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EXPERT COMMENTARY AUGUST 23, 2010

Surmounting the Challenges of Measuring and Improving Quality in Ambulatory Care

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No single explanation can sufficiently account for why the United States (U.S.) health care system's suboptimal quality comes at such a steep price. Overall, only about 55 percent of adults in the U.S. receive recommended health services (1). The Commonwealth Fund shows that 42 percent of the American public reports experiencing a medical or surgical error, duplicate tests, unnecessary care, or an information exchange failure between providers over the past two years (2), and the Institute of Medicine estimates that almost 100,000 patients die from medical errors in hospitals each year (3). These failures occur in a health care system where fear of litigation generally hampers providers from admitting mistakes that could be used to improve safety and quality.

The problems plaguing the U.S. health care system appear even more glaring relative to other industrialized countries. Chronically ill adults—the patients who have the most interaction with a health care system—are particularly prone to experiencing care deficiencies in the U.S., according to a Commonwealth Fund survey of adults in eight industrialized countries (4). Here, chronically ill patients are most likely to report that their care was poorly organized, leading to wasted time and services. They are also least likely to have a regular doctor or place of care and are most at risk of forgoing recommended care because of its expense. Most strikingly, the U.S. spends approximately \$7,000 per capita on health care, more than twice the spending levels of the other countries.

What to make of these observations? I would argue that certain explanatory clues can be found in the conditioning forces that begin with physicians' training and continue through the particularities of where they deliver care. Unfortunately, these forces leave much to be desired in terms of quality, particularly in the ambulatory care setting.

of multiple health care providers. Accounting for roughly 145 million Americans and 85 percent of health care spending (5), caring for the chronically ill requires skills in coordinating care between providers and care settings (6). Yet, majorities of primary care physicians and specialists in the U.S. report that their medical school training proved inadequate to care for such patients (7).

As the prevailing means of paying physicians, fee-for-service reimbursement certainly does not compensate for any shortcomings in their training. Fee-for-service reimbursement fosters piecemeal ambulatory care for the chronically ill, wherein physicians are paid for time and services rendered during an office visit, not for longitudinally caring for patients between visits. In place of providing remunerative support for proactively managing a patient's health in the community, fee-for-service reactively pays for treatment.

Compounding matters, office-based physicians must handle contracts with several third-party payers. Approximately 75 percent of office-based physicians administer three or more managed care contracts, not including traditional Medicare and Medicaid (8). Multiple third-party payers with different payment rates and coverage policies make it unlikely that any one of them has the clout to effect improvements in the way care is delivered in a typical physician practice.

Indeed, the structural features of where physicians deliver care—that is, the supply of other physicians and availability of resources—can substantially affect the quality of ambulatory care that patients receive. Even physician organizations with 20 or more physicians, which are better equipped to adopt care management processes than smaller physician practices, do not use more than half of recommended care management processes for chronically ill patients, including disease registries, physician feedback, protocols for incorporating clinical practice guidelines, and programs to promote patient self-management skills (9). And these physician organizations do not even represent the typical physician practice.

Instead, almost half of all office-based physicians are solo practitioners or practice with another colleague (8). This fact alone has pivotal quality-related implications for ambulatory care. For discretionary clinical decisions, solo practitioners and physicians practicing with another colleague tend to seek treatment, order tests, and refer more often than physicians in larger practices, even after accounting for physician and patient panel attributes, reimbursement mechanisms, and local market influences (10). Solo and two-physician practices are also most prevalent in market areas that fall in the upper 20 percent tier of average risk-adjusted Medicare spending (11).

measurements against benchmarks (13). To increase sample size for performance measurement, patients could be pooled across multiple third-party payers, but such an approach would be technically difficult for practices of any size.

In a Balkanized delivery system with a Byzantine array of payers, it is little wonder that measuring—much less improving—the quality of ambulatory care in the U.S. remains a daunting enterprise. But even if measuring quality were more feasible by standardizing medical claims across payers or by giving smaller physician practices the wherewithal to perform chart reviews, the same broader limitations would still apply to the current state of quality measurement. Claims data are convenient to use, but they are limited in what they can indicate about quality because their primary purpose is for billing. Medical charts are extensive sources of data about patients' care, although they are time consuming and expensive to cull for measuring quality.

Overcoming these challenges requires a method for capturing many pieces of data on patients, including their clinical profiles, the health services they receive, and their intermediate and ultimate outcomes to provide insights into the quality of their health, not just their health care. Ideally, these data would be updated in real time and interconnected among all providers involved in the care of a particular patient. The best means of realizing this ideal is through electronic medical records (EMRs).

Although EMRs are no panacea for improving quality, they do provide the infrastructure for measuring quality that sets the stage for future improvements, especially for chronically ill patients (14). Most physician practices in the U.S., however, are not currently outfitted with an EMR, unlike their counterparts in other countries. In a 2009 Commonwealth Fund survey in eleven industrialized countries, 46 percent of primary care physicians in U.S. reported that they use EMRs to some degree in their practices; only primary care physicians in Canada were less likely to use EMRs compared with the remaining countries, which ranged from 68 percent to 99 percent of reported EMR use (15). At the beginning of 2008, more than 80 percent of all clinically active physicians in the U.S. did not have a basic or fully functional EMR in their practices (16). Financial barriers are the most commonly reported reason for not adopting EMRs (16, 17).

Countering the disconnected nature of physician practices in the U.S. with a standardized national implementation of EMRs is not possible without an overarching source of coordination and assistance. In 2004, the federal government signaled its willingness to spearhead a nationwide effort to wire physician practices and hospitals by establishing a National Health Information Technology Coordinator (18). The American Recovery and Reinvestment Act of 2009 furthered this effort by offering billions of dollars in financial and

Unlike the health care systems of its industrialized peers, the U.S. health care system has evolved disjointedly. What has emerged is a fragmented financing and disorganized delivery system, which has given rise to high spending and pervasive quality deficits—at least insofar as they can be measured. With the crucial assistance of the federal government, implementing the electronic infrastructure to systematically collect data on the quality of care in physician practices is a helpful step toward rectifying the U.S. health care system's curious disparity between its quality and spending levels.

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Disclaimer

Dr. Nyweide is a researcher in the Office of Research, Development, and Information at CMS. This commentary is a reflection of his views and opinions and does not necessarily reflect the official position of CMS or the U.S. Department of Health and Human Services.

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Potential Conflicts of Interest

Dr. Nyweide declared no potential conflicts of interest with respect to this expert commentary.

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