Tearing down walls: opening the border between hospital and ambulatory care for quality improvement in Germany

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Abstract

The hospital benchmarking system in Germany was originally introduced to detect unintended consequences of reimbursement based on diagnosis-related groups. The new nationwide SQG programme aims to provide information on quality and outcomes of health care provided in hospital, ambulatory specialist and primary care settings, including the healthcare delivery across different sectors. In 2010 the topics for indicator development were cataract surgery, cervical conization, colorectal cancer and percutaneous coronary interventions or coronary angiography. A systematic stepwise modified RAND/UCLA procedure is applied to develop quality indicators in each of these domains. A general framework for data collection is implemented. Benchmarking results are fed back to providers on a regular basis.

Keywords: quality measurement, quality indicators, health policy, hospital care, primary care/general practice, general medicine, surgery

Mr Gorbatschov, tear down this wall’ is a statement of the former US President Ronald Reagan from his famous public address in Berlin in 1987. While this became reality in 1989 and the 20th anniversary of Germany’s reunification could be celebrated in 2010, other borders like those between ambulatory and hospital care proved to be more resistant than the former ‘iron curtain’. In 2009 the German Federal Joint Committee established a comprehensive programme for quality improvement across healthcare sectors in Germany (‘Sektorübergreifende Qualitätsicherung im Gesundheitswesen’ or ‘SQG’). The programme expands the nationwide system for benchmarking of hospitals, established in 2001 [1], now aiming at quality improvement in outpatient as well as inpatient medical care. This implies a major redirection of the German approach to quality improvement. The SQG programme complements the German Institute for Quality and Efficiency in Health Care, which provides evidence-based evaluations of health technology since 2004. The contract for the SQG programme has been gained in an open competition by the AQUA-institute, a privately owned research organization located at Goettingen, Germany. The contractor is the Federal Joint Committee (G-BA), the highest national body which regulates the healthcare system independently under the supervision of the Ministry of Health. The AQUA-institute collaborates intensively with European academic research centres: the Department of General Practice and Health Services Research and the Department of Biostatistics at University Hospital Heidelberg in Germany and the Scientific Institute for Quality in Health Care at Radboud University Medical Centre Nijmegen in the Netherlands. In this paper we aim to describe the objectives and content of the SQG programme. Some short information on the German healthcare system will be provided first as a background.

German healthcare system

Germany has a population of ~82 million inhabitants, in which 20 million (24%) are aged 65 years or over—a proportion that will increase to 33% in 2030 [2]. In 2008 the country spent 10.5% of its gross domestic product on health care; this figure yielded 8.7% in the UK and 16.0% in the USA in the same year [2]. The expenses are covered by
health insurance, which is obligatory for all German citizens and employers. In 2008 Germany had 3.6 practising physicians per 1000 inhabitants, which was higher than England (2.6) and the USA (2.4) in that year. German citizens have free choice of both healthcare providers and health insurers, thus these compete for their share of the market. To enhance coordination and reduce unnecessary utilization, small co-payments for patients were introduced for every quarterly first visit of a patient to healthcare providers, stays in hospitals and prescribed medication.

**Table 1** Steps in the development of quality monitoring for a specific topic

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|1 | The Federal Joint Committee defines a topic for quality monitoring and improvement, after consultation with various stakeholders. |
|2 | The AQUA-institute invites experts and stakeholders for a scoping workshop to discuss key issues for indicator development. |
|3 | The AQUA-institute starts a public procedure to recruit experts for a panel. Additionally, two patient representatives are nominated by patient organizations for the panel. All panel members have to state their conflicts of interest. |
|4 | A structured search for indicators from agencies worldwide and systematic literature searches is performed. Duplicates are deleted from the list of potential indicators. |
|5 | After an introductory workshop where panelists are informed and trained, two panel-rounds each with written ratings and face-to-face discussions are performed. This results in the final set of indicators. |
|6 | Instruments for data collection (such as for the electronic clinical records) for the indicators are developed and data fields are described. |
|7 | A preliminary report which describes the development process, the set of indicators and the instruments in detail is sent out to all relevant stakeholder organizations. These have 6 weeks to send their comments back. |
|8 | A final report with an appraisal of the comments is completed by the AQUA-institute within 6 weeks. |
|9 | The Federal Joint Committee officially approves the final report. |
|10 | The Federal Joint Committee decides whether a feasibility study and field testing is needed. |
|11 | After final positive evaluation, a directive of the Federal Joint Committee makes quality measurement and monitoring, mandatory for all health care providers. |
|12 | A planning is made and communicated for inclusion of indicators in data collection and in the annual reports that are provided by the AQUA-institute. |

German health professionals offer a wide range of preventive, diagnostic and treatment procedures, including options from complementary medicine. Traditionally, there is little guidance by evidence-based guidelines in daily clinical practice, but disease management programmes were introduced in primary care for a number of chronic diseases in 2004 [3]. To define the framework for the SQG programme in the German social code book, there is a complete chapter (§137a SGB V) defining rights and commitments of the various stakeholders. In the centre of these regulations, the legislator puts the obligation that the institution which runs the programme has to fulfill its tasks on a sound scientific basis and that it should perform its works independently from stakeholders in the healthcare system, e.g. statutory sickness funds, private health insurances or healthcare providers or pharmaceutical industry. The idea behind is to enhance public trust in the quality monitoring system.

**SQG programme’s objectives**

The hospital benchmarking system in Germany was originally introduced to detect unintended consequences of the ‘flat-rate’ payment system of hospitals in 1996. Since 2004, it aimed to examine the consequences of reimbursement based on diagnosis-related groups. The new SQG programme is independent of reimbursement systems and aims to provide information on quality and outcomes of health care provided in hospital, ambulatory and primary care settings, including the healthcare delivery across different sectors. An important user groups for this information are health professionals and healthcare organizations. One objective of SQG is to provide formative feedback to healthcare providers to stimulate them to improve their performance. Research evidence supports the idea that clinical audit and feedback can moderately improve clinical practice [4]. Other user groups are the German Federal Joint Committee, the federal and regional governments, regional and national bodies of health professions and institutions, regional quality offices and health insurers. These stakeholders can use the information in various ways, including the guidance for quality programmes and health policies, legal action if the patient safety is harmed and adaptations in the contracts with insures. So far no financial incentives have been attached to the SQG quality indicators, which might reflect the controversy on this issue in Germany between providers and some payers. German citizens are also intended users. However, until now the use of objective quality information for choice between healthcare providers and treatments by individuals still seems to be limited in Germany [5].

**Methods of indicator development**

The methods of the SQG programme have been described in a detailed document, which is publicly available on the SQG website (www.sqg.de). Each year the German Federal Joint Committee decides on the clinical domains or clinical
procedures for which new indicators will be developed. For instance, in 2010 the topics for indicator development were cataract surgery, cervical conization, colectoral cancer and percutaneous coronary interventions or coronary angiography. A systematic stepwise procedure is applied to develop quality indicators in each of these domains. The first step of this procedure is a systematic review of published research of available indicators, including published lists of indicators developed by organizations internationally. This is followed by a modified RAND/UCLA procedure [6] with a multidisciplinary panel to select indicators from a long list and adapt them if necessary. The procedure includes three 1–2-day group meetings and two written rounds. Panel members are carefully selected after an open call for participants. Each panel member is obliged to express his or her conflict of interests in a written form.

After the modified RAND/UCLA procedure has been finalized, a preliminary report is sent to a comprehensive list of organizations, including scientific associations, patients’ organizations, colleges, provider- and payer organizations asking for comments and critical reviews within 6 weeks. These comments are appraised by the AQUA-institute and implemented in the final report. As a result for the 2010 round, the final reports proposed (including 2–9 specific items each for patient surveys) 10 indicators for cataract surgery, 24 indicators for cervical conization and 22 indicators for percutaneous coronary interventions or coronary angiography while the final set for colorectal cancer is not yet determined. The final version of the report, together with all comments and appraisals is published after formal approval by the Federal Joint Committee on the SQG website. The report also contains detailed recommendations as to how data should be collected. Table 1 summarizes the steps taken in the development of quality indicators.

Methods of indicator implementation

Selected quality indicators are implemented in systems for data collection, which have to be used by all healthcare providers in Germany. Currently, data are derived from information systems that are used for clinical and administrative purposes by healthcare providers. In future, administrative claims data (i.e. to measure mortality) and patient surveys will be added. The selected data are sent to the AQUA-institute using data extraction protocols. In a first step completeness and internal validity of the data are checked, and if necessary sent back to the healthcare provider in order to complete or correct the data. When the data are cleaned, they are statistically analysed and processed in an automatic way to produce reports for various stakeholders. To ensure that available data from different sources can be integrated on a unique patient identifier view and that data protection is strictly minded, a separate trusted centre makes all patient related information anonymous before it goes to the AQUA-institute.

A yearly report providing national summary statistics is available on the SQG website [7]. When a specific care provider is below the predefined thresholds which are set up by national expert committees, a ‘structured dialogue’ is started by the AQUA-institute or regional quality organizations. This dialogue aims to identify and remove potential errors in the data and to stimulate change. If the scores remain low, targets for improvement are set and plans for improvement are made with the care providers. Other instruments that will be implemented in the future may include peer review and quality circles of health professionals.

Discussion

The SQG programme represents a bold initiative of German health policy-makers to improve the transparency and quality across healthcare sectors. It is different from many other systems by its obligatory and nationwide character. For instance, the quality and outcomes framework in England and Wales is a voluntary system, although non-participation has negative financial consequences, and limited to primary care only [8]. The Healthcare Effectiveness Data and Information Set in the USA is also voluntary, mainly focused on health plans or larger delivery systems and does not measure outcomes, except intermediate ones [9].

Evaluation and further development of the methods are explicit components of the SQG programme. The attempt to build on research evidence has identified a large number of gaps in our knowledge of developing and implementing quality indicators. Research questions concern, for instance, the methods for identifying existing quality indicators anywhere in the world, to culturally adapt these indicators, the composition of panels for the Delphi procedures, the adaptation of the type of performance feedback to healthcare providers, the attribution of outcomes to different providers involved in the whole pathway of care of patients, the factors associated with variation of indicator scores across patients and healthcare providers [10] and the management of healthcare providers with exceptionally low scores on quality indicators. If healthcare delivery wants to be evidence based then quality improvement should also be evidence based and this initiative aims to achieve that goal.

Conflict of interest statement

J.S. is a director and shareholder of the AQUA-institute which is responsible for the development of the SQG programme by contract with the Federal Joint Committee. B.B., J.E., G.H. and P.K.-K. are employees and M.W.’s institute has a contract with the AQUA-institute.

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