

# How do we maximize the impact of the public reporting of quality of care?

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## Abstract

**Background.** Many developed countries are beginning to see the public reporting of comparative information about the quality of health care as an important way of improving accountability, stimulating quality improvement and empowering members of the public. The production and dissemination of quality reports is particularly high on the policy agenda in the US and the UK, and there is now a considerable amount of experience and evidence from these countries to guide the process. Over the last decade there has been a lively debate about the balance between the advantages and problems of public reporting, but most commentators now believe it is time to cease asking whether we should disseminate information and start asking how it can be done most effectively.

**Purpose.** To recommend ways of helping policy makers and practitioners to maximize the impact of quality reports and minimize the unintended consequences.

**Recommended strategies.** We make recommendations about the importance of understanding the macro- and micro-environment within which public reporting takes place, of actively addressing the unintended consequences of public reporting, of incentivizing the response to the data and of engaging the public and media. The effectiveness of the different strategies, on their own or in combination, is likely to be determined by the environment within which reporting takes place.

**Conclusions.** It is not desirable to look for a common ‘fix’ applicable to all organizations or transferable across all international boundaries. However, in this paper we describe lessons that we think are common to all countries attempting to produce and disseminate health care quality reports.

**Keywords:** public disclosure, quality reports, report cards

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The public reporting of comparative information about the performance of health systems is now a key component of health policy in many developed countries [1,2]. This process is driven by three main factors. Firstly, public reporting can be used to highlight the unacceptable variation in quality of care that has been shown to exist in most health systems [3,4]. Secondly, the vehicles for public reporting (referred to in this paper as ‘quality reports’, but also called ‘report cards’) can be used to engage and empower those who have an interest in improving quality, including health care users, professionals, managers and regulators [5]. Thirdly, quality reports have been seized upon as the latest innovation to drive quality improvement and promote greater accountability [6].

In recent years there has been much debate about the advantages and problems of public reporting [7–9]. We believe that greater public dissemination of information about quality is both inevitable and desirable, not least because greater openness is philosophically desirable in democratic societies, irrespective of any practical impact. We therefore think that it

is time for the debate to move on from the ‘whether’ questions to the ‘how’ questions [10]. The aim of this paper is therefore to describe and explore ways of increasing the use and improving the impact of quality reports. We draw largely on the experiences of public reporting in the US and the UK, the two countries in which there has been greatest reporting activity.

## What do we know about public reporting?

There are an enormous number of reporting initiatives, particularly in the US [11]. Information about the performance of, and quality of care provided by health plans, hospitals, primary care groups and nursing homes is now freely available in many areas of the US, in hard copy, from the media and on the Internet. In the UK, public reporting is a central feature of the reform of the National Health Service (NHS) [12]. The UK Department of Health has published information about

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the performance of hospitals and primary care organizations, and plans to publish the mortality statistics of individual cardiac surgeons in 2004 [13].

This enthusiasm for public reporting is well ahead of the science that should be supporting it. A growing body of evidence about the impact and use of quality reports has developed alongside reporting initiatives in the US over the last 15 years [5,14,15]. However, even in the US there are many questions about maximizing the effectiveness and minimizing the adverse consequences of public reporting that remain unanswered. In other countries the evidence base is even more sparse, and in general much of the research that has been conducted in this area is methodologically weak [11]. Nevertheless, there are some key common messages that arise from the work that has been undertaken. There are also some important differences between the US and UK findings; differences that reflect the nature of the health systems, cultures and expectations in the two countries [16,17].

So, what do we know about the impact of quality reports? The evidence, which has been described in full elsewhere [14,18], suggests that both consumers and the general public are strongly in favour of the principle of public reporting. However, in the US, consumers tend not to search for the information, sometimes fail to understand and mistrust the quality of reports, and make little use of them in actual decision-making. In the UK, members of the public express greater concern about the practical implications for health care providers of reporting comparative information than do US consumers, and they are equally mistrustful of the information. Purchasers of health care (mostly employers in the US and Primary Care Trusts in the UK) also make little use of the published information, although they espouse the importance of publishing performance data. Individual physicians tend to discredit the data and claim that they ignore it.

In contrast, provider organizations do seem to be sensitive and responsive to published information, and quality reports act as a catalyst for improvement activity. Most of the evidence in this area relates to US hospitals. However, providers are more inclined to respond constructively to quality reports when there are clear incentives to do so. In the absence of such incentives, providers are likely to focus on the financial and public relations implications of quality reports, by criticizing the messenger and engaging in damage-limitation activities. There is some observational evidence that the activity resulting from public reporting is associated with both improved processes and outcomes of care. The latter are largely derived from observations of improved cardiac surgery mortality rates following a high profile reporting initiative in New York State [19].

The evidence therefore suggests that the publication of comparative information appears to be associated with improvements in quality and that these improvements result from action taken by provider organizations. The public, purchasers of health care and individual health professionals appear, for now at least, to play little direct role in the process. For the remainder of this paper, we therefore focus on quality improvement as the key aim of public reporting and on provider organizations as the key audience, although the latter is

viewed in the light of the influence of lay and professional engagement on organizational action.

## Ways of improving the impact of quality reports

### Understand the political and economic environment

Comparative performance data in the form of quality reports can bring pressure to bear on provider organizations in a number of different ways. Understanding these external pressures is important if we are to maximize the extent of provider engagement. Firstly, credible quality reports provide important market information that has the potential to influence both large purchasers and individual consumers. This is particularly relevant in countries with market-based health systems. Secondly, regulatory agencies may use publicly reported quality data as part of their regulatory or accreditation process. Thirdly, most organizations have reputations that they seek to protect and enhance: public report cards may be expected to influence such reputations.

Thus, once provider organizations believe that public reporting may affect them—their ability to gain and retain important customers, for example, or the extent to which they come to the attention of regulatory agencies—they are likely to respond. It appears that organizations only have to *believe* that public reporting has influence; whether such influence is actually significant seems, for the moment at least, to be immaterial [20]. There is, however, some evidence that provider organizations in the US are starting to realize that public interest is not great and this is leading to organizations either ignoring the quality reports [21] or withdrawing from the reporting initiatives [22].

The nature of the agency that is responsible for devising and promoting public reporting may be an important factor determining its acceptability. For example, when public reporting is seen to serve a political or government agenda it may be received less than enthusiastically. Early attempts in the US at publishing hospital mortality rates, and current UK initiatives to report on the performance of primary care practices, may have suffered because of these perceptions [23]. In response, public policy makers may usefully seek to depoliticize public reporting by handing responsibility over to independent agencies. Thus the US boasts a number of independent providers of quality information such as the National Committee for Quality Assurance (NCQA), and the UK government has handed over the equivalent role to the Commission for Health Improvement.

Provider responses may encompass denial (e.g. dismissal and denigration of the evidence), withdrawal (such as discontinuing certain service lines), dysfunctional or unintended responses (see below), or worthwhile quality improvement activities. Given the variety of possible responses, not all of them desirable, public reporting schemes will need careful balancing if they are to maximize the extent to which they galvanize worthwhile improvement activities. The key aim should be to engage the ‘hearts and minds’ of influential players

(senior managers, senior clinicians) within the provider organization. Thus, reporting schemes need to address clinically important issues in ways that command credibility and address legitimate clinical concerns. Technical issues, such as data definitions and case-mix adjustment, may be important stumbling blocks to gaining stakeholder buy-in; practical issues, such as data accuracy, completeness and timeliness, may have a great influence on the extent to which health care providers feel engaged with report card data. In addition, data presentation, communication and integration with other activities (e.g. purchasing, regulating) may also send important signals to providers in ways that will influence the attention, and the nature of that attention, that they give to report cards.

### Changing the culture of provider organizations

Public reporting provides a context—incentives and information—within which health care providers must operate. Yet it is in the micro arrangements for health care delivery that high quality care is generated. The quality of care, be it high or low, emerges from the established patterns of day-to-day working that have developed and become embedded over time in any given organization. These patterns of behaviour are, in turn, influenced by the beliefs, values and assumptions held by individual care staff. Taken together, the collective ways of thinking and ways of behaving in an organization have been termed its ‘organizational culture’ [24,25], and it is influence on this organizational culture that needs to be exerted if established patterns of behaviour are to be changed [26,27].

Publicly reported data on quality have the potential to impact on the prevalent culture of an organization in a variety of ways. They signal the importance of quality and emphasize the need to focus on patients, their care and the outcomes that they achieve. They can provide information and insight that allows practitioners to reflect on their care practices in the light of practice elsewhere and to consider the need for change. Such comparative data may also empower those within the organization who are seeking to bring about change. Thus recent years have seen important changes in the extent to which health care professionals understand the need for measurement of performance and expect their performance to be benchmarked. Although such changes have been a long time in development, we are undoubtedly in an era with greater acceptance of the need for professional accountability,

and quality reports have been an important contributor to that significant cultural change.

Despite greater openness and an increased willingness to investigate quality of care issues, we should not necessarily expect the impacts of public reporting on local cultures to be wholly positive. It is also likely that report cards may induce defensiveness, resistance, and perhaps loss of morale. Far from opening up organizations to change they may have the opposite effect, leading to the range of unanticipated and unintended consequences described below. The extent to which published report cards can influence positive rather than detrimental shifts in organizational and professional culture will again depend on the finer details of their substantive content, modes of presentation and context of use.

### Minimize the unintended consequences of public reporting

All policy and managerial strategies have the potential to induce unintended or dysfunctional consequences. The introduction of performance measurement, particularly when linked to sanctions and rewards [28], and the development of culture change programmes [29,30] has been shown to lead to undesirable changes (see Box 1). Public reporting of quality bears many of the hallmarks of these types of interventions and is thus likely to be beset by similar problems, potentially undermining the gains to be made. In addition, the pressures on organizations to respond in dysfunctional ways are likely to be unevenly distributed: some provider organizations are likely to feel more vulnerable than others and thus may respond in more extreme ways. In particular, the potentially damaging effects of public reporting may be seen more acutely in those organizations that are already struggling with vulnerable and disadvantaged population groups [31].

The potential for unintended and unwanted changes in provider organizations is therefore something that report card designers, and those who use that information (e.g. purchasers and regulators), need to bear in mind at the design stage. Systems to monitor potentially deleterious change, and strategies to mitigate the same are crucial issues for both policy and implementation. Some of the strategies to mitigate potential unwanted effects need to be developed by those promoting public reporting schemes, and others are more rightly the responsibility of provider organizations themselves [28] (see Box 2).

#### Box 1 Possible dysfunctional consequences arising from public reporting [28]

- Organizations or individuals may alter their behaviour in response to report cards in a variety of undesirable ways:
1. They may concentrate on the clinical areas being measured to the detriment of other important areas (‘tunnel vision’).
  2. They may pursue narrow organizational objectives at the expense of strategic coordination (‘sub-optimization’).
  3. They may concentrate on short-term issues and neglect long-term criteria (‘myopia’).
  4. They may place greater emphasis on not being exposed as an outlier rather than on a desire to be outstanding (‘convergence’).
  5. They may be disinclined to experiment with new and innovative approaches for fear of appearing to perform poorly (‘ossification’).
  6. They may alter their behaviour to gain strategic advantage (‘gaming’).
  7. They may partake in creative accounting and fraud (‘misrepresentation’).

**Box 2** Ways of reducing the potentially dysfunctional consequences arising from public reporting [28]

1. Ensure that staff are involved at all levels in the organization.
2. Be flexible in how the measures are used.
3. Keep the number of indicators small.
4. Ensure that outcomes and client satisfaction are measured as well as processes of care.
5. Make use of independent benchmarks.
6. Seek expert interpretations of the indicators.
7. Keep the reporting system under constant review.
8. Take a longer-term perspective.
9. Highlight the importance of continuous learning over one-off absolute judgements about performance.

This spread of responsibility suggests that report card developers should work closely with providers to ensure that appropriate attention is paid to these often-unseen downsides. At the very least, providers should feel that regulatory agencies and purchasers are willing to monitor and assess performance more broadly than those aspects of performance specified in publicly available report cards.

The extent to which dysfunctional consequences are induced by public reporting is also likely to depend on key design issues: the quality and robustness of the data; the nature of the issues included; the timeliness of the data; the methods of comparison and presentation; and the extent to which apparent performance is tied to incentives. Undoubtedly, trade-offs will need to be made; for example, quality reports may need to be of sufficiently high profile to attract providers' attention, but not so high profile or potentially damaging that they induce significant gaming or withdrawal from the programmes. Crucially, for any one set of measures and context of use, the deficiencies are likely to become more established over time, as providers learn how to manage the new performance environment [32]. Thus designers of report card programmes will need to build-in regular review, updating and shifts in emphasis of both content and context to prevent the benefits being attenuated and the dysfunctional consequences becoming established.

### Incentives for engagement

Incentives (or sanctions) have been found to have a strong influence on behaviour in all types of organizations [33]. They are therefore likely to be an important adjunct to quality reports if real and sustained improvement is to result from reporting initiatives. When performance is managed, attention tends to focus on explicit incentives, such as personal or organizational financial rewards or freedom from regulation, or sanctions such as demands for retraining, dismissal or closure. However, implicit incentives such as professional satisfaction, peer recognition and career advancement can be just as important, perhaps more so in an environment such as health care, where professionalism and reputations are so important. If incentives are to be effective then they should fulfil certain criteria. Most importantly, they should discourage unwanted actions as well as reward desired actions, and should be aligned to organizational priorities as well as to the

values and objectives of the individuals and teams who work in the organization.

The effectiveness of incentives designed to increase the impact of quality reports is likely to be determined by the context within which the reporting takes place. So, in a market-based system, economic incentives arising from public reporting, such as the opportunity to increase market share and maximize profits, is likely to be a key driver. In a public system, which offers less choice and in which competition does not play an important role, economic incentives are less likely to be effective. However, other incentives such as an offer of greater autonomy from central regulation could strongly influence an organization's willingness to engage with reported performance data.

The aim should be to achieve a balance between explicit and implicit incentives and to ensure that the former does not damage or displace the latter. This will not be achieved easily and requires considerable management skills. Incentives are probably more likely to be effective if they are aimed at the units of operation and care delivery—mostly teams rather than individuals. They are also more likely to work if they take into account the context within which an organization operates. For example, incentives attached to quality reports that work in a general practice serving an advantaged population are unlikely to be as effective in a practice serving a deprived population. Incentives should also be set at an appropriate level. They should be of sufficient magnitude to encourage a positive response to the quality reports but not so large as to distort priorities or to induce gaming. The addition of incentives to focus attention on quality reports is a relatively unexplored issue, but one that requires careful evaluation if we are to yield real benefit.

### Engage the public

A substantial body of literature, primarily from the US, has addressed how health care quality reports can be developed and presented in a way that engages the public. The key themes that emerge from this literature are understandability, accessibility, salience, relevance and trust in the sponsoring organization. In presenting suggestions based on this research, we generally use the word 'consumer' to describe users or potential users of health care.

Understandability is important for several reasons. Firstly, consumers may not understand key aspects of the choice that

a quality report is designed to facilitate. For example, American consumers need to be told that their choice of a health plan inevitably constrains their future choice of hospitals because of the contractual relationships between health plans and hospitals [34,35]. Secondly, some widely used quality indicators are intangible and unfamiliar to consumers [15,36]. For other indicators, such as asthma hospitalization rates, consumers are unclear whether a high or low rate is desirable [37]. Quality reports for consumers should be accompanied by explanations of why performance on an indicator reflects quality of care, and why lower rates or higher rates are better. Thirdly, cognitive testing has shown that consumers can be overwhelmed by the quantity and complexity of information in quality reports [38]. Summary measures help consumers integrate potentially conflicting information on multiple domains of quality. Better ‘customer support’ through telephone help lines, Internet chat rooms or worksite resources may also help consumers to interpret quality information.

Accessibility issues have been addressed extensively in a recent review on the design of quality reports for consumers [39]. The authors recommend that quality reports should, whenever possible, be organized so that users can ‘select the information they want, when they want it, in the format with which they are most comfortable’. Content experts should work closely with document designers to make reports visually interesting and accessible to readers with different levels of comprehension and Internet proficiency. Appropriate use of headings, bulleted lists, fonts, colours and empty space increase the accessibility of quality-related information. Evaluative cues, including words such as ‘excellent’ or ‘poor’, and bar graphs with common scales are also helpful.

Salience is important because the organizations that produce quality reports often publish measures that are salient to providers, but not to consumers. Consumers consistently report that they are most interested in interpersonal and structural aspects of care such as communication, timeliness, responsiveness and ease of access [40,41]. The direct experience of care is more salient than a ‘narrow range of technical processes and physiologic outcomes’ [42]. Mortality indicators lack salience because death is generally such an infrequent outcome. Another problem is that most quality reports in the US describe health plans rather than physicians, whereas consumers are more interested in how to choose physicians. Finally, negative framing may improve salience by highlighting the consequences of ignoring quality-related information.

Quality reports generally describe the experience of aggregated consumers, rather than consumers who share key characteristics, concerns and health care needs. Consumers, especially those from historically disadvantaged groups, want to know how others ‘like them’ evaluate health care [43]. Cognitive interviews and focus groups have shown that consumers want personally relevant information, such as physician or hospital performance for patients with similar health conditions [44]. Personalization of performance information, based on demographic or clinical characteristics, is a promising strategy for delivering relevant content in an efficient manner [45]. By layering information with increasing levels of detail,

website developers can personalize not just content but also formatting.

Finally, quality reports should emanate from independent, trusted entities, to alleviate consumer concerns about bias. American employees seem to distrust information given to them by their employers, preferring information provided by a credible third party [44]. Indeed, consumers in both the US and the UK often prefer informal, familiar information sources, such as family and friends. Disseminating quality information through such informal networks is an untested strategy for improving trust.

## Work with the media

Compared with what we have learned about reaching consumers, we know very little about how to enhance the impact of quality reports by working with the media. Although there is substantial media interest in health care quality, print media appear to cover these reports more consistently than broadcast media [46]. Based on anecdotal experiences, we suspect that television news programmes might cover quality reports more consistently if interesting visuals of patients and health professionals could be provided. ‘Human interest’ stories, particularly negative ones such as those describing patients who have suffered iatrogenic injuries, attract considerable media attention [47]. The publishers of quality reports may be able to capitalize on this fact by collecting and disseminating both positive and negative stories, although there may be concerns about sensationalizing complex data.

Media coverage tends to focus on a brief period surrounding each public release [48]. Publishers of quality reports may be able to address this problem by releasing data more frequently (i.e. quarterly or biennially), based on shorter and more recent time intervals. Finally, there is inherent tension between reporters’ search for ‘news’ and the desire of the sponsors of quality reports to provide information, regardless of whether that information constitutes ‘news’. Through informal and personal communications over time, sponsors and reporters may be able to develop productive relationships that enhance mutual understanding. For example, the sponsors of quality reports may learn how to provide a ‘spin’ or ‘news angle’ that justifies the prominent placement for which most reporters yearn.

## Discussion

The drive towards great public dissemination of information about quality of care is unstoppable. The experience over the last 15 years of using quality reports in both the US and the UK indicates that there are notable benefits to be gained from public disclosure, but also some significant risks. Evaluation of these experiences suggests that simply putting the information into the public domain will not work if it is done in isolation from a clearly aligned strategy to maximize its effectiveness. In this paper we have explored some ways of doing this. Some of our suggestions are based on sound evidence of their effectiveness; others on common sense. All require careful evaluation alongside their implementation.

Although our suggestions (understanding the macro- and micro-environment within which reporting takes place, actively addressing the unintended consequences of public reporting, creating incentives to encourage constructive responses to the data, and engaging the public and media) are presented separately, they should not be seen in isolation from each other. The effectiveness of the different strategies, on their own or in combination, is likely to be determined by the environment within which reporting takes place. It would not be desirable to look for a common 'fix' applicable to all organizations or transferable across all international boundaries.

Nevertheless, two important lessons emerge that will be of relevance to all countries attempting to implement a policy on public disclosure. Firstly, quality reports are more than simply a technical intervention. They impact on societal and professional values and on organizational norms in ways that in retrospect were predictable, but that have not in the past been given appropriate credence. The benefits of public reporting are more likely to be realized by those who understand and take account of the human and organizational behaviour resulting from their use. Secondly, the successful implementation of quality reports is dependent upon an effective partnership involving the public, health professionals, managers and policy makers. The imposition of quality reports by senior managers or politicians on unwilling professionals and a sceptical public will not work. This partnership will not always be comfortable and will require negotiation and compromises from all parties.

The publication of information about quality of care has the potential to improve quality, increase accountability and facilitate public participation in health care. Whether this potential is realized is dependent upon how quality reports are used, and this paper has highlighted some of the challenges that need to be addressed.

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