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To what degree is the governance of Dutch hospitals orientated towards quality in care? Does this really affect performance?

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ABSTRACT

Introduction: Changing health care systems and market competition requires hospital boards to shift their focus towards a systematic governance of the quality of care. The objective of our study was to describe hospital governance and the quality orientation in the Netherlands. Also we wished to investigate the relationship with hospital performance.
Materials and methods: The chairs of both the boards of trustees and the management boards from all 97 Dutch hospitals were asked to participate in a cross-sectional study between November 2010 and February 2011. In this period data on their quality orientation were collected using a web-based survey. Data on hospital performance over the year 2010 were obtained in July 2011.
Results: A mixture of reforms and national guidelines increased the emphasis on quality governance in Dutch hospitals. Our results show that boards of trustees and management boards had a reasonable quality orientation. Boards were familiar with quality guidelines, received a reasonable amount of information related to quality and used this for monitoring quality and policy-making. However, we found no association between their quality orientation and hospital performance.
Conclusion: There was a growing awareness of the quality of care among boards of trustees and management boards; yet some boards still lagged behind. Quality orientation is an important asset because receiving, reviewing and responding to the quality of their performance should provide opportunities to improve quality. However, we were not able to find a relationship between quality orientation and hospital performance. Future research should investigate how boards can develop quality management systems which in turn could enable medical professionals to optimise their delivery of care and thus its quality.

1. Introduction

Hospitals are under increasing scrutiny to improve their quality of care because of the changing health care system and its increasing need for transparency [1]. This is a challenge for the hospitals governing bodies. In general, boards of management are responsible for the daily running of the hospital,while it is the responsibility of the board of trustees to oversee and evaluate their activities and to hire

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and fire the chief executive officer (CEO) [2]. Increasingly, hospital managers are held responsible if doubts arise over the quality and safety of care. There have been many examples of incidents in the media that emphasise the role of hospital governance in the quality of care. In the UK there is the case of the Staffordshire Hospital, where the Foundation Trust's management was criticised for the high mortality rates. In the Netherlands, the management board in the Scheper Hospital in Emmen did not monitor the quality of care properly, which allowed a dysfunctioning hospital consultant to continue to endanger patient safety [3]. Another example is the emergence of hospital bacterial infection at the Maasstad Hospital in Rotterdam, which was able to occur partially because both the hospital's management board and its board of trustees lacked a sufficient focus on the quality of care [4]. Since these scandals still seem to occur due to failing hospital governance, we investigated how hospital governance in the Netherlands has taken shape and to what extent hospital boards are orientated towards quality.

Following the rationale of the agency theory, the board of trustees, that is the principal, delegates responsibility to perform certain tasks to the management board – the agent – on their behalf [5]. A principal–agent problem arises when both boards have incongruent objectives and insufficient information is available to the board of trustees. In order for these boards to ascertain the main objective of the hospital, sufficient information should be at hand and actions should be taken accordingly. However, the relationship between a hospital's board of trustees, and its management board, is not well understood. Neither is their influence on the quality of care.

The processes of governance towards quality of care can best be understood by developing a new governance model that is inspired by Deming's well-established plan-do-check-act cycle (Fig. 1). As such, in the planning stage the board of trustees *requests* the management board to deliver sufficient information about the performance on quality-related issues. This information can be summarised and presented in a so-called quality "dashboard", a management tool containing a variety of indicators. The content of these dashboards necessitates medical professionals to register, precisely and accurately, the care delivered and to collate these data. The board of trustees in turn, makes sure they actually *receive* this information. Information can also be obtained by having direct contact with medical professionals during walk rounds. Once the information about quality performance is at hand, they then need to *review* and discuss the information in order to identify important signals indicating the quality of performance. Which topics are reviewed during board meetings will depend on how the agenda is set, which reflects the priorities it sets in decision-making [6]. Subsequently, the board can *respond* by emphasising advice to the management board, by pre-empting relevant management tasks, or ultimately by firing the CEO. By reviewing quality performance trustees can improve quality because it provides an insight into what is required.

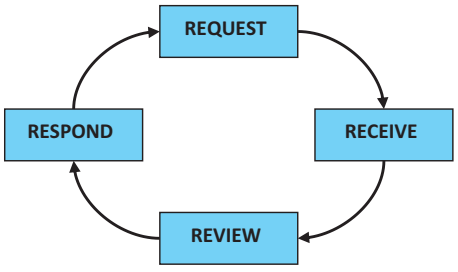

Fig. 1. The governance model.

Business studies have shown that emphasising quality is a prerequisite to improving business performance [7]. This is because those businesses are more likely to develop effective learning mechanisms [8]. In health care research too, accumulating evidence shows the importance of prudent hospital governance for the quality of care. Several studies found associations between quality performance and a range of initiatives. These included: establishing a strategic goal for quality improvement; having quality performance on the agenda of board meetings; monitoring quality dashboards; and having a quality committee [9–12]. Additionally, the engagement of CEOs in quality was associated with the success of quality improvement projects [13]. Jha and Epstein [14] found that in high-performing hospitals, the board of trustees used quality performance as a factor to evaluate the CEO's performance. They also found that those boards of trustees spent more time on quality performance during meetings and perceived quality to be an important aspect of governance. However, most studies on hospital governance have been carried out in the US, and little is known about the quality orientation of boards in Dutch hospitals. It is important to know to extent the two boards are oriented towards quality of care, especially as they are responsible for this.

Our study aimed to determine firstly, how hospital governance has taken shape in the Netherlands. Secondly, we wished to identify the extent to which boards of trustees and management boards are orientated towards quality. And, thirdly, to determine how far this quality orientation affected hospital performance.

2. Materials and methods

2.1. Hospital governance in the Netherlands

We used reports and policy guidelines published by the Dutch Health Care Inspectorate (IGZ) and the Council for Public Health and Health Care (RvZ), among others, to ascertain how hospital governance has developed.

2.2. Quality orientation

2.2.1. Participants

All 97 Dutch hospitals participated in our cross-sectional quantitative study. All hospitals are private, non-profit organisations, eight of which are university hospitals. For each hospital, the chair of the trustees and the CEO, who is the chair of the management board, were invited to participate.

2.2.2. Data collection

Data were collected on the degree of quality orientation and hospital performance on quality indicators.

2.2.3. Survey development to measure quality orientation

The respondents were asked in questionnaires to indicate their board's orientation towards quality of care. One part of the questionnaire was based on a survey that was developed by Jha and Epstein [14], and translated into Dutch. Minor adjustments were made to fit the Dutch health care setting. The other part was used to indicate which type of information was received and used by the boards.

Following the governance model (see Fig. 1), the "*request*" element was determined by the familiarity with national quality governance programmes and how the importance of quality was perceived. The "*receive*" element was reflected by the type of information that was provided to the boards. The frequency in which quality appeared on the boards' agenda reflects the "*review*" element. The "*respond*" element for the trustees relates to the topics that were discussed during meetings with the management board and also to the use of quality performance as a factor for the evaluation of the CEO by the trustees. For the management board, "*respond*" means using information related to quality for policy-making.

2.3. Hospital performance on process indicators

Indicators to measure quality performance can be categorised according to Donabedian's structure–process–outcome paradigm [15]. We chose to focus on process indicators because hospital leadership is more likely to influence processes rather than outcomes, which are more the domain of medical professionals [16]. These indicators too are used extensively by insurers, patient organisations and the media to determine a hospital's quality performance. We accept that process indicators, measuring solely quantitatively, do not capture the complete quality of care delivered [17]. However, we used this as a proxy for hospital performance as it was beyond the scope of this study to complement it with qualitative interviews.

Hospital performance data comprised seven process indicators. These included: pain measurements after surgery; stroke patients treated with thrombolysis within one hour after admission; hip fracture patients having surgery within 24 h after admission; pneumonia patients receiving antibiotic therapy within 4 h after admission; and gastrointestinal and liver patients having endoscopy within 24 h after admission. Hospitals are obliged to report these data to the central database of the Dutch Health Care Inspectorate [18], which become available on the website http://www.ziekenhuizentransparant.nl in the following year. For each process indicator, the level of compliance with recommended care was expressed in percentages, ranging from 0% (below par) to 100% (recommended care delivered to all patients). For each hospital the composite measure for performance was determined by calculating the average of the seven process indicators. We used multiple imputation to correct for missing values. We compared the performance of the hospitals in our sample with the performance of all Dutch hospitals. The performance of our sample did not differ from all hospitals.

2.3.1. Procedure

Between November 2010 and February 2011, web-based questionnaires were sent to the chairs of trustees and the CEOs of 97 hospitals. Respondents received reminders after two and four weeks. During the research project, four hospitals merged into two hospitals. Out of 95 hospitals we received questionnaires from 54 different hospitals: 38 chairs of the trustees (RR = 40%) and 40 CEOs (RR = 42%). From the 54 hospitals in our sample, we received questionnaires from both respondents from 22 hospitals. Hospital performance data in 2010 were collected from the website of the Health Care Inspectorate in July 2011 [18].

2.3.2. Data analysis

To answer the second research question, the answers to the questionnaires were analysed using descriptive statistics. Associative analyses were done to find any relationships between single items. To answer the third research question, responses to the questionnaires were compared between the top 25% and bottom 25% hospitals for each respondent group using Student's *t*-tests for continuous items and Chi-squared distributions for dichotomous items in the questionnaire. To determine statistical differences, the level of significance was set at 5%. Statistical analyses were performed in Stata/SE 11.0 for Windows.

3. Results

3.1. Hospital governance in the Netherlands

In the decentralised health care system, the governmental inference gradually decreased since the 80s, requiring internal oversight bodies, the boards of trustees, to increasingly challenge and support hospital management boards. Dutch hospitals are private, non-profit organisations and their governance structure reflects a "two-tier model" that is similar to a corporate model. This means that the role of the trustees is more at arm's length and independent, and that they primarily oversee and evaluate the management board.

Hospital performance therefore became the responsibility of the trustees too, which required them to have good insight in performance. With the introduction of the Integration Act (*Stb*, 1999, 271) in 2000, the final responsibility for the quality of care was assigned to the management board. In order to provide some means of addressing the division of responsibilities for the quality of care, national guidelines were introduced to clarify the roles respectively of the trustees and the management board. These guideline follow the same principle as European guidelines in general, namely to *comply or explain*. In 2009, the Council for Public Health and Health Care (RvZ) and the Health Care Inspectorate (IGZ) stated that the management board has final responsibility for the quality and safety of care [19,20]. The joint Health Care Sector Organisations (BoZ)

have established rules for good management and supervision in the 2010 Care-wide Governance Code [21]. They describe which tasks, and methods of working, of the trustees and the management board, contribute to good management and responsible care. A role is laid down here for trustees and the management board to share information related to the quality of care [22].

While hospital governance is important, it does not occur in a vacuum. All hospitals are part of a wider health care system. The Dutch Health Care Authority (NZa) oversees the insurance and provider markets, while the IGZ sets and monitors minimal quality standards. The role of the IGZ and the emphasis on trustees' responsibility and accountability towards quality increases. In 2006, the Health Insurance Act reformed the health care system into a regulated market competition. This reform required care providers and health insurers to negotiate over quality. It was geared towards selective contracting with powerful incentives for hospitals to improve their performance [23]. The effect of market competition on hospital performance, however, depends largely on the level of transparency and the ability of patients to select their preferred care provider and/or health insurer [24]. Dutch citizens are obliged to have health insurance but they are free to choose their preferred insurer and provider [25]. However, 3–4% of the consumers switched between insurers per year since 2007 [26]. This means that there does not seem to be a business case for quality among health insurers; negotiations seem to revolve around costs [27].

3.2. Quality orientation of trustees and management boards

The hospitals participating were considered to be representative to all Dutch hospitals regarding characteristics such as location – either urban or rural, the number of beds and personnel, or their annual income.

Table 1 summarises the quality orientation of 38 boards of trustees. Thirty-five of the 38 chairs of the trustees (92%) indicated they were at least moderately familiar with programmes and reports on governance. In line with the rationale of the governance model, information on many quality-related topics were received by the majority of the boards of trustees, for example concerning the improvement projects ($N = 35$; 92%) or about incidents and disasters ($N = 32$; 84%). Ten boards of trustees (26%) had quality on the agenda at every meeting, while two boards (5%) only discussed quality during a few meetings. According to seven boards of trustees (18%), dashboards and balance scorecards were discussed during every meeting with the management board, while seven other boards of trustees indicated that they never use them during those meetings. Further analyses showed that boards which had quality on the agenda at every meeting had higher self-reported expertise in quality management ($p < .01$). The trustees also had better alignment with the management board about accountability and responsibility for the quality of care ($p = .03$) than those who discussed quality less often ($p = .01$).

Table 2 summarises the quality orientation of 40 management boards. According to 13 CEOs (33%), quality of care was the most important topic of their management board. Many management boards received various types of quality-related information such as results of quality inspections (90%), the nature and extent of incidents or disasters (78%) and mortality rates (53%), among others. Quality was discussed during every meeting by 10 management boards (25%). For policy-making, 36 management boards used the results from quality inspections (90%), 35 boards used the nature and extent of incidents or disasters (88%), while 20 boards used the nature and extent of complications (60%).

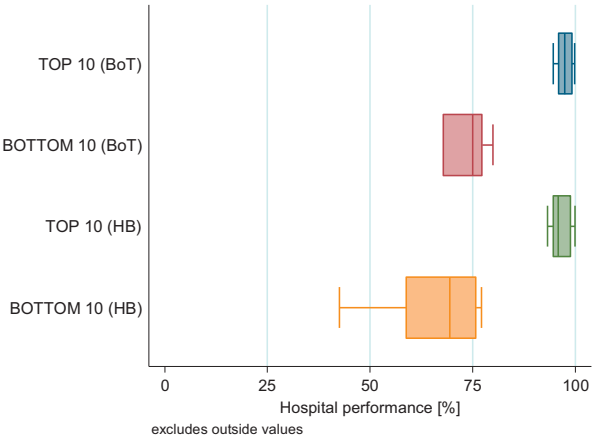

Fig. 2. Hospital performance on a composite measure of quality-related process indicators in 2010, divided by the top 10 and bottom 10 performing hospitals for both respondent groups: board of trustees (BoT) and hospital management boards (HB).

3.3. Quality orientation and hospital performance

The performance of the hospitals in our sample did not differ significantly from all Dutch hospitals. They were considered to be representative of the performance of all Dutch hospitals. For both respondent groups there were ten hospitals in the top 25% and bottom 25%, hence the top ten and bottom ten hospitals. As can be seen in Fig. 2, performance on process indicators differed significantly between the top ten and bottom ten hospitals in both groups. The characteristics of these hospitals did not differ significantly from the rest of the hospitals in our sample. However, there seems to be no significant differences between the top ten and bottom ten hospitals on how boards of trustees rated their influence on quality performance, their level of expertise in quality management and how far they are aligned with the management board on quality issues.

We found no significant association between hospital performance and the degree to which the management board was orientated towards quality. Nor did we find differences in how they perceived their influence on quality performance and their level of expertise in quality management. Further exploration of the 22 hospitals, from which both respondents returned a questionnaire, showed no association between the quality orientation of the boards of trustees and the management boards ($\chi^2 = 0.53$, $p = .47$). Neither was there an association with hospital performance.

Table 1
Quality orientation of 38 boards of trustees in the Netherlands.

	N (%)
Request	
Importance of the quality of care	
1st most important	13 (34)
2nd most important	12 (32)
3rd most important	8 (21)
Not important	5 (13)
Familiarity with national quality programmes	
Extensive	17 (45)
Moderate	18 (47)
Limited	3 (8)
Receive	
Type of information received	
Number and results from improvement paths/projects	35 (92)
Nature and extent of incidents/disasters	32 (84)
Results of quality inspections	32 (84)
Number and type of treatment	28 (74)
Mortality rates	26 (68)
Results of patient satisfaction surveys	26 (68)
Nature and extent of complications	24 (63)
Quality of the treatments carried out	20 (53)
Review	
The frequency quality appears on the agenda of board meetings	
Every meeting	10 (26)
Most meetings	20 (53)
Some meetings	6 (16)
Few meetings	2 (5)
Never on the agenda	0 (0)
Respond	
Importance of quality performance during CEO evaluation	
1st most important	9 (24)
2nd most important	12 (32)
3rd most important	9 (24)
Not important	8 (21)

	Never	Few meetings	Some meetings	Most meetings	Every meeting
Respond					
Topics discussed during meetings with hospital management board					
Quality of care indicators	1 (3)	4 (11)	14 (37)	15 (39)	4 (11)
Progress of quality improvement projects	0 (0)	4 (11)	15 (39)	16 (42)	3 (8)
Dysfunctioning of medical specialists	1 (3)	5 (13)	19 (50)	11 (29)	2 (5)
Accreditation	2 (5)	5 (13)	19 (50)	11 (29)	1 (3)
Results of patient satisfaction surveys	0 (0)	9 (24)	23 (61)	5 (13)	1 (3)
Nature and extent of adverse events	5 (13)	16 (42)	11 (29)	6 (16)	0 (0)
Bottlenecks with applying protocols and guidelines	7 (18)	16 (42)	15 (39)	1 (3)	0 (0)

4. Discussion

Our first two objectives were to describe the governance system in Dutch hospitals and to determine the quality orientation of boards of trustees and management boards. Additionally, we wanted to find a relationship between the quality orientation and hospital performance. There has been a variety of policy guidelines that promoted good governance. We also observed that the quality orientation of trustees and management boards is growing and is widespread throughout many hospitals. However, we were not able to find a relationship between the quality orientation of trustees and management boards and their hospital's performance.

The conceptualisation of hospital performance has its limitations. Firstly, we used process indicators instead of outcome indicators because we assumed that governing bodies primarily have influence on hospital processes, while medical professionals have influence on patient outcomes. Besides, previous studies emphasised that patient level outcome measures, such as mortality rates, are prone to imprecision and bias [28–30]. Secondly, although complementing quantitative data with qualitative interviews provides a more complete image of performance [17], it was beyond the scope of our study to complement our quantitative data with qualitative interviews. Thirdly, a Dutch study showed that performance indicators provide limited insight into the quality of performance due to ambiguity in the indicator definitions [31]. Despite these limitations, these indicators still play, in daily practice, a pivotal role in the transparency paradigm in providing an external accountability. A last methodological limitation was the small sample size. Perhaps the lack of a business case for quality explains the low response rate in our study.

Given the limitations of our study, the results on quality performance should be interpreted with caution. We

Table 2
Quality orientation of 40 hospital management boards in the Netherlands.

	N (%)
Request	
Importance of the quality of care	
1st most important	13 (33)
2nd most important	11 (28)
3rd most important	12 (30)
Not important	4 (10)
Familiarity with national quality programmes	
Extensive	25 (63)
Moderate	13 (33)
Limited	2 (5)
Receive	
Type of information received	
Results of quality inspections	36 (90)
Nature and extent of incidents/disasters	31 (78)
Number and type of treatment	25 (63)
Nature and extent of complications	22 (55)
Mortality rates	21 (53)
Quality of the treatments carried out	20 (50)
Number and results from improvement paths/projects	17 (43)
Results of patient satisfaction surveys	8 (20)
Review	
The frequency quality appears on the agenda of board meetings	
Every meeting	10 (25)
Most meetings	23 (58)
Some meetings	7 (18)
Few meetings	0 (0)
Never on the agenda	0 (0)
Respond	
Type of information used for policy-making	
Results of quality inspections	36 (90)
Nature and extent of incidents/disasters	35 (88)
Number and type of treatment	35 (88)
Number and results from improvement paths/projects	34 (85)
Quality of the treatments carried out	30 (75)
Results of patient satisfaction surveys	26 (65)
Mortality rates	26 (65)
Nature and extent of complications	24 (60)

did, however, find interesting results concerning the quality orientation of the governing bodies. Regarding the governance model, the *request* element can be determined as the familiarity with, perceived expertise in, and prioritisation of quality by boards of trustees. However, this seemed to be unrelated to a hospital's actual performance on quality-related process indicators. In a US-study, high scores on these items occurred significantly more often among boards of trustees in the ten per cent high-performing hospitals than in the ten per cent low-performing hospitals [14]. Concerning the *review* element, our data showed that many boards of trustees were engaged with quality-oriented activities such as placing quality on the agenda, monitoring quality dashboards, and discussing quality-related subjects with the management board. However, this did not seem to differ between the top ten and the bottom ten performing hospitals. Jha and Epstein [14] found that, compared to the ten per cent low-performing hospitals, significantly more chairs in the ten per cent high-performing hospitals placed quality on the agenda at every meeting, spending at least 20% of the meeting time on quality. On the level of CEOs similar results were found in other studies [9,12]. In order to oversee a hospital, information about numerous aspects and processes is required. Weiner and colleagues showed that boards who were engaged in quality issues were also likely to have increased involvement of physicians in quality improvement [32,33]. Concerning the *respond* element, using quality performance as a topic for the evaluation of the CEO, and the perceived influence on quality, were not in our study found to be associated with hospital performance. By contrast, both items were significantly more apparent in the ten per cent high-performing hospitals than in the ten per cent low-performing ones [14]. Joshi and Hines [11] showed that the orientation of the board towards quality was associated marginally with hospital performance on outcome measures.

Many respondents indicated that their board is comparable to other board within their hospital as far as taking responsibility for quality. This is in line with one of Taylor's "Nine principles of good governance", which states that a good relationship between these governing bodies is a prerequisite for good governance [2]. A good relationship between these boards might also depend on the role and official tasks of the trustees [34–36]. Interestingly, these tasks vary between countries. For example, in Canada they are also responsible for developing the hospital's aims and mission statements [37]. In the UK, their main tasks are to monitor performance of the management board and to set strategic direction [38]. In France, the equivalent of the board of trustees has no power other than to provide suggestions to the management board [39]. Previous research also showed that CEO participation in this board is associated with hospital performance [40]. Additionally, having clinicians on boards was found to be associated with good hospital performance in the UK [41].

In the Netherlands, the health care reform of 2006 was supposed to create a greater focus on the quality of performance by means of market competition. Although consumer preferences are just beginning to influence insurers' policy [42], previous studies found that the focus of hospitals still seems to be on financial issues rather than on quality [24]. In other European countries, health care systems are being reformed to meet their citizens' health care needs and to assure quality of health care [43]. For example, the Health Transformation Programme in Turkey in 2003 introduced a performance-based payment system that led to increased service efficiency and patient satisfaction [44]. In Norway, the Hospitals Enterprise Act led to a governance structure that comprised of one board having conflicting roles, namely, both that of an agent, the management, and the principal role, the owners, who were the Ministry of Health [46]. In order to prevent a principal–agent problem, it is important the know to what extent both boards are informed about, and oriented towards quality of care. Our study showed that there still can be a discrepancy between having a national policy for quality governance on the one hand, and the quality orientation of trustees and management boards on the other.

Our results indicate that boards do not seem to affect the quality of care. That is remarkable since boards are held responsible for the quality performance of their hospital. One explanation could be that it takes more time

to see the effect of hospital governance on quality performance. Elements of quality governance were associated with quality performance in US hospitals, probably because they have a longer history of quality governance than in the Netherlands. Another explanation could be that the relationship between the quality orientation of boards and quality performance is non-linear. We assume that boards influence the hospital quality management systems that enable medical professionals to optimise their care delivery, which in turn leads to better quality of care. This mechanism, however, is not yet well understood. Various studies have already found either a positive relationship between engaged leadership and the development of quality management systems, or a positive relationship between quality management systems and hospital performance [47,48]. Therefore, future research should focus on better understanding of how boards can improve quality performance. Research should investigate in a more qualitative manner the relationship between how boards are orientated towards quality and the quality of their hospitals' performance. Another focus could be to investigate how boards influence more structural elements of quality management and the involvement of medical professionals in governance.

5. Conclusions

We found that trustees and hospital management boards are reasonably orientated towards quality. Receiving and reviewing information about quality performance should provide insights and opportunities to improve quality. However, we were not able to find a linear relationship between quality orientation and hospital performance. Therefore, we assume that boards have a non-linear influence on quality performance, meaning that they might instigate the development of quality management systems, which in turn could enable medical professionals to optimise their care delivery, leading to better quality of care. Future research should focus on the underlying mechanisms of improving the quality of care. After all, hospital boards are responsible for the quality of care, so it is essential for them to know how they can achieve it.

Conflict of interest

The authors declare that they have no conflict of interests.

Role of the funding source

The funding source had no role in the study design.

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References

[1] Eeckloo K, Van Herck G, Van Hulle C, Vleugels C. From corporate governance to hospital governance. Authority, transparency and accountability of Belgian non-profit hospitals' board and management. Health Policy 2004;68:1–15.
[2] Taylor DW. Facts, myths and monsters: understanding the principles of good governance. International Journal of Public Sector Management 2000;13(2):108–24.
[3] De Onderzoeksraad voor Veiligheid. Vernieuwing op drift. Onderzoek naar aanleiding van berichtgeving in April 2009 over calamiteiten bij maagverkleiningsoperaties in het Scheper Ziekenhuis Emmen. Den Haag, oktober 2011.
[4] Commissie Lemstra. Oog voor het onzichtbare. Onderzoek naar de uitbraak van de Klebsiella Oxa-48 bacterie in het Maasstad Ziekenhuis Rotterdam. Maart 2012.
[5] Pointer DD, Ewell CM. Really governing: how health system and hospital boards can make more of a difference? Albany, NY: Delmar; 1994.
[6] Dearing JW, Rogers EM. Communications concepts 6: agenda-setting. Thousand Oaks, CA: Sage Publications; 1992.
[7] Sittimalakorn W, Hart S. Market orientation versus quality orientation: sources of superior business performance. Journal of Strategic Marketing 2004;12(4):243–53.
[8] Shipton H, Dawson J, West M, Patterson M. Learning in manufacturing organizations: what factors predict effectiveness? Human Resource Development International 2002;5(1):55–72.
[9] Jiang HJ, Lockee C, Bass K, Fraser I. Board engagement in quality: findings of a survey of hospital and system leaders. Journal of Healthcare Management 2008;53(2):121–35.
[10] Jiang HJ, Lockee C, Fraser I. Enhancing board oversight on quality of hospital care: an agency theory perspective. Health Care Management Review 2012;37(2):144–53.
[11] Joshi MS, Hines SC. Getting the board on board: engaging hospital boards in quality and patient safety. Joint Commission Journal on Quality and Patient Safety 2006;32(4):179–87.
[12] Vaughn T, Koepke M, Kroch E, Lehrman W, Sinha S, Levey S. Engagement of leadership in quality improvement initiatives: executive quality improvement survey results. Journal of Patient Safety 2006;2(1):2–9.
[13] Dückers MLA, Stegeman I, Spreeuwenberg P, Wagner C, Sanders K, Groenewegen PP. Consensus on the leadership of hospital CEOs and its impact on the participation of physicians in improvement projects. Health Policy 2009;91(3):306–13.
[14] Jha AK, Epstein AM. Hospital governance and the quality of care. Health Affairs (Millwood) 2010;29(1):182–7.
[15] Donabedian A. Explorations in quality assessment and monitoring, Volume I: the definition of quality and approaches to its assessment. Ann Arbour, MI,: Health Administration Press; 1980. p. 1–164.
[16] Marley KA, Collier DA, Goldstein SM. The role of clinical and process quality in achieving patient satisfaction in hospitals. Decision Sciences 2004;35(3):349–69.
[17] Oertle M, Bal R. Understanding non-adherence in chronic heart failure: a mixed-method case study. Quality and Safety in Health Care 2010;19:e37.
[18] Dutch Health Care Inspectorate [Inspectie voor de Gezondheidszorg (IGZ)] http://www.ziekenhuizentransparant.nl/ (last accessed July 2011).
[19] Council for Public Health and Health Care. [Raad voor de Volksgezondheid en Zorg (RVZ)]. Governance en de kwaliteit van zorg. Den Haag, maart 2009.
[20] Dutch Health Care Inspectorate. Toezichtkader. Bestuurlijk verantwoordelijkheid voor kwaliteit en veiligheid. Utrecht, April 2011.
[21] Brancheorganisaties Zorg. Zorgbrede Governancecode, 2010.
[22] Dutch Health Care Inspectorate. Staat van de gezondheidszorg. De vrijblijvendheid voorbij. Den Haag, November 2009.
[23] Schut FT, van der Ven WPMM. Effects of purchaser competition in the Dutch health system: is the glass half full or half empty? Health Economics, Policy and Law 2011;6(1):109–13.
[24] Bal R, Zuiderent-Jerak T. The practice of markets in Dutch health care: are we drinking from the same glass? Health Economics, Policy and Law 2011;6(1):139–45.
[25] Schäfer W, Kroneman M, Boerma W, van den Berg M, Westert G, Devillé W, et al. The Netherlands: health system review. Health Systems in Transition 2010;12(1):1–229.
[26] Hendriks M, de Jong JD, van den Brink-Muinen A, Groenewegen PP. The intention to switch health insurer and actual switching behaviour: are there differences between groups of people? Health Expectations 2009;13(2):195–207.

[27] Custers T, Arah OA, Klazinga NS. Is there a business case for quality in the Netherlands? A critical analysis of the recent reforms of the health care system. Health Policy 2007;82:226–39.
[28] Mohammed MA, Deeks JJ, Girling A, Rudge G, Carmalt M, Stevens AJ, et al. Evidence of methodological bias in hospital standardised mortality ratios: retrospective database study of English hospitals. British Medical Journal 2009;338:b780.
[29] Pronovost J, Lilford R. A road map for improving the performance of performance measures. Health Affairs (Millwood) 2011;30(4):569–73.
[30] Shahian DM, Wolf RE, Iezzoni LI, Kirke L, Normand SL. Variability in the measurement of hospital-wide mortality rates. New England Journal of Medicine 2010;363(26):2530–9.
[31] Anema HA, van der Veer SN, Kievit J, Krol-Warmerdam E, Fischer C, Steyerberg E, et al. Influences of definition ambiguity on hospital performance indicator scores: examples from The Netherlands. European Journal of Public Health 2013 [Epub ahead of print].
[32] Weiner BJ, Alexander JA. Hospital governance and quality of care: a critical review of transitional roles. Medical Care Review 1993;50(4):375–410.
[33] Weiner BJ, Shortell SM, Alexander JA. Promoting clinical involvement in hospital quality improvement efforts: the effects of top management, board, and physician leadership. Health Services Research 1997;32(4):491–510.
[34] Eeckloo K, Delesie L, Vleugels A. Where is the pilot? The changing shapes of governance in the European hospital sector. Journal of the Royal Society for the Promotion of Health 2007;127(2):78–86.
[35] Lee Y-SD, Alexander JA, Wang V, Margolin FS, Combes JR. An empirical taxonomy of hospital governing board roles. Health Services Research 2008;43(4), 1223:1243.
[36] Alexander JA, Lee S-YD, Wang V, Margolin FS. Changes in the monitoring and oversight practices of not-for-profit hospital governing boards 1989–2005: evidence from three national surveys. Medical Care Research and Review 2009;66(2):181–96.
[37] Baker GR, Denis J-L, Pomey M-P, Macintosh-Murray A. Effective governance for quality and patient safety in Canadian health care organizations: a report to the Canadian Health Services Research Foundation and the Canadian Patient Safety Institute. Ottawa: Canadian Health Services Research Foundation and Canadian Patient Safety Institute; 2010.
[38] Addicott R. Models of governance and the changing role of the board in the "modernised" UK health sector. Journal of Health Organization and Management 2008;22(2):147–63.
[39] Chevreul K, Durand-Zaleski I, Bahrami S, Hernández-Quevedo C, Mladovsky P. France: health system review. Health Systems in Transition 2010;12(6):1–291.
[40] Molinari C, Hendryx M, Goodstein J. The effects of CEO-board relations on hospital performance. Health Care Management Review 1997;22(3):7–15.
[41] Veronesi G, Kirkpatrick I, Vallascas F. Clinicians on the board: what difference does it make? Social Science and Medicine 2013;77:147–55.
[42] Heinemann S, Leiber S, Greß S. Managed competition in the Netherlands—a qualitative study. Health Policy 2013;109(2):113–21.
[43] Legido-Quigley H, McKee M, Nolte E, Glinos IA. Assuring the quality of health care in the European Union. A case for action. In: Observatory Studies Series No. 12. European Observatory on Health Care Systems; 2008.
[44] Akinci F, Mollahaliloğlu S, Gürsöz H, Öğücü F. Assessment of the Turkish health care reforms: a stakeholder analysis. Health Policy 2012;107:21–30.
[46] Pettersen IJ, Nyland K, Kaarboe K. Governance and the functions of boards: an empirical study of hospital boards in Norway. Health Policy 2012;107:269–75.
[47] Macinati MS. The relationship between quality management systems and organizational performance in the Italian National Health Service. Health Policy 2008;85:228–41.
[48] Kunkel S, Rosenqvist U, Westerling R. Implementation strategies influence the structure, process and outcome of quality systems: an empirical study of hospital departments in Sweden. Quality and Safety in Health Care 2009;18:49–54.