Public Disclosure of Healthcare Performance Information and Its Application to the Singapore Context

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Abstract

The increasing worldwide trend towards publicly and actively disclosing healthcare provider performance information requires that healthcare professionals in Singapore understand the relevant issues and implications. The current evidence suggests that there needs to be caution in any related move here in Singapore, since the benefits have not been entirely established and the associated problems not inconsequential. This article identifies public accountability and the commercial need to demonstrate value as possibly the main drivers for local public disclosure. It concludes that a proper needs analysis and true stakeholder involvement are necessary in contemplating such an initiative locally.

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Introduction

It has been said that apart from the prevention of diseases, the best chance of improving health is through improving the quality of care delivered to patients.[1] The public disclosure of healthcare performance information is a phenomenon that has come to the fore in the United States (US) and in several developed countries. It has been touted by some as the answer to the quality-of-care problems endemic in healthcare systems worldwide. Even as healthcare providers in Singapore are slowly coming to accept the necessity of a systems approach to improving clinical care and ensuring patient safety, more may be required of them. The public disclosure of performance information is often used in the fields of sports and commerce, and its use in education and healthcare has been around for some time now.[2] The local education system already ranks secondary school performance; it is possible that the public disclosure of performance information may extend to other fields in Singapore.[3]

When the Singapore government recently announced that it would work with a local consumer advocate group to make hospital bills more detailed as a measure of transparency, there was straightaway a call by the local media for more than just financial data to be disclosed.[4] The jury is still out in countries that have blazed the trail on the value of public disclosure. It is timely to review the evidence to decide what is applicable to the local context, taking into account the unique local healthcare situation.

Definition

Perhaps the most common term used to describe the product of the public disclosure of healthcare performance information is "report card". Other terms that are used synonymously include "consumer report", "public performance report" and "provider profile".[5] A report card is generally taken to mean a standardised, publicly released summary on the quality of care.[6] It may include traditional indicators of quality related to the structure, process and outcome of care (including patient satisfaction and functional outcome).[7] Other parameters include cost, utilisation and access. Report cards often also include targets, averages, benchmarks and descriptive information to help patients and purchasers understand the performance of healthcare providers.[8]

Background

The public disclosure of healthcare performance information is not new and some point out that even in the 1860s, Florence Nightingale had already publicised the mortality rates of London hospitals.[6,9] In the early 1900s, Dr Ernest Codman, a Boston surgeon, advocated the scientific scrutiny and public dissemination of surgical outcomes and

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results. He was subsequently ostracised for his ideas, proving that the idea of report cards has frequently been ill-received by the professional community.[10] But just how did the modern public disclosure phenomenon take hold? For some years now, several quality improvement efforts have been tried in various countries, such as re-licensing and continuing medical education for healthcare professionals, the accreditation of healthcare institutions, the practice of evidence-based medicine, peer review and medical audit. There has been, however, no real evidence that these methods of improving care have been truly successful.[5] It is in the context of the apparent ineffectiveness of these quality initiatives that there has been a greater demand for openness in the process and outcomes of healthcare. Accordingly, report cards have been growing in number and sophistication, and may now be the most prominent of the efforts in the US to manage healthcare quality. While some report cards are merely placed in the public domain, the majority are actively being publicised to the target users.

Report Cards that have been Established

Though it is primarily the public sector initiatives that are reviewed here, some of the more prominent report cards developed by the private sector will be briefly touched upon. The US leads the world in the public disclosure of healthcare performance information and any literature review will result in a listing of research based primarily on its experience.

Report Cards by Public or Non-profit Organisations in the US

The US Federal government was perhaps the first public body to report publicly healthcare performance information. Since then, healthcare regulators, public purchasers and independent quality accrediting bodies have figured prominently in the area. In 1986, the US Health Care Financing Administration (HCFA) – now the Centers for Medicare and Medicaid Services which finances healthcare for the elderly and indigent, respectively – started publishing annual mortality rates for its Medicare beneficiaries. This release of hospital-specific mortality rates ushered in the era of modern healthcare report cards, but was stopped in 1993 because the hospitals viewed the reports as unfair and academics had problems with the statistical methodology.[11]

Then, in 1992, the National Committee on Quality Assurance (NCQA) – an independent and non-profit organisation that is the US' leading accrediting agency for managed care organisations – developed the Health Plan Employer Data and Information Set (HEDIS) for patients and purchasers to compare the performance of managed care health plans. This comprises a battery of 60 clinical, administrative and patient satisfaction measures that standardise the assessment of health plans. Currently, almost 90% of all health plans measure their performance using HEDIS.[5,6,12,13] These measures also input into NCQA's annual *State of Managed Care Quality Report*, which assesses the overall performance of the managed care industry. Some initial fears that high costs and only good performers participating would produce a distorted picture appear unsubstantiated.[14] In 1996, NCQA initiated the publication of *Quality Compass*, which enables plan-specific, side-by-side comparison of health plans based on HEDIS data and NCQA's accreditation survey results, and this is meant for employers, the media, health plans and others to use for detailed analysis. A more patient-friendly report card format for combining the accreditation results and HEDIS information has now been established in the form of an online interface.[12]

Besides report cards that exist at the national level, there are also report cards that are being produced by individual states. For example, the states of New York and Pennsylvania have been reporting on risk-adjusted mortality rates after coronary artery bypass graft (CABG) for every hospital and surgeon since 1989 and 1992, respectively, and both these report cards are perhaps among the most evaluated.[5]

The publication of data from the New York Cardiac Surgery Reporting System (NYCSRS) has led to hospitals undertaking efforts in quality improvement and decredentialing low-volume surgeons with higher mortality rates.[15] The New York state authorities released a Department of Health Report in 2000 to show that New York state had the lowest mortality rates ever reported in the country for patients undergoing CABG surgery and attributed this to the NYCSRS.[16]

The Pennsylvania Health Care Cost Control Council, which operates the Pennsylvania Cardiac Surgery Reporting System (PCSRS), in addition to its report cards on caesarean section rates, hospital performance based on Diagnosis Related Groups and financial performance, has indicated that there is evidence to show that quality is increasing and costs are decreasing.[17] It has been reported, however, that Pennsylvanian cardiovascular specialists feel that their local report card has limited credibility due to imperfect risk adjustment and unreliable data.[18]

One reporting system that has not been evaluated much is the California Hospitals Outcome Project (CHOP). Started in 1991, the project analyses and disseminates information on risk-adjusted hospital outcomes (such as CABG and intensive care outcomes). Though the data initially collected were administrative, clinical elements are now being collected for the purposes of detailed risk adjustment.[5,19]

In 1994, the Joint Commission for the Accreditation of Healthcare Organizations (JCAHO) began issuing

organisation-specific performance reports for each accredited organisation after its triennial or biennial survey had been completed. Each organisation's most recent performance report is available in *Quality Check*, its online tool for accessing accreditation status information.[20]

Report Cards by Commercial Organisations in the US

Private sector organisations have also been developing healthcare report cards. Health Care Investment Analysts (HCIA) – a private health information organisation originally set up by Johns Hopkins University researchers – was launched in 1993 to identify the top hospitals in the US based solely on publicly available Medicare data (thus partially taking over where HCFA left off in terms of using the Medicare data for public reporting). This initiative is better known by its product, the *100 Top Hospitals* programme, which includes special studies into orthopaedics and cardiovascular care.[21]

The most visible report card is arguably the *US News and World Report's* annual ranking of US hospitals, which commenced in 1994. Using measures of healthcare structure, process and outcome, the report ranks hospitals in 16 medical specialties through an overall "index of hospital quality". However, process-of-care data is not uniformly available nationally and the proxy of a hospital's reputation is used instead, leading to the possibility that prominent hospitals tend to rise to the top of the rankings.[22]

An interesting new development is the public disclosure and rating of 24 Wisconsin hospitals for patient safety by the *Alliance* – an employer healthcare organisation – through the use of risk-adjusted mortality, complications and medical error data collected for surgical and non-surgical conditions, hip and knee surgery, cardiac and maternity care. The hospitals are compared against hospitals in 12 different states and the information is made known to employers and the public.[23]

Report Cards in Other Countries

Comparatively, there are fewer report cards outside the US and this is probably due to the healthcare system in the US being more market-driven.[5] One such report card is the monitoring and reporting of performance data in the United Kingdom's (UK) National Health Service (NHS) as part of its National Performance Framework, which was spelt out in the 1998 white paper entitled *A First Class Service*.[24] In 2001, the UK government accordingly published the first performance ratings for NHS Trusts providing acute hospital services, followed by ratings for Health Authorities and Primary Care Organizations.[25] The rationale for this data release appears to relate more closely to public accountability than to market competition.[26] Even before this, though, Scotland has been publishing clinical outcome indicators for many years.[27] The Netherlands has also been publishing hospital league tables and the Australian Council for Safety and Quality in Health Care has plans to publish performance data.[28]

Report Cards on Individual Physicians

Many of the report cards mentioned so far target healthcare organisations or health plans. Some, like the NYCSRS and the PCSRS, also look at the clinical performance of individual practitioners. The NHS in the UK, in response to the inquiry into paediatric heart surgery at the Bristol Royal Infirmary, will be publishing data on mortality within 30 days of surgery by individual cardiothoracic surgeons in 2004. The UK Society of Cardiothoracic Surgeons would be co-operating on this initiative.[29]

What is Driving Healthcare Organisations to Public Disclosure?

In general, the drive towards the public disclosure of healthcare performance information is a result of healthcare providers and regulators being more aware of the seriousness of quality problems in the existing healthcare system. The landmark report by the Institute of Medicine, *To Err is Human*, showed up the extent of these problems in American healthcare.[30] Many other countries have since extrapolated the findings and conclusions to their own systems. The widespread implementation of clinical practice guidelines, the exponential advances in medical information technology and the ease of public report dissemination afforded by the Internet are some of the important factors that have prepared the way for the public disclosure phenomenon to grow.[31]

Besides these predisposing factors, there are also the common philosophical reasons for the public disclosure of healthcare performance information. The most frequently cited reason for public disclosure is that it will allow patients to select good quality providers and avoid poorly performing ones. This ensures that cost considerations are not allowed to predominate, especially in a healthcare environment that is increasingly market-driven. In healthcare systems where there are large asymmetries of data (usually it is the patient who is heavily disadvantaged in terms of understanding healthcare) or substantial differences in provider characteristics, appropriately adjusted performance information would be important in assisting patients and empowering them to make better informed choices. The expectation is that with the public disclosure, patients would make informed choices and an efficient market economy in healthcare would also result.[5,6,26,32,33]

Healthcare professionals already tend to have a pride and ethos that, by itself, would seek to review causes of variation or poor performance so as to improve the quality of care provided. It has been argued that the public release of

performance data may heighten this sensitivity. Not only would healthcare professionals use report cards to improve healthcare quality, healthcare organisations and hospitals would also seek to use the information to improve the services delivered, with market pressure playing an added role.[7,14]

Public disclosure has also been seen as a mechanism to compel patients to confront the pervasive myth that the healthcare they receive is already of high quality, their physicians provide care that is better than average and the quality problems identified through research do not affect them. This phenomenon has been termed "cognitive dissonance".[31,34]

Perhaps the most basic reason for public disclosure is that the healthcare provider has the fundamental duty to be accountable for the clinical care provided. The paternalism of past generations and the notion that only the doctor knows best are no longer tenable. For a long time, the common view was that healthcare is provided by members of a closed professional club. Performance information that is provided to patients would, thus, enable proper public scrutiny.[26,33,35]

Impact of Public Disclosure on Patients and Providers

Impact on Patients

For all the resources expended on the development and issue of report cards, perhaps the biggest question to ask is whether public disclosure has had the intended effects on the users and on the quality of healthcare provided.

The general evidence concerning the impact of report card information on patients is largely negative. Although it appears that patients do, in fact, want this type of information, it seems that they do not or are unable to use the performance information (due to the lack of comprehension of rates, the nature of comparisons and the population-based approach) and integrate it into their healthcare decision-making.[36,37] It seems that the report card structure itself may be a significant barrier: patients find it hard to understand technical indicators of quality or even whether high rates or low rates are preferable. Patients also do not understand performance information because they do not understand the relevant healthcare context they are in.[38]

Looking specifically at the NYCSRS though, a study found that patients responded to performance information on hospitals and individual cardiac surgeons, resulting in changes in the CABG market share of the hospitals and doctors concerned.[39] This finding is juxtaposed against the findings by other researchers that showed that only 12% of 500 surveyed patients who underwent CABG in New York state were aware of the CABG report card prior to their operation. Less than 1% knew the correct rating of their hospital or surgeon.[40] In a study on the PCSRS, only 12% of surveyed patients reported awareness of the report before undergoing surgery.[40]

Impact on Providers

As for the impact of public disclosure on the behaviour of healthcare providers, there are two aspects to consider, depending on whether the hospital or the individual physician is being considered.[41]

For hospitals, it appears that the public release of performance information results in positive changes in provider behaviour. A study on the PCSRS consumer guide indicated that the hospitals were more likely to benchmark performance against other hospitals and to monitor clinician performance.[42] There is also evidence to show that report cards have decreased CABG mortality in New York (though this has been questioned by some studies, with one suggesting that provider selection had taken place).[32,43-45] Some surgeons with relatively lower volumes and poorer mortality rates have also stopped performing CABG.[46] In the state of Missouri, about half of the hospitals that lacked specific patient services (such as follow-up care and breastfeeding nurse educators) planned or effected changes after the publication of a state-wide report card. Caesarean section rates, vaginal birth after caesarean section, newborn mortality rates and other outcomes also improved.[7]

On the other hand, other studies report a more mixed impact of public disclosure on provider behaviour. A survey of hospital leaders in the US showed that the majority was negative about the usefulness of performance information and doubted its accuracy. Thirty-one per cent used it for quality improvement purposes, more likely those with high mortality rates than low rates.[47] Another study of hospital leaders in California assessed the impact of the CHOP and found that most did not read the reports in detail, though about 75% found some specific areas to be useful for benchmarking purposes and one-third introduced changes following the report card publication.[48]

Problems Associated with Public Disclosure of Healthcare Performance Information

Apart from the direct effect of report cards on patient and healthcare provider behaviour, there are quite a few other problems known to be related to the public disclosure of healthcare performance information and the use of report cards.

First, there are the skeptics who feel that the use of report cards would encourage healthcare providers to game the system either by avoiding sick patients or by seeking healthy ones.[49] Though risk adjustment is important in performance measurement to ensure that who treat the

most serious cases do not necessarily appear to have the lowest quality, the complexity of clinical care means that providers can almost always select patients on the basis of characteristics that are not controlled for by the report card analysts, but which are predictive of good outcomes and thereby improve their ranking.[32] This behaviour is reinforced by the fact that low quality providers have strong incentives to avoid the sick. This is because the difference in outcomes between low and high quality providers is greater in sick patients than in less sick patients. By treating healthier patients, low quality providers appear almost to have as good outcomes and, thus, make it difficult for report cards to distinguish them from their high quality counterparts.[50] Needless to say, gaming becomes more common when individuals are made to feel vulnerable as a result of performance information being released publicly.[18]

Second, the use of report cards may lead to healthcare providers deliberately, or otherwise, manipulating the data. In audits carried out by the New York State Department of Health, the coding of risk factors by a few hospitals was not substantiated by the information in the medical records and had led to large decreases in the expected mortality rates.[46] Not only can healthcare providers manipulate the data, so too can the media as a result of ignorance or the pressure to be sensational.

Third, with the pressure to rank well on measures on quality, there is the danger that organisational resources and professional time are being reallocated to respond solely to performance measurement.[51] A medical director at a large health maintenance organisation in the US noted that every ounce of energy was being diverted to respond to the quality measures being used, and that not one ounce of energy was going to any other aspect of quality.[52] The focus of healthcare providers on areas being measured at the expense of other areas has been observed in the US. It has been suggested that this can be countered by using a broad range of performance measures and sophisticated patient sampling methods. Related to this problem is the possibility that lower-level managers may pursue local objectives to the exclusion of the organisation's larger agenda when pressured by report card measures. This phenomenon is called "sub-optimisation". In addition, the public release of performance data can lead to short-termism (that is, short-term issues being targetted at the expense of long-term strategies).[5,28]

Fourth, there is the issue of costs. The costs of publicly disclosing provider performance extends beyond the cost of developing the indicators, testing them, operating the system and communicating the information to the public. There is the need to train the parties involved, to educate the users and media, and to ensure that the deficiencies shown up by the data are used positively to drive quality improvement. The opportunity costs of having time and resources tied up in report cards, as opposed to other quality initiatives, also need to be factored in.[5] Having myriad measures that are unco-ordinated and conflicting would be wasteful and frustrate providers because of the slight variation in definitions.[53]

Fifth, the report card phenomenon has resulted in the control and evaluation of medical care being shifted away from the healthcare professional and onto others. Where once healthcare professionals claimed that only they could judge the quality of care being provided, the development of quantitative measures enables even the patient to make assessments.[54] While there is merit in empowering patients, the downside is that medical professionals may find the strength of their belief in professional principles eroded by the increasing costs of acting on them. This is not to say that the provision of quality care cannot go hand-in-hand with the practice of good, ethical medicine, but that the pressures to rank well or to have the best outcomes may drive certain behaviours to proliferate. Add to this the increasing time and resources consumed by increasing clinical reporting requirements and a possible erosion in the patient-doctor relationship, and the result may be discontented and disgruntled doctors.[55] The effect of public disclosure on medical professionals goes further: health professionals are perhaps even more vulnerable than institutions to the effects of adverse reports in terms of loss of reputation and livelihood.[56]

Sixth, many intrinsic aspects of performance measurement are problematic in themselves. Health outcomes are probabilistic. Good outcomes do not always occur when the right thing is done and may, in fact, happen when the wrong things are done.[57] While suboptimal performance may point to suboptimal care, it may also reflect the shared decision-making between the patient and doctor that is increasingly being promoted in healthcare systems. A medical practitioner's recommendations for treatment or management is, thus, likely to be modified by the patient's preferences and report cards need to take this into account.[58] The conclusions, therefore, that can be drawn from an observation are not as direct or linear as for other industries or in other scientific fields. The health outcomes that are often of interest may also occur infrequently. This problem is often compounded by the need to look at differences in outcomes (such as the differences in mortality rates between providers) rather than the absolute rates. The long time taken to observe some outcomes (such as survival rates), as well as the actual causality between a provider's actions and that of the eventual outcome being measured, are hindrances as well.[59] The use of process indicators may obviate some of the problems mentioned, but they introduce their own set of problems. The assumption

required is that differences in a process measure would result in important differences in outcomes. Process measures are also intuitively less comprehensible than outcome measures.[53]

Finally, the necessity of appropriate risk adjustment has already been mentioned, but current health information systems (whether purely administrative or even clinical) may not be able to capture sufficient information variables for adequate adjustment.[59]

Public Disclosure of Healthcare Performance Information in Singapore

Though the evidence considered so far does provide us with useful leads, it is important to realise that there are contextual differences between the Singapore healthcare system and the countries previously mentioned. The US has a predominantly private healthcare system. The phenomenon of managed care and the still increasing high cost of medical care means that the growth of report cards is primarily driven by competition and market pressure. Not only do hospitals and physicians need to score highly or rank well, but health plans also need to show that they are value for money.[5]

The UK, on the other hand, has a predominantly public healthcare system. The NHS provides the majority of health services for the population and the private sector is comparatively small. In the light of recent high-profile incidents related to the quality of care (such as the provision of paediatric cardiothoracic surgery and general practice), there has been intense pressure on the UK government to review its health service provision. The public reporting of organisational, institutional and surgeon performance has been held up to be one of the strategies that will be used to improve the standards of care. The underlying reason, though, for the use of report cards appears to be the need for public accountability for the public service provided.[60]

Raison D'être for a Singapore Report Card?

The pressures for public disclosure in Singapore appear to be three-fold.

First, there is the need for transparency and accountability. As mentioned at the start of this paper, perhaps the first hint of pressure for the public disclosure of healthcare information was when the Ministry of Health (MOH) of Singapore indicated that it would be working with the Consumers Association of Singapore (CASE) to make public the details of hospital charges. This development was in connection with the public hospital fee hikes announced in 2002, but is also linked with the need to be transparent about healthcare provision in all its aspects as part of any government's fiduciary duty to ensure efficient and cost-effective public healthcare services.[61] Means testing to determine eligibility for access to subsidised healthcare, if and when implemented, may result in more Singaporeans utilising unsubsidised healthcare. Like in other healthcare systems, increased costs to the patient will lead to public calls for greater accountability and transparency as patients start to demand best value and outcomes.[60] Recent suggestions by private hospital groups for the MOH to allow the private sector to provide routine care to subsidised patients, and not to confine it to the public sector, has met with some degree of debate in the medical community. If this should come to pass, there might also be a demand for report cards that compare the public and private sectors in terms of quality of healthcare and to allow for patients to be educated and empowered to make informed choices.[61] True patient choice, however, is very limited in Singapore because of the number and range of healthcare providers available, as well as the availability of specific clinical services at certain sites only. Accordingly, the use of report cards to increase market economy efficiency (by having patients seek and utilise providers that rate well) may not be relevant to the Singapore context.[2]

The second pressure comes from the commercial value placed on healthcare provision in Singapore. The Economic Restructuring Committee, which was set up by the government to recommend measures to increase the competitiveness of the local economy, has recommended that the local healthcare industry becomes more transparent in its healthcare provision. Even as the local quality of care is pitched as being world-class, it follows that there may be a need to prove and communicate this to potential patients, perhaps through report cards. It is only logical that consumerist patients of the Internet age would want to know how the purported quality compares against the best hospitals in the world.[11,62] Though the driving forces of economic imperative and market competitiveness are real, the irony is that report cards could have the opposite effect of making potential patients only too aware of the local outlier providers, when the region's hospitals are not even being publicly reported on.

The use of public disclosure as a means to drive quality improvement is certainly a legitimate reason, since providers seem to be the most responsive of stakeholders.[5] However, in the Singapore context, this third pressure may be the least compelling. The MOH has introduced into acute hospitals several quality improvement and audit programmes focused on improving the system of healthcare provision.[63,64] Even when accepting the current worldwide evidence that the public disclosure of performance information may have some motivational effects on performance, it is unclear how much more of change improvement can result against the backdrop of the local quality initiatives already being implemented.[61]

Inappropriate reallocation of resources to public disclosure activities by providers may lead to "suboptimisation" and "short-termism", threatening to derail current quality improvement efforts.

Route Markers along the Long and Winding Road

If one accepts that a publicly developed healthcare report card primarily serves the function of accountability and transparency, then any proposed system for public disclosure must be developed and implemented in such a way that it results in the information being understandable, meaningful to the public and actually made use of. How should this be done? The following steps are important.

The very purpose of the public disclosure initiative needs to be carefully considered, enunciated and made clear to all local stakeholders and especially the public. The clarity of purpose influences the scope of the activity and the rollout process that will be required, and ensures that the resources used are directed meaningfully towards the stated aim.[5]

Then there is the need for a planned and concerted effort to find out from the intended users of the report cards what is important to them. This is to temper and guide the technical development of possible performance measures, which should consider the interpersonal aspects of care and service quality, besides clinical quality.[11,65] This is because there appears to be a large chasm between what patients think quality is and the views of healthcare professionals.[59,66] The research evidence already shows that patients prefer summative measures,[35,41] measures that are easy to comprehend,[65] measures that relate to other patients' experience of services and measures that relate to patient safety.[36,67] It would be important, though, for local research to determine what would be relevant in our specific context. A sufficient spread of measures reflecting the different domains of care may need to be applied to stifle gaming and to ensure that the information is not misleading.[68]

In the actual development of the report card, it is vital to involve professionals in the planning, development and testing so that there is a greater buy-in and acceptance of the reports by them and a right balance between scientifically valid measures, as opposed to a wishlist that may result from patient feedback.[5,18] Especially where outcome measures are being considered as part of the overall package, appropriate and adequate risk adjustment must be undertaken to the extent that this is possible.[5] For both process and outcome measures, there should be an attempt to link this with whatever evidence base there exists for the validity of the quality measure.[69]

The rollout of the report card should be in phases and gradual, but there should not be an obsession with methodological perfection: "Don't let the perfect be at the expense of the good" as one researcher puts it.[6] The rollout should be accompanied by an education programme that aims to teach patients how to interpret and use the information provided.[5,40]

Major Issues to Consider Locally

One of the major issues to address in any potential public disclosure model is whether there should be individual physician profiling. From the patient's perspective, physician performance is likely to be as important as hospital performance. Physician performance also inputs into any measure of hospital performance, and the heterogeneity of care provided by different physicians can invalidate the apparent good performance results of hospitals. The argument against embarking on this (especially in a small country like Singapore) is that the benefits of focusing on our small numbers of individual physicians are too measly and may not outweigh the accentuated problems of appropriate risk adjustment, data reliability, patient confidentiality and potential gaming.[11,14] The reality of risk adjustment and data reliability problems manifests itself in physician responses to poor profiles, which typically take on one of two statements: "The data is bad" or "If the data isn't bad, my patients are sicker".[70] It has been suggested that reporting on individual physicians, at most, should only be contemplated for specialty surgery.[11]

The financial cost of public disclosure is another issue that is important to consider locally. If public disclosure is regarded as a necessity for accountability purposes, then the issue of costs may not be the pivotal concern.[5] However, the costs are not small, though they are often hidden. For example, the Pennsylvania State University Center for Health Policy Research estimated that the average Pennsylvania hospital had incurred a cost of approximately US$17.43 per discharge because of the legislated reporting mandates in 1989 (excluding costs to the state).[71] Besides the cost of development, implementation, administration and education, the cost of diversion of scarce resources to public disclosure – to the possible detriment of other important activities – needs to be factored into consideration as well. It is vital that those who require reporting should be constantly striving to reduce the cost and burden of reporting by standardising methods and reporting formats, and by increasing the value of the outputs.[11]

Currently, there are also few accepted standards and targets for external performance comparison. In Singapore, the number of hospitals and physicians is small and the usefulness of internal comparison for accountability may prove to be limited in certain areas. The careful choice of measures and methodology, and the ongoing development overseas of meaningful comparative information sources, may only ameliorate these problems to some extent.

Finally, the consequences and effects of public disclosure

need to be considered. Local patients may react to public disclosure information and affect the healthcare system through major shifts in demand and consumption in spite of education and safeguards.[59] Negative organisational behaviours and access issues may develop. Most importantly, perhaps, is the need to ensure that the healthcare professionals within the system do not become demoralised. The dedication and professionalism of our clinicians are unquestioned and there is already much that is good in our healthcare system.[72] The public disclosure of healthcare performance information, if it does not value and build on this, will not succeed.

REFERENCES

1. Committee on Ways and Means. Health quality and medical errors – hearing before the Subcommittee on Health of the Committee on Ways and Means, House of Representatives, 107th Congress, 2nd session, Serial 107-76 (March 7, 2002).
2. Adab P, Rouse A M, Mohammed M A, Marshall T. Performance league tables: the NHS deserves better. BMJ 2002; 324:95-8.
3. Ministry of Education, Singapore. Academic performance indicators for secondary schools and junior colleges. Singapore: Ministry of Education, 2002. (Accessed 19 October 2002, at http://www1.moe.edu.sg/esd/index.htm).
4. Nathan D. Thinking aloud: transparency is the best medicine for hospitals. The Straits Times 2002 Oct 5; H16-7.
5. Marshall M N, Shekelle P G, Brook R H, Leatherman S. Dying to know: public release of information about quality of health care. [Nuffield Trust Series no. 12]. London: Nuffield Trust, 2000.
6. Epstein A M. Performance reports on quality: prototypes, prospects and problems. N Engl J Med 1995; 333:57-61.
7. Longo D R, Land G, Schramm W, Fraas J, Hoskins B, Howell V. Consumer reports in health care: do they make a difference in patient care? JAMA 1997; 278:1579-84.
8. Bushick B. Health plan report cards: current issues and implications for physicians. Med J Allina [online] 1995; 5(1). (Accessed 19 October 2002, at http://www.allina.com/Allina_Journal/Winter1996 bushick.html).
9. Street A. The resurrection of hospital mortality statistics in England. J Health Serv Res Policy 2002; 7:104-10.
10. Tu J V, Schull M J, Ferris L E, Hux J E, Redelmeier D A. Problems for clinical judgement: 4. Surviving in the report card era. CMAJ 2001; 164:1709-12.
11. Berwick D M. Public performance reports and the will for change. JAMA 2002; 288:1523-4.
12. National Committee for Quality Assurance, US. NCQA overview: measuring the quality of America's health care. US: National Committee for Quality Assurance, 2002. (Accessed 26 October 2002, at http://www.ncqa.org/Communications/Publications/overviewncqa.pdf).
13. National Committee for Quality Assurance, US. HEDIS 2002 summary table of measures, product lines and changes. US: National Committee for Quality Assurance, 2002. (Accessed 26 October 2002, at http://www.ncqa.org/Programs/HEDIS/02measures.pdf).
14. Epstein A M. Rolling down the runway: the challenges ahead for quality report cards. JAMA 1998; 279:1691-6.
15. Hannan E L, Siu A L, Kumar D, Kilburn H Jr, Chassin M R. The decline in coronary artery bypass graft surgery mortality in New York State. The role of surgeon volume. JAMA 1995; 273:209-13.
16. New York State Department of Health, US. Coronary artery bypass surgery in New York State, 1995-1997. New York: New York State Department of Health, 2000. (Accessed 28 November 2002, at http://www.health.state.ny.us/nysdoh/consumer/heart/cabg9_00.pdf).
17. Pennsylvania's Health Care Cost Containment Council, US. Pennsylvania's guide to coronary artery bypass graft surgery, 1994-1995. Pennsylvania: Pennsylvania Health Care Cost Containment Council, 1998. (Accessed 28 November 2002, at http://www.phc4.org/reports/cabg9495/default.htm).
18. Schneider E C, Epstein A M. Influence of cardiac-surgery performance reports on referral practices and access to care. A survey of cardiovascular specialists. N Engl J Med 1996; 335:251-6.
19. Office of Statewide Health Planning and Development, US. Clinical data studies. US: Office of Statewide Health Planning and Development. (Accessed 28 October 2002, at http://www.oshpd.cahwnet.gov/hqad/aboutus/ Outcomes/Clinical/).
20. Joint Commission on the Accreditation of Healthcare Organizations, US. Quality check: organization search criteria. US: Joint Commission on the Accreditation of Healthcare Organization. (Accessed 20 October 2002, at http://www.jcaho.org/qualitycheck/directry/directry.asp).
21. Health Care Investment Analysts, US. Announcing the Solucient 100 Top Hospitals®: cardiovascular benchmarks for success award winners. US: HCIA. (Accessed 28 October 2002, at http://www.100tophospitals.com).
22. Green J, Wintfeld N, Krasner M, Wells C. In search of America's best hospitals. The promise and reality of quality assessment. JAMA 1997; 277:1152-5.
23. The Alliance, US. Quality counts: report on the safety of hospital care. US: The Alliance, 2001. (Accessed 25 November 2002, at http://www.qualitycounts.org/impact.htm).
24. Department of Health, UK. A first class service: consultation document on quality in the new NHS. London: Department of Health, 1998.
25. Department of Health, UK. NHS performance ratings and indicators. UK: Department of Health. (Accessed 29 October 2002, at http://www.doh.gov.uk/ performanceratings/2002/index.html).
26. Davies H T, Marshall M N. Public disclosure of performance data: does the public get what the public wants? Lancet 1999; 353: 1639-40.
27. Clinical Outcomes Working Group. The Scottish Executive. Clinical Outcome Indicators, 2002. (Accessed 28 November 2002, at http://www.show.scot.nhs.uk/indicators/Outcomes/Main.htm).
28. Marshall M N, Brook R H. Public reporting of comparative information about quality of healthcare. Med J Aust 2002; 176:205-6.
29. Vass A. Performance of individual surgeons to be published. BMJ 2002; 324:189.
30. Kohn L T, Corrigan J M, Donaldson M S, editors. To err is human: building a safer health system. Washington, DC: National Academy Press, 2000.
31. Epstein A M. Public release of performance data: a progress report from the front. JAMA 2000; 283:1884-6.
32. Dranove D, Kessler D, McClellan M, Satterthwaite M. Is more information better? The effects of "report cards" on health care providers, NBER Working Paper 8697. National Bureau of Economic Reseach, January 2002. (Accessed 15 November 2002, at http://papers.nber.org/papers/w8697.pdf).
33. Marshall M N, Shekelle P G, Leatherman S, Brook R H. The public release of performance data. what do we expect to gain? A review of the evidence. JAMA 2000; 283:1866-74.
34. McGlynn E A, Brook R H. Keeping quality on the policy agenda. Health Aff (Millwood) 2001; 20:82-90.
35. Center for Studying Health System Change, US. Will hospital report cards make the grade? Issue Brief No. 11. US: Center for Studying Health System Change. (Accessed 6 November 2002, at http://www.hschange.org/CONTENT/70/).

36. Edgman-Levitan S, Cleary P D. What information do consumers want and need? Health Aff (Millwood) 1996; 15:42-56.
37. Jewett J J, Hibbard J H. Comprehension of quality care indicators: differences among privately insured, publicly insured, and uninsured. Health Care Financ Rev 1996; 18:75-94.
38. Hibbard J H, Jewett J J. Will quality report cards help consumers? Health Aff (Millwood) 1997; 16:218-28.
39. Mukamel D B, Mushlin A I. Quality of care information makes a difference: an analysis of market share and price changes after publication of the New York State Cardiac Surgery Mortality Reports. Med Care 1998; 36:945-54.
40. Schneider E C, Epstein A M. Use of public performance reports: a survey of patients undergoing cardiac surgery. JAMA 1998; 279: 1638-42.
41. Schauffler H H, Mordavsky J K. Consumer reports in health care: do they make a difference? Annu Rev Public Health 2001; 22:69-89.
42. Bentley J M, Nash D B. How Pennsylvania hospitals have responded to publicly released reports on coronary artery bypass graft surgery. Jt Comm J Qual Improv 1998; 24:40-9.
43. Hannan E L, Kilburn H Jr, Racz M, Shields E, Chassin M R. Improving the outcomes of coronary artery bypass surgery in New York State. JAMA 1994; 271:761-6.
44. Green J, Wintfeld N. Report cards on cardiac surgeons. Assessing New York State's approach. N Engl J Med 1995; 332:1229-32.
45. Ghali W A, Ash A S, Hall R E, Moskowitz M A. Statewide quality improvement initiatives and mortality after cardiac surgery. JAMA 1997; 277:379-82.
46. Chassin M R, Hannan E L, DeBuono B A. Benefits and hazards of reporting medical outcomes publicly. N Engl J Med 1996; 334:394-8.
47. Berwick D M, Wald D L. Hospital leader's opinions of the HCFA mortality data. JAMA 1990; 263:247-9.
48. Rainwater J A, Romano P S, Antonius D M. The California Hospital Outcomes Project: how useful is California's report card for quality improvement? Jt Comm J Qual Improv 1998; 24:31-9.
49. Omoigui N A, Miller D P, Brown K J, Annan K, Cosgrove D III, Lytle B, et al. Outmigration for coronary bypass surgery in an era of public dissemination of clinical outcomes. Circulation 1996; 93:27-33.
50. Capps C, Dranove D, Greenstein S, Satterthwaite M. The silent majority fallacy of the Elzinga-Hogarty criteria: a critique and new approach to analyzing hospital mergers, NBER Working Paper 8216. National Bureau of Economic Research, April 2001. (Accessed 15 November 2002, at http://papers.nber.org/papers/w8216.pdf).
51. Blumenthal D, Epstein A M. Quality of health care. Part 6: the role of physicians in the future of quality management. N Engl J Med 1996; 335:1328-31.
52. Casalino L, Robinson J C. The evolution of medical groups and capitation in California. Oakland: California Healthcare Foundation, 1997.
53. Eddy D M. Performance measurement: problems and solutions. Health Aff (Millwood) 1998; 17:7-25.
54. Casalino L P. The unintended consequences of measuring quality on the quality of medical care. N Engl J Med 1999; 341:1147-50.
55. Kassirer J P. Doctor discontent. N Engl J Med 1998; 339:1543-5.
56. Institute of Medicine, US. Health data in the information age: use, disclosure and privacy. Washington DC: National Academy Press, 1994.
57. Hofer T P, Hayward R A. Identifying poor-quality hospitals. Can hospital mortality rates detect quality problems for medical diagnoses? Med Care 1996; 34:737-53.
58. Thier S O, Gelijns A C. Improving health: the reason performance measurement matters. Health Aff (Millwood) 1998; 17:26-8.
59. Chernew M, Escarce J J. Consumer response to quality information. Med Care 1998; 36:943-4.
60. Coles J. Public disclosure of health care performance reports: a response from the UK. Int J Qual Health Care 1999; 11:104-5.
61. Leatherman S, McCarthy D. Public disclosure of health care performance reports: experience, evidence and issues for policy. Int J Qual Health Care 1999; 11:93-8.
62. Economic Review Committee, Singapore. Developing Singapore as the healthcare services hub of Asia. Singapore: Economic Review Committee, 2002. (Accessed 23 November 2002, at http://www.erc.gov.sg/frm_ERC_HEA_MediaRelease.htm).
63. Ministry of Health, Singapore. Guidelines for reporting of sentinel events by a hospital quality assurance committee. Singapore: Ministry of Health, 2002.
64. Ministry of Health, Singapore. Annual Report 2001. Singapore: Ministry of Health, 2001.
65. Ireson C I, Ford M A, Hower J M, Schwartz R W. Outcome report cards: a necessity in the health care market. Arch Surg 2002; 137:46-51.
66. Hibbard J H. Being strategic with public reports. Int J Qual Health Care 2001; 13:353-5.
67. Naylor C D. Reporting medical mistakes and misconduct. CMAJ 1999; 160:1323-4.
68. Gross P A, Braun B I, Kritchevsky S B, Simmons B P. Comparison of clinical indicators for performance measurement of health care quality: a cautionary note. Clin Perform Qual Health Care 2000; 8:202-11.
69. Sheldon T. Promoting health care quality: what role performance indicators? Qual Health Care 1998; 7(Suppl):S45-50.
70. Morley A. Physician profiling: an essential tool in quality assessment. Georgia: Medical Association of Georgia, 2002. (Accessed 15 November 2002, at http://www.mag.org/pdfadvocacy_legislative_news_20001117-6.pdf).
71. General Accounting Office. Report cards are useful but significant issues need to be addressed, GAO/HEHS-94-219. Washington, DC: U.S. Government Printing Office, 1994.
72. Zhang J. Eighty-six percent of respondents have confidence in government hospitals and doctors [In Chinese]. Lianhe Zaobao 2001 Jun 18; pg 1.