

## Medicare, the National Quality Infrastructure, and Health Disparities

By Lawrence P. Casalino

### Summary

What can Medicare do to improve quality and reduce racial, ethnic, and socioeconomic disparities in clinical care? Increasing the cultural competence of individual physicians and their use of evidence-based guidelines will be useful—but insufficient. What is needed are organized care management processes that will support physicians and medical teams in their clinical decision-making, assist patients in managing their own illnesses, and provide clinicians with feedback on their performance.

Medicare should therefore seek to strengthen both the capabilities of medical groups to improve the quality of care and their incentives to do so. Unless carefully designed, however, incentives to improve quality—such as pay for performance and public reporting—could increase disparities, for example, by directing additional resources to providers who are already performing at a high level. Medicare should be alert to this possibility when devising incentives for quality and should carefully study the effects of incentives on disparities. If general efforts at quality improvement do not succeed in reducing disparities, targeted measures will be required.

A dark paradox exists at the heart of U.S. health care. Every day, thanks to the system's extraordinary technical capabilities, patients live who would have died ten or twenty years ago. Every day, patients die who should live, because the nation's quality infrastructure is underdeveloped. Most U.S. physicians lack both the clinical information technology and the organizational processes to enable them to consistently provide patients with high quality care. The U.S. health care system, in other words, lacks the infrastructure to consistently provide high quality health care.

Three equations can provide a framework for thinking about Medicare and the quality infrastructure:

1. *Quality = capabilities + incentives.*
2. *Capabilities = the capabilities of individual physicians (and other staff) + the capabilities of the organization providing care.*
3. *Effects of incentives = intended effects + unintended effects.*

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With minor changes, these equations can be applied at every level of the health care system: to individual physicians, to medical groups, to hospitals, to health insurance plans, to employers who purchase health insurance for their employees, and to the Centers for Medicare and Medicaid Services (CMS) itself. This brief will focus on what CMS can do to improve the quality infrastructure of physician practice (although much of the discussion could be applied to hospitals and health plans as well). It will also discuss implications of attempts to improve the quality infrastructure for the health of ethnic and socioeconomic minorities.

## Quality = Capabilities + Incentives

The quality of the care provided by a physician or medical group depends on the capabilities of the individual or group and the incentives that the individual or group has to improve quality. At present, most physicians and physician groups lack both the capabilities and the incentives to improve quality.

## Capabilities = The Capabilities of Individual Physicians (and Other Staff) + The Capabilities of the Organization Providing Care

U.S. health care is based on individual physicians' capabilities and on the "individual physician view" of quality: Quality is what an individual physician does for a patient during a patient visit. The system relies almost entirely on visits—on face-to-face encounters that rely on the patient deciding to see the physician and on the physician doing whatever he or she can remember should be done for the patient during a seven- to fifteen-minute visit in which multiple issues must often be addressed. The physician may or may not realize, for example, that the patient being seen for congestive heart failure should be taking a beta blocker, has not had his or her annual influenza immunization, and recently had a low serum potassium level during an emergency department visit. Of the seven medications that three different physicians have prescribed for the patient, the physician may be aware of only five and may not recognize the potential for dangerous interactions among several of them. The patient does not really understand the purpose of the medications or how they should be taken, nor does he or she understand the importance of diet, exercise, and tracking his or her weight. The physician lacks the time and often the interest and (in the case of minorities) the cultural competence to explain.

The result is predictable: The quality of the health care we deliver is far worse than the quality we could deliver with our current knowledge and technology. In the largest and best-designed study to date—a national study of 439 quality indicators for 30 acute and chronic medical conditions as well as preventive care in 6,712 patients—patients received recommended care only 55 percent of the time (McGlynn *et al.* 2003). Exhorting physicians to try harder as individuals is unlikely to solve the problem (Institute of Medicine 2001). Evidence is accumulating, however, that the use of organized care management processes to assist both the physician and the patient does improve quality (Casalino 2005a).

The "organized process" view of quality sees quality not simply as what an individual physician can do for whichever individual patients happen to present themselves, but also as what an

organization can do over time for a population of patients, including those who may need care but may not visit a physician. The “individual physician” view is necessary—we want capable physicians who feel accountable for patients’ care—but it is not sufficient. We also need a quality infrastructure to assist physicians and patients. The organized process approach emphasizes communicating with patients outside the traditional office visit by using the telephone, Internet, mail, e-mail, or group visits. The frequency of communication—as often as once a week or more—varies with the severity of the patient’s need. Communication may come from physicians, care management nurses, and other members of multidisciplinary teams.

Organized processes to improve quality—care management processes, or CMPs—provide tools for physicians and assistance for patients (see Table 1). Though different organizations may use different CMPs, the overall strategy is to:

1. Identify patients who need care, and stratify them into groups likely to need a higher or lower intensity of assistance.
2. Maintain contact as necessary between office visits, tailoring communication methods and frequency to the patients’ needs.
3. Support patients in their ability to help manage their own illnesses.
4. Support physicians and multidisciplinary teams in their clinical decision-making.
5. Provide physicians, teams, and organizations with feedback on their performance.

Unfortunately, most physician practices lack these capabilities and the information technology (IT) useful for supporting them. The largest study to date found that even relatively large medical groups of twenty or more physicians use, on average, only five of sixteen CMPs to improve the quality of care for patients with common chronic diseases. Half the groups had

**Table 1**  
**Examples of Organized Processes That Can Be Used to Improve the Quality of Care**

**Tools for Individual Physicians**

Provide guidelines and reminders to physicians at the point of care.

Provide feedback to physicians on the quality of their care.

Provide an electronic medical record that makes information on the patient readily available.

Provide electronic prescribing and/or electronic order entry that, for example, checks medication orders against the patient’s age, weight, medical conditions, allergies, and other medications.

Provide e-mail communication between physician and non-physician staff and patients.

**Processes Carried Out Directly Between Organization and Patients**

Nurse care managers coordinate care and provide ongoing education for patients with severe chronic diseases.

Organization maintains an up-to-date list of patients who will need preventive care (for example, annual mammograms for women over 50 and annual influenza immunization for patients with certain chronic diseases) and contacts the patients at appropriate intervals if the care has not been received.

Organization provides patient education—for example, through classes, group visits, mailings, written materials available in the office, or a website.

Organization maintains frequent (even daily or weekly, when needed) contact with patients with severe chronic diseases (via phone and/or biometric devices placed in the patient’s home) and takes appropriate action (for example, notifying the patient’s physician) about early warning signs of possible problems.

none of seven basic clinical IT capabilities (Casalino *et al.* 2003). It is likely that the smaller groups in which most physicians practice use fewer organized processes to improve quality and have even less clinical IT.

## Effects of Incentives = Intended Effects + Unintended Effects

Because most physicians and physician groups are paid on a fee-for-service basis with no reward for high quality and no sanction for poor quality, their main financial incentive is to generate a high volume of services. Traditionally, they have had no financial incentive to invest in developing IT or CMPs to improve quality, because they will not receive a return on this

investment. During the past decade, and especially during the past few years, large employers and (in a few cases) state governments have begun to reward quality in the hope of giving physicians (and sometimes hospitals and health plans) a business case for creating a quality infrastructure (Rosenthal *et al.* 2004). Rewards may include direct financial incentives, public reporting of performance, making patients pay a higher share of costs if they choose a physician or hospital in a low quality tier, sanctions, and miscellaneous incentives such as reducing administrative requirements for high quality providers (see Table 2). Definitive data are not yet available, but it is generally believed that incentives, if large enough, will have the intended effect of inducing physicians, hospitals, and health plans to achieve higher scores in the quality areas that are measured (Epstein, Lee, and Hamel 2004).

However, the net effect of incentives for quality will depend on the relative magnitude of positive effects compared to unintended and negative effects. Because they are focused on scoring well, physicians, hospitals, and health

plans may decrease the attention they give to important areas of quality that are not being measured. Also, physicians, hospitals, and health plans may avoid patients who they think are likely to lower their overall quality scores. For example, when New York State began publicly reporting quality scores for cardiac surgeons, black-white disparities in rates of cardiac surgery increased, apparently because surgeons believed that black patients were more likely to have poor outcomes, even after New York's formula for adjusting results for various characteristics of patients (for example, the severity of their illness and the presence of other illnesses) was applied (Werner and Asch 2005).

**Table 2**  
**Examples of External Incentives to Improve Quality**

### Direct Financial Rewards

Higher pay for higher quality (for example, end-of-year bonuses or higher fee schedules)

### Public Reporting with or without Tiering

Public reporting of performance

Lower cost-sharing for patients who use high-quality providers

### Sanctions

Refuse to contract with physicians, hospitals, or health plans that perform poorly

### Miscellaneous Incentives

Reduced administrative requirements (for example, obtaining prior authorization for services)

Technical assistance for quality improvement

### NOTES:

1. Incentives may be given to individual physicians, to medical groups, to hospitals, and/or to health plans.
2. Incentives may be given for performance or for processes (for example, submitting data electronically)

Most physicians still have little or no financial incentive to improve quality. The national study of groups of 20 or more physicians referred to above found that groups that were given incentives to improve quality were more likely to invest in CMPs. However, the average group faced only 1.7 of seven types of external incentives studied.

## What Can Medicare Do to Increase Physicians' Capabilities and Incentives to Improve Quality?

Medicare could seek both directly and indirectly to strengthen the quality infrastructure in the U.S. by increasing the capabilities of individual physicians and physician groups to improve quality. In terms of direct measures, Medicare could use the funding it provides for medical education to encourage medical schools to train physicians in cultural competence and also in the competencies in practice-based learning and systems-based practice that have been adopted by the Accreditation Council for Graduate Medical Education and the American Board of Medical Specialties. Medicare's Quality Improvement Organizations could provide additional technical assistance to help physician practices improve the quality of their care (O'Brien 2005).

Medicare could work indirectly to increase physicians' capabilities by providing incentives to improve quality. Some argue that Medicare, as the largest purchaser of health care in the country, could significantly improve the overall level of quality if it paid more for higher quality care (Lurie, Jung, and Lavizzo-Mourey 2005), although skeptics doubt that Medicare should do so (Vladeck 2003). Currently, the program lacks statutory authority to do so, except in demonstration projects. However, Senators Chuck Grassley and Max Baucus have recently introduced bipartisan legislation to encourage Medicare to pay more for higher quality scores. If this legislation were to pass, Medicare could use some or all of the types of incentives shown in Table 2 to give physician groups a business case for investing in increasing their capabilities to improve quality. If the incentives were large enough, physicians would be likely, for example, to invest in stronger clinical IT capabilities.

## Medicare and Health Disparities

This brief argues that Medicare should become more involved in improving the quality infrastructure in the U.S. Should Medicare also focus on improving the infrastructure in a way that is likely to reduce health disparities (Eichner and Vladeck 2005; Jost 2005)? It may be that "a rising tide lifts all boats"—that if Medicare succeeds in improving the overall quality of care, quality for minorities will also improve. This outcome would be particularly likely for chronic diseases, such as diabetes, that are more common in certain minority groups. However, there are reasons to be concerned that quality improvement efforts could increase disparities. Disparities would increase if efforts to improve quality affected whites more than minorities, even though quality for minorities is improved as well, or if quality improvement efforts resulted in worse care for minorities. The few studies that have examined this question have had mixed results, with a slight majority showing both improvement in quality for minorities and a reduction in disparities (Casalino 2005b).



In terms of capabilities, some care management processes used by physician groups may not be adapted to the special educational, cultural, and economic circumstances of minorities. In this case, use of CMPs would likely increase disparities, though it might nevertheless improve quality for minorities.

In terms of incentives to improve quality, there are three reasons for concern that incentives might substantially increase disparities. First, if physicians believe that risk-adjustment techniques fail to account adequately for a patient's race and socioeconomic status (the latter is also likely to be important), they may avoid ethnic minority patients and poor patients out of fear that such patients will lower their quality scores (Kawachi, Daniels, and Robinson 2005). Second, wealthier physician groups may be able to achieve higher quality scores both because they have more resources to invest in improving quality and because they deal primarily with white, relatively affluent patients. If wealthier groups are rewarded financially for scoring well, the rich groups will get richer and (since quality pay is likely to be a zero sum game) the poor groups (who are likely to serve poor and minority patients) will get poorer. Third, minority patients may be less likely to be able to access and understand publicly reported quality measures, and less likely to be able to act on their understanding (for example, by switching physicians, because there may be no high quality physicians nearby).

Medicare should attend to these concerns when devising incentives for quality improvement:

1. Quality scores should be risk-adjusted. Medicare should carefully consider whether race and socioeconomic status should be added to risk adjustment formulas. Though it is commonly asserted that risk adjustment is important for outcome measures but not for process measures, the few studies that have examined this indicate that process scores do vary by how ill the patient is, by socioeconomic status, and perhaps by ethnicity (Franks and Fiscella 2002; Rodriguez, Ward, and Perez-Stable 2005). This result is not surprising. It is likely to be easier for physicians to achieve, for example, high rates of mammography screening in an affluent suburb than in a low-income urban area.
2. Medicare should reward both absolute quality scores (thus giving quality incentives to wealthy physician groups that had relatively high scores even prior to the establishment of incentives) and improvement over time (thus helping relatively poor physician groups).
3. Medicare should carefully study whether quality incentives lead to increased disparities. Medicare might consider this outcome acceptable, at least in the short run, if such incentives seem to be improving care of minorities (Mechanic 2005). If it is unacceptable, Medicare should consider giving incentives directly for reducing disparities.
4. Medicare should develop quality measures aimed at assessing care coordination for patients with multiple complex illnesses.

## References

- Casalino, Lawrence P. 2005a. "Disease Management and the Organization of Physician Practice," *Journal of the American Medical Association*, 293(4): 485-88.
- \_\_\_\_\_. 2005b. *Individual Physicians or Organized Processes: How Can Disparities in Clinical Care Be Reduced?* Washington: National Academy of Social Insurance. [http://www.nasi.org/usr\\_doc/Casalino.pdf](http://www.nasi.org/usr_doc/Casalino.pdf). Accessed July 11, 2006.
- Casalino, Lawrence P., Robin R. Gillies, Stephen M. Shortell, Julie A. Schmittiel, Thomas Bodenheimer, James C. Robinson, Thomas Rundall, Nancy Oswald, Helen H. Schauffler, and Margaret C. Wang. 2003. "External Incentives, Information Technology, and Organized Processes to Improve Health Care Quality for Patients with Chronic Diseases," *Journal of the American Medical Association*, 289(4): 434-41.
- Eichner, June, and Bruce C. Vladeck. 2005. "Medicare as a Catalyst for Reducing Health Disparities," *Health Affairs*, 24(2): 365-75.
- Epstein Arnold M., Thomas H. Lee, and Mary Beth Hamel. 2004. "Paying Physicians for High Quality Care," *New England Journal of Medicine*, 350(4): 406-10
- Franks Peter, and Kevin Fiscella. 2002. "Effect of Patient Socioeconomic Status on Physician Profiles for Prevention, Disease Management, and Diagnostic Testing Costs," *Medical Care*, 40(8): 717-24.
- Institute of Medicine. 2001. *Crossing the Quality Chasm: A New Health System for the 21st Century*. Washington: National Academy Press.
- Jost, Timothy Stoltzfus. 2005. *Racial and Ethnic Disparities in Medicare: What the Department of Health and Human Services and the Centers for Medicare and Medicaid Services Can, and Should, Do*. Washington: National Academy of Social Insurance. [http://www.nasi.org/usr\\_doc/Jost.pdf](http://www.nasi.org/usr_doc/Jost.pdf). Accessed July 11, 2006.
- Kawachi, Ichiro, Norman Daniels, and Dean E. Robinson. 2005. "Health Disparities by Race and Class: Why Both Matter," *Health Affairs*, 24(2): 343-52.
- Lurie, Nicole, Minna Jung, and Risa Lavizzo-Mourey. 2005. "Disparities and Quality Improvement: Federal Policy Levers," *Health Affairs*, 24(2): 354-64.
- McGlynn, Elizabeth A., Steven M. Asch, John Adams, Joan Keesey, Jennifer Hicks, Alison DeCristofaro, and Eve A. Kerr. 2003. "The Quality of Health Care Delivered to Adults in the United States," *New England Journal of Medicine*, 348(26): 2635-45.
- Mechanic, David. 2005. "Policy Challenges in Addressing Racial Disparities and Improving Population Health," *Health Affairs*, 24(2): 335-38.
- O'Brien E. 2005. *CMS' Programs and Initiatives to Reduce Racial and Ethnic Disparities in Medicare*. Washington: National Academy of Social Insurance. [http://www.nasi.org/usr\\_doc/O'Brien\\_Paper.pdf](http://www.nasi.org/usr_doc/O'Brien_Paper.pdf). Accessed July 11, 2006.
- Rodriguez, Michael A., Lisa M. Ward, and Eliseo J. Perez-Stable. 2005. "Breast and Cervical Cancer Screening: Impact of Health Insurance Status, Ethnicity, and Nativity of Latinas," *Annals of Family Medicine*, 3(3): 235-41.
- Rosenthal, Meredith B., Rushika Fernandopulle, Hyunsook Song, and Bruce E. Landon. 2004. "Paying for Quality: Providers' Incentives for Quality Improvement," *Health Affairs*, 23(2): 127-41.
- Vladeck, Bruce C. 2003. "If Paying for Quality is Such a Bad Idea, Why is Everyone for It?," *Washington & Lee Law Review*, 60: 1345-64.
- Werner, Rachel M., and David A. Asch. 2005. "The Unintended Consequences of Publicly Reporting Quality Information," *Journal of the American Medical Association*, 293(10): 1239-44.

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