



A HALF-CENTURY OF PROGRESS IN HEALTH: THE NATIONAL ACADEMY OF MEDICINE AT 50

## The NAM and the Quality of Health Care — Inflecting a Field

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Summative academic reports rarely change the trajectory of an entire health care conversation, but some do. Take the Flexner Report on medical education or the Surgeon General's 1964 report

on smoking, for example. To that short list, the Institute of Medicine (IOM, now the National Academy of Medicine, or NAM) added two more in 1999 and 2001: *To Err Is Human* and *Crossing the Quality Chasm*.<sup>1,2</sup>

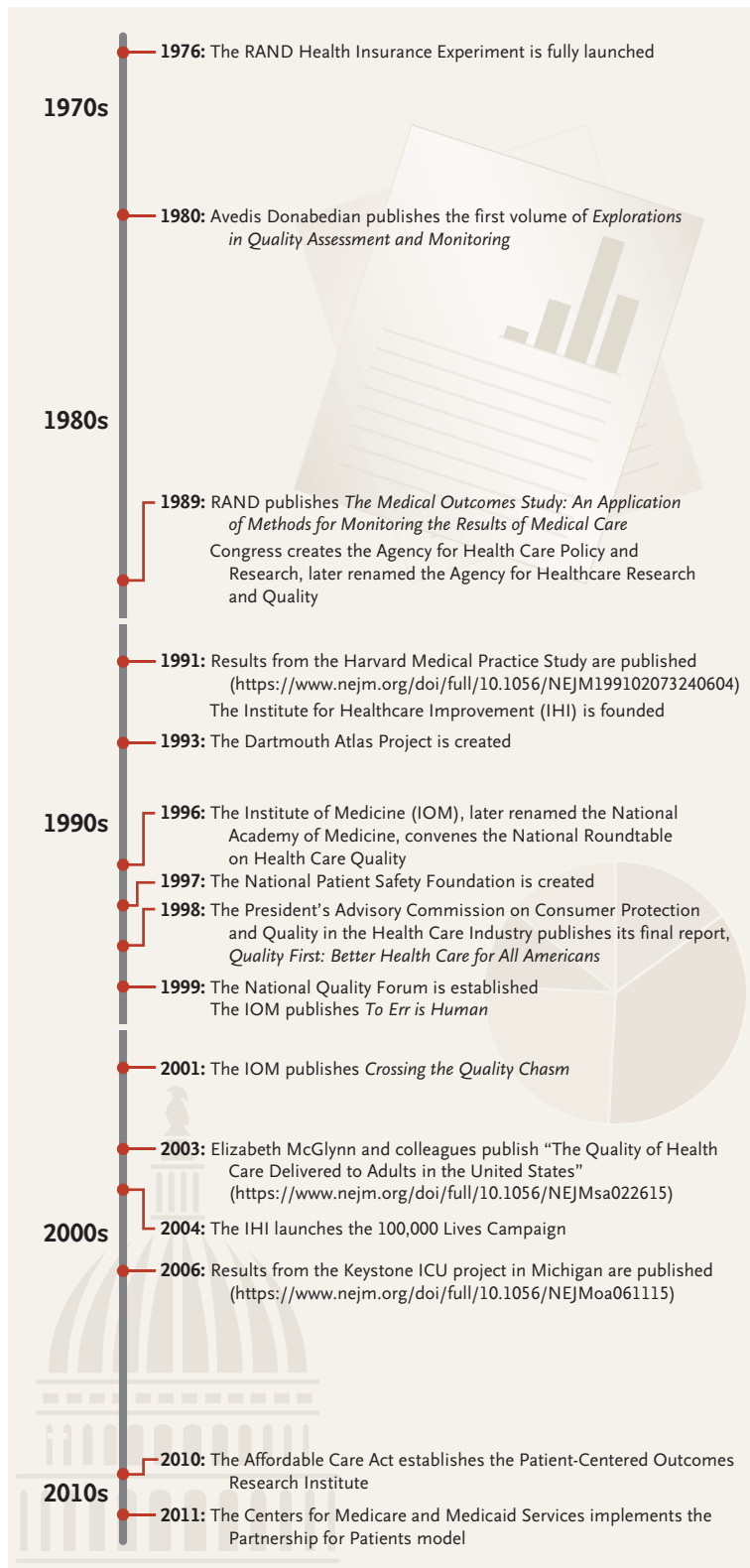
These two landmark documents built on a half-century of research on the measurement of health care quality and the prevalence of serious quality problems. Professor Avedis Donabedian had assembled much of this knowledge in the 1980s, in his magnum opus, *Explorations in Quality Assessment and Monitoring* (see timeline). At the RAND Corporation, the Health Insurance Experiment and its successor, the Medical Outcomes Study, supplied a new generation of quality-measurement tools and uncovered widespread

“inappropriate” care — that is, overuse of ineffective practices. The Harvard Medical Practice Study of more than 30,000 medical records in New York State found unexpectedly high rates of avoidable medical errors and consequent patient injuries and deaths. Jack Wennberg and colleagues at the Dartmouth Atlas Project showed enormous, unexplained geographic variation in rates of use of medical and surgical procedures, with no apparent correlation with outcomes. Multiple previous IOM consensus reports had documented the need for improving care in nursing homes (1986), children's emergency services (1993), diagnostic technologies (1989), and behavioral health care (1997).

In 1989, Congress created the

Agency for Health Care Policy and Research, which was renamed the Agency for Healthcare Research and Quality (AHRQ) in 1999. Led initially by John Eisenberg, AHRQ became an important force for research on the quality of care, establishing a national clearinghouse for measures and guidelines.

Motivated by the accumulating scientific evidence, in 1996, the IOM convened a Roundtable on Health Care Quality comprising researchers and health systems leaders. Their report summarized quality problems as “overuse, underuse, and misuse” and declared: “[S]erious and widespread quality problems exist throughout American medicine . . . in all parts of the country, and with approximately equal frequency in managed care and fee-for-service systems of care. Very large numbers of Americans are harmed as a result.”<sup>3</sup> A 1999 report by the IOM's National Cancer Policy Board also concluded that the overall quality of U.S. cancer care



Efforts to Measure and Improve Health Care Quality.

was poor.<sup>4</sup> (The problem of “underuse” was to acquire new emphasis later, in 2003, when Elizabeth McGlynn and colleagues published a rigorous, astounding, and widely cited study showing that people in the United States failed to receive nearly half the scientifically appropriate care they should have.<sup>5</sup>)

The table was further set by the Clinton administration’s President’s Advisory Commission on Consumer Protection and Quality in the Health Care Industry. Although its formation was motivated by concerns about “managed care,” this commission rapidly reached broader conclusions paralleling those of the IOM Roundtable. It recommended in its 1998 final report that two new bodies be established: a public–private partnership to develop a common suite of quality metrics and a federal agency, a National Quality Council, analogous to the Securities and Exchange Commission, to monitor and report on the quality of health care organizations. The first became a reality within 2 years — the National Quality Forum, which still exists. The second never did, and as a result, the United States still lacks a coherent set of national goals for health care improvement with clear lines of accountability.

The 1999 and 2001 IOM reports reached sweeping conclusions about the need for action on quality of care. Famously, *To Err Is Human* estimated that 44,000 to 98,000 Americans were dying in hospitals each year because of medical errors, which made health care mistakes one of the country’s largest public health hazards — the third- or fourth-leading cause of death in the United

States, ranking higher than breast cancer, AIDS, and automobile accidents.

Three scientifically grounded themes infused the *Chasm* report: first, that quality problems were pervasive and costly, not confined to a few miscreants or outliers; second, that remedy could not rest on exhortation, because the defects reflected deeply embedded properties of the health care system itself, not primarily gaps in the motivation or competence of the workforce; and third, that major system redesigns did hold promise for significantly improving the quality of care in all dimensions. The report attracted attention in part because it crystallized a cogent framework, which was rapidly embraced, entailing six dimensions of quality (and aims for improvement): safety, effectiveness, patient-centeredness, timeliness, efficiency, and equity.

At least 12 reports on quality from the NAM have followed. These include a series of studies elucidating a systems view of improvement under the rubric of the “Learning Health Care Organization” and a report on the preparation of a modern health care workforce capable of improving the system in which it works. Recent reports have extended inquiry into quality in outpatient care, chronic disease management, and the extent of and remedies for diagnostic errors.

Now, two decades after the *Chasm* report, results have been mixed. Focal progress in quality improvement is undeniable. Major national and international collaborations, for example, have measurably reduced rates of health care–acquired infection, improved chronic disease management, and

made care more patient-centered. For example, the Keystone ICU project conducted in more than 100 intensive care units in Michigan reduced central venous line bloodstream infections by 66% in 18 months. But wholesale, systemic improvement in quality of care has proven difficult to bring to scale. Improvements tend to remain local rather than spreading. Many health care leaders, distracted by financial pressures, have diminished their strategic focus on improving quality.

Though many health care organizations have embedded the six IOM “Aims for Improvement” in their mission statements and strategic plans, in actuality controlling costs and maintaining revenues, without a simultaneous deep commitment to improving quality, have become the dominant concerns. The key thesis that the best way to control costs is to improve the quality of processes, products, and services, while continually reducing waste, which is practically doctrinal now in many industries, has never penetrated deeply into most health care organizations’ strategies.

More and more consumers, employers, and public and private payers have identified a need to substitute “value-based payment” for “volume-based payment,” so that payment reflects patients’ experiences and outcomes, rather than just the number of services delivered. In theory, such accountability has now been made possible by measurement science, and measurement and “pay-for-performance” schemes abound. But the rhetoric about focusing on quality and outcomes far outpaces the actual progress. Most payment remains fee-for-service, and furthermore, disturbing evidence exists

that the forms of accountability that have been adopted have taken a serious toll on clinicians’ morale, even as progress in quality and safety has stalled. The United States has yet to find for health care the wisest balance between accountability, which is critical, and supports for a trusting culture of growth and learning, which, as the NAM asserts, is the essential foundation for continual improvement.<sup>6</sup>

The improvement movement has also been hampered, in part, by the reluctance of political leaders to fully endorse new payment models and knowledge of which treatments truly work best as a more rational basis for both coverage policies and care decisions, which would allow us to pursue better outcomes at lower cost while reducing waste. Indeed, just for raising cost-effectiveness as a focus, the AHRQ was almost wiped out of the federal budget in 1994, thanks to industry lobbying. Similarly, the Affordable Care Act (ACA) created the Patient-Centered Outcomes Research Institute to set priorities for research on cost-effectiveness, but the “cost” component, which is necessary to permit comparison of alternative approaches to care, was banished after rhetoric warning of “rationing” won the day politically.

U.S. health care and society have changed substantially since the landmark IOM reports were published 20 years ago. Many of these changes do hold potential for the so-called Triple Aim of better care for individuals, better health for populations, and lower costs. Innovations include, for example, digital information science, expanding attention to postacute care, growing awareness of so-

cial determinants of health, and many new forms of risk-based payment. But these changes can be double-edged, bringing new hazards and uncertainties along with potential gains. All require scientific, clinical, and ethical scrutiny to help clinicians and organizations navigate toward true quality improvements.

On this shifting ground, policymakers and health care leaders will need continuing advances in the science of quality improvement, innovation in payment models, and courage in taming the forces of self-interest and ignorance that continue to drive rising costs and to allow serious quality defects to persist. Federal and private philanthropic support are essential

for innovations and experiments in the bold redesign of care delivery, such as the efforts to develop integrated care supported under the ACA through the Center for Medicare and Medicaid Innovation.

The Covid-19 crisis has revealed starkly both how badly needed and how feasible such redesigns can be. **Improving the quality of care in America needs to become a national priority.** In service of that aim, we believe it is high time to act at last on the call for a national, independent, apolitical federal oversight agency for health care quality assessment and improvement — a call that has been repeated in every major study of U.S. health care quality over the past half-century, but one that has not yet been answered.


Disclosure forms provided by the authors are available at NEJM.org.

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1. Kohn LT, Corrigan JM, Donaldson MS, eds. *To err is human: building a safer health system*. Washington, DC: National Academies Press, 1999.
2. Institute of Medicine. *Crossing the quality chasm: a new health system for the 21st century*. Washington, DC: National Academies Press, 2001.
3. Chassin MR, Galvin RW. The urgent need to improve health care quality. *JAMA* 1998;280:1000-5.
4. Institute of Medicine. *Ensuring quality cancer care*. Washington, DC: National Academies Press, 1999.
5. McGlynn EA, Asch SM, Adams J, et al. The quality of health care delivered to adults in the United States. *N Engl J Med* 2003;348:2635-45.
6. Berwick DM. Era 3 for medicine and health care. *JAMA* 2016;315:1329-30.

DOI: 10.1056/NEJMp2005126

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 An audio interview with Dr. Berwick is available at NEJM.org

## Care Churn — Why Keeping Clinic Doors Open Isn't Enough to Ensure Access to Abortion

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“Last abortion clinic in Toledo shuts down,” the *Columbus Dispatch* announced in a Facebook post on September 18, 2019. The clinic and its supporters responded on social media sites using the hashtag #ThisClinicStaysOpen. In fact, the Toledo, Ohio, clinic has remained continuously open since obtaining a surgical license in 2005. But between “closed” and “open” are fluctuations in the availability of abortion services that have compromised access to care in northwest Ohio.

In early 2013, Toledo had two abortion clinics; one closed that year because it couldn't establish a written transfer agreement to comply with a 2013 state law re-

quiring each surgical-abortion clinic to have an agreement with a local hospital that would accept clinic patients in emergencies. Shortly thereafter, the Ohio Department of Health deemed the remaining clinic's transfer agreement with a Michigan hospital insufficient because the hospital was 52 miles away. After a long legal battle, the clinic ceased providing surgical-abortion services for 3 months in 2018 while seeking a valid transfer agreement with a local hospital. During these months, the clinic offered only medication-abortion services; Toledo-area patients seeking surgical abortion had to travel 60 miles to Detroit or 115 miles

to Cleveland. Although the clinic did secure the long-sought transfer agreement with a Toledo hospital, in June 2019 the clinic changed ownership — thereby invalidating the existing surgical license and transfer agreement — and underwent substantial staff turnover. The clinic limited its services to medication abortion, which it offered a few days per week, and patients once again have to travel across the state or out of state for surgical abortions.

Such shifts in abortion care are highly disruptive for clinics, create barriers for patients seeking abortions, and can be disorienting for the public. The *Dispatch* post was just one development