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Performance regulation in a networked healthcare system: From cosmetic to institutionalized compliance

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This article studies the role of a public regulator in managing the performance of healthcare professionals. It combines a networked governance perspective with responsive regulation theory to show the mechanisms that have added to significant changes in medical cost management in the Netherlands. In a five-year period, hospital practices transitioned from cosmetic compliance with performance regulation and strategic upcoding to institutionalized compliance more in line with regulatory goals. The article demonstrates how policy changes transformed incentive structures, introduced new forms of accountability, and added actors to the network with technocratic disciplining tasks. The networked character of performance regulation offered opportunities for a responsive, non-coercive regulatory strategy that engaged various actors in a regulatory conversation about strategic coding. Responsive regulation can reduce strategic responses to performance regulation and manage the gap between administrative and clinical logics. The case study contributes to our understanding of the effectiveness of responsive, non-punitive regulation in networked settings.

1 | INTRODUCTION

The introduction of market elements in many Western healthcare systems, as an attempt to enhance performance while reducing costs, has sparked the development of multi-layered governance networks. In these networks, state actors exercise regulatory authority and share regulatory roles with hybrid and non-state actors such as hospitals, insurance companies, professional medical associations, licensing boards and accrediting bodies (van de Bovenkamp et al. 2014). Performance regulation has been introduced to reduce healthcare costs through enhancing accountability on services provided. In this article, we zoom in on a specific and key accountability instrument of contemporary

hospital markets: the diagnosis-related groups (DRGs). DRGs, financial schemes for healthcare purchasing, serve as accountability arrangements for coding, billing, and managing hospital service delivery, enabling healthcare network participants to manage the performance of medical staff (Busse et al. 2013; Kerpershoek et al. 2016).

A common problem with healthcare performance regulation is that in the eyes of medical staff, formal performance regulation systems have little connection with the delivery of clinical services (Hyman 2001; Kurunmäki et al. 2003). Although performance-based regulatory regimes are expected to substitute professional accountability for bureaucratic accountability structures (May 2007), professional accountability often remains dominant and works merely in symbolic compliance to performance regulation (Hyman 2001; Kurunmäki et al. 2003). Medical decision-making requires discretion in professional judgement, but this also creates a grey area where performance regulation can be strategically exploited. Reactions can range from doctors disengaging from performance regulations, ignoring them 'until they go away' (Huising and Silbey 2011), to passive resistance and further to active exploitation of regulatory loopholes and gaming the system (Bevan and Hood 2006; Heimer 2011). This raises the question how doctors' commitment to performance regulation can be improved in networked governance structures, where regulatory authority is shared with a variety of hybrid and non-state governance actors, and medical staff enjoy a large degree of professional autonomy.

This article analyses the institutional changes in the practice of DRG coding in the Netherlands over a period of five years, in which DRG coding practices transitioned from strategic compliance and widespread noncompliance, to coding practices more in line with public interests and regulatory goals. Also, DRG coding developed from an individual practice by medical specialists to institutionalized hospital management practices—expanding the number of actors ('experts') involved, bringing in new interests and accountability arrangements. The central question guiding this article is: How did the institutional transition towards a more compliant DRG system take place within the networked governance structure of the Dutch healthcare system, and what role did the public regulator play in this transition? Based on extensive qualitative interviews conducted in 2012 and 2016 with various network participants as well as a survey of medical specialists, our study analyses the mechanisms that underlie the development in medical specialists' attitudes to correct coding and billing—from highly sceptical to more accepting—as well as the rapid institutionalization of compliance practices in hospital organizations. Building on theories of networked accountability and responsive regulation, we examine how new institutions for accountability institutionalized compliance in hospitals, and how the Dutch healthcare regulator (*Nederlandse Zorgautoriteit*, *NZa*) interacted with other network actors to overcome the deeply embedded resistance to performance regulation.

A 'positive case' like the institutionalization of DRG compliance may make an important theoretical contribution to our understanding of effective regulation of professional performance within governance networks. This article's theoretical contribution rests on the combination of networked accountability and responsive regulation theory. First, building upon scholarship on accountability in governance networks (Koliba et al. 2011; Klijn and Koppenjan 2014; de Lancer and Steccolini 2015; Mills et al. 2016), the article analyses how the introduction of new actors, and their expertise, interests, instruments and working routines, created hybrid, multiple forms of accountability, in addition to the dominant medical-professional accountability of doctors. Second, we apply responsive regulation theory (Ayres and Braithwaite 1992; Baldwin and Black 2008; Braithwaite 2011; McDermott et al. 2015) to elucidate how the NZa in its specific role as public regulator in the network used a non-coercive and persuasive regulatory strategy to engage with the emerging accountability structures in the network.

Crucially, we argue that the regulators' responsiveness to the networked character of governance as well as to the position of hospitals and medical specialists in this network stimulated the institutionalization of correct coding in hospital organizations. These insights contribute to scholarship on network accountability, which has often focused on the decreasing importance of regulators in governance networks and the regulatory failures resulting from accountability conflicts in networks (Osborne 2010). Thus, this study concurs with recent case studies of other successful regulatory action in networks (McDermott et al. 2015; Mills et al. 2016; Reynaers and Parrado 2017) to contribute to our understanding of how regulators can act as change agents in networks, especially in settings with heterogeneous, conflicting perspectives and motives of network participants.

The article proceeds as follows. The next section provides the theoretical lens of this article, connecting literatures on responsive regulation and networked accountability in governance networks. Next, we describe the case study of Dutch DRG regulation and data collection methodology. We then discuss how the governance network as a whole introduced multiple institutions for accountability, which reduced opportunities and incentives for 'creative' coding. After this, we analyse the NZa's regulatory strategy from a responsive regulation perspective. We end with our conclusions on the elements of governance strategy that contribute to institutionalized, rather than cosmetic, compliance with performance regulations. Our conclusion also sets out our contribution to both responsive regulation and networked accountability theories.

2 | THEORETICAL FRAMEWORK: RESPONSIVE REGULATION IN A NETWORKED ACCOUNTABILITY SETTING

Complex problems such as healthcare cost management can only be addressed by actors collaborating in networked relationships. Collaborative governance networks are arrays of vertical and horizontally aligned relationships between organizations to achieve regulatory goals that cannot be achieved effectively by a single organization (Agranoff and McGuire 2001). Network and collaborative governance theories indicate how governments 'take a step back' in order to create room for manoeuvre for different public and private actors operating with some degree of autonomy from central government (Skelcher et al. 2005; Provan and Kenis 2008; Emerson et al. 2012; Ansell and Gash 2018). Networks mobilize resources and creativity in dealing with complex (regulatory) issues, and may depoliticize by focusing on technical aspects rather than the competing values underlying regulatory goals.

The issue of accountability—institutions through which actors govern behaviour (Bovens et al. 2014; van de Bovenkamp et al. 2014)—is central to the enquiry into networks (Lecy et al. 2013). As each network actor brings discrete accountability types into the network, multiple accountability structures or 'networked accountability' emerge (Koliba et al. 2011). Performance regulation introduces bureaucratic forms of accountability—performance standards and administrative procedures, on top of existing professional accountability—based on professional norms, expertise and competence rather than external control mechanisms (May 2007). The combination, mingling, and competition between accountability mechanisms in governance networks may strengthen accountability and improve behaviour, but also result in trade-offs in which one accountability mechanism trumps others, resulting in accountability trade-offs and breakdowns. Introducing new actors and a diversity of interests in a regulatory network may balance opposing accountability regimes, preventing actors from relying too heavily on their preferred accountability regime as they have to account to various stakeholders simultaneously (see Newman 2001). This underscores the relational aspects of accountability relations (Newman 2004) in which actors construct situated and feasible responses to the challenges at hand.

This study focuses on the special role of the regulator in a governance network. The perspective of responsive regulation is useful in a networked context, as it envisions the regulatory process as relational, experimental and communicative rather than hierarchical and coercive (Heimer 2011; Huising and Silbey 2011; Gilad 2014). A responsive regulatory approach works, first, through non-coercive, persuasive intervention, addressing the motives and perceptions of regulated actors, for example by educating and convincing rather than punishing them (Braithwaite 2011). It draws attention to regulated own capacities for signalling and curbing risks (Baldwin and Black 2008; Gilad et al. 2013). Second, it aims to increase professional and private informal social control on top of formal legal accountability (Hong and You 2018). Third, it aims to increase reputational incentives through the threat of negative publicity for offenders, including reintegrative shaming by regulators. Lastly, severe sanctions are imposed when dialogue fails, as a 'benign big gun'; by signalling the potential to escalate to tough enforcement, most regulation can focus on building collaborative capacity (Ayres and Braithwaite 1992). Responsive regulation is considered paradigmatic for achieving regulatory compliance and internalizing regulatory commitment within organizations, both in theory and practice (Mascini 2013; Parker 2013). Yet, it has not always sufficiently acknowledged the increasing

complexity of regulatory fields yielding a multitude of (private) expert knowledge, interests and risks, and in which regulators often lack the authority, capacity and legitimacy to impose the strong sanctions that the theory deems necessary to stimulate voluntary compliance, thus risking implementation problems (Parker 2006; Mascini and Van Wijk 2009; van Erp 2011).

Since Ayres and Braithwaite (1992) introduced responsive regulation theory, scholars in this field have often ana-lysed bilateral regulator–regulatee interactions (Mascini and Van Wijk 2009; Nielsen and Parker 2009) in a relatively tightly defined interactive space, ignoring the wider 'political surround' (Baldwin and Black 2008; Heimer 2011; Mascini 2013; Almond and Gray 2017). The focus on the problematic nature of hybrid interventions and escalation of sanctions narrowed 'responsiveness' to the pyramid of interventions (Braithwaite 2013; Mascini 2013). The horizontal networked character of responsive regulation has received less attention (Hong and You 2018). In this article we stress the importance of such networked contexts by pointing out how a networked setting may increase opportunities for responsiveness when regulators engage with network actors beyond bilateral interactions, enabling them to overcome the implementation problems associated with responsive regulation.

In sum, the theoretical lens developed in this section allows for a dynamic approach of performance regulation, looking for the ways in which regulatory strategies can be executed in governance networks—responding to various actors, knowledges, routines and instruments—and their complementary accountability structures, into 'networked accountabilities'. In the following, we further scrutinize the development of these networked accountabilities in the case of Dutch DRG regulation, and ask how the NZa acted in a responsive and contingent way to pursue regulatory goals. The next section will first set out our empirical case of Dutch DRG regulation, and discuss the research methodology.

3 | RESEARCH DESIGN

3.1 | Case study: DRGs in the Dutch healthcare system

The DRG system was introduced in the wake of the transition from a social insurance system to an internal market system in the Netherlands in the mid-2000s (Helderman et al. 2005; Bal and Zuiderent-Jerak 2011). Key to the reform was the role of (private) insurance companies, who were given the task of competitive purchasing of high-quality, low-cost care products on behalf of their insured through selective contracting with (competing) hospitals. Health insurance is mandatory for all citizens, and insurance companies are compensated for high-risk patients to prevent risk selection. Citizens, in turn, are expected to choose the insurance company that best covers their (assumed) healthcare needs (van der Ven and Schut 2009). DRGs were introduced as a technical infrastructure, making up both a classification and reimbursement system, providing insight into the (constitution) of health services and their prices (Kerpershoek et al. 2016). Thus, DRGs were meant to enable competition on both price and quality.

Mirroring the traditional neo-corporatist nature of the Dutch healthcare system in which professional bodies and associations of healthcare organizations and health insurers have always played a central role in public policy-making (see Helderman et al. 2005), the DRG system was constructed in close collaboration with medical associations. The NZa, a regulatory agency acting under authority of the Ministry of Health, was established as the public market-maker and regulator, stipulating rules and regulations, and monitoring and punishing market (mis)behaviour, targeting both healthcare organizations and health insurers.

Our case specifically focuses on the practice of so-called 'upcoding' related to DRG systems—a key concern of the NZa in establishing the integrity of the healthcare market. Upcoding is a well-known example of 'cosmetic' or 'strategic' performance registration, complying with the letter but not with the spirit of performance regulations: by coding care profitably, by providing unnecessary care or by purposefully misrepresenting production on paper (Steinbusch et al. 2007; Dafny and Dranove 2009; Coudin et al. 2015). Examples include coding more complicated treatment than is required, such as coding a simple knee surgery as a complex surgery, or unbundling activities that

should be coded under the same product category, such as coding palliative care separately where this is already covered in an oncology DRG. Upcoding can be motivated by doctors´ private financial interest (Sparrow 2000) but may also stem from professional or value-oriented motivations, as performance regulation is considered the opposite of the doctor's professional discretion with regard to quality of care. For example, manipulating coding is considered appropriate in a professional accountability logic when this enables funding necessary care that the DRG system does not cover adequately (Kerpershoek et al. 2016). The ambiguous perceptions of upcoding make improving compliance with DRG regulation a far from straightforward task, as we will further tease out below.

3.2 | Data collection and analysis

Our empirical work contained two periods of data collection. Commissioned by the NZa, both studies investigated medical specialists' and hospital staff's attitudes to and experience of complying with performance regulation (Van Erp and Mein 2013; van Schoten et al. 2016). The first study took place in 2013 and comprised 44 semi-structured, in-depth interviews with medical specialists and hospital staff. Respondents were selected through an internet site to generate maximum variety between general hospitals, academic hospitals and private clinics; regions; medical specialization; and staff type. Anonymity was guaranteed. The interviews lasted 60 to 80 minutes. The second round of research comprised a mixed-methods study, consisting of 15 in-depth interviews with medical specialists (six), hospital staff (four), DRG experts from professional associations (five) and two group interviews with NZa staff members (five). Respondents were again selected to maximize variety, including on gender and age, as it was publicly assumed that 'traditional' physicians and more autonomy-seeking medical disciplines would differ in their perception of correct coding. These interviews lasted between 45 and 90 minutes and often included a demonstration of coding practice to the interviewer. We analysed the interviews of both studies using 'abductive analysis' (Tavory and Timmermans 2013), meaning that we coded all transcripts both inductively (also in a comparative fashion based on the 2013 and 2016 data) and deductively by using a coding scheme derived from our theoretical framework, and moved between data and theory iteratively. Details about the respondents and the coding scheme are included in the online appendix.

We formulated a survey based on the interviews; the findings of the 2013 study as well as the literature on upcoding, targeting medical specialists working in all Dutch public hospitals (N = 679, response rate 28 per cent). The survey addressed the medical specialists' experiences with the coding process (including technical and managerial support) and their attitudes to performance regulations and coding dilemmas. Here, anonymity was also guaranteed. More detail about the survey is provided in the online appendix.

This article primarily builds on the qualitative interviews of 2013 and 2016; we have used the descriptive statistics in the survey results and the responses to open questions to substantiate the interview findings through triangulation. Besides this, we analysed relevant documents, including policy documents from the NZa, research reports and media publicity. We performed a member check to substantiate the findings by presenting them to an audience of medical specialists, NZa staff, DRG experts and representatives of professional medical associations.

4 | THE TRANSITION FROM INDIVIDUALIZED TO INSTITUTIONALIZED COMPLIANCE

Our research in 2013 revealed that a 'lucrative' interpretation of coding regulations was common among medical specialists. Respondents mentioned practices such as coding an outpatient care treatment that lasts longer than two hours as a full admission day, coding care delegated to nurse-practitioners or optometrists as a full doctor consult, coding palliative care as a separate treatment when it should have been included in the DRG, or coding a more severe diagnosis given a choice, such as a phase 3 tumor for a phase 2, or an apoplectic fit instead of a TIA (mini-stroke). As

one medical specialist pointed out: 'We don't let the opportunities that the system offers pass by—doesn't everyone do that?' (Van Erp and Mein 2013).

The common opinion among respondents that 'optimization' of DRG coding falls within the law is in line with other research that has established ambiguity among medical professionals about upcoding (Sparrow 2000; Hyman 2001; Kerpershoek et al. 2016). In our research, respondents justified their behaviour by referring to the need to mitigate the financial risks for hospitals emerging from the market regime, and by pointing out that 'optimal coding' compensated for missed income from undercoding, which was perceived as more frequent. Also, they argued that upcoding was not carried out for personal financial gain but was necessary to ensure the budget required to provide high quality care (see Kerpershoek et al. 2016; Bode et al. 2017). Thus, they saw bureaucratic accountability for correct coding and cost containment as conflicting with their professional norms of quality of care, and deeply disagreed with the concept of healthcare as a market (Bode et al. 2017). They also presented correct coding as an impossible cognitive puzzle, and as an impossible ideal incompatible with the chaotic complexity of daily practice, which lacked the time for correct coding and in which codes often do not fit patient realities or care practices. Although medical specialists condemned intentional manipulation of reimbursement rules for personal gain and expressed a willingness to comply when directly instructed to do so, they did not display active responsibility for correct coding. They either presented themselves as helpless and overwhelmed by the perceived complexity of the coding system, or denied that there was a problem and underplayed it by referring to undercoding, or showed active resistance to the rules by coding strategically to achieve desired beneficial outcomes.

In our 2013 study, hospital management was equally ambivalent about compliance with coding rules. 'Rather than correct coding, I see precise coding as important: coding neither more nor less than what gets delivered', a hospital director remarked. Almost all the interviewed hospital managers saw upcoding as the result of innocent and incidental mistakes, as 'start-up problems'. They did not believe that it concerned large sums but merely 'bycatch' (unintentionally caught sums), and they did not 'really see a compliance problem' (van Erp and Mein 2013). Their primary concern was preventing loss of income since coding software detected many 'floating' medical activities that cannot be brought under a DRG and thus cannot be reimbursed. Nevertheless, they agreed that intentional strategic upcoding should be prevented. A hospital director expressed the ambiguity by explaining that 'as a board member, I don't approve it, because it can hurt the reputation of the hospital. But as a medical specialist, I think we deserve fair compensation for our work' (van Erp and Mein 2013). These interview findings were substantiated as representative of the opinions in the sector by the interviewed experts and academic and consultancy reports describing sector attitudes (KPMG 2014; Kerpershoek et al. 2016; van Baalen et al. 2016).

Our survey results of 2016 suggest that the ambivalence about coding has decreased. The findings indicate that upcoding is perceived as less acceptable and that compliance practices are now institutionalized. The survey points out that 92 per cent of medical specialists agree with the societal expectation that coding should be correct, complete and timely, and that they regard correct coding as their professional responsibility. Seventy-nine per cent find it (very) important that coding rules are applied correctly, although there should be room for adaptation when patients' interests demand it. The ambivalence in hospital boards about correct coding no longer seems to be present: respondents no longer perceive upcoding as a bycatch of undercoding as indicated above, but as 'unforgivable' and even as fraud. And whereas coding was an individual affair in 2013, 72 per cent of respondents in 2016 report that the hospitals have rules and instructions for correct coding (van Schoten et al. 2016). Subsequent reports find an increased sense of urgency within hospital management for correct coding, and the awareness that coding should be improved (Koelewijn et al. 2016; van Baalen et al. 2016). Although physicians accept correct coding as a goal, they still perceive the DRG system as opaque, extremely complex and unfit for medical practice. 'The system is so opaque that it is impossible to commit fraud intentionally' and 'If only the rules were workable and understandable. The current system is so complicated that you cannot expect care professionals to do the coding and billing' (open answer in survey). The 2016 results thus show a marked change from the 2013 situation, indicating that compliance with coding rules has become more accepted as the norm and that compliance mechanisms have been institutionalized within hospital

organizations. They also suggest that individuals find the system so complex that they have disengaged and refrain from creative coding.

5 | ANALYSIS: THE EMERGENCE OF NETWORKED ACCOUNTABILITY

How can we explain these changes? From our data, we found the emergence of new accountability structures at three governance levels to be of significance: the policy network, the hospital organization, and the regulatory and enforcement level. Our analysis suggests that accountability structures at different levels and at different times, although not always purposively designed, interacted contingently and thus led to an increasingly shared conviction that correct coding was the way to go, despite some ongoing, often severe criticism among medical specialists and hospital managers of the DRG system. In the following, we further unpack this striking transition in attitudes and coding behaviour.

5.1 | Policy changes aiming to reduce costs resulted in changed incentive structure for upcoding

From 2010 onwards, the Netherlands introduced a number of policy changes to reduce healthcare spending. The networked character of these measures is expressed in the format of the '*Hoofdlijnenakkoorden*' (General Healthcare Agreements, GHA, formal policy agreements) between the Ministry of Health, insurance companies, medical associations, the associations of hospitals and patient federations. These collective agreements aimed to gradually reduce the annual growth margin of healthcare spending through further developing the DRG financing system; through introducing a macro performance budget for reimbursement of healthcare spending by insurance companies; and introducing a spending ceiling for hospitals with the option of generic reduction in case collective spending exceeded the limit, as well as a revenue limit for medical specialists. It should be noted that the GHA was placed alongside and interfered with other accountability structures, such as market accountability through purchasing by insurance companies, and professional accountability regarding quality of care.

Furthermore, the Ministry of Health promoted the transfer of medical specialists from partnerships to payroll employment by temporarily subsidizing the acquittal of 'goodwill' payments on entering partnerships. Although a significant portion of medical specialists remain self-employed, several payroll partnerships were created, introducing more vertical accountability in hospitals and supposedly reducing financial incentives for providing medical care (Lachman et al. 2016).

All the initiatives were directed at a system-wide reduction in the volume of care through collaboration between hospital boards, insurance companies, medical associations, and healthcare professionals. The Dutch Court of Audit judged the GHA to be effective in realizing the intended volume reduction (Algemene Rekenkamer 2016). It attributes this mainly to the ceilings on financial spending set by the Ministry of Health, but concludes that collaborative governance of healthcare spending was only partly successful, as hospitals and insurance companies failed to exercise control over spending. Effective prevention of incompliant billing requires intensive auditing, with continuous testing of claims (Goldberg and Lindquist 2005). Unintentionally however, the spending ceiling reduced incentives for upcoding at the level of medical professionals; coding optimization no longer generated financial benefits for medical specialists. Interviewees in 2016 reported that upcoding no longer paid as much because of the spending ceilings on medical care. Furthermore, financial managers of hospitals with payroll employment indicated that constraining the volume of care was now easier, as the incentive to overproduce was reduced. Thus, although collaborative governance at the network level was not entirely successful, the network (unexpectedly) did balance self-interest and supplemented the professional accountability of medical specialists. The next section discusses a subtler form of internal accountability at the hospital level—a second factor prompting institutionalized compliance.

5.2 | Technocratic disciplining of professionals within hospitals

The introduction of the DRG system meant an important transition in hospital reimbursement, requiring new (technical) knowledge and ICT tools in hospital settings. At the outset, as our 2013 study indicates, this was not taken seriously. Hospitals acknowledged coding rules, but—as the above quotes have pointed out—applied them pragmatically, often to the benefit of hospitals and medical specialists, and mainly at specialists' own discretion.

The 2016 data again show a marked difference. By 2016, hospitals had set up courses to train physicians in the application of coding rules and had built technical infrastructures to implement correct coding. Highly-educated 'DRG experts' (health economists, IT specialists, finance experts) contributed to compliance. In 2013, these roles had been executed by financial assistants and administrators who at the time 'were not very much loved' by medical staff—'they don't like to see me coming … being strict is our role' (van Erp and Mein 2013). The DRG experts, conversely, were more highly educated, higher placed in the hospital hierarchy, and more numerous. Rather than being strict towards individuals, they inscribed coding in the algorithms of the coding system. Whereas in 2013 the main job of the DRG experts had been to rectify incorrectly coded care *ex post*, in 2016 the DRG experts integrated correct coding in the hospital's ICT systems, for instance, by generating a warning when coding unusual combinations of medical treatment. They also enhanced compliance by educating medical specialists in correct (in accordance with the rules) coding. Our interviews and survey results indicate that DRG experts have emerged as a new, legitimate professional group in hospital management, rendering clinical expertise to just one form of knowledge, alongside managerial and administrative expertise. Hence, DRG experts forged a connection between the previously decoupled healthcare and administrative practices (see Kurunmäki et al. 2003).

As an illustration, when invited to participate in our study medical specialists explicitly referred us to DRG experts for the interviews. They explained that coding had become so technically complex that they (at least partly) preferred to leave it to the DRG experts. Whereas professional norms overpowered bureaucratic accountability in 2013, medical specialists in 2016 submitted to bureaucratic accountability structures at the expense of their professional autonomy. According to two medical specialists: 'It's not medical work but administrative work' and 'It'd be better if the admin staff, not doctors, were responsible for DRG coding' (survey open answers; van Schoten et al. 2016). These remarks suggest that medical specialists had disengaged from coding practice, having handed it over to bureaucratic professionals who lack a personal financial interest in upcoding.

In addition to DRG experts, various other actors in the hospital governance network such as the association for medical specialists, hospital associations and consultants have developed codes of conduct, coding guidelines and training modules (Orde van Medisch Specialisten 2016). Hospital boards have also added a specific obligation for correct coding in the collaborative agreements and contracts between medical specialists' partnerships and the hospital (Koelewijn et al. 2016). Taken together, these activities produce new forms of bureaucratic accountability that prevent the dominance of medical professional accountability, as was the situation in 2013. These multiple accountabilities have reduced the opportunities for gaming performance regulations and have changed the idea of 'professionalism' (van de Walle and Cornelissen 2014).

Although the hospitals introduced these new accountability structures in response to the medical professionals' actions, they also emerged in response to regulatory actions by the NZa. The next section discusses the NZa's responsive regulatory strategy to explain how it could have such an impact.

5.3 | The NZa's responsive regulatory strategy

In general, the NZa's enforcement strategy reflects insights into risk-based enforcement and responsive regulation, as is commonplace among Dutch regulators (Van Erp 2011). Its interventions are based on a risk analysis of the most serious problems in the healthcare market, which led to the identification of upcoding and incorrect coding as a priority in 2012. The NZa's regulatory strategy is based on three pillars, of which only one is aimed at direct supervision; the other two deal with strengthening hospital governance, and voluntary compliance. In its public mission and

strategy documents, it identifies itself as part of a larger network of healthcare cost reduction, and sees its own value in strengthening the roles of other network parties. It also expresses commitment to responsive regulation, as it seeks restraint regarding formal enforcement and prefers to encourage voluntary compliance through self-assessment, and informal instruments such as education on norms, with sanctions kept as last resort.[1] As an NZa regulator explained in an interview: 'If we see that a rule is unworkable or multi-interpretable, we won't impose a sanction. If you did that in a case that can be easily explained, well, that would be out of proportion.' This responsive style not only stemmed from a sense of fairness: the NZa was also aware in the research period that imposing excessively stringent sanctions would undermine the legitimacy of the NZa itself (Parker 2006; Mascini 2013), which had been weakened by a reputation scandal involving the suicide of an internal whistleblower (Borstlap et al. 2014). The NZa therefore restrained itself from intervening too forcefully, as it feared that this would backfire in the highly contested regulatory environment.

We analyse the NZa's strategy in more detail according to the four main characteristics of responsive regulation: non-coercive, educative interventions; informal, professional social control; reputational pressure; and sanctions as last resort.

5.3.1 | Non-coercive, educative interventions

In its project 'Correct coding of healthcare', which started in October 2012, the NZa used several non-coercive strategies simultaneously and sequentially, not always in coordination but experimentally mobilizing various stakeholders, such as the Dutch Hospital Association, the Federation of Medical Specialists, hospital managers and boards, and medical staff. It was aware that set against the powerful medical associations and the Hospital Association, and the culture of autonomy of medical specialists within hospitals, the NZa's position was not powerful enough to coordinate the multiple-actor network hierarchically. Despite its formal authority, the NZa also has limited enforcement capacity, and was too detached from daily practice to institutionalize normative commitment to performance regulation rather than strategic and cosmetic compliance (see Heimer 2011). As part of its strategy, the NZa took on a more facilitating role. A striking example is the DRG hotline offering ad hoc advice, which was frequently used by DRG experts needing clarification of the rules (see McDermott et al. 2015). Furthermore, the NZa has made awareness posters, instruction videos, and free online training modules for correct coding, and organizes regional meetings and workshops for various network actors. The frequent contact with DRG experts, medical specialists and hospitals also informed the NZa about coding problems in hospitals, thus allowing them to adjust the coding rules when necessary.

5.3.2 | Informal, professional social control

In addition to technical instruction, the NZa sought to influence the attitudes of medical specialists and hospital boards to correct billing on a more strategic level. It commissioned academic and consultancy reports on the attitudes and the state of compliance with coding rules, using these as the basis for normative dialogue about correct coding. For example, the NZa and a respected consultancy firm collaborated on a report—authored by a team of two doctors and two consultants—that offered boards of directors and hospital managers best practice guidelines for organizing internal dialogue and establishing compliance programmes to influence correct DRG coding behaviour (van Baalen et al. 2016). The NZa also required hospital directors to participate in a mandatory 'self-assessment' issued by KPMG (2014), that it used, again, to confront the sector with its own lack of progress. All these instruments were discussed with network participants in a series of dialogue sessions and other communication events—underscoring the networking character of DRG governance. During the process, the NZa aimed to identify and engage with the compliance motives and capacity of the various network actors, and gave them the space to voice their perceptions and objections, as well as the practical obstacles to compliance that the medical staff encountered. Noticeably, our own research projects are part of this process.

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[1]See https://www.nza.nl/over-nza/wat-doet-de-nza/toezicht-door-de-nza; or for an English-language description of what the NZa does, see https://www.nza.nl/english.

This process resembles what Huising and Silbey (2011) have called 'governing the gap' between regulation and daily compliance practice. Rather than closing the gap by introducing formal rules, control, and more 'red tape' (Bozeman and Anderson 2016), the NZa acknowledged that meaningful compliance is produced in interaction between the various participants who translate the formal rules to the workplace, which can best be attained by being responsive to the working practices, values and attitudes of the professionals and managers who work with those rules (Mascini and van Wijk 2009).

Rather than imposing hierarchical rules, the NZa organized networking events in the sector to translate the compliance message in hospitals. By engaging outsiders, such as academic researchers (including ourselves) and reputable consultancy firms as 'regulatory ambassadors' (Braithwaite and Hong 2015), the NZa added objectivity and authority to the debate. The various reports revealed that strategic billing was widespread among medical staff and was often ignored by hospital management. They also gave voice to supporters of correct coding, and presented convincing examples of hospitals that had gained control over noncompliance. The reports thus not only provided concrete advice, but also presented the arguments in support of correct coding to the hospital sector in their own language. These reports thus supported the NZa's definition of the problem, and silenced parties who argued that the problem was trivial and that compliance was impossible, while at the same time giving the hospital sector the opportunity to express its concerns. Thus, rather than creating additional vertical bureaucratic accountability, the NZa organized horizontal accountability in the healthcare governance network (Klijn and Koppenjan 2016).

5.3.3 | Reputational pressure

Media attention and public awareness has increasingly resulted in condemnation of excessive billing practices. It began with media reports of a patient who saw that his annual visit to the hospital for earwax removal, that used to cost 110 euros, now cost more than 1,000 euros under the DRG code for 'microscopic aural toilet'. This incident was widely ridiculed in the media as 'earwax gate', and it was followed by negative media reports of excessive coding. Aggressive billing practices became the subject of several satirical television programmes, newspaper editorials and columns which portrayed medical specialists as greedy. This contributed to the delegitimation of upcoding among the public, and undermined the prevailing argument of healthcare professionals that incorrect billing was done in the interest of providing the best available care for patients and that the doctor's professional autonomy in DRG coding contributed to good healthcare. Moreover, the media published stories on the price variation across hospitals, which the sector felt did much damage to the reputation of those hospitals that charged more than others for similar care (Koelewijn et al. 2016). Correct coding became subject to wider fora of social accountability, rather than just a technical issue subject to the administrative accountability relations between medical specialists and regulators (see Bovens et al. 2014).

The NZa built on this media attention by expressing the patients' rights to information on healthcare costs. However, rather than shaming hospitals, the NZa took a reintegrative stance by stating repeatedly that correct coding was well under way, but still needed improvement on many points to 'restore public and political trust' (NZa 2014). By communicating like this, the NZa praised and encouraged the sector but at the same time made clear that it should still improve, by confronting it with its own behaviour. By framing compliant coding as 'a shared ambition', as a means of 'restoring trust' in the sector (that had been damaged by the negative publicity), the NZa helped establish the new frame in which correct coding was no longer incompatible with delivering high-quality care. Despite their initial resistance, powerful medical associations no longer denied the problems with coding and accepted the 'shared ambition' in their policy documents, for example by expressing the aim to make medical specialists more cost aware and responsible for reducing unaccounted variation in volumes of care in their policy vision (De Medisch Specialist 2012), and by designing a 'Code of Conduct' for correct coding (Orde van Medisch Specialisten 2016).

5.3.4 | Sanctions as last resort

Finally, sanctions played a small but important role in the improvement of compliance. Between 2011 and 2015, the NZa issued fines to only two hospitals for incorrect billing of care. In particular, the respondents saw a fine for the Antonius hospital as an important reference point in changing attitudes toward compliance. This hospital used to charge the full day care rate for patients who had stayed in hospital more than two hours. Another offence concerned charging for an intra-uterine device that patients had already paid for at their pharmacy. The nature of these offences made it difficult for the hospitals to argue—as they often did—that it was the fault of the complexity of the rules, contributed to better healthcare, or that it involved only trivial amounts of money. The fine of 2.5 million euros was considered significant but not excessive, as the NZa calculated the value of the incorrectly billed care at 24.6 million euros. Crucially, as part of its collaborative strategy, the NZa did not shame the hospital, but communicated instead that the hospital in question would pay back the damage to the insurance companies. The NZa went on to praise the hospital for cooperating with the investigation, and even stated that the offence had not been intentional (NZa 2014). The NZa also advised the hospital to publish the investigation findings on its own website to support learning in other hospitals, indicating that the Antonius hospital was 'exemplary' for other hospitals.

Critics in parliament and the media later argued that the NZa, because it went along with the definition of non-compliance as 'innocent mistakes', had been 'captured' by the hospital sector. In time, however, its reintegrative (non-)shaming strategy seems to have contributed to acceptance of performance regulation. Two subsequent reports on medical specialists' perceptions demonstrate that the news of the Antonius hospital fines was experienced as both educational (informing doctors about the correct coding of certain medical practices, and convincing them of the importance of compliance with performance regulation) as well as deterrent. Most respondents indicated that although they knew they had committed similar offences, they had not intended to break the law (Koelewijn et al. 2016; van Baalen et al. 2016). These findings concur with Gilad's (2014) argument that to enlist cooperation of professional groups, regulators may need to align their messages with the values of the group and even reframe their message to avoid antagonism. Rather than regulatory deference to practice, such framing may be understood as a pragmatic attempt to engage with existing motives and attitudes. In terms of our analysis, the NZa's responsive strategy successfully aligned the public, bureaucratic and professional accountability structures.

6 | CONCLUSION AND DISCUSSION

This study was concerned with the mechanisms that contributed to changing cosmetic compliance with DRG regulations to institutionalized correct coding. During the study period, perceptions towards performance regulation in Dutch hospitals developed from coding and billing being manipulable and fundamentally in conflict with good healthcare to being perceived as an acceptable, integral aspect of healthcare governance that should be managed rather than resisted. Although the Dutch DRG case is certainly not entirely a success story, strategic coding and billing is now less accepted in hospitals than before. Our analysis relates this institutional change to the way in which the regulator was responsive to emerging new accountability structures in the health network, rather than acting as a top-down actor. New forms of accountability followed from: (1) national policies to curb rising costs that diminished production incentives, (2) the alignment of medical specialists' and hospitals' financial interests, and (3) new socio-technical hospital infrastructures to facilitate correct DRG coding and billing—bringing in another type of expert and expert knowledge, and pursuing a new norm of 'good coding behaviour'. The sanction imposed on Antonius hospital for fraudulent coding created a sense of urgency among hospitals to improve compliance. Media attention for 'outrageous' billings created reputational pressure, making correct billing a public problem. This 'adding up' of actors and accountability structures induced institutional transition and changed attitudes and perceptions about the legitimacy of 'lucrative' coding practices of individual physicians.

Our analysis points to the combination of networked accountability and responsive regulation as crucial contributors to the institutionalization of compliance. The policy changes created new bureaucratic, technical accountability

structures which added to existing professional accountability and the legal accountability arising from regulation. Thus, multiple complementary forms of accountability emerged, and these in turn created fertile ground for responsive regulatory interventions. The networked accountability regime and interdependent relations between actors created opportunities for regulatory pressure to be exerted from various directions and at various levels of the governance network. We might thus infer that institutionalization of compliance can occur despite the relatively weak power and legitimacy of a regulator when that regulator acts responsively in an existing context of networked accountability: the network offers the regulator opportunities to connect to forces that it itself lacks.

Responsive regulation is about recognizing that regulation involves 'many actors and many games' (Ayres and Braithwaite 1992), and this article has shown that many governance networks influence compliance. The NZa's responsive regulatory strategy primarily relied on persuading the medical specialists and engaging various professional parties. To the extent that it used sanctions, these were not excessively punitive or shameful but served to underline the responsibility of the hospital for correct coding. In the NZa's communications on the fine for fraudulent coding, we recognize the responsive regulation principle that a regulator should signal that it prefers to reach outcomes through support and education rather than by threat, and it should engage fairly with noncompliant actors and solicit their sense of responsibility (Braithwaite 2011). These non-coercive strategies succeeded because they took place in a setting in which the technocratic disciplinary environment had reduced the incentives which had already made upcoding less attractive. Hence, in the context of a polycentric network in which responsibilities, tasks, and authority are dispersed among a variety of actors, a regulator's strength is not so much to call to account a single organization, but to orchestrate a network of accountability arrangements (Hong and You 2018).

The regulator's strategy in the Dutch healthcare market was responsive in the sense that it addressed hospitals not as coherent, singular actors but as diversified and dynamic sets of interdependent relations, and then mobilized those interactions as resources for compliance in a process of experimental relational governance (Huising and Silbey 2011; Wallenburg and Bal 2016). Some networking activities aimed at closing the gap between regulations and daily practice, such as the instruction and educational activities related to correct interpretation of regulations, and the fines aimed at reimbursing incorrectly billed care. More dialogue-based interactions reflect the regulator's limited capacity to directly influence the coding behaviour in the workplace. The regulator linked itself to legitimate actors, such as medical associations, and engaged with various new actors introduced into the healthcare network: hospital administrative staff, DRG experts, as well as the increasingly powerful hospital management. The networked accountability structures allowed the NZa to engage with cognitive, situational and moral aspects of compliance, in different settings and at different moments. Thus, the regulator made a strength out of the different and sometimes conflicting interests and beliefs that emerged in the governance network. The NZa's strategy was not entirely planned, but emerged out of opportunities. As multiple forms of accountability complemented each other, pressure on the hospital sector gradually built up, compensating for the fact that the leeway for hierarchical punishment was very limited.

These elements of the NZa's regulatory strategy can provide learning examples for other regulators and provide insight into the mechanisms underlying effective responsive networked governance. Thus, our findings have relevance beyond this single case study, as similar contexts exist in other healthcare networks in other countries and other policy areas. Our case study contributes to responsive regulation theory by demonstrating how it can be performed through governance of a network rather than bilateral interaction between regulator and regulatee. As explained earlier, responsive regulation—although intended as a theory for networked governance—has often been applied to bilateral interactions between regulator and regulatee. In the context of performance regulation, however, frequent direct interaction between regulator and regulated organization is limited or even absent, and compliance is measured through accountability structures rather than by on-site inspections. In such circumstances, a regulatory strategy should be responsive to the network rather than to single organizations' compliance attitudes and behaviour (Baldwin and Black 2008). Dialogue with organizational boards, collaboration with professional associations, regulatory intermediaries, compliance managers and administrative staff contributes to achieving interpretations of 'performance' consistent with the spirit of the law (Heimer 2011; Huising and Silbey 2011; Gilad 2014; Almond and Gray

2017). In ambiguous situations with conflicting values, a strategy that takes seriously how compliance is constructed and experienced in the workplace, that has a more experimental focus on probing and tinkering is considered more effective than a top-down approach, which risks resorting to ritualistic or strategic compliance (Bromley and Powell 2012). Whereas regulatory capture and deference to organizational interest is an obvious risk in a regulatory strategy that engages with stakeholders (Braithwaite 2011), the example of DRG regulation in the Netherlands suggests that in situations with conflicting values, responsiveness to the interests and motivations of the regulated community may nevertheless contribute to improving compliance.

Our study has some limitations. First, the analysis presented here is but one case study in one single country. Yet, although single case studies have limited generalizability, they do provide in-depth knowledge on the mechanisms of (in this case) institutional transition with wider theoretical relevance. The Dutch case shows contextual similarities to healthcare markets in other countries. Second, although the perception data from the interviews and survey provide insight into the medical specialists' attitudes to and experiences of the coding process, they do not give any information about actual coding behaviour, or about the extent to which fraud and/or upcoding takes place. Moreover, there are no reliable indicators of the prevalence of such behaviour (Ministerie van VWS 2015). Hence, our study cannot establish to what extent changes in attitude reflect changes in behaviour. However, we believe that the coding experiences and dilemmas presented by the physicians, DRG specialists and hospital administrators involved in the studies give us valuable insight into how these actors relate to these issues, as well as into the organization of the coding process in hospitals.

Despite these limitations, we have shown that responsive regulation theory and practice can benefit from a contextual approach. Taking the networked character of regulation into account and taking an experimental, situated approach aimed at aligning networked accountabilities can help to further our understanding of the success of regulation. This article therefore concludes that public regulators can 'govern the gap' between cosmetic and institutionalized compliance with performance management systems if they work with the various networks and actors in the wider policy network as well as the regulated organizations, and are responsive to emerging issues and trends, as well as to the concerns, dilemmas and work practices of the regulated professionals and organizations.

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REFERENCES

Agranoff, R., & McGuire, M. (2001). Big questions in public network management research. *Journal of Public Administration Research and Theory*, *11*, 295–326.

Algemene Rekenkamer (2016). Zorgakkoorden. Uitgavenbeheersing in de zorg. Retrieved from: https://www.rekenkamer.nl/publicaties/rapporten/2016/12/06/zorgakkoorden

Almond, P., & Gray, G. C. (2017). Frontline safety: Understanding the workplace as a site of regulatory engagement. *Law & Policy*, *39*, 5–26.

Ansell, C., & Gash, A. (2018). Collaborative platforms as a governance strategy. *Journal of Public Administration Research and Theory*, *28*, 16–32.

Ayres, I., & Braithwaite, J. (1992). *Responsive regulation: Transcending the deregulation debate*. Oxford: Oxford University Press.

Bal, R., & Zuiderent-Jerak, T. (2011). The practice of markets in Dutch healthcare: Are we drinking from the same glass? *Health Economics Policy and Law*, *6*, 139–145.

Baldwin, R., & Black, J. (2008). Really responsive regulation. *Modern Law Review*, *71*, 59–94.

Bevan, G., & Hood, C. (2006). What's measured is what matters: Targets and gaming in the English public health care system. *Public Administration*, *84*, 517–538.

Bode, I., Lange, J., & Märker, M. (2017). Caught in organizational ambivalence: Institutional complexity and its implications in the German hospital sector. *Public Management Review*, *19*, 501–517.

Borstlap, H., van der Meer Mohr, P. F. M., & Smits, L. J. E. (2014). *Het rapport van de Onderzoekscommissie intern functioneren NZa*. Retrieved from: https://www.rijksoverheid.nl/documenten/rapporten/2014/09/02/het-rapport-van-de-onderzoek scommissie-intern-functieoneren-nza

Bovens, M., Schillemans, T., & Goodin, R. (2014). Public accountability. In M. Bovens, R. Goodin, & T. Schillemans (Eds.), *The Oxford handbook of public accountability* (pp. 1–20). Oxford: Oxford University Press.

Bozeman, B., & Anderson, D. M. (2016). Public policy and the origins of bureaucratic red tape: Implications of the Stanford yacht scandal. *Administration & Society*, *48*, 736–759.

Braithwaite, J. (2011). The essence of responsive regulation. *University of British Columbia Law Review*, *44*, 475–520.

Braithwaite, J. (2013). Relational republican regulation. *Regulation & Governance*, *7*, 124–144.

Braithwaite, J., & Hong, S. (2015). The iteration deficit in responsive regulation: Are regulatory ambassadors an answer? *Regulation & Governance*, *9*, 16–29.

Bromley, P., & Powell, W. W. (2012). From smoke and mirrors to walking the talk: Decoupling in the contemporary world. *Academy of Management Annals*, *6*, 483–530.

Busse, R., Geissler, A., Aaviksoo, A., Cots, F., Häkkinen, U., Kobel, C., ... & Quentin, W. (2013). Diagnosis related groups in Europe: Moving towards transparency, efficiency, and quality in hospitals? *BMJ*, *347*, 1–7.

Coudin, E., Pla, A., & Samson, A. (2015). GP responses to price regulation: Evidence from a French nationwide reform. *Health Economics*, *24*, 118–1130.

Dafny, L., & Dranove, D. (2009). Regulatory exploitation and management changes: Upcoding in the hospital industry. *Journal of Law & Economics*, *52*, 223–250.

de Lancer, P., & Steccolini, I. (2015). Introduction to symposium: Performance and accountability in complex settings: Methods, metrics and politics. *International Review of Public Administration*, *20*, 329–334.

De Medisch Specialist (2012). *Visiedocument de Medisch Specialist*. Retrieved from: https://www.demedischspecialist.nl/sites/default/files/Visiedocument%20web.pdf

Emerson, K., Nabatchi, T., & Balogh, S. (2012). An integrative framework for collaborative governance. *Journal of Public Administration Theory and Research*, *22*, 1–29.

Gilad, S. (2014). Beyond endogeneity: How firms and regulators co-construct the meaning of regulation. *Law & Policy*, *36*, 134–164.

Gilad, S., Maor, M., & Ben-Nun Bloom, P. (2013). Organizational reputation, the content of public allegations, and regulatory communication. *Journal of Public Administration Theory and Research*, *72*, 26–32.

Goldberg, S. R., & Lindquist, S. C. (2005). Fighting costly health care fraud. *Journal of Corporate Accounting & Finance*, *16*, 29–34.

Heimer, C. (2011). Disarticulate responsiveness: The theory and practice of responsive regulation in multi-layered systems. *University of British Columbia Law Review*, *44*, 663–693.

Helderman, J. K., Schut, F., van der Grinten, T. E. D., & van de Ven, W. P. M. M. (2005). Market-oriented health care reforms and policy learning in the Netherlands. *Journal of Health Policy, Politics and Law*, *30*, 189–210.

Hong, S.-H., & You, J.-s. (2018). Limits of regulatory responsiveness: Democratic credentials of responsive regulation. *Regulation & Governance*. doi.org/10.1111/rego.12193

Huising, R., & Silbey, S. S. (2011). Governing the gap: Forging safe science through relational regulation. *Regulation & Governance*, *5*, 14–42.

Hyman, D. (2001). Health care fraud and abuse: Medical change, social norms, and the trust 'Reposed in the workmen'. *Journal of Legal Studies*, *30*, 531–567.

Kerpershoek, E., Groenleer, M., & de Bruijn, H. (2016). Unintended responses to performance management in Dutch hospital care: Bringing together the managerial and professional perspective. *Public Management Review*, *18*, 417–436.

Klijn, E. H., & Koppenjan, J. (2014). Accountable networks. In M. Bovens, R. Goodin, & T. Schillemans (Eds.), *The Oxford handbook of public accountability* (pp. 242–257). Oxford: Oxford University Press.

Klijn, E. H., & Koppenjan, J. (2016). *Governance networks in the public sector*. New York: Routledge.

Koelewijn, W., Houwen, L., Hooghe, E., Slappendel, R., & van der Meer, N. (2016). *Op weg naar gezamenlijkheid: Rapportage quick scan integrale bekostiging and governance*. Retrieved from: https://www.rijksoverheid.nl/documenten/rapporten/2016/01/26/op-weg-naar-gezamenlijkheid

Koliba, C. J., Mills, R. W., & Zia, A. (2011). Accountability in governance networks: An assessment of public, private, and non-profit emergent management practices following Hurricane Katrina. *Public Administration Review*, *71*, 210–220.

KPMG (2014). *Self-assessment declareren medisch specialistische zorg*. Retrieved from: http://docplayer.nl/3555016-Self-assessment-declareren-medisch-specialistische-zorg.html

Kurunmäki, L., Lapsey, I., & Melia, K. (2003). Accountingization vs. legitimation: A comparative study of the use of accounting infomation in intensive care. *Management Accounting Research*, 14, 112–139.

Lachman, M., Trapp, R., & Wenger, F. (2016). Performance measurement and compensation practices in hospitals: An empirical analysis in consideration of ownership types. *European Accounting Review*, 25, 661–686.

Lecy, J. D., Mergel, I. A., & Schmitz, H. P. (2014). Networks in public administration: Current scholarship in review. *Public Management Review*, 16, 643–665.

Mascini, P. (2013). Why was the enforcement pyramid so influential? And what price was paid? *Regulation & Governance*, 7, 48–60.

Mascini, P., & van Wijk, E. (2009). Responsive regulation at the Dutch Food and Product Safety Authority: An empirical assessment of assumptions underlying the theory. *Regulation & Governance*, 3, 27–47.

May, P. J. (2007). Regulatory regimes and accountability. *Regulation & Governance*, 1, 8–26.

McDermott, A. M., Hamer, L. M., Steel, D., Flood, P., & McKee, L. (2015). Hybrid healthcare governance for improvement? Combining top-down and bottom-up approaches to public sector regulation. *Public Administration*, 93, 324–344.

Mills, R., Koliba, C., & Reiss, D. (2016). Ensuring compliance from 35,000 feet: Accountability and trade-offs in aviation safety regulatory networks. *Administration & Society*. doi.org/10.1177/0095399716656223

Ministerie van VWS (2015). Programmaplan rechtmatige zorg, aanpak van fouten en fraude 2015–2018. Retrieved from: https://www.rijksoverheid.nl/documenten/rapporten/2015/03/27/programmaplan-rechtmatige-zorg-aanpak-van-fouten-en-fraude-2015-2018

Newman, J. (2001). *Modernising governance: New Labour, policy and society*. London: Sage.

Newman, J. (2004). Constructing accountability: Network governance and managerial agency. *Public Policy and Administration*, 19, 17–33.

Nielsen, V. L., & Parker, C. (2009). Testing responsive regulation in regulatory enforcement. *Regulation & Governance*, 3, 376–399.

NZa (2014). Resultaten projecten correct declareren. Retrieved from: https://puc.overheid.nl/nza/doc/PUC_3316_22/1/

Orde van Medisch Specialisten (2016). Gedragsregel correct declareren. Retrieved from: https://www.demedischspecialist.nl/sites/default/files/Gedragscode%20Correct%20Declareren_0.pdf

Osborne, S. (2010). *The new public governance? Emerging perspectives on the theory and practice of public governance*. London and New York: Routledge.

Parker, C. (2006). The 'compliance' trap: The moral message in responsive regulatory enforcement. *Law & Society Review*, 40, 591–622.

Parker, C. (2013). Twenty years of responsive regulation: An appreciation and appraisal. *Regulation & Governance*, 7, 2–13.

Provan, K. G., & Kenis, P. (2008). Modes of network governance: Structure, management, and effectiveness. *Journal of Public Administration Theory and Research*, 18, 229–252.

Reynaers, A.-M., & Parrado, S. (2017). Responsive regulation in public–private partnerships: Between deterrence and persuasion. *Regulation & Governance*, 11, 269–281.

Skelcher, C., Mathur, N., & Smith, M. (2005). The public governance of collaborative spaces: Discourse, design and democracy. *Public Administration*, 83, 573–596.

Sparrow, M. (2000). *License to steal: Why fraud plagues America's health care system*. Boulder, CO: Westview Press.

Steinbusch, P. J. M., Oostenbrink, J. B., Zuurbier, J. J., & Schaepkens, F. J. M. (2007). The risk of upcoding in casemix systems: A comparative study. *Health Policy*, 81, 289–299.

Tavory, I., & Timmermans, S. (2013). A pragmatist approach to causality in ethnography. *Journal of Sociology*, 119, 682–714.

van Baalen, M. R., van den Broek, P. H. H., Bosman, J., & Koopal, C. (2016). *Compliant registreren en declareren: van erkend probleem tot gedeelde ambitie*. Retrieved from: https://www.rijksoverheid.nl/documenten/rapporten/2016/02/01/rapport-compliant-registreren-en-declareren-ziekenhuiszorg

van de Bovenkamp, H., de Mul, M., Quartz, J., Weggelaar-Jansen, A., & Bal, R. (2014). Institutional layering in health care quality policy: Introducing regulated competition. *Public Administration*, 91, 208–223.

van der Ven, W. P. M. M., & Schut, F. T. (2009). Managed competition in the Netherlands: Still work-in-progress. *Health Economics*, 18, 253–255.

van de Walle, S., & Cornelissen, F. (2014). Performance reporting. In M. Bovens, R. Goodin, & T. Schillemans (Eds.), *The Oxford handbook of public accountability* (pp. 441–455). Oxford: Oxford University Press.

van Erp, J. (2011). Naming without shaming: The publication of sanctions in the Dutch financial market. *Regulation & Governance*, 5, 287–308.

van Erp, J., & Mein, A. G. (2013). *Doelgroepenanalyse declaratiepraktijk medisch specialistische zorg*. Utrecht: Verweij Jonker Instituut.

van Schoten, S., Wallenburg, I., van Erp, J., Bal, R., & Wagener, C. (2016). *De medisch specialist en correct registreren. Een onderzoek naar de beleving van medisch specialisten*. Utrecht: NIVEL.

Wallenburg, I., & Bal, R. (2016). *Experimenting with healthcare market infrastructures of surveillance: Accounting for good care*. Paper presented at the 4S/EASST, Barcelona.

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