

# MEASURING SYSTEM PERFORMANCE OR JUST COUNTING: A CONCEPTUAL ANALYSIS

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## ABSTRACT

### PURPOSE

The paper explores the concept of performance measurement and identifies that when measurement information does not inform about the performance of the system, it is not utilised, and the effort becomes wasteful. Strategies to make performance measurement and reporting more meaningful are identified.

### DESIGN/METHODOLOGY/APPROACH

The paper explores concepts and selected literature to understand the measurement of performance and how to make it meaningful. Some strategies to make the measurement and reporting of performance meaningful are suggested.

### FINDINGS

The process of collection and use of performance measures is resource-intensive. If this information is then not used appropriately and fully, it can become a considerable waste. Healthcare system performance measurement is complex. These complexities include the fact that outputs or deliverables may not inform the strategic objectives. The package of care also has to be customised to the needs of each consumer, which can make generalisations difficult. Moreover, measures are often interrelated, and one measure by itself may not inform about the system's performance.

### RESEARCH LIMITATIONS/IMPLICATIONS

Complex systems have many variables that are quite interdependent of each other. Although this conceptual paper explores the measurement of system performance, it is essential to acknowledge that specific interdependencies between performance variables for each complex system, which may be quite independent of one another, must be understood to determine the relevance of performance measures for those specific systems.

### PRACTICAL IMPLICATIONS

The paper describes ways in which performance measurement information can be reported to make it more meaningful and value-adding for the organisation. The visualisation of measures of performance should be customised for specific stakeholders to retain their interest. However, it must also be acknowledged that visualisation without an opportunity for analysis makes visualisations non-value-adding.

### ORIGINALITY/VALUE

A lot has been written about performance measurement; however, there is not much discussion about how unproductive and wasteful reporting can be if it is not used to drive improvements.

### KEYWORDS

Performance, improvement, reporting

## INTRODUCTION

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In public service systems, one of the aims of performance measurement is to review evidence of the effectiveness of programs authorised on behalf of the citizenry to consider whether the investment is providing public value. Interest in targets and performance indicators has also evolved in government-sponsored public services, with an interest of governments to be results-driven [1-3]. Looking at data and other statistical information is also helpful to make comparisons across organisations and services to rate their performance and enable appropriate allocation decisions to be made [4, 5].

However, measuring and reporting system performance can be time-consuming and resource-intensive. Choosing measures of performance for reporting and managing dashboards to make performance information visible can consume considerable time and effort. If this data and information are then not able to be utilised, not utilised, not able to provide answers to the questions about the performance of the system or do not add value proportionate to the effort made to collect, report, analyse and use them, it is nothing but a significant waste.

There are a variety of reasons for the interest of organisations in measuring performance. These include using results to incentivise individuals and teams to improve performance, demonstrate achievement of goals and provide feedback for analysis [6]. Both in public as well as private sector organisations, gaining a competitive advantage and improving future performance have remained important goals of the performance management systems. However, there is a concern that measurement and reporting of performance in complex healthcare systems do not always result in improvement of outcomes at the organisational or population levels [7, 8]. Reasons include multiple stakeholders with diverse and sometimes conflicting interests as well as multiple interdependencies within a complex system that can have different levels of performance on activity, outputs, satisfaction, outcomes and traditional budgets, human resources and other corporate indicators [9].

A variety of performance measurement tools are in use, including a balanced scorecard [10], performance prism [11], integrated reporting framework [12], Skandia navigator and many others. With the availability of artificial intelligence, administrative applications to inform about system performance are also becoming available [13, 14].

## WHY THE INTEREST IN MEASURING PUBLIC HEALTH SECTOR PERFORMANCE

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The desire to overcome inefficiency and to ensure that the healthcare provided is effective, safe and appropriate is inherent in the ethos of a public health system. There is general recognition that unless wastage of resources and provision of ineffective or inappropriate care can be eliminated, it will not be possible to have an equitable, affordable and sustainable healthcare system [15-17]. This does necessitate developing methods to ascertain whether performance is meeting expectations and aspirations.

Regardless of the funding arrangements, governance and management structures, and the design of the health system, the essential role of performance measurement is to inform about how the entire system performs. Many jurisdictions internationally and every jurisdiction in Australia have attempted to develop a suite of performance measures as part of their performance management effort to manage the health system actively [18, 19].

There is no disputing the fact that to improve the performance of the system and achieve better health outcomes for the population, it is important and necessary to visualise a set of performance measures [20]. The question is whether a comprehensive and vast suite with hundreds of performance measures that spans the spectrum of activity, quality, business and human resources serves a purpose proportionate to the time and effort invested in its collection and reporting.

## COMPLEXITIES THAT REQUIRE A RETHINK ABOUT MEASURING AND REPORTING HEALTHCARE SYSTEM PERFORMANCE

Measurement of a health system's performance is complex. Simply measuring outputs (or deliverables) does not inform about the system's performance, especially whether its strategic intent (which in the public health system is to improve the health of the population) is being achieved. Consumer expectations change frequently, and therefore, the product delivered (i.e. the service that the consumer receives) is not simple to pre-define against which performance can be measured. A package of care and treatment has to be negotiated to meet the needs of an individual consumer, which has to be customised for that consumer. Moreover, there is always a risk that improving the performance of an organisation from one perspective may result in a deterioration in the performance of some other essential variable [21, 22].

Since there are many co-producers involved in the process, including the patient and their families, the production of healthcare cannot always be controlled. In fact, the wider healthcare delivery environment also cannot be controlled as demand within the system frequently outstrips supply and emergency care provision must supersede any planned care delivery. Adding to this complexity is the fact that the causality of a disease or disorder is often unknown, the quality of care is difficult to define, and the healthcare provision environment cannot always be controlled. Furthermore, the product is a service whose value is determined by the recipient, not by the provider, meaning that more factors influence performance that cannot be controlled than can be controlled. This also means a lower sense of confidence that assessed performance is indeed a reflection of actual performance.

Many designers of performance measurement systems conveniently overlook the fact that more important determinants of system performance are, in fact, the healthcare system's structure and processes. To improve performance, healthcare system redesign, payment system reforms and process improvement have a far greater potential to affect measures of morbidity than a treatment or intervention [23-25].

Then, some measures take a significant time to change and are not dependent upon transactional strategies. Measures of life expectancy, perinatal mortality, maternal deaths, birth weight of babies, and similar statistics, often considered useful measures, may not be the most effective indicators of how the health system is performing at present. Improvements in these statistics are dependent on social and educational determinants and cannot be directly attributed to the functioning of a health system. In social welfare democracies, in particular, the impact of societal improvement, social welfare policies and provision, education and housing, etc., has a far greater impact on system performance statistics than the performance of the healthcare system.

### SO, WHAT SHOULD A PERFORMANCE MEASUREMENT SYSTEM TRY TO ACHIEVE?

Three primary goals for a health system performance measurement have been suggested to be accountability, strategic direction and learning/improving (26). Performance measurement processes must achieve these three primary goals and, at the same time, identify less-than-optimal performance by focusing on variables that are affecting performance. At least in theory, in a well-performance-measured (and managed) system, good performance monitoring and management can provide opportunities to require the system to take necessary remedial action, articulate appropriate policies and encourage redesign and reform of administrative systems and processes to remedy deficiencies in performance.

To make performance measurement useful, it is extremely important to be cognizant of the perspective of the actors. Most stakeholders become disengaged and disinterested in measures because the measures reported are not of interest or relevance to them in making decisions. Even those who remain somewhat engaged become more interested in achieving favourable performance on measures that matter to them, as the suite of performance measures is not entirely

relevant to their interests. Their enthusiasm is limited to improving the performance of their sub-system, even if it is at the expense of the performance of the rest of the system.

The purpose of monitoring and reviewing measures should be to understand organisational performance and assist with making decisions to improve performance. This is not possible unless it is understood that change and variability in performance indicators result from dynamic interaction and interdependence between many indicators of performance that one may see on the dashboard. Moreover, as articulated above, at different levels of the health system and for different players in the healthcare system, considerations from a performance measurement system can be quite different.

Therefore, two aspects are extremely important. Firstly, the performance measurement scorecard or dashboard must be customised to meet the requirements of different stakeholders. The experience of visualisation of performance measures needs to be specific for different stakeholder groups. Presenting a suite with hundreds of measures that stakeholders then have to choose from is not value-adding.

Secondly, having a performance measurement scorecard or dashboard is not enough. The defined suite of performance measures that is relevant to a stakeholder (or a group of stakeholders) must provide the basis for further analysis. It is this analysis that is value-adding. Not creating an opportunity for performance measures to be analysed is what makes a display of performance measures meaningless and wasteful. If this analysis is done, it allows a judgment to be made about whether performance information suggests a deterioration or improvement. This analysis needs to consider that variation in the data may not necessarily be a reflection of the variation in the quality of care delivered, as it may be an intrinsic property of the data known as common sense variation [27].

## CONCLUSIONS

Delivering something is of no value if the recipient does not want it or if its delivery does not add any value to the recipient. Collecting and reporting hundreds of performance measures across the entire health system when only a minority view it and even fewer use it can make this investment wasteful. The fact that monthly reporting and viewing of these indicators becomes an 'interesting piece of colourful graphs' without compelling, meaningful adjustments to the health system is a stark reminder to continue the search for more meaningful ways of measuring and reporting performance.

Considering that the design of the healthcare system, how the healthcare system is managed and various administrative systems and processes that exist within the healthcare system, are significant determinants of the performance of the healthcare system, performance measures and indicators that are not linked to the policy and accountability processes or are misaligned with the strategy, render these measures completely meaningless. The collection and reporting of performance measures are resource-intensive. If this information is then not analysed and interpreted to help with making decisions, personal and system accountability cannot be assured.

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