

fierce resistance from conservatives and the business community and anxiety in many insured Americans fearful about changing coverage and the specter of rationing. The ACA's comparatively conservative reform approach inspired false charges of "socialized medicine," "pulling the plug on grandma," and "death panels." It takes only a little imagination — or a look back at the history books — to predict the reactions that an actual single-payer plan would evoke.

Single payer would also require the adoption of large-scale tax increases. Although Americans would save money by not paying premiums to private insurers, the politics of moving immense levels of health care spending visibly into the federal budget are daunt-

 An audio interview with Dr. Oberlander is available at [NEJM.org](http://NEJM.org)

ing, given the prevailing antitax sentiment. Furthermore, converting our long-established patchwork of payers into a single program would require a substantial overhaul of the status quo, including the ACA.<sup>4</sup> Then there are the familiar institutional barriers to major reform within U.S. government, includ-

ing the necessity of securing a supermajority of 60 votes in the Senate to overcome a filibuster.

In short, single payer has no realistic path to enactment in the foreseeable future. It remains an aspiration more than a viable reform program. Single-payer supporters have not articulated a convincing strategy for overcoming the formidable obstacles that stand in its way. Nor have they, despite substantial public support for single payer, succeeded in mobilizing a social movement that could potentially break down those barriers. The pressing question is not about whether Medicare for All can be enacted during the next presidential administration — it can't — but where health care reform goes from here.

It's possible that some states could, through waivers that begin in 2017, consider adding a public option to their marketplaces or even adopt single-payer systems. Yet Vermont's recent struggles to make a modified single-payer plan work underscore the challenges to state action. At the federal level, incremental steps toward Medicare for All, such as expanding program

eligibility to younger enrollees, are conceivable — though challenging in this political environment. Moreover, the fight over Obamacare is not over. Preserving and strengthening the ACA, as well as Medicare, and addressing underinsurance and affordability of private coverage is a less utopian cause than single payer. I believe it's also the best way forward now for U.S. medical care.

Disclosure forms provided by the author are available with the full text of this article at [NEJM.org](http://NEJM.org).

From the University of North Carolina, Chapel Hill.

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## What Do I Need to Learn Today? — The Evolution of CME

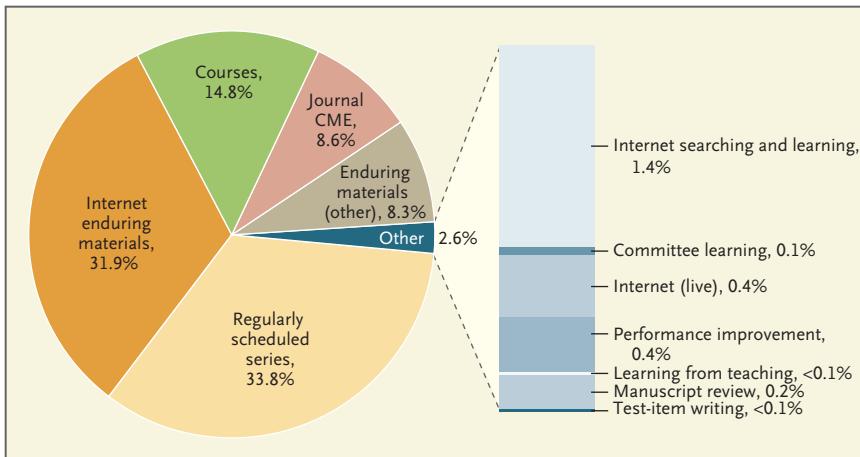
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The point at which a clinician takes ownership of his or her own learning agenda is a pivotal moment in professional growth. But as postgraduate medical education evolves to become more learner-centric, new approaches and expectations have created pressures on the continuing medical education (CME) system

and left some physicians frustrated.

Now that information is ubiquitous, simple information exchange has relatively low value; in its place, shared wisdom and the opportunity to engage in problem solving in practice-relevant ways have become key. Physicians seeking professional development can

recognize when they're actively learning and tend to embrace activities that allow them to do so. Education that's inadequate, inefficient, or ineffective, particularly when participation is driven by mandates, irritates physicians who are forced to revert to "box-checking" behavior that's antithetical to durable, useful learning.



Types of CME Activities in the Accreditation Council for Continuing Medical Education System, 2014.

Many clinicians appreciate learning alongside their peers but may struggle with the feeling that time spent in group educational settings is not efficient or productive enough to be worthwhile. Furthermore, the quantity of learning opportunities can be overwhelming, as our in-boxes continually brim with promotional and marketing e-mails. Some traditional gatherings, such as grand rounds, have reported declines in perceived utility and attendance.

So how can we as learners evolve, and how should the system evolve to meet our diverse needs? A key element is self-awareness: professionals who know their own strengths and weaknesses are most likely to have a productive experience when they identify the types of activities that help them grow and then actively participate in them. There are many ways to increase self-awareness, such as taking a self-assessment quiz, asking a colleague to observe one's practice and provide feedback, asking patients or staff for suggestions, and reviewing patient charts. To become self-aware, we

have to step out of the protective cocoon of self-confidence and become humble and open enough to assess both how we can best maintain what's working and how we can grow further.

Educators, for their part, can create more clinician-friendly and effective learning environments. Research shows that CME is most effective in changing physician performance and patient health outcomes if it is interactive, uses varied pedagogical methods, and involves multiple exposures to the same or related material.<sup>1</sup> We've understood for years the principles of adult learning — that adults prefer education that's self-directed, based on needs they have identified, goal-oriented, relevant, and practical — yet many of us still feel more comfortable with traditional, passive approaches that are essentially teacher-focused, not learner-centric. Much CME continues to rely on traditional approaches such as annual meetings and grand rounds (see pie chart), though these, too, are evolving.<sup>2</sup>

Small steps in educational design can make a big difference.

Grand rounds, conferences, and other live sessions are made more interactive, relevant, and meaningful by limiting the time for formal lecture, incorporating case examples, and allowing substantive time for discussion and for learners to work in pairs or groups to share, reflect on, and solve problems. Readily accessible and relatively inexpensive technology can facilitate interaction. By answering polling questions on their smartphones, for example, participants can learn how their attitudes, knowledge, or problem-solving skills compare with those of their peers. Given the opportunity to interact with colleagues, physicians can measure themselves against professional norms and provide one another feedback, while building collaborative relationships. Faculty development is needed to support these modest educational innovations and sustain the necessary change.

Increasingly, physicians are expected to practice in teams, and interprofessional continuing education gives them opportunities to learn from, with, and about colleagues in other health professions and to build the competencies needed for successful collaboration. Patients are also part of the team, and including patients as CME speakers can engage physicians' hearts as well as their minds and reinforce the reasons why our work matters. Patients' stories often provide insights that clinicians can immediately apply in their practices.

Educators are deploying new information and communication technologies in accredited CME programs, using simulation centers, games, blended learning (combining digital and face-to-face formats), social media, and other

applications. Simulation technologies can provide safe, controlled environments, with realistic visualization, where clinicians can practice and get feedback on their leadership, teamwork, communication, and technical and problem-solving skills without posing a risk to patients. Technology lends itself to learner-controlled training that accommodates diverse learning styles and is particularly well suited to younger clinicians who are comfortable in the digital world. As new technologies emerge, physicians and educators need the freedom and encouragement to develop new learning methods.

At health care institutions, CME programs and educators are increasingly working to support strategic objectives and help address important system issues. Hospital and health system leaders report that investment in CME has helped them improve physician performance, patient outcomes, and care coordination; drive and manage change, including behavioral and cultural change; improve teamwork and collegiality as well as leadership skills; and reduce burnout and turnover.<sup>3</sup> These benefits extend beyond hospitals and health systems; accredited educators work in settings including specialty societies, state medical societies, government and military organizations, medical schools, and publishing companies. Of the approximately 2000 accredited CME programs, about two thirds participate in quality-improvement initiatives within their health systems and institutions.

The regulators, too, need to evolve. By relinquishing the fixed structural requirements for health education and instead focusing

on educational outcomes (rather than process and time spent), regulators and accreditors can create the right conditions for maximizing educators' flexibility and promoting innovation. By creating a diverse system that can address even superspecialized needs, we facilitate choice among formats, activity types, and locations. I envision a future in which educational expectations and professional competency obligations are aligned and integrated and in which all physicians have an educational "home" that helps them navigate their continuing growth — so that education is intertwined with practice throughout their careers.

nal Medicine collaborated to simplify the integration of MOC and CME, giving physicians more options for receiving MOC credit through participation in accredited CME, which they already use to meet licensure and other professional obligations. Now, accredited CME providers can register their activities for both MOC and CME using the same system, physicians can find activities using that database and receive MOC and CME credit at the same event, and diplomates' completion records are reported seamlessly to their certifying board.

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***If more regulatory authorities recognize the value of education in driving clinical practice and quality improvement and allow educational activities to count for multiple requirements, they can reduce the burden on physicians and promote lifelong learning.***

At the Accreditation Council for Continuing Medical Education (ACCME), we are working to harmonize postgraduate educational systems to provide more flexibility for clinicians and educators. I know that as a practicing endocrinologist, I want to participate in activities in which I can feel myself learn — and like many of my colleagues, I want those activities to count toward my Maintenance of Certification (MOC) requirements. In response to physician requests, the ACCME and the American Board of Inter-

quality improvement and allow educational activities to count for multiple requirements, they can reduce the burden on physicians and promote lifelong learning. For example, participation in CME could be designated as a method for meeting the clinical practice improvement expectations of Medicare's new Merit-Based Incentive Payment System.

The accredited CME community in the United States delivers nearly 150,000 activities each year in myriad specialties and competencies<sup>2</sup>; these activities are re-

quired to be evidence-based and free of commercial bias and influence. The current CME system can do more to promote performance and quality improvement, collegiality, and public health. But it will struggle to do so without the engagement of health care leaders, educators, and learners — and won't succeed until health care systems, organizations, and institutions recognize education's strategic value in driving change.

At ACCME, we'll be doing what we can to facilitate the needed transformation in post-

graduate education, to encourage meaningful education leadership at the heart of our health systems and profession, and to further expand the opportunities for educational innovation that improves physician practice and ultimately benefits patient care and the health of our country. All that change begins with each of us having the humility and presence of mind to ask ourselves, "What do I need to learn today?"

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From the Accreditation Council for Continuing Medical Education, Chicago.

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## The Public and the Gene-Editing Revolution

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Rapid developments in genetics over the past few decades may well revolutionize the study, prediction, diagnosis, and treatment of diseases — a process potentially accelerated by the new genome-editing tool CRISPR-Cas9 (clustered regularly interspaced short palindromic repeats–Cas9). In December 2015, the National Academy of Sciences (NAS) cohosted an International Summit on Human Gene Editing, whose organizing committee called for an ongoing international forum to gather the perspectives of various stakeholders, including members of the general public.<sup>1</sup>

We analyzed data from 17 public opinion polls conducted over the past three decades to determine what the U.S. public thinks about gene therapy and gene editing in adults and children, what they think about changing the genetic characteristics of human embryos or germline cells, and

how interested they are in taking genetic tests in the future. Studies have shown that the public is not familiar with many of the terms used in the debate over gene therapy and gene editing,<sup>2</sup> so pollsters have used a variety of easier-to-understand terms that they thought captured the relevant issues though they might not be scientifically precise. For instance, germline editing has often been described in polling questions as changing “the genes of unborn babies,” “a child's genetic structure in the womb,” or “a baby's genetic characteristics.” In addition, many Americans do not follow the issue of germline editing closely. Only 31% say they have heard or read quite a lot or some about discussions of this issue, whereas nearly 69% have heard or read not much or nothing at all (STAT-HSPH-SSRS; see box for poll information). Regardless of the terms used, a clear

pattern emerges from the polls' findings.

In general, the public approves of gene editing when the purpose is to improve the health of the person undergoing gene therapy (see Table 1). Over the course of the past 30 years, a majority of the public has expressed approval of gene therapy for improving the health of the person being treated, whether by curing a fatal or usually fatal disease (65 to 87%) (OTA-Harris; Troika-Lifetime-PSRA; March of Dimes-Harris; Time-CNN-Yankelovich) or by reducing the risk of a fatal disease developing later in life (77 to 78%) (OTA-Harris; March of Dimes-Harris).

Nearly two thirds (64%) of the public say the federal government should fund scientific research on developing new gene-therapy treatments. A majority (59%) also believe the Food and Drug Administration should approve gene