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## HIMJ: Reviewed articles

# Outcome data and quality: The critical role of policy

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### Abstract

Health outcomes data are a major focus of the Australian health policy debate and the national research agenda. There is general agreement that health outcomes data should be collected. Outcomes data have been shown to be a powerful stimulant to service quality at the clinical level. It is argued here that policy which places health outcomes data at the centre of resource allocation and competitive cost control strategies is likely to undermine its capacity to stimulate quality at the clinical level. Policy is needed to support the role of health outcomes data so that it is relevant to clinicians and is seen as being fundamental to quality improvement processes at the organisational level. Governments and other funding bodies require that services be accountable for the quality of their services. By using health outcomes data this quality guarantee can be based on evidence that the data are analysed routinely and, where appropriate, clinical services are modified and improved. Without this clear role for health outcomes data, they may become yet another 'top-down' accountability tool that has little relevance to clinicians and therefore loses its value as a stimulant to quality improvement.

**Key words:** health outcomes; quality; policy; clinicians

### Introduction

In this article, the critical role that health outcomes data (HOD) can play in quality improvement processes is described. The need to collect HOD has been a feature of the various policy debates related to health resource allocation and evidence-based practice. It is argued that, without an appropriate policy framework to guide the collection of HOD, its capacity to stimulate quality improvement at the organisational level is likely to be undermined. Service quality is now understood as being directly related to organisational culture ([Carman et al, 1996](#)). To generate such a culture requires attention to the social processes which nurture it. This in turn requires that the policy environment be structured accordingly. A 'perverse' policy environment is likely to undermine the potential of HOD to stimulate service quality. The policy issues that need to be addressed, along with the 'evidence base' for appropriate policy directions, are discussed.

### Defining health outcomes data

The Australian Health Ministers' Advisory Council has defined health outcomes as "A measurable change in the health of an individual, or a group of people or population which is attributable to an intervention or series of interventions" ([Australian Health Ministers, 1998: 27](#)). This is a broad definition and requires refinement if it is to be of value in policy discussion. For the purpose of this article, health outcomes data are those which relate directly to changes in

individual pathology or risk or proxies such as service utilisation or hospital re-admission rates.

### **Health outcomes data and organisational quality improvement**

Systematic and sustained quality improvement is associated with a particular set of organisational characteristics ([Huq & Martin, 2000](#)). These can be summarised as follows:

- the use of problem-solving approaches based on statistical analysis and relevant 'soft' data
- the focus of analytical processes on underlying organisational processes and systems rather than blaming individuals
- the use of cross-functional employee teams in continuous improvement activities
- employee empowerment to identify problems and opportunities for improved care and to take the necessary action
- an explicit focus on both internal and external consumers.

As suggested by the first point above, sustained or continuous quality improvement (CQI) relies heavily on data as the means by which clinicians obtain feedback about their work. Using such data, clinicians are able to make judgements about the impact of the clinical practices they employ. While data about the implementation of clinical processes have their place in the feedback loop, HOD can be particularly influential because they are a measure of the ultimate impact of an intervention ([Rosenthal et al, 1998](#)).

It has also been shown that HOD can be a powerful means of fostering effective benchmarking practices ([O'Connor et al, 1996](#)) (benchmarking being the review of methods used and outcomes achieved by others, with the ultimate aim of modifying one's own practices as indicated through this review process). HOD are used as the 'common currency' when comparing and discussing the impact of different clinical practices.

There are particular criteria that any data used for feedback need to meet if they are to be useful in the CQI cycle. To be accepted by clinicians, data must meet a range of criteria ([Scanlon et al, 2001](#)). Importantly, they must have face validity at the clinical level ([Davies, 2001](#)). Historically, data that have been collected to satisfy 'top-down' accountability requirements have not been selected primarily for their relevance to clinicians. Therefore, they are unlikely to meet the criteria that make them relevant to clinicians when evaluating their work ([Degeling et al, 2000](#)). Without this 'local' credibility, the impact of HOD on quality improvement will be limited, if not neutralised ([Davies, 2001](#)). Indeed, this may impact negatively on the data quality as clinicians seek to minimise the effort that is involved in the collection of data that are perceived to have administrative relevance only. Consequently, the process of generating the HOD that are collected, and decisions about how they will be used, must involve clinicians, not just funding bodies and health service administrators ([Their & Gelijns, 1998](#)). This is not to suggest that every location will have its own unique set of HOD. Education and consensus-building processes are required to ensure that there are core data upon which all clinicians agree. While requiring some effort, reaching consensus for this purpose is possible and there are successful examples ([Clemmer et al, 1999](#); [O'Connor et al, 1996](#)).

### **Policy context**

The measurement of health outcomes is now firmly entrenched in

the Australian health policy landscape ([National Health Performance Committee, 2001](#)) and it is also a strong focus of the health research agenda ([Commonwealth of Australia, 2000](#)). While the current aim of collecting HOD is exploratory, its purpose will be to assure and improve service quality. It is this latter use for which the policy context remains obscure, although it seems reasonable to suggest that the first step should be to collect HOD and then consider how they will be used to assure and improve quality. There are good reasons to believe that, without clear policy on the nature of the HOD and how they will be used, the data collection process will be compromised and the effects on quality mitigated. The way this policy gap is filled is likely to have a major impact on how effectively HOD are used to stimulate quality at the service delivery level.

### **Methods for using health outcomes data to assure quality**

One possible policy initiative for using HOD to improve quality is to use the data for comparing services and for taking action based on the relative 'quality' of each service ([Fletcher, 2000](#)). Funding incentives could then be linked to the relative performance of organisations. The idea that health administrators will 'manage down' to change clinical practices in response to financial incentives has considerable support and fits well with various economic models. Certainly, this is a popular idea and one that presents a simple solution to the general problem of how to stimulate quality. However, studies which relate to the impact of financial incentives on clinical practices have failed to identify a relationship between the two ([Davies, 2001](#); [Degeling et al, 2000](#)).

If HOD are to be used for resource allocation, the integrity of the data that are collected must be assured. There is little incentive for clinicians and health service administrators to report HOD accurately when the consequences may be a reduction in the resources available to them. Indeed, there is evidence to suggest that the reporting behaviour of clinicians and services will change according to how the data are to be used ([Liang & Storti, 2000](#)).

While the above scenario may call into question data recording practices, independent of this there are good reasons to believe that the nexus between HOD and service quality is highly questionable, and it may be that clinical experience makes clinicians aware of this questionable relationship and they behave accordingly. Some studies show a significant association between social and economic disadvantage and health outcomes ([Young, Meterko & Desai, 2000](#)). The conclusion to be reached from this research is that, regardless of the service quality, health outcomes will be poorer for the disadvantaged. Future research may make it possible for HOD to be adjusted for disadvantage; however, there may be other contextual factors that influence outcomes which at this stage remain unknown. Without this knowledge the relationship between HOD and service quality remains tenuous.

Another factor that can influence the relationship between HOD and service quality relates to the measurement of health outcomes. For example, mean survival times for particular diagnoses may be related to better or worse treatment, but they can also be influenced by consumer choice. Consumers may choose shorter survival times for what they see as a trade-off for better quality of life, free of the side effects of treatment. In the case of chronic illness, the mass customisation of treatments and care that are a direct reflection of quality-of-life choices has the potential to distort traditional health outcome measures such as mean survival times. Interestingly, an

indicator of good quality in this context might be health outcome data that are widely distributed in a statistical sense, this being the result of diverse consumer needs and the exercising of choice in the available treatment options.

While the influences of demographics and consumer choice may be significant, this is not to suggest that all HOD are unreliable as a proxy measure of service quality. It is likely that some health conditions and interventions will not be influenced by external factors. For these, HOD are likely to be more strongly correlated with service quality. Exactly which conditions and treatments these are, however, remains to be discovered. Until research demonstrates a reliable link between treatment quality and HOD for particular health conditions, the use of HOD for determining the relative quality of services is unjustified.

### **Using HOD to obtain a quality guarantee**

While the value of HOD as a means of evaluating the relative performance of services is questionable, this is not an argument for not collecting them. There is a need to develop policy initiatives that take advantage of the potential for HOD to provide a guarantee of quality. This type of data can and should be used in quality improvement processes at the organisational level ([Rosenthal et al, 1998](#)). In the case of particular conditions where there are well-established, routine treatment protocols, significant variation in HOD between services or with averages should be used as a flag to ensure that the reasons for the differences are investigated. As described above, there are often explanations for differences that relate to factors beyond the control of the organisation. Given this, the most reliable indicator of quality should not be the relative HOD, but the fact that services are actively analysing HOD to explain the difference and, where appropriate, making changes to improve health outcomes. In many instances, improved HOD may be possible only where additional resources are made available, particularly in the case of services where the client base is economically and socially disadvantaged.

In situations where HOD are significantly influenced by consumers exercising choice, the most powerful measure of quality becomes not HOD but the implementation of high-quality processes which provide consumers with the opportunity to make informed choices. There is now a strong evidence base suggesting particular practices that enable organisations to support consumers in making choices that are consistent with their personal beliefs and social situation ([Human Services Victoria, 2000](#)).

### **Summary**

HOD can be a powerful stimulant to service quality. However, health outcomes are influenced by factors that are not within the control of clinicians. For many health conditions and treatments, therefore, the link between service quality and health outcomes data is a tenuous one. This calls into question any policy initiatives that aim to use HOD as the basis for financial incentives designed to improve quality or cut costs. To enlist the necessary support from clinicians, policy positions need to be non-punitive and should focus on the processes used by organisations to analyse and respond to variations in HOD.

### **Conclusion**

In looking to future policy development, the available evidence does not support the use of HOD as a valid means of determining the relative quality of health care services. Therefore, policy-makers at

the federal and state levels need to create a policy environment which aims to encourage a culture of continuous quality improvement at the organisation level. To do this, HOD have to be relevant to clinicians, as their support must be enlisted if such a culture is to become the norm. A policy vacuum in relation to the nature and purpose of HOD is likely to build on existing scepticism by clinicians. Without their support, the quality of HOD may be undermined as clinicians attempt to avoid penalties for outcomes they believe are outside their control. Similarly, HOD quality might be undermined as clinicians attempt to minimise the effort needed to collect data that, to them, serve administrative, not clinical, purposes. The generation of accurate HOD is an opportunity to influence significantly the health care quality landscape in Australia. By developing clear policy on the nature and purpose of HOD, a clear message about intent will be issued and clinician support will be more likely. In the absence of such policy the vacuum is likely to be filled by conjecture, based on the history of health system data which have served 'top-down' accountability purposes and which have little relevance to clinicians.

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