Governing through quantification: developing a calculative infrastructure for controlling quality in German hospitals

Jacob Reilley and **Tobias Scheytt** discuss the rise of quality indicators

Think of an assembly line at a car manufacturer that has no end-of-line quality control. Nobody checks whether the wheels are tightened, whether there's fluid in the brake system, or whether the fuel line is attached to the motor and not the radiator. You might be nervous getting into a car that was produced on that assembly line. A rather similar situation, however, existed in the German hospital system until the 1990s. Of course, since the beginning of modern medicine, doctors in Germany paid much attention to the treatment quality of their patients. But on an organizational level, and even more on a sector-wide level, managers and regulators had no comparative figures at hand, no information besides some mortality statistics and other rather rudimentary information on the quality of service. Up to that time, neither providers nor health insurers attempted to measure quality, and quality was not seen as a key object of public management.

Today the German health sector is permeated with quality indicators, elaborate costing systems, and quality management tools, which make use of routine data and standardized numerical information to evaluate and control quality differences in hospitals. Quality is now at the centre of regulatory reforms, which aim to create the 'hospital of the future' (Roeder et al., 2015) by linking output measurements of quality to reimbursement schemes for operational costs. Sector-wide initiatives to find a suitable country-wide hospital structure for quality control utilize quantitative quality indicators to identify out- and under-performers among hospitals. Overall, within the last two decades, we have witnessed a gradually increasing propensity to operationalize quality in quantitative terms for the purpose of more effective governance. While such developments may seem quite in line with trends of new public management, Germany represents a special case for how governments have developed such calculative infrastructures.

The most striking institutional specificity of Germany's healthcare sector is its partial regulatory autonomy. The sector is self-governed by nation-wide associations of doctors, hospitals, health insurers and patient associations, which have a significant influence on the definition of regulatory frameworks. Instead of a 'regulating state' that can produce a straightforward regime based on oversight, Germany's healthcare sector is thus largely based on mutuality, deliberation, and expertise, but increasingly also competition. The institutional actors are legally required to cooperate with one another towards a common goal of improving quality in hospitals, but do so according to their own, local understandings, measurement tools and interests. Thus, stakeholders in the arena of contemporary healthcare quality debates do not always agree on the meaning of quality, or how to best operationalize it. As a result, rather than a centrally driven approach to evaluating and controlling quality (as for example in the UK), in Germany we see the gradual emergence of a sector-wide flexible calculative infrastructure for healthcare governance – made up from an assembly of methods for collecting quantified information, analysing data, creating standards, and monitoring for accountability.

Key to the establishment of such a flexible infrastructure is the definition and operationalization of a 'boundary object' (Star and Griesemer 1989). A boundary object can be used to explain how institutional and organizational actors coordinate towards a vague but common goal in absence of clear consensus (ibid). In the German healthcare system, a 'visionary boundary object' (Briers and Chua 2001: 242) is the vague notion of improved quality, coupled with an idealized notion of the hospital as a 'complete' or 'rational' organization (Brunsson and Sahlin-Andersson 2000). The basic idea here is that a 'complete' hospital can provide the best quality when it can set goals for itself, respond to market incentives, manage internal processes through clear hierarchical orders, and rely on organizational processes to improve quality, rather than profession norms (ibid). This form of a hospital represents an idealized policy goal for the sector as a whole and enjoys a high degree of legitimacy among all actors involved.

Yet, when we look closer, we see that the notions of 'improved quality' and 'the good (complete) hospital' are unknown in local contexts until customized and tailored to specific practices and settings. Here, we see how quantification plays a key role in operationalizing quality and understandings of the 'complete' hospital through formalized quality management systems, including indicator sets (Power 2015). Actors in German healthcare can mould these instruments to their own specific requirements and motives with regard to improving quality and realizing the 'complete' hospital; they do so according to their own views, which are influenced by their respective regulatory responsibilities in the field. As this process has perpetuated for the past two decades or so, the result is the layering of slightly different, only partly converging notions of quality. The boundary object (vague ideas about 'the good hospital') thus helps to gradually establish a sector-wide quality agenda, but also supports actors at the diverse levels of the healthcare system in keeping their specific interpretive schemes alive (Lindberg and Czarniawska 2006).

The way in which the regulatory regime surrounding quality has developed over time has implications for the sector's understanding of both quality and hospitals. Indeed, an emerging calculative infrastructure can change the ways in which knowledge about quality is collected, disciplined, and coordinated (Star 2010). Through the operationalization of visionary boundary objects, the idea of the 'good hospital' is not merely reflected in numerical form, but it is constructed by and through practices of quantification. For example, quality has gone from a professionally defined concept to one which has been established as something measurable in terms of results and impact. Now in various quantified forms, quality has been deemed controllable by actors external to the profession, and been both lauded and abhorred as the foundation of a self-sustaining quality control regime. The hospital, once beheld as a place of negotiated order and professional self-regulation, is now addressed as an actor capable of enacting sector-wide change through rationalized and managerial approaches to evaluating and controlling quality.

We believe it is important to highlight the ways in which quantification lies at the heart of such changes to public management approaches. We also find it crucial to develop a deeper understanding of the effects of quantification on its objects of governance. The implementation of sector-wide instruments of quantification, such as quality indicators, does not occur overnight, but is the result of long fought and arduous processes. In Germany, we have an example of governance by numbers 'in the making'. The end-of-line quality control is still emerging and so patients can only feel slightly more secure. The calculative infrastructure will be further refined as actors continue to negotiate on the basis of both evidence-based standards for quality and economic demands for efficiency and effectiveness, and whether the outcome is for good or worse remains to be seen.

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