on local performance procedures (Harvey, 2011), have fiscal responsibilities and/or key financial insights and are knowledgeable about national reforms and developments in national performance measurement. Engaging with elite interviewees is beneficial because of their ability to elaborate on

[3] District health boards (DHBs) are organizations responsible for ensuring the provision of *health* services to populations within a defined geographical area. They purchase health services by contracting with health care providers to supply agreed services in their district. There are 20 DHBs in New Zealand. More information can be found here: http://www.health.govt.nz/new-zealand-health-system/key-health-sector-organisations-and-people/district-health-boards

the reforms and elements comprising the performance management system (Richards, 1996) but limits the possible number of interviewees.

Due to different health care set-ups in the two countries interviewees had slightly different organisational roles. In Denmark, there are five regions[4] responsible for hospitals in their areas. Financial and managerial decision-making authority is fully decentralised to the hospitals and accountability lies with CFOs and performance managers who play major roles in management decision-making (Bendix et al., 2008). The five CFOs and two performance managers all have financial backgrounds.

In New Zealand, health care is administered through 20 geographically demarcated DHBs funded by the government. The DHBs are responsible for making strategic decisions about health care services in their area and ensuring a complete range of health care services including primary care[5] is provided. They purchase services from competing health care providers. Additionally, New Zealand relies on a large network of committees and workgroups to operationalize DHBs strategies and processes. The DHB general managers (GM), supported by their CFOs, are responsible for financial management. The influence of CFOs in New Zealand DHBs is thus not as extensive as their Danish counterparts nor is their role in hospitals comparable to that position in Danish hospitals. Consequently, New Zealand interviews were conducted with seven DHB general managers three of whom were physicians by education while the remaining four had administrative or economic educations. Two committee members were also interviewed[6].

[4] Regions administer the funding from the state to the hospitals meaning hospital finances are not centralized at the regional level. Regions also coordinate support services. For more information: http://www.regioner.dk/services/in-english

[5] In New Zealand, primary care refers to private General Practitioners. In Denmark Primary Care is mainly private or non-profit physician practices. They are not financially controlled or coordinated by the Danish regions as they are in New Zealand.

[6] The research initially involved two university hospitals, one in Denmark and one in New Zealand, within close proximity to the researcher's affiliated universities. In Denmark, CFOs of all hospitals within the mainland of Jutland were contacted and seven out of ten agreed to participate. In New Zealand, six districts on the North Island were contacted and three, those closest to the university hospital, provided access to key informants.

New Zealand observations were made during three DHB meetings, a health symposium and a health conference, and while working as an intern at a hospital. In Denmark, observations were made during one hospital meeting and one health seminar.

The themes developed during data analysis included issues included issues in performance measurement and control, the influence of national targets on local management accounting practices, and similarities and differences in responses between countries.

The preliminary findings were validated by presenting them to attendees at a DHB meeting and a health conference in New Zealand in 2011 and to three Danish interviewees in 2014.

3. National NPM typologies

National typologies of modernisers and marketisers (Pollitt and Boukaert, 2004, Pollitt and Boukaert, 2011, Meuleman, 2008) are used to distinguish variations of NPM adopted by different countries. Modernisers believe in a large state role for guiding strategic planning, quality improvement, decentralisation, and a performance focus while acknowledging the need for fundamental changes to administrative systems including budgeting. Modernisers include Central European and Nordic countries although the latter relies on a more participatory approach to reform development. Marketisers favour less government involvement and tend to use quasi-markets, large-scale contracting-out, contract-based private market mechanisms and benchmarking although there may be some elements of collaboration. Marketisers often promote a purchaser provider split such as New Zealand's use of district health boards to purchase services from competing hospitals or other health care providers. Anglo-Saxon countries, including New Zealand are typically categorized as marketisers. Based on these definitions, Denmark would focus on strategic orientation, quality and consensus whereas New Zealand would introduce top-down initiatives to increase competition in the health sector.

Differences in NPM approaches may arise due to different perceptions about which national reforms are desirable and feasible (Pollitt and Boukaert, 2011). While politicians may find NPM reforms introduced in other countries desirable, those changes may not be feasible in the local context. The Anglo-Saxon approach to NPM, through centrally imposed market-based models and competition, may not be appropriate in all settings (Kirkpatrick et al., 2013, Pollitt and Boukaert, 2004). More specifically, this approach seems less suited to Denmark where the clinical profession are empowered by a tradition of decentralisation and consensus decision making (Nørreklit et al., 2006).

Another reason for broadly different NPM approaches is differences in the editing rules reflecting each nation's unique institutional and regulatory contexts (Kirkpatrick et al., 2013). Editing rules are underlying assumptions that shape context-specific understandings and influence how actors engage with issues. Editing rules determine how nations interpret and translate the NPM concept to fit their unique contexts. For example, the underlying assumption embedded in the Danish editing rules is to achieve consensus around change; New Zealand editing rules assume there will be state-led prescriptive change. According to Sahlin-Anderson (1996, p. 85) "*These editing rules are not explicit and subject to discussion, and can only be observed indirectly from the way the prototypes are portrayed".*

Kirkpatrick et al (2013, p. S49) explain how editing rules are pertinent to cross-national comparisons of NPM change. For example, in the UK the command and control structure underpinning the NHS enables the government to legislate and enforce changes in the health sector. This utilisation of prescriptive editing rules leads to more uniform interpretations of NPM changes. Thus, the desired reform changes are feasible. New Zealand could also be expected to rely on prescriptive editing rules as its institutional context and history is closely tied to the UK (Wilson, 2008) and its health care reform development is frequently described as similar to the UK (Malmmose, 2015). In contrast, the institutional context for healthcare in Denmark, with greater decentralisation and local empowerment

of clinical professionals, impacts what is feasible. While government may find change desirable clinical professionals are likely to interpret and translate ideas for change into something that is feasible for local contexts. Accordingly, policy makers are less likely to propose changes that challenge the continuity of established practices. This suggests the use of editing rules that are less prescriptive, more conformist (Kirkpatrick et al., 2013, pp. S57-S58) and more aligned with the Danish tradition of consensus-based decision-making built on a foundation of trust (Nørreklit et al., 2006).

In summary, the variants of NPM found in the New Zealand and Danish health care sector likely arise due to differences in historical socio-political context and editing rules. These factors are thus pertinent for understanding the selection and use of health performance targets and their impact on local management practices.

4. The Danish moderniser and the New Zealand marketiser

In Denmark, a trade union for doctors was established in 1857 to represent the interests of doctors alongside those of the government. This enabled a decentralised physician-dominated health system. During the 20th century, the government's gradual expansion of health services did not impinge on the decentralised autonomy to decide how health funding should be applied. In 1973, a centralised health insurance scheme was introduced to be managed by newly established geographical counties (Krasnik and Vallgårda, 1997). The increasing scope of health care was accompanied by a 45% increase in the number of health professionals between 1960 and 1981 (see p. 25 in Strandberg-Larsen et al, 2007). As a consequence, by the early 1980s Denmark experienced decreasing productivity, measured by number of doctors and nurses per 1,000 admissions, and increasing health care costs (Jensen, 1998). Thus, in 1982, the government attempted to introduce NPM to increase the accountability and transparency of the health care sector in particular. However, they met strong

opposition from medical professionals. Consequently, the only major change to be introduced was budgets and financial accountability requirements for hospital management (Jensen, 1998). The ability of medical professionals to retain authority over their work illustrates their robust power may explain underlying reason for the slow progress in implementing centrally driven management change. Accordingly, politicians were unable to exert a major influence over the Danish health care system (Jespersen et al., 2002). They made suggestions, not decisions, on health care and any changes were typically based on local, medical profession-led initiatives. Thus, health contracts are typically negotiated and agreed in Denmark rather than being legally imposed (Jensen, 1998). This non-prescriptive approach explains why Danish health organizations have less top-down influence than countries such as New Zealand and fewer administrators compared to the UK (Kirkpatrick et al., 2013).

A recent attempt to counter the strong influence of medical practitioners was articulated in the public sector Structural Reform (Tanggaard Andersen and Jensen, 2010), effective from 2007. The Reform had a particularly strong impact on the health care sector since so-called Regions were established. These Regions are responsible for secondary and tertiary health care in Denmark. The goal of this new structure of public health care was to control costs and improve service including shorter hospital waiting lists. To achieve this, hospitals were informed of the number of patients they were expected to treat and Diagnostic Related Groups (DRG) were adopted as the basis of funding[7]. Hospital payments were impacted by the volume of patients treated and directed attention to performing activities (Dørken et al., 2012). The reform has been criticised for failing to link the volume based productivity measure to other dimensions of health care such as service quality (Tanggaard Andersen and Jensen, 2010). The reason for omitting quality measures reflects government confidence in the strong decentralised focus of caretaking. Ultimately, Denmark designed a minimally intrusive control

[7] Hospital funding is based on regional demographics and volume related DRG payments.

system based on a single state-selected performance target for productivity and imposed it on local regions through the yearly financial contracts (Dørken et al., 2012, pp.11-12). Thus, the introduction of central management control in the health sector was limited to a single efficiency target reinforced thorough financial sanctions.

The history of medical care in **New Zealand** is less extensive than Denmark. Political disturbances in the 1960s and 1970 due to differing views of politicians and professional bodies about hospital reforms illustrates a different historical background of New Zealand health care management. While the organisation of hospital was restructured into District Health Boards (DHB) (for more, please see Laugesen and Gauld (2012, ch.4)) the government played a dominant role in establishing national guidelines and closely monitored health districts' activities (French et al., 2001). The New Zealand Medical Association (NZMA), founded in 1886, engaged with rather than opposed political involvement in the health care system and supported central control in many instances (Laugesen and Guald, 2012). For example, in the early 1970s the NZMA advocated state control of health services and cooperation with government health representatives (Laugesen and Guald, 2012, p. 65).

During the 1980s, a review of health care revealed various issues to be resolved including cost control, excessive debt at high interest rates, and complicated funding decisions to accommodate situational factors specific to different health boards (Newberry and Pallot, 2004). The government was able, because of its strong political base, to respond effectively to these issues by introducing new laws (Gauld, 2008). Thus, NPM was implemented through prescriptive centralised rules. This marked the beginning of 'The Great Experiment' from which New Zealand emerged as a worldwide trendsetter in NPM (Lawrence et al., 1994, Newberry and Pallot, 2004, Christensen and Lægreid, 2007).

The Great Experiment reflects the ideas presented in a document entitled "Your Health and the Public Health", tabled by the Minister of Health (1991). The document underpins the 1993 Health Services Act, which aimed to increase the efficiency of health boards. The Act reorganised health boards into

for-profit organisations, expecting them to operate more like successful businesses (Lawrence et al., 1994, French et al., 2001) and introduced a purchaser provider split to simulate market competition. Thus, it became the catalyst for New Zealand's marketiser approach. The market model, however, turned out to be expensive and the aim of reducing costs was not achieved (Ashton, 1996). The new reform that followed in 1997 converted 23 Crown Health Enterprises into 24 non-profit crown-owned organisations renamed Hospital and Health Services (HHS). The government, acknowledging that a change in strategy was needed, shifted its focus away from promoting competition through the quasi-market model to encouraging health service providers to cooperate (Ashton and Bautista, 2011). The government used its centralized power to consciously design the state apparatus for achieving the nation's collective goals.

During the 1990s, reforms paid significant attention to population health objectives where 88 targets were annually monitored (French et al., 2001, p.109). This comprehensive measurement approach has been sustained. DHBs' performance is monitored against 10 goals and 61 objectives, as listed in the New Zealand Health Strategy (New Zealand's Minister of Health, 2000, pp.10-12), of which 13 are prioritised as population health objectives (p. 13). The health priorities have been restated as ten national health targets in 2007 (Ministry of Health, 2007/08) and further reduced to six targets in 2009 and updated in 2011 (Ashton and Tenbensel, 2012). While health targets are but one aspect of the performance management system they have been criticized for incentivising service delivery performance and increasingly narrowed to focus on hospitals (Ashton and Tenbensel, 2012). The current health targets[8] are: Shorter Stays in Emergency Rooms; Improved Access to Elective Surgery; Shorter Waits for Cancer Treatment; Increased Immunisation; Better Help for Smokers to Quit; and More Heart and Diabetes Checks and each has a specified target goal. Immunisation and Heart and

[8] These can be accessed at http://www.health.govt.nz/new-zealand-health-system/health-targets/how-my-dhb-performing/how-my-dhb-performing-2011-12

Diabetes Checks are not hospital targets but include primary care. These health targets are regularly monitored and publicly reported each quarter. While certain areas such as Maori health care have dedicated funding to address health inequality (French et al., 2001, p.113), New Zealand's general health funding is not directly linked to the achievement of specific health targets (Tenbensel, 2009).

In summary, the historical backgrounds and reform developments in New Zealand and Denmark reflect differing socio-political foundations. The reforms undertaken by each country address unique health care challenges and require changes to and retention of different elements of the system. We argue national approaches to change are guided by different editing rules. Accordingly, Denmark's consensus based approach and the opposition of a strong medical profession to the idea of central performance management meant health care reforms were largely determined by local initiatives. New Zealand's history of central government involvement in health care enabled a more centralized prescriptive approach to health care change. Nonetheless, it appears both nations rely on a narrow set of national targets (1 in Denmark and 6 in New Zealand) and focus highly on hospital service delivery rather than population health. In particularly in Denmark.

5. Contemporary management control practices

This section considers management control practices pertinent to health contracts, measurement systems and the most recent reforms as described by interviewees. Three central themes are identified; (1) shared challenges of registration and standardisation of management control data; (2) the increased importance of financial considerations for Danish health care management control practices when volume based health targets were introduced; (3) and New Zealand's balanced perspective of health care performance through prioritized health targets embedded in a wider performance management system. The two latter themes illustrate how national post-NPM variants are translated into contemporary practices.

4.1 Impact on data registration and reporting

A common impact of national health targets on local performance management and measurement is increasing centralized influence on management information systems. Local units need to register and report new types of information. Denmark introduced a waiting lists efficiency measure while New Zealand specified six health targets. New Zealand DHBs and Danish health regions thus need to design management control practices to achieve and report on their respective national performance standards. To ensure comparability of measures, the registration[9] processes for data informing nationally-defined performance measures need to be consistent across reporting units. Thus, top down instructions are provided to ensure uniform data formats and standardised approaches to reporting. The state guidelines for data registration thus limit the managerial autonomy at lower levels despite each country's intent to promote decentralised decision-making for health care.

The introduction of efficiency measures influence local information processing. In ***Denmark*** the information systems used by regions and hospitals vary. Historically, autonomous hospitals have chosen their own systems leading to variations in data formats between hospitals and regions. The data inconsistencies posed a challenge to the state's intent to compare hospital performance through efficiency measures and motivated it to promote the 'Electronic Patient Journal' (EPJ) system to standardise health data. The EPJ system maintains patient information and links it to cost information. However, at the time of study not all hospitals had an EPJ and data formats were not consistent across systems in use. Hospitals with EPJs can easily provide the requested efficiency measures. Hospitals lacking or in the process of implementing an EPJ face a more challenging reporting process. According to one manager:

> *"The municipal hospital, which we are merging with, has a very heavy information system. But it works and the principles are similar to our hospital information system. But right now we are*

[9] Registration means recognizing which types of events to capture, when they are to be recorded, how they are to be classified etc.

abandoning both systems because we need to implement the 'Electronic Patient Journal' system. This is due to documentation. We have to be able to register and document our actions."

The unintentional effect of introducing the efficiency target was increased centralised influence on management information systems. The state-imposed efficiency measure required hospitals to substantiate the treatments underpinning the reported performance. However, several interviewees note differing views about, for example, when patients should be added to waiting lists leads to great inconsistency in the data registration routines. The immediate issue for the state is to standardise information provided by the hospitals so that waiting list performance and treatment of patients can be compared. However, the state's need for standardized measures ultimately constrain decentralised management autonomy. In effect the efficiency measure motivate changes in local registration routines and data formats so they align with the requirements of the shared information system. Thus the ultimate aim of the efficiency measures, namely to facilitate patient access to reliable and comparable information, is advanced through increased centralized control and decreased local autonomy.

Similar increases in state influence on data registration practices are observed in New Zealand as a consequence of national health targets. Hospital data is collected regularly and held in central registries such as the National Master (Patient) Data Set (NM(P)DS) and the National Minimum Dataset. The data in the digital databases is expected to be consistent so that comparisons can be made of performance across the health care sector. For example, the quarterly data every DHB provides about the six health targets is recorded in a central system and used to rank their performance. However, there are issues with the data extracted from different local systems as noted in the following quote:

"We don't have the same information system across the country. We have some systems that are the same, but not all. That would be nice, though, because different systems cause huge waste and

definition issues and all that. I think we are better at having common financial systems, but a common performance management system does not exist."

Despite the common national databases, the local data underpinning non-financial performance measures is not always comparable and reduces the usefulness of the targets for assessing DHBs' relative performance.

The introduction of national health targets in each country created similar issues at the local level. Despite technical developments such as improved databases and IT systems data inconsistencies remained in each country. Furthermore, the state targets and IT systems increased centralized control in both settings. This situation reflects a managerial paradox (Hood, 2000) where despite the intent to decentralize management authority to local managers there is increasing centralized influence on local decisions and activities

Despite the commonality of the issues created by the introduction of national health targets - namely the lack of standardized data, centralized/decentralized tension and increasing administrative burden - the countries adopted different approaches to resolving them. The following sub-sections considers how Denmark and New Zealand responded to the challenges raised by national performance targets.

4.2 Impact on Danish management control practices

The national productivity focus influences local management control practices in Danish hospitals. Productivity baselines, by specifying the minimum number of patients that regions are expected to treat. Baseline targets are based on previous year's activity plus 2% and rewards and sanctions are set at 50% of the associated DRG value (Dørken et al., 2012). This system incentivizes hospitals to treat patients quickly to reduce waiting lists. Furthermore, the policy guarantees patients will be treated, in either a public or private hospital, within a month of being added to the waiting list. This guarantee impacts treatment activity in both public and private hospitals and indirectly gives rise to competition. One hospital manager summarised the situation:

> *"We are under pressure from the private sector. We try to break the curve by keeping our patients. It is problematic because we are paid by DRG rates, which include research and emergency patients. These costs do not exist in the private sector, which allows them to skim the cream."*

National performance measures, in the form of baseline targets and DRG-based funding rates, directly impact how hospitals manage performance. The state, by focusing management attention on patient volumes and rewarding or sanctioning variations in baseline targets, has shifted local management attention to financial performance For example, one hospital CFO mentions the seemingly never-ending struggle with its deficit:

> *"In 2009 we produced a lot of activity, but not related to the DRG values, which meant that we ended up with a deficit of 65 million DKK. We have to pay back that amount. So first we need to cut 65 million out of our activities and then we have to reduce the budget even further in order to pay back the 65 million. Everything is about budgets! Nothing else matters. We are not sophisticated at all. We don't use balanced scorecards or any other management tool. It is just a matter of budgets."*

Consequently, there is a strict management control focus on the volume of patients treated and the corresponding DRG payments. This tight focus on patient volumes leaves little space for hospitals to manoeuvre or alter strategy to improve performance once a deficit spiral starts. Despite the decentralised authority of local regions and hospitals it is evident that baseline volume targets influence decision-making and that some hospitals struggle to deal with competing volume and quality demands. Nonetheless, some hospitals have successfully developed strategies to meet volume targets and earn additional DRG rewards while maintaining a qualitative patient focus. A hospital manager in one of the most financially successful hospitals stated *"In our daily work we don't focus on DRG. We only focus on the patient. We don't focus that much on finances."* Arguably, hospitals that meet efficiency targets are under less financial stress and therefore better able to focus on service quality. This contrasts with the financial focus evident in the previous quote made by a rural hospital struggling to achieve its targets. As its finances deteriorated, the hospital sought to improve service efficiency through gaming the system, by trading treatments with different hospitals, as explained by one interviewee:

> *"The tendency is towards trading patients. We are three regions that have agreed to trade specific patients at a lower than 100% DRG rate. This way, we can specialise in specific areas and send patients within other [treatment] areas to other regions. Thereby, we optimise the activity level regarding patients. Of course the other two regions dislike this."*

While this type of trading arrangement illustrates a consensual approach to problem solving it does not guarantee patient satisfaction. Even though patients may select their hospital of choice, that hospital can reject them if it lacks specific expertise and refer them to another region's hospital. The consequence of local autonomy, having the right to choose which procedures to perform or abandon, results in a subtle competitive positioning.

The national volume targets led to additional local performance indicators to reflect cost of services. For example, a measure for days of hospitalisation focused attention on the efficiency of services and directed efforts to increase the number of patients treated as a way of reducing costs per treatment as explained in the following quote:

> *"We focus on days of hospitalisation since this is a way of saving money by treating more patients. But it is also an effect of the hospital becoming better at arranging and planning patient admittances."*

Re-admittances also attracted management attention. In the early stages of the Structural Reform there were many readmissions suggesting volume targets were negatively impacting quality of care. Meeting efficiency targets ensured base budgets were maintained while providing additional albeit lower DRG payments for subsequent treatment. The paradox here is that the sites most in need of tracking their readmission rates were those least likely to do so. This illustrates the 'malade imaginaire' paradox highlighted by Hood (2000) in which institutions that rapidly adopt changes do not need them as much as the institutions that are slow to implement them. Furthermore, new measures to monitor the profitability of readmissions and the use of financial sanctions for poor

volume performance signal the increasing legitimacy of the financial managers' economic perspective.

The new top-down imposed productivity control results in financial concerns becoming paramount. Thus, the objective of improving efficiency, to satisfy patients through shorter waiting lists, lead to paradoxical outcomes. This illustrates how the historical vigilance of top-down control limits the ability of inducing more targets, but controversially induce a significant focus on the single measure implemented in local decision-making.

4.3 The impact on New Zealand management control practices

The focus of health care performance measurement in New Zealand differs from Denmark. The influence on local practice, of the six health targets, was acknowledged by practitioners. While the national targets are a focus of attention, the remaining multiple performance measures highlighted above are not ignored indicating NZ's broader view of health care performance as noted in the following quote:

> *"We have a serious select committee which is made up of politicians. Once a year we will get a book of questions from that committee. You have to go through it and answer all of them. It is a political process. Some are financial and some are management questions. There are probably 700 questions. Then later, you (DHB) have to meet the select committee in Wellington. It is a very formal process and all the media are there, TV cameras and so on."*

New Zealand's health targets clearly emphasize qualitative aspects of performance in addition to efficiency measures. Moreover, qualitative performance is not directly linked to productivity measures, sanctions or rewards meaning it does not influence funding decisions. Nonetheless, New Zealand DHBs are expected to stay within budget and are accountable for maintaining financial control. While budgets are not the dominant consideration they are taken very seriously as is evident in answers reluctantly provided by interviewees. After persistently asking a DHB financial executive what would happen if the budget was not in surplus, he replied;

> *"Our budgets are always in surplus. It is our responsibility. If we are inefficient, obviously someone is going without health care. It is important. This is not a game! If consistently there is a budget deficit, you may get a call from the Minister. The current Minister tends to do that. Eventually, you will be reassigned."*

DHBs focus on how to apply their funds in the most efficient and effective way to provide the range of health services for which they are responsible. Accordingly, they take a holistic perspective on health care provision and seek to optimize total health care. The post-NPM perspective in New Zealand is focused on developing a system of strategic and sustainable process. For example, DHBs are required to develop 5-10 year strategic plans.

The decentralized responsibility motivates DHBs managers to maintain strategic focus on how to deliver quality health services as intended by post-NPM reforms (Health Strategies, 2000) National targets, objectives and goals all influence management practices. According to one manager:

> *"So what we do is that we meet here every Monday, the executive team, for three hours and go through all targets. We go through who is doing what and how things are looking right now. From a patient safety perspective we have a series of things that we are committed to and a series of indicators that we want to focus on. If they are red, we expect to see more detailed information on them."*

One DHB has a specific meeting room set up to monitor performance indicators at weekly meetings. The main targets are listed on wall-boards with performance against each target indicated in either green or red. Additionally, charts provide a detailed description of each target, identify who is responsible for it, its current status and proposed future actions. While this DHB had developed a proactive and organised approach to manage multiple performance measures and targets this was not standard practice at other DHBs.

Within the broad set of health performance targets individual DHBs can focus on specific issue of concern. One DHB was considering how much of its overall funding to dedicate to service the needs of Maori, Pacific and other ethnic groups in addition to the extra funding received from the

government to increase the health status of these groups. The DBH was struggling to determine how to service various ethnic groups as noted below:

> *"I don't know how we are supposed to increase health care for Maori and other ethnic backgrounds. They don't use the health system like we do, partially because of lack of information, but it is a challenge to inform them and have them realise their rights within New Zealand health care, and I can't force them to use the health system".*

Despite government expectation that DHBs will address the needs of ethnic minorities, local DBHs are not always confident how to deliver the required services. Health care administrators may need to innovate to produce new programmes that extend beyond those they typically provide. The DHB quoted above had established only a few responses to the challenge of Maori health care. Nonetheless, the lack of a robust plan for Maori health issues does not appear to impact the DHBs' general funding.

The numerous qualitative health targets, goals and objectives creates a balanced health care focus in the New Zealand setting. The prescriptive approach to target setting might be expected to constrain individual DHBs' managerial freedom and lead to conformity across the system. However, the above listed examples suggest DHBs can prioritise and respond to different local issues thus altering the range of activities to be reported on and leading to non-standard reporting practices.

6. Varying impacts of health target in different social contexts

National governments have a shared concern for improving the performance of their health sectors and are increasingly reliant on performance measures to achieve this aim. This research has considered how the prevailing issue at the state level influences the choice of performance measures and local performance management practices. Assessing the feasibility of performance measurement options is influenced by underlying editing rules, which are specific to historical socio-political contexts. In Denmark, the 'moderniser' country, driven by consensus and decentralization, medical professionals are unaccustomed to top-down intervention in their domain. Nonetheless radical

management control change was implemented in 2007 with the Structural Reform, exclusively focusing on hospitals. The restructuring introduced one top-down measure to address its immediate priority of reducing waiting times. While this national efficiency target was not intended to infringe local decision making it did ultimately have this effect. The unintended outcomes include tradeoffs between volume and quality, increased disparity in financial performance between hospitals, and trading of patients between regions and hospitals. Thus, while the initial aim of the Structural Reform was to increase service quality via productivity targets the results suggest that patient volume becomes a paramount focus.

The marketizer approach of New Zealand with its history of government imposed rapid changes has accustomed hospitals to active government involvement and frequent changes. The underlying editing rules reflect previous experiences of prescriptive health care reforms. Thus, it was feasible to have a state-driven, comprehensive performance management system with multiple targets in New Zealand. Thus a top-down approach to change works in New Zealand because the reform choices align with its editing rules. When the pace of change slowed during the 2000s, the marketiser perspective shifted towards sector cooperation and coordination and comprehensive performance goals, objectives, and targets were introduced to provide a balanced view of performance. This balanced view includes the entire health care sector and not just the hospitals.

In New Zealand and Denmark, it is evident that state enforced performance measures have noticeable and unanticipated impacts on local management control systems despite the differences in their NPM approaches. The findings reveal how nations' use performance measures to influence and control decentralized management decisions. This supports previous studies which found that in the UK health care system what is measured is what matters (Bevan and Hood, 2006). Denmark's volume target and associated financial sanctions or rewards contribute to the state's enhance role as the budget enforcer. Productivity is increasingly important as it has significant financial repercussions and

therefore local regions and hospitals cannot ignore it. Furthermore, the power of local CFOs increased vis a vis medical professionals as the budget implications of patient volumes were made more explicit. This observation is supported by Triantafillou (2007) who reported that institutions overemphasize activities and costs and are inappropriately dominated by management practices.

Similarly, New Zealand's national targets lead to management challenges. The introduction in 2007 of strictly monitored health targets enable a shorter-term perspective of service performance (Ashton and Tenbensel, 2012). Tenbensel (2009) suggests "the refocusing of targets…represents an incremental shift towards a tighter regime of performance management in these substantive areas of health policy". Accordingly the ongoing changes to performance targets implies tighter centralized control.

Despite a Danish tradition for consensus decision-making and decentralisation, the national productivity target lead to increasing centralized authority over the health care system. Thus, Denmark adopted a prescriptive approach to impose its single productivity target, because it was expected that local decision makers would simultaneously continue their focus on service quality. Yet, even this minimal top-down intervention appear to shift the local attention from service quality revealing the current infeasibility of centrally imposed volume targets in this setting. This centralized influence is an issue recognized by both researchers and the medical community (Downie et al., 2006, Tanggaard Andersen and Jensen, 2010). But, the consensus-making tradition initially prevents diversity in targets, which creates a paradox illustrating the conflict between what is desirable and feasible. This conflict is particularly prevailing in countries that historically differ from Anglo-Saxon prescriptive nations (Kirkpatrick et al., 2013).

The top-down prescriptive approach dominant in New Zealand initially produced a diverse and broad set of healthcare performance measures; publicly reported national health targets are a subset of the measures used to assess health care performance. The government is able to periodically change

specific performance measures and thus realign local health efforts around the prevailing health priorities as determined by central policy makers while maintaining a broad perspective on health care performance that extends beyond financial considerations which is evident both in the health targets but also in the concurrent comprehensive top-down performance measurement system.

Arguably, the intent of New Zealand's broad range of performance measures, and the absence of sanctions and rewards for achieving targets, is to ensure management takes a balanced view of health care performance. However, prioritising selected health targets may lead to an overemphasis on specific aspects of performance rather than overall population health. Prioritizing targets may thus lead to narrower interpretations of health performance; this was the situation created by volume based targets in Denmark. Thus, state imposed targets could reduce overall performance of health care unless they are part of a broader more balanced package of performance measures.

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