example, where does the sensory information encoding location in place cells, spatial geometry in grid cells, or head direction in head direction cells come from, and how is it combined?"

Researchers are actively investigating how grid cell activity influences place cell activity and vice versa and how these interactions may go wrong in Alzheimer disease and other brain conditions. In a mouse model of Alzheimer disease, O’Keefe and his colleagues have shown that place cell degradation correlates with deterioration of animals’ spatial memory (Cacucci F et al. Proc Natl Acad Sci U S A. 2008;105[22]:7863-7868).

Edvard Moser is excited to be an active part of the effort to find clinical applications for the field. “We wish to understand how grid cells interact with other cell types to produce a sense of location. This will lead to knowledge that can hopefully be used by others to work out strategies to detect dysfunctions in the positioning system early on and to prevent further progression of disease.”

The JAMA Forum

The Challenges of Reforming Graduate Medical Education Payments

Gail Wilensky, PhD

A recent report by an Institute of Medicine (IOM) committee on the financing and governance of graduate medical education (GME) considered an important question for health care in the United States: to what extent does the current GME system, which provides the training of interns and residents after medical school, help produce a physician workforce that can deliver efficient, high-quality, patient-centered health care?

As the report points out, Medicare has been the most important federal funder of GME programs, and the financial support it contributes (nearly $10 billion in fiscal year 2012) has played a significant role in the helping US teaching hospitals function. But as our committee and other groups have pointed out over the years, the GME system has shortcomings that need to be addressed.

Key Findings

Some of the key findings of the IOM committee, which I cochaired with the immediate former administrator of the Centers for Medicare & Medicaid Services (CMS), Donald Berwick, MD, are that Medicare GME payments are inflexible in their current construction, with minimal funding available for new programs or nonhospital sites; are unfair because of the tie to historical costs; and are opaque with regard to the flow and use of funds and the outcomes produced.

The committee struggled over whether to support continued government funding for GME. The US government spends $15 billion (two-thirds coming from Medicare) on GME, which is received primarily by teaching hospitals. Because of the magnitude of its financial commitment and the focus on teaching hospitals, the federal government’s role in funding GME is substantially different from its role in funding undergraduate medical education, training for other health care professionals, or supporting other professions that potentially face workforce shortages.

The committee ultimately decided in favor of supporting continued Medicare funding of GME for the next decade (assuming the types of reforms that it recommended are adopted), after which the question of continued funding should be reassessed. We reasoned that given the considerable changes that the US health care delivery system is experiencing, continued GME funding could serve as potential leverage for training a physician workforce better suited to meet the needs of a reformed delivery system.

5 Recommendations

The committee made 5 recommendations:

1. Continue Medicare funding of GME education (adjusted for inflation), but phase out the current payment system and gradually replace it with a performance-based system.

2. Create an adequately financed GME policy infrastructure, including establishing a GME Policy Council in the Office of the Secretary of the US Department of Health and Human Services and a GME center within CMS.

3. Develop a single Medicare GME fund with 2 subsidiary funds. An operational fund would distribute support for training positions that are currently approved and funded. A transformation fund would be used to pilot alternative payment mechanisms for GME, establish and evaluate relevant performance measures for GME, and finance initiatives to develop and evaluate innovative GME programs.

4. Change the Medicare GME payment system to one that offers a single payment to the organization sponsoring GME (based on a per-resident amount) and features performance-based payments.

5. Continue to give states the discretion to use Medicaid funding for GME, but mandate accountability and transparency requirements comparable with those proposed for Medicare GME.

The committee was mindful of the challenging politics surrounding changes to a program like GME, where substantial
government funds have been distributed to teaching hospitals using similar formulas for more than the last 30 years. Several previous groups have recommended significant changes to GME, including some that have proposed reducing currently legislated amounts. For example, the National Commission on Fiscal Responsibility and Reform recommended a 60% reduction in indirect medical education (IME) payments (a payment adjustment reflecting that teaching hospitals spend more per patient than nonteaching for hospitals), as well as limiting direct GME payments to 120% of the national average resident’s salary in 2010. Like other provisions of this commission, these changes were never enacted.

In its June 2010 report to Congress, Medicare Payment Advisory Commission (MedPAC) called for an increased accountability for GME payments and for making more information available about Medicare’s payments and the teaching costs associated with GME, both of which are important themes raised in the IOM report. The MedPAC recommendation was to reduce IME payments by approximately $3.5 billion (the “excess amount” of IME payments, defined as the amount above the higher costs MedPAC has estimated are associated with teaching hospitals) and to use that amount to establish a performance-based incentive program with GME payments contingent on the recipients achieving specified educational outcomes. This amount is comparable with the funding the IOM recommended be available to the transformation fund to establish pilot programs and do needed research to measure educational outcomes and the performance results of GME training.

MedPAC also recommended that Medicare conduct an analysis of current health care workforce needs and its implications for GME; the IOM report recommends that the proposed GME Policy Council perform a similar function. However, the IOM called for combining IME and direct medical education (funding that provides teaching hospitals with the funds to pay salaries and benefits of residents) into a single payment and moving to a national single per-resident amount; MedPAC’s proposal did not, which would result in substantially less redistribution of GME funds than the IOM report implied.

Harsh Response From Some Critics

The response by critics to the IOM’s report was much harsher than critical reception to the MedPAC report. For example, following the release of the MedPAC report, the Association of American Medical Colleges (AAMC) said they were “very disappointed” that MedPAC chose to ignore the need for an increase to the current Medicare resident caps, said they “oppose” the recommended 50% reduction of IME, and said the report’s recommendations put the AAMC “at risk” in a performance-based incentive program. In contrast, the AAMC’s response to the IOM report said the IOM’s recommendations would “radically overhaul graduate medical education (GME) and make major cuts to patient care” and “slash funding for vital care and services.” The American Hospital Association also objected strongly to opening up the funds to all GME-sponsoring organizations rather than primarily to teaching hospitals, who are the current recipients. The American Medical Association reacted somewhat negatively because the IOM report did not agree that there is a clear future physician shortage and didn’t propose increasing the number of GME slots.

However, not all groups opposed the report. The American Association of Family Physicians released its own proposal, which has many components consistent with the IOM’s recommendations, and has been generally supportive. Other groups are still assessing it or are somewhere between these extremes.

Staff members of the relevant congressional committees (Finance, Ways and Means, Energy and Commerce) were briefed before the report’s release and asked interesting questions, but were noncommittal in their responses to it. Some individual members of Congress have expressed interest in further pursuing these issues in the next Congress.

The history of past attempts to change the GME program indicates the challenge will be daunting. But GME funds currently are concentrated disproportionately in New York, New Jersey, and Massachusetts—a geographic disparity that has raised a lot of frustration in other parts of the country and the concern that the benefits of GME funding is unclear and unknown. That may resonate with enough sectors in the country to spark additional discussion about what the country is getting in return for the US government’s substantial investment in the end-stage training of physicians. That in itself would be progress.

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