

External monitoring of quality of health care in the United States

N J Wareham

This is the first of two papers on the system for external quality monitoring in the United States. The term "system" is of course a misnomer, as the collection of mechanisms for monitoring health care quality are as complex and fragmented as the health care system itself. Not only are there multiple and overlapping systems but each of them is constantly evolving. These changes can be attributed to advances in technical capability but mostly to the pressures of public policy. This paper describes the origins and structure of the various systems that exist to monitor quality externally and the following paper analyses the evolution of those systems in response to policy pressures and describes the likely direction of change following the recent announcement of the Clinton health care reforms.

Defining cost, quality, and external monitoring

Although there are many definitions of "quality of care", I will adhere to the suggestion of a recent report from the Institute of Medicine which defined it after considerable study¹ as "the degree to which health services for individuals and populations increase the likelihood of desired health outcomes and are consistent with current professional knowledge."² This definition has several attributes which commend its use. Firstly it expresses the concept of a measurement of scale, thus distinguishing it from those definitions where only the attributes of ideal care are described.³ The term "health services" establishes a broad scope of relevance, and the word "likelihood" expresses a recognition that the relations between processes and outcomes are probabilistic and not deterministic. A marked distinction with definitions more commonly used in Britain⁴ is the absence of the concept of equity. This restricted notion has tended to separate the gross problems of access to care in the United States from debates about quality. Although it is a central tenet of the British system that health care should be delivered equally to all according to need, the concept of quality in the United States is restricted to considering the attributes of care that is provided rather than broader considerations of the system in which it is delivered. Thus the gross failure to provide access to health care for all Americans has been perceived as a separate problem to that of assuring the quality of care given to those fortunate enough to receive care.

The Institute of Medicine's definition clearly acknowledges that the quality of care is constrained by the state of scientific knowledge, but it consciously avoids any mention of financial constraints, in direct contrast to alternative definitions.¹ Clearly, individual and societal preferences can determine that the quality of care produced is less than optimal because of the opportunity costs involved in producing higher quality health care.⁵ However that decision necessitates a political trade off between cost and quality. It can be argued that the incorporation of the notion of cost within the definition of quality tends to focus political attention on cost containment rather than on quality improvement. Indeed the lack of clarity between cost and quality has been at the centre of the problems that have faced the external quality monitoring systems in the United States.

Donabedian suggested that quality review can be separated into two broad activities.¹ Efficiency review reduces the cost of necessary care or reduces care that is unnecessary but harmless. By contrast, effectiveness review increases necessary care or reduces unnecessary care that is harmful to health.¹ Thus, although effectiveness review may improve health care quality without additional expense and may result in net savings, it can lead to greater costs for a particular sector of the economy while producing an overall net societal benefit. The historical position of quality within the health system in the United States and the political clouding of cost and quality issues has led to a situation in which effectiveness monitoring systems have been justified on the extent to which they can contain costs rather than on their effect on quality. That is not to say that the provision of unnecessary or expensive care is not a problem in the health system in the United States; indeed, these are two of the underlying reasons for the rapid escalation of overall costs. Multiple mechanisms have been introduced to try to reduce utilisation, including many forms of cost sharing, pre-treatment authorisation, and utilisation review.^{6,7} These systems fall into Donabedian's definition of efficiency review and will not be discussed further here as their principal objective is to reduce costs rather than to improve quality.

The other concept that demands definition is *external* monitoring. The term "external" implies that the quality monitoring is undertaken by an organisation separate from that which actually provides care. That

Center for Quality of
Care Research and
Education, Harvard
School of Public
Health, Boston, USA
N J Wareham, Harkness
Fellow

Correspondence to:
Dr N J Wareham, University
Department of Community
Medicine, Institute of Public
Health, University of
Cambridge, Robinson Way,
Cambridge CB2 2SR

Accepted for publication
17 December 1993

organisation may be an aggregate purchaser of health care, an agency working for a purchaser, or an agency that works in the interest of the general public. The major distinction therefore is with internal quality review, which is undertaken directly by the organisation that provides care. As with the definitional separation of cost and quality, so internal and external quality monitoring are distinct concepts that in reality cannot exist as entirely separate entities. Indeed the attempt to present them as alternatives⁸⁻⁹ could lead to the polarisation of two mechanisms that are inherently symbiotic. Finally, the term monitoring is used to describe the activity of repeated measurement of the quality of care and is deliberately epidemiologically focused. It is superior in this context to other terms that are often used to describe the same activity, such as quality assurance, control and measurement, none of which correctly conveys the sense of repeated collection of aggregate data.¹⁰

Federal systems: quality assurance in Medicare

Among the various external systems of monitoring and improving the quality of care

*... the [external monitoring]
system for the Medicare
population is the most developed.*

in the United States, the system for the Medicare population is the most developed. (Medicare is the federal system for paying for health care for those aged over 65 years.) The review system is founded on state based Peer Review Organisations which are independent quality review organisations that contract with the Health Standards and Quality Bureau, a branch of the Health Care Financing Administration which administers Medicare.² There are currently 54 Peer Review Organisations, representing each of the states plus the District of Columbia; Puerto Rico; the Virgin Islands; and a combined area of American Samoa, Guam, and the Commonwealth of Marianas. To be able to contract with the Health Care Financing Administration, the Peer Review Organisation must be composed of at least 10% of the physicians in the area that it serves or have at least one physician in every recognised specialty. Although they are independent private organisations, the process of contracting for activity with the Health Care Financing Administration is relatively rigid and the Peer Review Organisations essentially have the scope of their activities dictated to them by the Health Care Financing Administration.

The Peer Review Organisation programme evolved out of the former Professional Standards Review Organisations, which had superseded the Experimental Medical Care

Review Organisations.¹¹⁻¹⁴ From its inception, the Professional Standards Review Organisations' programme was plagued by a conflict of expectations between Congress, which intended it to have an effect on cost containment by reducing inappropriate use, and the federal executive and the medical profession which emphasised the opportunity to improve quality of care through review of effectiveness.¹⁵⁻¹⁷ The technical capacity required to undertake the expected evaluations was considerable and necessitated a compromise between political expectations of immediate impact and an academic need for a considered development of measurement methods.¹⁸ One of the original architects of the programme noted that if these conflicts were not resolved, "new legislative approaches will be developed that are based more on the frustrations of the public and Congress with health care delivery in general than on documented improvements needed in peer review."¹⁹ As the Professional Standards Review Organisations' programme was eventually reorganised because of its failure to demonstrate an effect on overall cost,²⁰ this prediction seems to have been highly accurate.

In response to the reported problems of the programme,²¹ the federal government instituted changes in the way peer review and quality assurance efforts were organised in a series of legislation changes that brought about the transformation of the Professional Standards Review Organisation into the Peer Review Organisation programme.¹⁴ The key changes were that there was expanded eligibility for different organisations to become Peer Review Organisations, a reduction of the number of organisational areas from 190 to 54, the start of funding through contracts rather than grants, and a requirement that the organisations specify objectives to be achieved over the two year contract period against

*Because Peer Review
Organisations have been funded
by a series of short term contracts
... their function has evolved
over time ...*

which the organisation's performance could be assessed. Because Peer Review Organisations have been funded by a series of short term contracts from the Health Care Financing Administration, their function has evolved over time as each of the contracting periods has ended. To begin with, the emphasis of the programme was firmly on controlling inappropriate utilisation (during 1984-6) by detecting unnecessary care. The second phase placed more emphasis on assuring quality as well as on reviewing inappropriate utilisation, largely through the use of generic quality screens as a way of deciding which cases

should be referred for formal peer review. These screens covered the adequacy of discharge planning, medical stability of the patient at discharge, unexpected deaths, nosocomial infections, unscheduled return to hospital, and trauma suffered in hospital.² By the third phase (1988–92) the work of the Peer Review Organisations had become more complex but was still largely based on individual care review. The types of quality intervention included notification of violations and corrective action plans. In the evaluation of the programme the measures that were most prominent were those that were most easily quantifiable. Peer Review Organisations were deemed to be successful on the basis of the number of sanction notices that they issued and the number of physicians they referred to the Office of the Inspector General. The sanction notice procedure is used to inform physicians formally that their care has been judged to be substandard, whereas referral to the Office of the Inspector General carries the risk of monetary penalties or exclusion from the Medicare programme. Gradually the activities of the Peer Review Organisations became more focused on detecting bad care and on sanctioning physicians who were judged to have been responsible for aberrant practice. This attitude to quality assurance had the effect of alienating the Peer Review Organisations from the medical community; it had little demonstrable impact on quality and was at odds with the increased internal organisational focus on continuous quality improvement.²²

As Medicare is the largest and most publicly visible health care programme with an external quality monitoring system, the methods used by Health Care Financing Administration and the Peer Review Organisations have been subject to considerable criticism. Although some of these methods have been controversial, most notably the publication of hospital mortality data,^{23–26} it can be argued that the effectiveness of many quality improvement techniques would not have accrued without such a prominent and systematic practical testing bed.²⁷ This is especially true of peer review,^{28–33} the public availability of outcome data, and generic screening.³⁴ Though some would suggest that these methods are untested and their efficacy in improving quality should first be proved³⁵ (a criticism that was also made of the Professional Standards Review programme¹⁸), they would not have been developed except by practical application. It is perhaps inevitable that the introduction of new methods will cause conflict, but the programme would have been better able to tolerate them if the political expectations had been carefully managed, a strategy for programmatic evaluation agreed, and the monitoring bodies created with sufficient organisational stability to allow experimentation.³⁶

The overall performance of the Medicare quality review programme has been subject to various analyses, most of which have concentrated on specific operational

features.^{37–39} It is subject to continued audit, although this has not led to demonstrable improvements in the function of the Peer Review Organisations. The most recent review of the programme was undertaken by the Institute of Medicine; its findings are discussed in the following paper, together with the Health Care Financing Administration's own health care quality improvement initiative,⁴⁰ which was designed to signal a new direction for the Medicare quality review system.

Organisations for accreditation

The Joint Commission on the Accreditation of Healthcare Organisations is a private organisation which provides accreditation for many forms of healthcare providers, but mainly hospital facilities. It was created in 1987, when the Joint Commission on Accreditation of Hospitals changed its name to reflect the fact that it had broadened its scope of interest to include other institutions that provide health care, such as hospices, managed care organisations, and ambulatory care facilities. The origins of the joint commission can be traced back to the third clinical congress of surgeons of North America in 1912, when a resolution was passed expressing the need to create standards of care which could be used to measure quality and stimulate improvement.⁴¹ In 1917 the American College of Surgeons published the minimum standard and in the following year started a voluntary accreditation programme. The minimum standard was the first formal description of the requirements for reviewing and evaluating the quality of patient care. By the beginning of the 1950s the work involved in running the voluntary accreditation programme was such that the college joined forces with various other organisations (the American College of Physicians, the American Medical Association, etc) to form the joint commission.

Currently, accreditation is effectively mandatory for hospitals which want to accept

Currently, accreditation is effectively mandatory for hospitals which want to accept Medicare or Medicaid patients.

Medicare or Medicaid patients. (Medicaid is the state administered health care insurance system for the poor.) The fees for the visits that lead to accreditation are met by the hospitals seeking accreditation. The process of deciding whether or not to accredit a health care provider follows a three day inspection by a visiting team. Historically, most of the factors considered by the joint commission were related to structures or processes. Recently, however, the commission has attempted to generate an increased focus on

outcomes⁴¹⁻⁴² and on developing indicators of quality,⁴³ as discussed in the following article.

Other minor organisations that also offer accreditation include the Accreditation Association for Ambulatory Health Care and the American Association of Preferred Provider Organisations. The first offers voluntary accreditation based on standards for structure including a requirement for internal quality assurance which is evaluated during site visits.⁴⁴ This programme is mostly used by group practices, ambulatory surgery centres, student and community health centres, and occupational facilities and dental group practices. The American Association of Preferred Provider Organisations offers accreditation for both external use (public dissemination) and internal evaluation.

A major quality improvement initiative is provided by the National Committee for Quality Assurance, a private organisation that offers accreditation for Health Maintenance Organisations and other managed care groups. It was originally founded in 1969 by the Group Health Association of America and the American Managed Care and Review Association but is now established as the leading non-profit external review organisation for the managed care industry. Currently, accreditation is not mandatory, although several large employers (particularly Xerox) have expressed interest in purchasing managed care only from accredited plans. The National Committee for Quality Assurance sells its services on the basis that accreditation improves the market position of a Health Maintenance Organisation and augments its internal management systems.

Among other areas of interest, the accreditation process concentrates on the organisation's own internal quality improvement systems.⁴⁵ The accreditation standards are fairly limited in scope⁴⁶ and until recently have not generated data that is of use in making external comparisons. However, in conjunction with major employers and various health plans, the National Committee for Quality Assurance has recently launched an initiative to develop a health plan employer data and information set (HEDIS) designed to provide employers with the ability to "understand what value the health care dollar is purchasing and how to hold a health plan accountable for its performance."⁴⁷ These initiatives are discussed in the following article.

State health care and other health care delivery systems

The Veterans Administration, the Department of Defense, and the Indian Health Service have separate quality monitoring systems which have attracted less attention than the more visible Medicare system.⁴⁸⁻⁴⁹ Each state is also directly involved in monitoring quality, although the level of that involvement varies,⁵⁰ largely because the rules regarding quality review for the Medicaid population allow for more variation than for the federally controlled Medicare program. The state can subcontract

its quality review responsibility to an external quality review organisation which may be a Peer Review Organisation. State Medicaid agencies are also responsible for monitoring managed care contracts, and this can either be undertaken by the state itself or be contracted to an external agency. The Health Care Financing Administration specifies that this agency should have sufficient expertise in clinical and health services research, but it does not clearly define sufficient.⁵¹ However, some states have for largely historical reasons been very involved in the consideration of health care quality. New York state is more involved than most as it has retained controls on the supply of health care that have largely been abandoned by other states.⁵² This has the effect of putting the regulator in a powerful position with regard to response to quality of care information, which would tend to be ignored in less regulatory states. In addition the state has replaced the Joint Commission on the Accreditation of Healthcare Organisations' process of accreditation with an inspection process of its own. The concentration of these functions together with fiscal responsibility (for Medicaid, etc) and the existence of statewide data systems gives the state an ideal opportunity to measure and monitor the quality of care.

Conclusions

This brief description of the various external quality monitoring organisations in the United States has concentrated on the larger and more prominent systems, to which must be added numerous groups representing non-governmental purchaser organisations and consumer bodies. As the Pepper Commission noted, the current system is "a mixture of public and private mechanisms that have developed along separate paths. The result is jurisdictional competition for turf, suspicion about motives, and questions about the sources and validity of criteria, standards, and data."⁵³ However, the system is not static and its evolution is currently being modified by several pressures for change, which together will determine its ultimate direction. The subsequent paper describes five of these pressures: the balance between internal and external quality improvement, the policies of large corporate purchasers, the strength of criticism of the existing systems, the role of the consumer in quality improvement, and the question of national health care reform.

I am particularly indebted to Dr Heather Palmer, Director of the Center for Quality of Research and Education, and to the Commonwealth Fund of New York, the organisers of the Harkness Fellowship programme, for their support. Any opinions expressed are mine and do not reflect the views of the centre or the fund.

- 1 Palmer RH, Donabedian A, Povar GJ. *Striving for quality in health care: an inquiry into policy and practice*. Ann Arbor, Michigan: Health Administration Press, 1991.
- 2 Lohr KN, ed. *Medicare: a strategy for quality assurance*. Washington, DC: National Academic Press, 1990.
- 3 Steffen GE. Quality medical care: a definition. *JAMA* 1988;260:56-61.
- 4 Maxwell RJ. Quality assessment in health. *BMJ* 1984;288:1470-2.

- 5 Donabedian A, Wheeler JRC, Wyszewianski L. Quality, cost and health: an integrative model. *Med Care* 1982;20:975-92.
- 6 Wennberg JE. Innovation and the policies of limits in a changing health care economy. In: Gelijns A, ed. *Modern methods of clinical investigation*. Washington, DC: National Academy Press, 1990:9-33.
- 7 US General Accounting Office. *Utilisation review: information on external review organisations*. Washington, DC: US General Accounting Office, 1992.
- 8 Berwick DM. Heal thyself or heal thy system: can doctors help to improve medical care? *Quality in Health Care* 1992;1(suppl):2-8.
- 9 Berwick DM. Peer review and quality management: are they compatible? *QRB* 1990;16:246-51.
- 10 Last JM. *A dictionary of epidemiology*. 2nd ed. New York: Oxford University Press, 1988.
- 11 Maglott D, Atelsek BD, Hair FD. *The experimental medical care review organisations and PSRO: what we have learned so far*. Hyattsville: Department of Health, Education, and Welfare, 1977.
- 12 Williams KN, Brook RH. Quality measurement and assurance. *Health and Medical Care Services Review* 1978;1:3-15.
- 13 Lohr KN, Brook RH, Kaufman MA. Quality of care in the New Mexico Medicaid Program (1971-1975): the effect of the New Mexico Experimental Medical Care Review Organisation on the use of antibiotics for common infectious diseases. *Med Care* 1980;18(suppl):1-128.
- 14 Lohr KN, Brook RH. *Quality assurance in medicine: experience in the public sector*. Santa Monica, California: RAND Corporation, 1984.
- 15 Kessner DM. Quality assessment and assurance: early signs of cognitive dissonance. *New Engl J Med* 1978;298:381-6.
- 16 Goran MJ, Roberts JS, Kellogg M, Fielding J, Jessee W. The PSRO Hospital Review System. *Med Care* 1975;13(suppl):1-33.
- 17 Jessee WF, Munier WB, Fielding JE, Goran MJ. PSRO: an educational force for improving quality of care. *New Engl J Med* 1975;292:668-71.
- 18 Komaroff AL. The PSRO, quality assurance blues. *New Engl J Med* 1978;298:1194-6.
- 19 Goran MJ. The evolution of the PSRO Hospital Review System. *Med Care* 1979;17(suppl):1-47.
- 20 US Congress, Congressional Budget Office. *The impact of PSROs on health-care costs: update of CBO's 1979 evaluation*. Washington, DC: US Government Printing Office, 1981.
- 21 Smits HL. The PSRO in perspective. *New Engl J Med* 1981;305:253-9.
- 22 Berwick DM. Continuous improvement as an ideal in health care. *New Engl J Med* 1989;320:53-6.
- 23 Dubois RW, Rogers WH, Moxley JH, Draper D, Brook RH. Hospital inpatient mortality. Is it a predictor of quality? *New Engl J Med* 1987;317:1674-80.
- 24 Greenfield SF. Flaws in mortality data: the hazards of ignoring comorbid disease. *JAMA* 1988;260:2253-5.
- 25 Dubois RW. Hospital mortality as an indicator of quality. In: Goldfield N, Nash NB, eds. *Providing quality care: the challenge to clinicians*. Philadelphia: American College of Physicians, 1989:107-31.
- 26 Berwick DM, Wald DL. Hospital leaders' opinions of the HCFA mortality data. *JAMA* 1990;263:247-9.
- 27 Lohr KN. Professional peer review in a "competitive" medical market. *Case Western Reserve Law Review* 1986;36:1175-89.
- 28 Rubin HR, Rogers WH, Kahn KL, Rubenstein LV, Brook RH. Watching the doctor-watchers: how well do peer review organization methods detect hospital care quality problems? *JAMA* 1992;267:2349-54.
- 29 Caplan RA, Posner KL, Cheney FW. Effect of outcome on physician judgements of appropriateness of care. *JAMA* 1991;265:1957-60.
- 30 Schroeder SA, Kabacene AI. Do bad outcomes mean substandard care? *JAMA* 1991;265:1995.
- 31 Keeler EB, Rubenstein LV, Kahn KL, Draper D, Harrison ER, McGinty MJ, et al. Hospital characteristics and quality of care. *JAMA* 1992;268:1709-14.
- 32 Dubois RW, Brook RH. Preventable deaths: who, how often and why? *Ann Intern Med* 1988;109:582-9.
- 33 Goldman RL. The reliability of peer assessments of quality of care. *JAMA* 1992;267:958-60.
- 34 Sanazaro PJ, Harper Mills D. A critique of the use of generic screening in quality assessment. *JAMA* 1991;265:1977-81.
- 35 Nash DB. Is the quality cart before the horse? *JAMA* 1992;268:917-8.
- 36 Havighurst CC, Blumstein JF. Coping with quality/cost trade-offs in medical care: the role of PSROs. *Northwestern University Law Review* 1975;70:6-68.
- 37 Dans PE, Weiner JP, Otter SE. Peer review organisations: promises and potential pitfalls. *New Engl J Med* 1985;313:1131-7.
- 38 Jost TS. Medicare peer review organisations. *Qual Assur Health Care* 1989;1:235-48.
- 39 Department of Health and Human Services, Office of the Inspector General. *Educating physicians responsible for poor medical care: a review of the peer review organisations' efforts*. Washington, DC: Department of Health and Human Services, 1992.
- 40 Jencks SF, Wilensky GR. The health care quality improvement initiative: a new approach to quality assurance in Medicare. *JAMA* 1992;268:900-3.
- 41 The Joint Commission on Accreditation of Healthcare Organisations. *Guide to quality assurance*. Chicago, Illinois: JCAHO, 1988.
- 42 Lehmann RD. Joint commission sets agenda for change. *QRB* 1987;13:148-50.
- 43 O'Leary DS. Beyond generic occurrence screening. *JAMA* 1991;265:1993-4.
- 44 Palmer RH. Quality management in ambulatory care. In: Couch JB, ed. *Health care quality management for the 21st century*. Tampa, Florida: American College of Physician Executives, 1991:75-103.
- 45 O'Kane ME. A new approach to accreditation of HMOs. *Journal of Health Care Benefits* 1991;Sept/Oct:40-3.
- 46 National Committee for Quality Assurance. *1993 standards for accreditation*. Washington, DC: NCQA, 1992.
- 47 National Committee for Quality Assurance. *Health plan employer data and information set and users' manual: version 2.0*. Washington, DC: NCQA, 1993.
- 48 Merry MD. Can an external quality review system avoid the inspection model? *QRB* 1991;17:315-9.
- 49 Mayer W, Clinton JJ, Newhall D. A first report of the Department of Defense external civilian peer review of medical care. *JAMA* 1991;260:2690-3.
- 50 Johns L. Measuring quality in California. *Health Aff (Millwood)* 1992;spring:266-70.
- 51 Health Care Financing Administration, Medicaid Bureau. *The Medicaid quality assurance reform initiative*. Washington, DC: Department of Health and Human Services, 1992.
- 52 Budrys G. *Planning for the nation's health: a study of twentieth-century developments in the United States*. Westport, Connecticut: Greenwood Press, 1986.
- 53 Pepper Commission, US Bipartisan Commission on Comprehensive Health Care. *A call for action: final report of the Pepper Commission on Comprehensive Health Care*. Washington, DC: US Government Printing Office, 1990.