

Editorial

Performance indicators from all perspectives

This special issue of the *International Journal for Quality in Health Care* examines performance indicators and their continuing major role in improving the quality of health care. This is timely because the recent publications of the Institute of Medicine report 'Envisioning the national health care quality report' [1] and the World Health Organisation Report 2000 [2] have once again focused our attention on, and provoked debate about, performance indicators.

Performance indicators are inherently controversial because they require an operational definition of quality to be developed. If performance indicators were living organisms the debate surrounding them would begin at conception and continue well beyond the grave. The controversy is understandable because during each phase of life, the performance indicators generate a clash of ideals between key stakeholders that can only be resolved through a compromise. The key stakeholders in health are typically summarized as health funders, providers and consumers. Each stakeholder brings a different perspective and set of politics to health care issues.

However, the situation with performance indicators is more complex because they are often considered to be a quantitative measure of quality. Therefore, experts in the science of measurement—research epidemiologists and academic purists—become involved in the debate. Finally, our understanding of quality and quality improvement in health care remains incomplete with many different and conflicting approaches, some of which have developed 'into religions and missionary movements' [3]. The dilemmas that arise from the interactions between these different groups are explored at four stages in the life of performance indicators: the policy, development, implementation and evaluation phases.

The policy phase requires that the scope, purpose and 'mechanism of change' of the performance indicators be considered and clearly articulated. The scope of performance indicators is enormous, ranging from examining the state of a nation's health system to reflecting on the experiences of the individual patients. In this issue, the role of performance indicators has been described in terms of reflecting the state of health of a community [4], the delivery of health care services [5] and of the actual health systems [6]. These can be subdivided to describe performance at the local [5], regional [7], national [8] or international level [6].

The policy phase must also consider which of the many different dimensions of health care quality can be described using performance indicators and whether they meet the needs of the stakeholders. For example, indicators can reflect the presence of disease and disability or wellness, the fiscal

or clinical management of a health care organization, and the preventive or acute health care services within a health system.

The purpose and the purported 'mechanism of change' are usually inextricably linked. The purpose of performance indicators must balance the needs for public and professional accountability with the need to promote quality improvement initiatives. The 'mechanism of change' refers to how the performance indicators will lead to improvements in health care. Important debates concern whether mandatory rather than voluntary participation influences the potential for change, and the roles of regulatory and free market sectors in determining the collection and use of performance indicator information. Other issues to consider include the linkage of performance to external rewards or penalties, and determining who should have access to the indicator data. The different approaches in Australia, the UK and USA have provided significant insights into this debate [8].

The development of a performance indicator requires decisions to be made about what is important in health and health care, a determination of what can be measured and the scientific soundness of the measurement. The development phase must also balance the art and science of health care; although the 'art of health care' is more difficult to measure it is of enormous value for improving the quality of care [7].

The scientific soundness of performance indicators is expressed in terms of validity and the explicitness of the evidence base [1]. The availability and strength of the evidence base may create a preference for indicators with the most robust scientific evidence rather than indicators for the most important areas of health care. The translation of the processes or outcomes of care that have a robust evidence base into a performance indicator remains a complex procedure and is often fraught with difficulty [9].

Although all stakeholders are interested in the outcomes of care, it is the processes of care that are more readily measured. Over the last decade, a strong case for preferring indicators that are based on the processes of care has emerged [10].

The development and implementation phases require balancing the ideals of an epidemiological research purist and the pragmatism required to survive in the real world. Rubin *et al.* [9] provide a comprehensive discussion on the complex measurement issues about the validity and reliability of performance indicators and provide a method for developing and testing the indicators that should satisfy most points of view.

The clash of ideals between the purists and pragmatists is

most visible during the implementation phase, where the performance indicator definition is applied and the data are collected. Simplistically stated, the argument is that as the degree of reliability, the breadth, detail and clinical relevance of performance indicator data increase so does the cost of the data collection. Compromise solutions are possible through sampling strategies and the use of different methods of statistical analysis [11].

The evaluation phase must ensure the application of the data is congruent with the original purpose for which it was collected. The three major users of indicators are governments, accreditation organizations and health care providers. They use indicators for accountability, as part of their external evaluation process and for quality improvement, respectively. There are very few if any performance indicators that are appropriate for use by all of these groups.

It is not uncommon for reports of performance indicators to be oversimplified with a single numerical value being presented often under the guise of being a 'true' quantitative measurement. Performance indicators that are valid and reliable can still be misused depending on the method of analysis and a lack of understanding of the limitations of the methods [11].

The methodological problems of turning epidemiological data into management information for health services remains a major challenge [4]. The major limiting factors are often not the mathematics but determining the purpose of the analysis and developing consensus for the choice of method [11].

As the impetus to develop, use and report health care achievements according to performance indicators, these complexities become even more important to understand. A fascinating issue to contemplate is the relationship of the indicators to each other and whether this makes any difference in their impact. Performance indicators may be used as single and isolated measures, in a core set of integrated and interdependent measures, in a core set of diverse and independent measures, or as a comprehensive program. Considerably more research is required into the construction of core sets of performance indicators and how to evaluate the effects of indicators and indicator programs.

The aim of this special issue is to generate further debate and research into the fundamental nature of performance indicators and indicator programs. This is vital because of the diversity in the types of performance indicators and indicator programs and the different emphases each component of the health sector places on performance indicators as a method to improve patient safety and quality of care. Additional research work around performance indicators should also be directed towards investigating the possible perverse effects and the ethical implications related to the

design and application of the performance indicators. The opinions and knowledge of experts throughout the world are presented in this issue and are an important contribution to our understanding of the policy, development, implementation and evaluation of performance indicators.

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